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*[Continued on next page]*

(54) Title: COMPOSITIONS AND METHODS FOR SILENCING HEPATITIS C VIRUS EXPRESSION

| Position | 5'-3' target or sense strand | Type | Net therm | Therm of each end |
|---|---|---|---|---|
| 188-210 | GGGUCCUUUCUUGGAUAAA | F | -7.4 | ( -12.3, -4.9 ) |
| 394-416 | GCCCACAGGACGUCAAGUU | C,F | -6.9 | ( -13.2, -6.3 ) |
| 210-232 | GCUCAAUGCCUGGAGAUUU | F | -5.8 | ( -11.2, -5.4 ) |
| 313-335 | GCCCCGGGAGGUCUCGUAG | F | -5.8 | ( -14.4, -8.6 ) |
| 677-699 | CCGGCGUAGGUCGCGCAAU | F | -5.2 | ( -12.9, -7.7 ) |
| 180-202 | GGACGACCGGGUCCUUUCU | B,F | -5 | ( -11.4, -6.4 ) |
| 680-702 | GCGUAGGUCGCGCAAUUUG | F | -4.9 | ( -10.6, -5.7 ) |
| 41-63 | UCCCCUGUGAGGAACUACU | F | -4.9 | ( -12.7, -7.8 ) |
| 126-148 | CUCCCGGGAGAGCCAUAGU | F | -4.8 | ( -11.6, -6.8 ) |
| 266-288 | GGGUCGCGAAAGGCCUUGU | C,F | -4.8 | ( -12.3, -7.5 ) |
| 229-251 | GGGCGUGCCCCCGCAAGAC | F | -4.7 | ( -13.5, -8.8 ) |
| 686-708 | GUCGCGCAAUUUGGGUAAG | F | -4.4 | ( -11.6, -7.2 ) |
| 125-147 | CCUCCCGGGAGAGCCAUAG | F | -4.4 | ( -11.6, -7.2 ) |
| 335-357 | GUGCACCAUGAGCACGAAU | F | -4.3 | ( -11.1, -6.8 ) |
| 209-231 | CGCUCAAUGCCUCGACAUU | F | -4.2 | ( -10.8, -6.6 ) |
| 181-203 | GACGACCGGGUCCUUUCUU | F | -4.1 | ( -10.5, -6.4 ) |
| 314-336 | CCCCCGCGAGGUCUCGUAGA | F | -4.1 | ( -12.7, -8.6 ) |
| 42-64 | CCCCUGUGAGGAACUACUG | F | -4.1 | ( -12.5, -8.4 ) |
| 75-97 | GCGUCUAGCCAUGGCGUUA | B,F | -4.1 | ( -11.6, -7.5 ) |
| 156-178 | CCGGUGAGUACACCGGAAU | B,C,F | -4 | ( -11.7, -7.7 ) |
| 821-843 | CGGCGUGAACUAUGCAACA | B,F | -4 | ( -12.0, -8.0 ) |
| 354-376 | CCUAAACCUCAAAGAAAAA | F | -3.9 | ( -8.2, -4.3 ) |
| 353-375 | UCCUAAACCUCAAAGAAAA | B,F | -3.9 | ( -9.6, -5.7 ) |
| 794-816 | GGCGCAUGGCGUCCGGGUU | F | -3.9 | ( -13.7, -9.8 ) |
| 312-334 | UGCCCCGGGAGGUCUCGUA | F | -3.8 | ( -12.7, -8.9 ) |
| 208-230 | CCGCUCAAUGCCUGGAGAC | F | -3.7 | ( -11.7, -8.0 ) |
| 688-710 | CGCGCAAUUUGGGUAAGGU | C,F | -3.6 | ( -12.2, -8.6 ) |
| 150-172 | GCGGAACCGGUGAGUACAC | F | -3.5 | ( -12.6, -9.1 ) |
| 81-103 | AGCCAUGGCGUUAGUAUGA | F | -3.5 | ( -11.0, -7.5 ) |
| 315-337 | CCCGGGAGGUCUCGUAGAC | F | -3.5 | ( -12.7, -9.2 ) |
| 267-289 | GGUCGCGAAAGGCCUUGUG | F | -3.4 | ( -11.4, -8.0 ) |
| 337-359 | GCACCAUGAGCACGAAUCC | F | -3.4 | ( -12.2, -8.8 ) |
| 127-149 | UCCCGGGACAGCCAUAGUG | F | -3.4 | ( -11.8, -8.4 ) |
| 80-102 | UAGCCAUGGCGUUAGUAUG | F | -3.3 | ( -10.7, -7.4 ) |
| 676-698 | CCCCGCGUAGGUCGCGCAA | F | -3.3 | ( -12.7, -9.4 ) |
| 149-171 | UGCGGAACCGGUGAGUACA | F | -3.3 | ( -11.8, -8.5 ) |
| 697-719 | UGGGUAAGGUCAUCGAUAC | F | -3.3 | ( -11.5, -8.2 ) |
| 124-146 | CCCUCCCGGGAGAGCCAUA | F | -3.2 | ( -11.6, -8.4 ) |
| 311-333 | GUGCCCCGGGAGGUCUCGU | B,F | -3.1 | ( -12.2, -9.1 ) |
| 178-200 | CAGGACGACCGGGUCCUUU | F | -3.1 | ( -10.4, -7.3 ) |
| 685-707 | GCUCGCGCAAUUUGGGUAA | B,C,F | -3 | ( -11.4, -8.4 ) |
| 787-809 | GGGCCCUGGCGCAUGGCGU | B,F | -3 | ( -14.4, -11.4 ) |
| 360-382 | CCUCAAAGAAAAACCAAAC | B,F | -3 | ( -10.4, -7.4 ) |
| 82-104 | GCCAUGGCGUUAGUAUGAG | B,F | -2.9 | ( -11.1, -8.2 ) |
| 687-709 | UCGCGCAAUUUGGGUAAGG | F | -2.9 | ( -11.1, -8.2 ) |

FIG. 10

(57) Abstract: The present invention provides compositions comprising therapeutic nucleic acids such as interfering RNA that target hepatitis C virus (HCV) gene expression, lipid particles comprising one or more (e.g., a cocktail) of the therapeutic nucleic acids, methods of making the lipid particles, and methods of delivering and/or administering the lipid particles (e.g., for the treatment of acute or chronic hepatitis C caused by one or more HCV genotypes).

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# COMPOSITIONS AND METHODS FOR SILENCING HEPATITIS C VIRUS EXPRESSION

## CROSS-REFERENCE TO RELATED APPLICATION

**[0001]** This application claims priority to U.S. Provisional Application No. 61/162,127, filed March 20, 2009, the disclosure of which is hereby incorporated by reference in its entirety for all purposes.

## BACKGROUND OF THE INVENTION

**[0002]** Positive or plus-strand RNA viruses share many similarities in genomic organization and structure, most notably a single-stranded coding RNA of positive polarity. Representative plus-strand RNA viruses include the picornaviruses, flaviviruses, togaviruses, coronaviruses, and caliciviruses. One clinically significant representative of the flavivirus family is the hepatitis C virus (HCV), the causative agent of hepatitis C. Hepatitis C is often a chronic inflammatory disease of the liver which typically results in fibrosis and liver cancer (Choo *et al.*, *Science*, 244:359 (1989)). Infection by HCV may result, *e.g.,* from contact with contaminated blood or blood products.

**[0003]** During HCV replication, a replicative (minus) RNA strand is produced which serves as a template for the generation of several coding (+) RNA strands. The HCV genome, which contains approximately 9600 nucleotides, is translated into a polyprotein consisting of approximately 3000 amino acids (Leinbach *et al.*, *Virology*, 204:163-169 (1994); Kato *et al.*, *FEBS Letters*, 280:325-328 (1991)). This polyprotein subsequently undergoes post-translational cleavage, producing several proteins. Due to high genetic variability and mutation rates, HCV comprises several distinct HCV genotypes that share approximately 70% sequence identity (Simmonds *et al.*, *J. Gen. Virol.*, 75:1053-1061 (1994)). Despite this hypervariability, there are three regions of the HCV genome that are highly conserved, including the 5'- and 3'-non-coding regions, known as the 5'-untranslated region (5'-UTR) and 3'-untranslated region (3'-UTR), respectively. These regions are thought to be vital for HCV RNA replication as well as translation of the HCV polyprotein. Generally, treatment of HCV is complicated by its high mutation rate, as well as the mode of transmission and possibility of simultaneous infection with multiple HCV genotypes.

**[0004]** Hepatitis C has several clinical phases. The first phase (*i.e.,* acute phase) begins with infection by HCV. During this early phase, it is possible to detect HCV RNA in the

serum of patients using the polymerase chain reaction (PCR). However, because only about 25% of patients exhibit jaundice during this phase, most cases (75%) go undetected in the early stages. The inflammatory process, characterized by an increase in serum liver enzyme concentrations, begins approximately four weeks post-infection. Although acute HCV infection is not malignant, the majority of patients (approximately 80%) develop chronic liver disease, characterized by a permanent elevation in the serum alanine aminotransferase level. Cirrhosis of the liver develops in more than 20% of patients with chronic HCV disease, which frequently leads to malignant hepatoma. Life expectancy following diagnosis of the malignant hepatoma is generally 12 months.

**[0005]** Current therapies to treat HCV infections have met with limited success, with only a minority of patients experiencing long-term improvement. The most prevalent treatment today involves specific cytokines known as interferons, particularly interferon-α (IFN-alpha), which reduces serum alanine aminotransferase levels in approximately 50% of patients. Unfortunately, serum levels of alanine aminotransferase usually return to elevated levels following termination of treatment, producing a number of adverse side-effects (Dusheiko *et al.*, *J. Viral Hepatitis*, 1:3 (1994)). Despite these problems, IFN-alpha is commonly used to reduce the risk of cirrhosis of the liver and malignant hepatoma. There is no currently available vaccine for HCV.

**[0006]** Although IFN-alpha remains the conventional approach, virologists have evaluated a number of potential alternative therapies, including the use of specific ribozymes to inhibit translation of viral protein. Welch *et al.* discloses a two vector-expressed hairpin ribozyme directed against HCV (Welch *et al.*, *Gene Therapy*, 3:994 (1996)). Lieber *et al.* discloses the removal of HCV RNA in infected human hepatocytes through adenovirus-mediated expression of specific hammerhead ribozymes (Lieber *et al.*, *Virology*, 70:8782 (1996)). PCT Publication No. WO 99/55847 discloses the degradation of 5'- and 3'-UTL regions of HCV RNA, as well as the 5'-coding region for the nucleoprotein, using ribozymes. U.S. Patent No. 5,610,054 discloses enzymatic nucleic acid molecules that can inhibit replication of HCV. Despite these efforts, the therapeutic value of ribozymes for treating HCV infections remains questionable, particularly in view of their low enzymatic activity.

**[0007]** Other strategies aimed at inhibiting HCV gene expression have involved the use of antisense oligonucleotides. U.S. Patent Nos. 6,284,458, 6,391,542, 6,423,489, and 6,995,146 describe the use of antisense oligonucleotides to inhibit HCV activity. However, these strategies are untested as therapeutic protocols and consequently there remains a long-felt need for agents capable of effectively inhibiting HCV function *in vivo*.

**[0008]** RNA interference (RNAi) is an evolutionarily conserved, sequence-specific mechanism triggered by double stranded RNA (dsRNA) that induces degradation of complementary target single stranded mRNA and "silencing" of the corresponding translated sequences (McManus *et al.*, *Nature Rev. Genet.*, 3:737 (2002)). RNAi functions by enzymatic cleavage of longer dsRNA strands into biologically active "short-interfering RNA" (siRNA) sequences of about 21-23 nucleotides in length (Elbashir *et al.*, *Genes Dev.*, 15:188 (2001)). When administered to a cell or organism, exogenous dsRNA has been shown to direct the sequence-specific degradation of endogenous mRNA through RNAi. PCT Publication No. WO 99/32619 discloses the use of dsRNA of at least 25 nucleotides in length to inhibit the expression of a target gene in *C. elegans*. dsRNA has also been shown to degrade target RNA in other organisms, including plants (*see, e.g.,* PCT Publication Nos. WO 99/53050 and WO 99/61631), *Drosophilia* (*see, e.g.,* Yang *et al.*, *Curr. Biol.*, 10:1191-1200) (2000), and mammals (*see, e.g.,* PCT Publication No. WO 00/44895).

**[0009]** Consequently, there remains a need for therapeutic agents that can inhibit the replication of a virus in a host cell using the cell's own RNAi machinery. More specifically, there is a long-felt need for nucleic acid-based agents capable of effectively inhibiting HCV function and methods for their *in vivo* delivery to target tissues such as the liver for treating HCV infections. The present invention addresses these and other needs.

## BRIEF SUMMARY OF THE INVENTION

**[0010]** The present invention provides compositions comprising therapeutic nucleic acids such as interfering RNA that target hepatitis C virus (HCV) gene expression, lipid particles comprising one or more (*e.g.,* a cocktail) of the therapeutic nucleic acids, methods of making the lipid particles, and methods of delivering and/or administering the lipid particles (*e.g.,* for the treatment of acute or chronic hepatitis C caused by one or more HCV genotypes).

**[0011]** More particularly, the invention provides compositions comprising unmodified and chemically modified interfering RNA (*e.g.,* dsRNA) molecules which silence HCV gene expression. The present invention also provides serum-stable nucleic acid-lipid particles (*e.g.,* SNALP) and formulations thereof comprising one or more (*e.g.,* a cocktail) of the interfering RNA (*e.g.,* dsRNA) described herein, a cationic lipid, and a non-cationic lipid, which can further comprise a conjugated lipid that inhibits aggregation of particles.

**[0012]** In one aspect, the present invention provides an interfering RNA that targets HCV gene expression, wherein the interfering RNA comprises a sense strand and a complementary antisense strand, and wherein the interfering RNA comprises a double-stranded region of

about 15 to about 60 nucleotides in length. In certain embodiments, the present invention provides compositions comprising a combination (*e.g.,* a cocktail) of at least about 2, 3, 4, 5, 6, 7, 8, 9, 10, or more interfering RNA molecules that target the same and/or different regions of the HCV genome and/or one or more HCV genotypes. The interfering RNA of the present invention are capable of silencing HCV gene expression, inactivating HCV, and/or inhibiting the replication of HCV *in vitro* and *in vivo*.

**[0013]** Examples of interfering RNA molecules include, but are not limited to, double-stranded RNA (dsRNA) such as siRNA, Dicer-substrate dsRNA, shRNA, aiRNA, pre-miRNA, and combinations thereof.

**[0014]** Non-limiting examples of HCV genome sequences are set forth in Genbank Accession Nos. NC_004102 (HCV genotype 1a) (SEQ ID NO:1), AJ238799 (HCV genotype 1b) (SEQ ID NO:2), NC_009823 (HCV genotype 2) (SEQ ID NO:3), NC_009824 (HCV genotype 3) (SEQ ID NO:4), NC_009825 (HCV genotype 4) (SEQ ID NO:5), NC_009826 (HCV genotype 5) (SEQ ID NO:6), and NC_009827 (HCV genotype 6) (SEQ ID NO:7).

**[0015]** Exemplary regions of the HCV genome that can be targeted include, but are not limited to, the 5'-untranslated region (5'-UTR), the 3'-untranslated region (3'-UTR), the polyprotein translation initiation codon region, the internal ribosome entry site (IRES) sequence, and/or nucleic acid sequences encoding the core protein, the E1 protein, the E2 protein, the p7 protein, the NS2 protein, the NS3 protease/helicase, the NS4A protein, the NS4B protein, the NS5A protein, and/or the NS5B RNA-dependent RNA polymerase.

**[0016]** As a non-limiting example, one or more of the following regions of the HCV genotype 1 (*i.e.,* HCV 1a and/or 1b) genome can be targeted: the 5'-UTR (nucleotides 1-341 of SEQ ID NOS:1 or 2); the sequence encoding the core protein (nucleotides 342-914 of SEQ ID NOS:1 or 2); the sequence encoding the E1 protein (nucleotides 915-1490 of SEQ ID NOS:1 or 2); the sequence encoding the E2 protein (nucleotides 1491-2579 of SEQ ID NOS:1 or 2); the sequence encoding the p7 protein (nucleotides 2580-2768 of SEQ ID NOS:1 or 2); the sequence encoding the NS2 protein (nucleotides 2769-3419 of SEQ ID NOS:1 or 2); the sequence encoding the NS3 protease/helicase (nucleotides 3420-5312 of SEQ ID NOS:1 or 2); the sequence encoding the NS4A protein (nucleotides 5313-5474 of SEQ ID NOS:1 or 2); the sequence encoding the NS4B protein (nucleotides 5475-6257 of SEQ ID NOS:1 or 2); the sequence encoding the NS5A protein (nucleotides 6258-7601 of SEQ ID NO:1 or nucleotides 6258-7598 of SEQ ID NO:2); the sequence encoding the NS5B RNA-dependent RNA polymerase (nucleotides 7602-9374 of SEQ ID NO:1 or nucleotides 7599-

9371 of SEQ ID NO:2); and the 3'-UTR (nucleotides 9378-9646 of SEQ ID NO:1 or nucleotides 9374-9605 of SEQ ID NO:2).

**[0017]** Each of the interfering RNA sequences present in the compositions of the invention may independently comprise at least one, two, three, four, five, six, seven, eight, nine, ten, or more modified nucleotides such as 2'OMe nucleotides, *e.g.,* in the sense and/or antisense strand of the double-stranded region. Preferably, uridine and/or guanosine nucleotides are modified with 2'OMe nucleotides. In particular embodiments, each of the interfering RNA sequences present in the compositions of the invention comprises at least one 2'OMe-uridine nucleotide and at least one 2'OMe-guanosine nucleotide in the sense and/or antisense strands.

**[0018]** In some embodiments, each of the interfering RNA sequences present in the compositions of the invention may independently comprise a 3' overhang of at least 1, 2, 3, or 4 nucleotides in one or both strands of the interfering RNA or may comprise at least one blunt end. In certain instances, the 3' overhangs in one or both strands of the interfering RNA each independently comprise at least 1, 2, 3, or 4 of any combination of modified and unmodified deoxythymidine (dT) nucleotides, at least 1, 2, 3, or 4 of any combination of modified (*e.g.,* 2'OMe) and unmodified uridine (U) ribonucleotides, or at least 1, 2, 3, or 4 of any combination of modified (*e.g.,* 2'OMe) and unmodified ribonucleotides having complementarity to the target sequence (3' overhang in the antisense strand) or the complementary strand thereof (3' overhang in the sense strand).

**[0019]** In further embodiments, the present invention provides a composition comprising at least one or a cocktail (*e.g.,* at least two, three, four, five, six, seven, eight, nine, ten, or more) of the interfering RNA sequences set forth in Figures 1-16. In certain instances, at least about 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more (*e.g.,* all) of the interfering RNA sequences present in the composition comprises at least 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more modified nucleotides such as 2'OMe nucleotides, *e.g.,* in the double-stranded region.

**[0020]** In some embodiments, the sense strand of each interfering RNA independently comprises or consists of one of the sequences set forth in Figures 1-16. In related embodiments, the sense strand of each interfering RNA independently comprises or consists of at least about 15 contiguous nucleotides (*e.g.,* at least 15, 16, 17, 18, or 19 contiguous nucleotides) of one of the sequences set forth in Figures 1-16. In particular embodiments, the sense strand of each interfering RNA may independently comprise or consist of from about 22 to about 28 nucleotides (*e.g.,* 22, 23, 24, 25, 26, 27, or 28 nucleotides) in length. In certain instances, the sense strand of each interfering RNA has a modified (*e.g.,* 2'OMe) and/or unmodified 3' overhang of 1, 2, 3, or 4 nucleotides, or is blunt ended at the 3' end.

One of skill in the art will appreciate that the sense strand sequence may comprise or consist of at least 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, or more additional nucleotides at the 5' and/or 3' end of one of the 19-mer sequences set forth in Figures 1-16 that correspond to the contiguous nucleotides 5' and/or 3' of the corresponding 19-mer sequence found in SEQ ID NOS:1-7.

**[0021]** In other embodiments, the antisense strand of each interfering RNA independently comprises or consists of a sequence that is complementary to one of the sequences set forth in Figures 1-16. In related embodiments, the antisense strand of each interfering RNA molecule independently comprises or consists of at least about 15 contiguous nucleotides (*e.g.,* at least 15, 16, 17, 18, or 19 contiguous nucleotides) of a sequence that is complementary to one of the sequences set forth in Figures 1-16. In particular embodiments, the antisense strand of each interfering RNA may independently comprise or consist of from about 24 to about 30 nucleotides (*e.g.,* 24, 25, 26, 27, 28, 29, or 30 nucleotides) in length. In certain instances, the antisense strand of each interfering RNA has a modified (*e.g.,* 2'OMe) and/or unmodified 3' overhang of 1, 2, 3, or 4 nucleotides, or is blunt ended at the 3' end. One of skill in the art will appreciate that the antisense strand sequence may comprise or consist of at least 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, or more additional complementary nucleotides at the 5' and/or 3' end of one of the 19-mer sequences set forth in Figures 1-16, wherein the additional nucleotides have complementarity to the contiguous nucleotides 5' and/or 3' of the corresponding 19-mer sequence found in SEQ ID NOS:1-7.

**[0022]** In certain embodiments, the antisense strand specifically hybridizes to at least one of the sequences set forth in Figures 1-16. In additional embodiments, the antisense strand targets at least one of the sequences set forth in Figures 1-16. One of skill in the art will appreciate that the antisense strand sequence may specifically hybridize to or target at least 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, or more additional complementary nucleotides at the 5' and/or 3' end of one of the 19-mer sequences set forth in Figures 1-16, wherein the additional nucleotides have complementarity to the contiguous nucleotides 5' and/or 3' of the corresponding 19-mer sequence found in SEQ ID NOS:1-7.

**[0023]** In particular embodiments, the antisense strand specifically hybridizes to or targets at least one of the sequences set forth in Figures 8-16. As a non-limiting example, a preferred interfering RNA of the invention comprises an antisense strand that specifically hybridizes to or targets a sequence conserved between HCV genotypes 1a and 1b. Figure 10 provides an

exemplary list of conserved sequences between these two HCV subtypes, which occur in approximately equal proportions and make up about 75% of the HCV infections in the United States. One of skill in the art will appreciate that the antisense strand sequence may specifically hybridize to or target at least 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, or more additional complementary nucleotides at the 5' and/or 3' end of one of the 19-mer sequences set forth in Figures 8-16 (*e.g.,* Figure 10), wherein the additional nucleotides have complementarity to the contiguous nucleotides 5' and/or 3' of the corresponding 19-mer sequence found in SEQ ID NOS:1-7.

**[0024]** The present invention also provides a pharmaceutical composition comprising one or a cocktail of interfering RNA (*e.g.,* dsRNA) molecules that target HCV gene expression and a pharmaceutically acceptable carrier.

**[0025]** In another aspect, the present invention provides a nucleic acid-lipid particle that targets HCV gene expression. The nucleic acid-lipid particle typically comprises one or more unmodified and/or modified interfering RNA that silence HCV gene expression, a cationic lipid, and a non-cationic lipid. In certain instances, the nucleic acid-lipid particle further comprises a conjugated lipid that inhibits aggregation of particles. Preferably, the nucleic acid-lipid particle comprises one or more unmodified and/or modified interfering RNA that silence HCV gene expression, a cationic lipid, a non-cationic lipid, and a conjugated lipid that inhibits aggregation of particles.

**[0026]** In some embodiments, the nucleic acid-lipid particle comprises 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more interfering RNA molecules, wherein the sense strand of each interfering RNA molecule independently comprises or consists of one of the sequences set forth in Figures 1-16. In related embodiments, the nucleic acid-lipid particle comprises 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more interfering RNA molecules, wherein the sense strand of each interfering RNA molecule independently comprises or consists of at least about 15 contiguous nucleotides (*e.g.,* at least 15, 16, 17, 18, or 19 contiguous nucleotides) of one of the sequences set forth in Figures 1-16. Additional embodiments related to the sense strand sequences of the present invention (*e.g.,* 3' overhangs, blunt ends, length, modified nucleotides, *etc.*) are described herein.

**[0027]** In other embodiments, the nucleic acid-lipid particle comprises 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more interfering RNA molecules, wherein the antisense strand of each interfering RNA molecule independently comprises or consists of a sequence that is complementary to one of the sequences set forth in Figures 1-16. In related embodiments, the nucleic acid-lipid particle comprises 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more interfering RNA molecules, wherein the

antisense strand of each interfering RNA molecule independently comprises or consists of at least about 15 contiguous nucleotides (*e.g.,* at least 15, 16, 17, 18, or 19 contiguous nucleotides) of a sequence that is complementary to one of the sequences set forth in Figures 1-16. Additional embodiments related to the antisense strand sequences of the present invention (*e.g.,* 3' overhangs, blunt ends, length, modified nucleotides, *etc.*) are described herein.

**[0028]** In other embodiments, the interfering RNA molecules of the invention are fully encapsulated in the nucleic acid-lipid particle (*e.g.,* SNALP). With respect to formulations comprising a cocktail of interfering RNA, the different types of interfering RNA molecules may be co-encapsulated in the same nucleic acid-lipid particle, or each type of interfering RNA species present in the cocktail may be encapsulated in its own particle.

**[0029]** The present invention also provides pharmaceutical compositions comprising a nucleic acid-lipid particle and a pharmaceutically acceptable carrier.

**[0030]** The nucleic acid-lipid particles of the invention are useful for the prophylactic or therapeutic delivery of interfering RNA (*e.g.,* dsRNA) molecules that silence HCV gene expression. In some embodiments, one or more of the interfering RNA described herein are formulated into nucleic acid-lipid particles, and the particles are administered to a mammal (*e.g.,* a rodent such as a mouse or a primate such as a human, chimpanzee, or monkey) requiring such treatment. In certain instances, a therapeutically effective amount of the nucleic acid-lipid particle can be administered to the mammal, *e.g.,* for treating acute or chronic hepatitis C caused by 1, 2, 3, 4, 5, 6, 7, or more HCV genotypes. The nucleic acid-lipid particles of the invention are particularly useful for targeting the liver to treat acute or chronic hepatitis C caused by any of HCV genotypes 1-6 (*e.g.,* HCV 1a, 1b, 2, 3, 4, 5, and/or 6) as well as diseases associated with HCV infection. The nucleic acid-lipid particles of the invention (*e.g.,* SNALP) find utility in targeting cells, tissues, and/or organs associated with HCV infection and/or replication, such as hepatocytes as well as other cell types of the liver. Administration of the nucleic acid-lipid particle can be by any route known in the art, such as, *e.g.,* oral, intranasal, intravenous, intraperitoneal, intramuscular, intra-articular, intralesional, intratracheal, subcutaneous, or intradermal. In particular embodiments, the nucleic acid-lipid particle is administered systemically, *e.g.,* via enteral or parenteral routes of administration.

**[0031]** In some embodiments, downregulation of HCV gene expression is determined by detecting viral RNA or protein levels in a biological sample from a mammal after nucleic acid-lipid particle administration. In other embodiments, downregulation of HCV gene expression is determined by measuring the levels of liver enzymes such as, *e.g.,* alanine

transaminase (ALT), aspartate transaminase (AST), and/or gamma-glutamyl transferase (GGTP) in a biological sample from a mammal after particle administration. In further embodiments, downregulation of HCV gene expression is detected by measuring HCV load in a biological sample from a mammal after particle administration. In certain embodiments, downregulation of HCV gene expression is detected by monitoring symptoms associated with HCV infection in a mammal after particle administration. In certain other embodiments, downregulation of HCV gene expression is detected by measuring survival of a mammal after particle administration.

**[0032]** In particular embodiments, the mammal has a disease or disorder associated with HCV infection, *e.g.,* acute of chronic hepatitis C. In other embodiments, silencing of HCV sequences that encode genes associated with viral infection and/or survival can conveniently be used in combination with the administration of conventional agents used to treat the viral condition.

**[0033]** In certain embodiments, the present invention provides a method for treating a mammal infected with HCV (*e.g.,* HCV genotype 1 such as HCV 1a and/or 1b) comprising administering to a mammal suffering from an HCV infection an interfering RNA molecule (*e.g.,* dsRNA) that silences HCV gene expression (*e.g.,* encapsulated in a nucleic acid-lipid particle such as SNALP), thereby treating the HCV infection in the mammal. In certain other embodiments, the present invention provides a method for treating hepatitis C (*i.e.,* acute or chronic hepatitis C) in a mammal comprising administering to a mammal having hepatitis C an interfering RNA (*e.g.,* dsRNA) that silences HCV gene expression (*e.g.,* encapsulated in a nucleic acid-lipid particle such as SNALP), thereby treating hepatitis C in the mammal. In further embodiments, the present invention provides a method for inactivating HCV and/or inhibiting the replication of HCV comprising administering to a mammal in need thereof an interfering RNA (*e.g.,* dsRNA) that silences HCV gene expression (*e.g.,* encapsulated in a nucleic acid-lipid particle such as SNALP), thereby inactivating HCV and/or inhibiting the replication of HCV in the mammal. In other embodiments, the present invention provides a method for treating a mammal infected with multiple HCV genotypes (*e.g.,* two or more of HCV genotypes 1-6) comprising administering to a mammal in need thereof an interfering RNA (*e.g.,* dsRNA) that silences the expression of two, three, four, five, six, seven, or more HCV genotypes (*e.g.,* encapsulated in a nucleic acid-lipid particle such as SNALP), thereby treating the HCV infection in the mammal. In particular embodiments, the interfering RNA administered to a mammal infected with multiple HCV genotypes targets a sequence that is conserved between two, three, four, five, six, seven, or more HCV genotypes.

**[0034]** The interfering RNA of the invention may generally target one or more regions of the HCV genome to silence HCV gene expression. Non-limiting examples of target regions include the 5'-UTR, the 3'-UTR, the polyprotein translation initiation codon region, the IRES sequence, and/or nucleic acid sequences encoding the core protein, the E1 protein, the E2 protein, the p7 protein, the NS2 protein, the NS3 protease/helicase, the NS4A protein, the NS4B protein, the NS5A protein, and/or the NS5B RNA-dependent RNA polymerase. In some instances, the interfering RNA of the invention comprises or consists of at least one or more (*e.g.,* a cocktail) of the sequences set forth in Figures 1-16 in unmodified or modified form.

**[0035]** In a further aspect, the present invention provides compositions comprising at least one interfering RNA (*e.g.,* dsRNA) that silences HCV expression and at least one interfering RNA that silences hepatitis A, B, D, E, and/or G virus gene expression. In certain instances, the interfering RNA targeting HCV and the interfering RNA targeting hepatitis A, B, D, E, and/or G virus are formulated in the same nucleic acid-lipid particle (*e.g.,* SNALP). As a non-limiting example, the cocktail of HCV and hepatitis A, B, D, E, and/or G virus interfering RNA may be co-encapsulated in the same nucleic acid-lipid particle. In certain other instances, the HCV and hepatitis A, B, D, E, and/or G virus interfering RNA molecules are formulated in separate nucleic acid-lipid particles. In these instances, one formulation may be administered before, during, and/or after the administration of the other formulation to a mammal in need thereof. Exemplary siRNA sequences targeting hepatitis B virus (HBV) are described in, *e.g.,* U.S. Patent Publication Nos. 20050282188 and 20080096839; Morrissey *et al.*, *Hepatology*, 41:1349-56 (2005); Morrissey *et al.*, *Nat. Biotechnol.*, 23:1002-7 (2005); and Fu *et al.*, *Acta Pharmacol. Sin.*, 29:1522-8 (2008).

**[0036]** In a related aspect, the present invention provides compositions comprising at least one interfering RNA that silences HCV expression (*e.g.,* encapsulated in a nucleic acid-lipid particle such as SNALP) and at least one conventional agent used to treat the viral condition. Such conventional agents include, but are not limited to, interferon-α (*e.g.,* PEGylated IFN-α) and the antiviral drug ribavirin. One skilled in the art will appreciate that one or more interfering RNAs targeting HCV gene expression (*e.g.,* encapsulated in a nucleic acid-lipid particle such as SNALP) may be administered before, during, and/or after the administration of one or more conventional agents to a mammal in need thereof.

**[0037]** Other objects, features, and advantages of the present invention will be apparent to one of skill in the art from the following detailed description and figures.

## BRIEF DESCRIPTION OF THE DRAWINGS

**[0038]** Figure 1 illustrates exemplary target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 1a expression.

**[0039]** Figure 2 illustrates exemplary target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 1b expression.

**[0040]** Figure 3 illustrates exemplary target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 2 expression.

**[0041]** Figure 4 illustrates exemplary target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 3 expression.

**[0042]** Figure 5 illustrates exemplary target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 4 expression.

**[0043]** Figure 6 illustrates exemplary target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 5 expression.

**[0044]** Figure 7 illustrates exemplary target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 6 expression.

**[0045]** Figure 8 illustrates preferred target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 1a expression.

**[0046]** Figure 9 illustrates preferred target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 1b expression.

**[0047]** Figure 10 illustrates exemplary target or sense strand sequences for the interfering RNA molecules of the present invention that silence the expression of both HCV genotypes 1a and 1b.

**[0048]** Figure 11 illustrates additional preferred target or sense strand sequences for the interfering RNA molecules of the present invention that silence the expression of HCV genotype 1a.

**[0049]** Figure 12 illustrates preferred target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 2 expression.

**[0050]** Figure 13 illustrates preferred target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 3 expression.

**[0051]** Figure 14 illustrates preferred target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 4 expression.

**[0052]** Figure 15 illustrates preferred target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 5 expression.

**[0053]** Figure 16 illustrates preferred target or sense strand sequences for the interfering RNA molecules of the present invention that silence HCV genotype 6 expression.

## DETAILED DESCRIPTION OF THE INVENTION

### I. Introduction

**[0054]** Hepatitis C is an infectious disease affecting the liver that is caused by the hepatitis C virus (HCV) (*see, e.g.,* Ryan & Ray (editors), *Sherris Medical Microbiology*, 4th ed., McGraw Hill, pp. 551-2 (2004)). An estimated 150-200 million people worldwide are infected with HCV. However, no vaccine against HCV is available. The infection is often asymptomatic, but once established, chronic infection can progress to scarring of the liver (fibrosis), and advanced scarring (cirrhosis). In some cases, those with cirrhosis will go on to develop liver failure or other complications of cirrhosis, including liver cancer.

**[0055]** HCV is a small (50 nm in size), enveloped, single-stranded, positive sense RNA virus. It is the only known member of the *hepacivirus* genus in the family *Flaviviridae*. There are six major genotypes of the hepatitis C virus, which are indicated numerically (*e.g.,* HCV genotype 1, HCV genotype 2, *etc.*). About 75% of hepatitis C patients in the United States have HCV genotype 1 (*i.e.,* HCV 1a and/or 1b), while HCV genotype 4 is more common in the Middle East and Africa.

**[0056]** HCV is typically transmitted by blood-to-blood contact. Most people have few symptoms after the initial infection, yet the virus persists in the liver in about 80% of those infected. Persistent infection can be treated with medication, such as interferon and ribavirin, but only a minority is cured. Those who develop cirrhosis or liver cancer may require a liver transplant, although the virus may recur after transplantion.

**[0057]** Acute hepatitis C refers to the first 6 months after infection with HCV. Between 60% to 70% of people infected develop no symptoms during the acute phase. In the minority of patients who experience acute phase symptoms, they are generally mild and non-specific, and rarely lead to a specific diagnosis of hepatitis C. Symptoms of acute hepatitis C infection include, for example, decreased appetite, fatigue, abdominal pain, jaundice, itching, and flu-like symptoms.

**[0058]** HCV is usually detectable in the blood within one to three weeks after infection, and antibodies to the virus are generally detectable within 3 to 12 weeks. Approximately 15-40% of persons infected with HCV clear the virus from their bodies during the acute phase as shown by normalization in liver function tests (LFTs) such as alanine transaminase (ALT) and aspartate transaminase (AST) normalization, as well as plasma HCV RNA clearance

(known as spontaneous viral clearance). The remaining 60-85% of patients infected with HCV develop chronic hepatitis C, *i.e.,* infection lasting more than 6 months.

**[0059]** Chronic hepatitis C is defined as infection with HCV persisting for more than six months. The natural course of chronic hepatitis C varies considerably from one person to another. Virtually all people infected with HCV have evidence of inflammation on liver biopsy; however, the rate of progression of liver scarring (fibrosis) shows significant variability among individuals. Recent data suggest that among untreated patients, roughly one-third progress to liver cirrhosis in less than 20 years. Another third progress to cirrhosis within 30 years. The remainder of patients appear to progress so slowly that they are unlikely to develop cirrhosis within their lifetimes. Factors that have been reported to influence the rate of HCV disease progression include age (increasing age associated with more rapid progression), gender (males have more rapid disease progression than females), alcohol consumption (associated with an increased rate of disease progression), HIV coinfection (associated with a markedly increased rate of disease progression), and fatty liver (the presence of fat in liver cells has been associated with an increased rate of disease progression).

**[0060]** Symptoms specifically suggestive of liver disease are typically absent until substantial scarring of the liver has occurred. However, hepatitis C is a systemic disease and patients may experience a wide spectrum of clinical manifestations ranging from an absence of symptoms to a more symptomatic illness prior to the development of advanced liver disease. Generalized signs and symptoms associated with chronic hepatitis C include, for example, fatigue, marked weight loss, flu-like symptoms, muscle pain, joint pain, intermittent low-grade fevers, itching, sleep disturbances, abdominal pain (especially in the right upper quadrant), appetite changes, nausea, diarrhea, dyspepsia, cognitive changes, depression, headaches, and mood swings.

**[0061]** Once chronic hepatitis C has progressed to cirrhosis, signs and symptoms may appear that are generally caused by either decreased liver function or increased pressure in the liver circulation, a condition known as portal hypertension. Possible signs and symptoms of liver cirrhosis include, but are not limited to, ascites (accumulation of fluid in the abdomen), bruising and bleeding tendency, bone pain, varices (enlarged veins, especially in the stomach and esophagus), fatty stools (steatorrhea), jaundice, and a syndrome of cognitive impairment known as hepatic encephalopathy.

**[0062]** Chronic hepatitis C, more than other forms of hepatitis, is diagnosed because of extrahepatic manifestations associated with the presence of HCV, such as thyroiditis

(inflammation of the thyroid) with hyperthyreosis or hypothyreosis, porphyria cutanea tarda, cryoglobulinemia (a form of small-vessel vasculitis), and glomerulonephritis (inflammation of the kidney), specifically membranoproliferative glomerulonephritis (MPGN). Hepatitis C is also associated with sicca syndrome (an autoimmune disorder), thrombocytopenia, lichen planus, diabetes mellitus, and B-cell lymphoproliferative disorders.

**[0063]** In certain aspects, the present invention is drawn to targeting HCV gene expression for the treatment of diseases and disorders associated with HCV infection (*e.g.,* acute or chronic hepatitis C). Treatment and prevention of HCV infections remains a major challenge for controlling this worldwide health problem since existing therapies are only partially effective and no vaccine is currently available. In fact, existing treatments, including ribavirin and PEGylated interferon-alpha, are effective only in approximately 50% of patients and have substantial side-effects. As such, targeted silencing of HCV gene expression via the RNAi pathway using, *e.g.,* HCV interfering RNA, holds considerable promise as a novel therapeutic strategy for the treatment of hepatitis C or other diseases and disorders associated with HCV infection.

**[0064]** Thus, the present invention provides compositions comprising interfering RNA that target HCV gene expression, lipid particles (*e.g.,* SNALP) comprising one or more (*e.g.,* a cocktail) interfering RNA molecules, methods of making the lipid particles, and methods of delivering and/or administering the lipid particles (*e.g.,* for the treatment of acute or chronic hepatitis C caused by one or more HCV genotypes).

## II. Definitions

**[0065]** As used herein, the following terms have the meanings ascribed to them unless specified otherwise.

**[0066]** The term "interfering RNA" or "RNAi" or "interfering RNA sequence" as used herein includes single-stranded RNA (*e.g.,* mature miRNA, ssRNAi oligonucleotides, ssDNAi oligonucleotides) or double-stranded RNA (*i.e.*, duplex RNA such as siRNA, Dicer-substrate dsRNA, shRNA, aiRNA, or pre-miRNA) that is capable of reducing or inhibiting the expression of a target gene or sequence (*e.g.,* by mediating the degradation or inhibiting the translation of viral RNAs which are complementary to the interfering RNA sequence) when the interfering RNA is in the same cell as the target gene or sequence. Interfering RNA thus refers to the single-stranded RNA that is complementary to a target RNA sequence or to the double-stranded RNA formed by two complementary strands or by a single, self-complementary strand. Interfering RNA may have substantial or complete identity to the target gene or sequence, or may comprise a region of mismatch (*i.e.,* a mismatch motif). The

sequence of the interfering RNA molecule can correspond to the full-length target gene, or a subsequence thereof. Preferably, the interfering RNA molecules are chemically synthesized.

**[0067]** Interfering RNA includes "small-interfering RNA" or "siRNA," *e.g.,* interfering RNA of about 15-60, 15-50, or 15-40 (duplex) nucleotides in length, more typically about 15-30, 15-25, or 19-25 (duplex) nucleotides in length, and is preferably about 20-24, 21-22, or 21-23 (duplex) nucleotides in length (*e.g.,* each complementary sequence of the double-stranded siRNA is 15-60, 15-50, 15-40, 15-30, 15-25, or 19-25 nucleotides in length, preferably about 20-24, 21-22, or 21-23 nucleotides in length, and the double-stranded siRNA is about 15-60, 15-50, 15-40, 15-30, 15-25, or 19-25 base pairs in length, preferably about 18-22, 19-20, or 19-21 base pairs in length). siRNA duplexes may comprise 3' overhangs of about 1 to about 4 nucleotides or about 2 to about 3 nucleotides and 5' phosphate termini. Examples of siRNA include, without limitation, a double-stranded polynucleotide molecule assembled from two separate stranded molecules, wherein one strand is the sense strand and the other is the complementary antisense strand; a double-stranded polynucleotide molecule assembled from a single stranded molecule, where the sense and antisense regions are linked by a nucleic acid-based or non-nucleic acid-based linker; a double-stranded polynucleotide molecule with a hairpin secondary structure having self-complementary sense and antisense regions; and a circular single-stranded polynucleotide molecule with two or more loop structures and a stem having self-complementary sense and antisense regions, where the circular polynucleotide can be processed *in vivo* or *in vitro* to generate an active double-stranded siRNA molecule.

**[0068]** Preferably, siRNA are chemically synthesized. siRNA can also be generated by cleavage of longer dsRNA (*e.g.*, dsRNA greater than about 25 nucleotides in length) with the *E. coli* RNase III or Dicer. These enzymes process the dsRNA into biologically active siRNA (*see, e.g.*, Yang *et al.*, *Proc. Natl. Acad. Sci. USA,* 99:9942-9947 (2002); Calegari *et al.*, *Proc. Natl. Acad. Sci. USA,* 99:14236 (2002); Byrom *et al.*, *Ambion TechNotes,* 10(1):4-6 (2003); Kawasaki *et al.*, *Nucleic Acids Res.,* 31:981-987 (2003); Knight *et al.*, *Science,* 293:2269-2271 (2001); and Robertson *et al.*, *J. Biol. Chem.,* 243:82 (1968)). Preferably, dsRNA are at least about 25 nucleotides to about 50, 100, 200, 300, 400, or 500 nucleotides in length. A dsRNA may be as long as 1000, 1500, 2000, 5000 nucleotides in length, or longer. The dsRNA can encode for an entire gene transcript or a partial gene transcript. In certain instances, siRNA may be encoded by a plasmid (*e.g.*, transcribed as sequences that automatically fold into duplexes with hairpin loops).

**[0069]** As used herein, the term "mismatch motif" or "mismatch region" refers to a portion of an interfering RNA (*e.g.*, dsRNA) sequence that does not have 100% complementarity to its target sequence. An interfering RNA may have at least one, two, three, four, five, six, or more mismatch regions. The mismatch regions may be contiguous or may be separated by 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, or more nucleotides. The mismatch motifs or regions may comprise a single nucleotide or may comprise two, three, four, five, or more nucleotides.

**[0070]** The phrase "inhibiting expression of a target gene" refers to the ability of an interfering RNA (*e.g.*, dsRNA) of the present invention to silence, reduce, or inhibit the expression of a target gene (*e.g.*, an HCV gene). To examine the extent of gene silencing, a test sample (*e.g.*, a sample from an organism or of cells in culture infected with HCV and expressing a target HCV gene) is contacted with an interfering RNA (*e.g.*, dsRNA) that silences, reduces, or inhibits expression of the target gene. Expression of the target gene in the test sample is compared to expression of the target gene in a control sample (*e.g.*, a sample from an organism or of cells in culture infected with HCV and expressing a target HCV gene) that is not contacted with the interfering RNA (*e.g.*, dsRNA). Control samples (*e.g.*, samples expressing the target gene) may be assigned a value of 100%. In particular embodiments, silencing, inhibition, or reduction of expression of a target gene is achieved when the value of the test sample relative to the control sample is about 95%, 90%, 85%, 80%, 75%, 70%, 65%, 60%, 55%, 50%, 45%, 40%, 35%, 30%, 25%, 20%, 10%, 5%, or 0%. Suitable assays include, without limitation, examination of protein or RNA levels using techniques known to those of skill in the art, such as, *e.g.*, dot blots, Northern blots, *in situ* hybridization, ELISA, immunoprecipitation, enzyme function, as well as phenotypic assays known to those of skill in the art.

**[0071]** An "effective amount" or "therapeutically effective amount" of a therapeutic nucleic acid such as an interfering RNA is an amount sufficient to produce the desired effect, *e.g.*, an inhibition of expression of a target sequence in comparison to the normal expression level detected in the absence of an interfering RNA. In particular embodiments, inhibition of expression of a target gene or target sequence is achieved when the value obtained with an interfering RNA relative to the control is about 95%, 90%, 85%, 80%, 75%, 70%, 65%, 60%, 55%, 50%, 45%, 40%, 35%, 30%, 25%, 20%, 15%, 10%, 5%, or 0%. Suitable assays for measuring the expression of a target gene or target sequence include, but are not limited to, examination of protein or RNA levels using techniques known to those of skill in the art, such as, *e.g.*, dot blots, Northern blots, *in situ* hybridization, ELISA, immunoprecipitation, enzyme function, as well as phenotypic assays known to those of skill in the art.

**[0072]** By "decrease," "decreasing," "reduce," or "reducing" of an immune response by an interfering RNA is intended to mean a detectable decrease of an immune response to a given interfering RNA (*e.g.*, a modified interfering RNA). The amount of decrease of an immune response by a modified interfering RNA may be determined relative to the level of an immune response in the presence of an unmodified interfering RNA. A detectable decrease can be about 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 80%, 85%, 90%, 95%, 100%, or more lower than the immune response detected in the presence of the unmodified interfering RNA. A decrease in the immune response to interfering RNA is typically measured by a decrease in cytokine production (*e.g.*, IFNγ, IFNα, TNFα, IL-6, or IL-12) by a responder cell *in vitro* or a decrease in cytokine production in the sera of a mammalian subject after administration of the interfering RNA.

**[0073]** As used herein, the term "responder cell" refers to a cell, preferably a mammalian cell, that produces a detectable immune response when contacted with an immunostimulatory interfering RNA such as an unmodified dsRNA. Exemplary responder cells include, *e.g.*, dendritic cells, macrophages, peripheral blood mononuclear cells (PBMCs), splenocytes, and the like. Detectable immune responses include, *e.g.*, production of cytokines or growth factors such as TNF-α, IFN-α, IFN-β, IFN-γ, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-10, IL-12, IL-13, TGF, and combinations thereof. Detectable immune responses also include, *e.g.*, induction of interferon-induced protein with tetratricopeptide repeats 1 (*IFIT1*) mRNA.

**[0074]** "Substantial identity" refers to a sequence that hybridizes to a reference sequence under stringent conditions, or to a sequence that has a specified percent identity over a specified region of a reference sequence.

**[0075]** The phrase "stringent hybridization conditions" refers to conditions under which a nucleic acid will hybridize to its target sequence, typically in a complex mixture of nucleic acids, but to no other sequences. Stringent conditions are sequence-dependent and will be different in different circumstances. Longer sequences hybridize specifically at higher temperatures. An extensive guide to the hybridization of nucleic acids is found in Tijssen, *Techniques in Biochemistry and Molecular Biology--Hybridization with Nucleic Probes*, "Overview of principles of hybridization and the strategy of nucleic acid assays" (1993). Generally, stringent conditions are selected to be about 5-10°C lower than the thermal melting point ($T_m$) for the specific sequence at a defined ionic strength pH. The $T_m$ is the temperature (under defined ionic strength, pH, and nucleic concentration) at which 50% of the probes complementary to the target hybridize to the target sequence at equilibrium (as the

target sequences are present in excess, at $T_m$, 50% of the probes are occupied at equilibrium). Stringent conditions may also be achieved with the addition of destabilizing agents such as formamide. For selective or specific hybridization, a positive signal is at least two times background, preferably 10 times background hybridization.

**[0076]** Exemplary stringent hybridization conditions can be as follows: 50% formamide, 5x SSC, and 1% SDS, incubating at 42°C, or, 5x SSC, 1% SDS, incubating at 65°C, with wash in 0.2x SSC, and 0.1% SDS at 65°C. For PCR, a temperature of about 36°C is typical for low stringency amplification, although annealing temperatures may vary between about 32°C and 48°C depending on primer length. For high stringency PCR amplification, a temperature of about 62°C is typical, although high stringency annealing temperatures can range from about 50°C to about 65°C, depending on the primer length and specificity. Typical cycle conditions for both high and low stringency amplifications include a denaturation phase of 90°C-95°C for 30 sec.-2 min., an annealing phase lasting 30 sec.-2 min., and an extension phase of about 72°C for 1-2 min. Protocols and guidelines for low and high stringency amplification reactions are provided, *e.g.,* in Innis *et al.*, *PCR Protocols, A Guide to Methods and Applications*, Academic Press, Inc. N.Y. (1990).

**[0077]** Nucleic acids that do not hybridize to each other under stringent conditions are still substantially identical if the polypeptides which they encode are substantially identical. This occurs, for example, when a copy of a nucleic acid is created using the maximum codon degeneracy permitted by the genetic code. In such cases, the nucleic acids typically hybridize under moderately stringent hybridization conditions. Exemplary "moderately stringent hybridization conditions" include a hybridization in a buffer of 40% formamide, 1 M NaCl, 1% SDS at 37°C, and a wash in 1X SSC at 45°C. A positive hybridization is at least twice background. Those of ordinary skill will readily recognize that alternative hybridization and wash conditions can be utilized to provide conditions of similar stringency. Additional guidelines for determining hybridization parameters are provided in numerous references, *e.g.*, Current Protocols in Molecular Biology, Ausubel *et al.*, eds.

**[0078]** The terms "substantially identical" or "substantial identity," in the context of two or more nucleic acids, refer to two or more sequences or subsequences that are the same or have a specified percentage of nucleotides that are the same (*i.e.,* at least about 60%, preferably at least about 65%, 70%, 75%, 80%, 85%, 90%, or 95% identity over a specified region), when compared and aligned for maximum correspondence over a comparison window, or

designated region as measured using one of the following sequence comparison algorithms or by manual alignment and visual inspection. This definition, when the context indicates, also refers analogously to the complement of a sequence. Preferably, the substantial identity exists over a region that is at least about 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, or 60 nucleotides in length.

**[0079]** For sequence comparison, typically one sequence acts as a reference sequence, to which test sequences are compared. When using a sequence comparison algorithm, test and reference sequences are entered into a computer, subsequence coordinates are designated, if necessary, and sequence algorithm program parameters are designated. Default program parameters can be used, or alternative parameters can be designated. The sequence comparison algorithm then calculates the percent sequence identities for the test sequences relative to the reference sequence, based on the program parameters.

**[0080]** A "comparison window," as used herein, includes reference to a segment of any one of a number of contiguous positions selected from the group consisting of from about 5 to about 60, usually about 10 to about 45, more usually about 15 to about 30, in which a sequence may be compared to a reference sequence of the same number of contiguous positions after the two sequences are optimally aligned. Methods of alignment of sequences for comparison are well known in the art. Optimal alignment of sequences for comparison can be conducted, *e.g.,* by the local homology algorithm of Smith and Waterman, *Adv. Appl. Math.,* 2:482 (1981), by the homology alignment algorithm of Needleman and Wunsch, *J. Mol. Biol.,* 48:443 (1970), by the search for similarity method of Pearson and Lipman, *Proc. Natl. Acad. Sci. USA,* 85:2444 (1988), by computerized implementations of these algorithms (GAP, BESTFIT, FASTA, and TFASTA in the Wisconsin Genetics Software Package, Genetics Computer Group, 575 Science Dr., Madison, WI), or by manual alignment and visual inspection (*see, e.g., Current Protocols in Molecular Biology*, Ausubel *et al.*, eds. (1995 supplement)).

**[0081]** Non-limiting examples of algorithms that are suitable for determining percent sequence identity and sequence similarity are the BLAST and BLAST 2.0 algorithms, which are described in Altschul *et al., Nuc. Acids Res.,* 25:3389-3402 (1977) and Altschul *et al., J. Mol. Biol.*, 215:403-410 (1990), respectively. BLAST and BLAST 2.0 are used, with the parameters described herein, to determine percent sequence identity for the nucleic acids of the invention. Software for performing BLAST analyses is publicly available through the National Center for Biotechnology Information (http://www.ncbi.nlm.nih.gov/). Another

example is a global alignment algorithm for determining percent sequence identiy such as the Needleman-Wunsch algorithm for aligning protein or nucleotide (*e.g.,* RNA) sequences.

**[0082]** The BLAST algorithm also performs a statistical analysis of the similarity between two sequences (*see, e.g.*, Karlin and Altschul, *Proc. Natl. Acad. Sci. USA,* 90:5873-5787 (1993)). One measure of similarity provided by the BLAST algorithm is the smallest sum probability (P(N)), which provides an indication of the probability by which a match between two nucleotide sequences would occur by chance. For example, a nucleic acid is considered similar to a reference sequence if the smallest sum probability in a comparison of the test nucleic acid to the reference nucleic acid is less than about 0.2, more preferably less than about 0.01, and most preferably less than about 0.001.

**[0083]** The term "nucleic acid" as used herein refers to a polymer containing at least two deoxyribonucleotides or ribonucleotides in either single- or double-stranded form and includes DNA and RNA. DNA may be in the form of, *e.g.*, antisense molecules, plasmid DNA, pre-condensed DNA, a PCR product, vectors (P1, PAC, BAC, YAC, artificial chromosomes), expression cassettes, chimeric sequences, chromosomal DNA, or derivatives and combinations of these groups. RNA may be in the form of small interfering RNA (siRNA), Dicer-substrate dsRNA, small hairpin RNA (shRNA), asymmetrical interfering RNA (aiRNA), microRNA (miRNA), mRNA, tRNA, rRNA, tRNA, viral RNA (vRNA), and combinations thereof. Nucleic acids include nucleic acids containing known nucleotide analogs or modified backbone residues or linkages, which are synthetic, naturally occurring, and non-naturally occurring, and which have similar binding properties as the reference nucleic acid. Examples of such analogs include, without limitation, phosphorothioates, phosphoramidates, methyl phosphonates, chiral-methyl phosphonates, 2'-O-methyl ribonucleotides, and peptide-nucleic acids (PNAs). Unless specifically limited, the term encompasses nucleic acids containing known analogues of natural nucleotides that have similar binding properties as the reference nucleic acid. Unless otherwise indicated, a particular nucleic acid sequence also implicitly encompasses conservatively modified variants thereof (*e.g.,* degenerate codon substitutions), alleles, orthologs, SNPs, and complementary sequences as well as the sequence explicitly indicated. Specifically, degenerate codon substitutions may be achieved by generating sequences in which the third position of one or more selected (or all) codons is substituted with mixed-base and/or deoxyinosine residues (Batzer *et al.*, *Nucleic Acid Res.,* 19:5081 (1991); Ohtsuka *et al.*, *J. Biol. Chem.,* 260:2605-2608 (1985); Rossolini *et al.*, *Mol. Cell. Probes,* 8:91-98 (1994)). "Nucleotides" contain a sugar deoxyribose (DNA) or ribose (RNA), a base, and a phosphate

group. Nucleotides are linked together through the phosphate groups. "Bases" include purines and pyrimidines, which further include natural compounds adenine, thymine, guanine, cytosine, uracil, inosine, and natural analogs, and synthetic derivatives of purines and pyrimidines, which include, but are not limited to, modifications which place new reactive groups such as, but not limited to, amines, alcohols, thiols, carboxylates, and alkylhalides.

**[0084]** The term "gene" refers to a nucleic acid (*e.g.*, DNA or RNA) sequence that comprises partial length or entire length coding sequences necessary for the production of a polypeptide or precursor polypeptide.

**[0085]** "Gene product," as used herein, refers to a product of a gene such as an RNA transcript or a polypeptide.

**[0086]** The term "lipid" refers to a group of organic compounds that include, but are not limited to, esters of fatty acids and are characterized by being insoluble in water, but soluble in many organic solvents. They are usually divided into at least three classes: (1) "simple lipids," which include fats and oils as well as waxes; (2) "compound lipids," which include phospholipids and glycolipids; and (3) "derived lipids" such as steroids.

**[0087]** The term "lipid particle" includes a lipid formulation that can be used to deliver a therapeutic nucleic acid (*e.g.*, interfering RNA) to a target site of interest (*e.g.*, cell, tissue, organ, and the like). In preferred embodiments, the lipid particle of the invention is a nucleic acid-lipid particle, which is typically formed from a cationic lipid, a non-cationic lipid, and optionally a conjugated lipid that prevents aggregation of the particle. In other preferred embodiments, the therapeutic nucleic acid (*e.g.*, interfering RNA) may be encapsulated in the lipid portion of the particle, thereby protecting it from enzymatic degradation.

**[0088]** As used herein, the term "SNALP" refers to a stable nucleic acid-lipid particle. A SNALP represents a particle made from lipids (*e.g.*, a cationic lipid, a non-cationic lipid, and optionally a conjugated lipid that prevents aggregation of the particle), wherein the nucleic acid (*e.g.*, interfering RNA) is fully encapsulated within the lipid. In certain instances, SNALP are extremely useful for systemic applications, as they can exhibit extended circulation lifetimes following intravenous (i.v.) injection, they can accumulate at distal sites (*e.g.*, sites physically separated from the administration site), and they can mediate silencing of target gene expression at these distal sites. The nucleic acid may be complexed with a condensing agent and encapsulated within a SNALP as set forth in PCT Publication No. WO 00/03683, the disclosure of which is herein incorporated by reference in its entirety for all purposes.

**[0089]** The lipid particles of the invention (*e.g.,* SNALP) typically have a mean diameter of from about 30 nm to about 150 nm, from about 40 nm to about 150 nm, from about 50 nm to about 150 nm, from about 60 nm to about 130 nm, from about 70 nm to about 110 nm, from about 70 nm to about 100 nm, from about 80 nm to about 100 nm, from about 90 nm to about 100 nm, from about 70 to about 90 nm, from about 80 nm to about 90 nm, from about 70 nm to about 80 nm, or about 30 nm, 35 nm, 40 nm, 45 nm, 50 nm, 55 nm, 60 nm, 65 nm, 70 nm, 75 nm, 80 nm, 85 nm, 90 nm, 95 nm, 100 nm, 105 nm, 110 nm, 115 nm, 120 nm, 125 nm, 130 nm, 135 nm, 140 nm, 145 nm, or 150 nm, and are substantially non-toxic. In addition, nucleic acids, when present in the lipid particles of the present invention, are resistant in aqueous solution to degradation with a nuclease. Nucleic acid-lipid particles and their method of preparation are disclosed in, *e.g.,* U.S. Patent Publication Nos. 20040142025 and 20070042031, the disclosures of which are herein incorporated by reference in their entirety for all purposes.

**[0090]** As used herein, "lipid encapsulated" can refer to a lipid particle that provides a therapeutic nucleic acid such as an interfering RNA (*e.g.*, dsRNA), with full encapsulation, partial encapsulation, or both. In a preferred embodiment, the nucleic acid (*e.g.,* interfering RNA) is fully encapsulated in the lipid particle (*e.g.*, to form a SNALP or other nucleic acid-lipid particle).

**[0091]** The term "lipid conjugate" refers to a conjugated lipid that inhibits aggregation of lipid particles. Such lipid conjugates include, but are not limited to, polyamide oligomers (*e.g.,* ATTA-lipid conjugates), PEG-lipid conjugates, such as PEG coupled to dialkyloxypropyls, PEG coupled to diacylglycerols, PEG coupled to cholesterol, PEG coupled to phosphatidylethanolamines, PEG conjugated to ceramides (*see, e.g.,* U.S. Patent No. 5,885,613, the disclosure of which is herein incorporated by reference in its entirety for all purposes), cationic PEG lipids, and mixtures thereof. PEG can be conjugated directly to the lipid or may be linked to the lipid via a linker moiety. Any linker moiety suitable for coupling the PEG to a lipid can be used including, *e.g.,* non-ester containing linker moieties and ester-containing linker moieties. In preferred embodiments, non-ester containing linker moieties are used.

**[0092]** The term "amphipathic lipid" refers, in part, to any suitable material wherein the hydrophobic portion of the lipid material orients into a hydrophobic phase, while the hydrophilic portion orients toward the aqueous phase. Hydrophilic characteristics derive from the presence of polar or charged groups such as carbohydrates, phosphate, carboxylic, sulfato, amino, sulfhydryl, nitro, hydroxyl, and other like groups. Hydrophobicity can be

conferred by the inclusion of apolar groups that include, but are not limited to, long-chain saturated and unsaturated aliphatic hydrocarbon groups and such groups substituted by one or more aromatic, cycloaliphatic, or heterocyclic group(s). Examples of amphipathic compounds include, but are not limited to, phospholipids, aminolipids, and sphingolipids.

**[0093]** Representative examples of phospholipids include, but are not limited to, phosphatidylcholine, phosphatidylethanolamine, phosphatidylserine, phosphatidylinositol, phosphatidic acid, palmitoyloleoyl phosphatidylcholine, lysophosphatidylcholine, lysophosphatidylethanolamine, dipalmitoylphosphatidylcholine, dioleoylphosphatidylcholine, distearoylphosphatidylcholine, and dilinoleoylphosphatidylcholine. Other compounds lacking in phosphorus, such as sphingolipid, glycosphingolipid families, diacylglycerols, and β-acyloxyacids, are also within the group designated as amphipathic lipids. Additionally, the amphipathic lipids described above can be mixed with other lipids including triglycerides and sterols.

**[0094]** The term "neutral lipid" refers to any of a number of lipid species that exist either in an uncharged or neutral zwitterionic form at a selected pH. At physiological pH, such lipids include, for example, diacylphosphatidylcholine, diacylphosphatidylethanolamine, ceramide, sphingomyelin, cephalin, cholesterol, cerebrosides, and diacylglycerols.

**[0095]** The term "non-cationic lipid" refers to any amphipathic lipid as well as any other neutral lipid or anionic lipid.

**[0096]** The term "anionic lipid" refers to any lipid that is negatively charged at physiological pH. These lipids include, but are not limited to, phosphatidylglycerols, cardiolipins, diacylphosphatidylserines, diacylphosphatidic acids, N-dodecanoyl phosphatidylethanolamines, N-succinyl phosphatidylethanolamines, N-glutarylphosphatidylethanolamines, lysylphosphatidylglycerols, palmitoyloleyolphosphatidylglycerol (POPG), and other anionic modifying groups joined to neutral lipids.

**[0097]** The term "hydrophobic lipid" refers to compounds having apolar groups that include, but are not limited to, long-chain saturated and unsaturated aliphatic hydrocarbon groups and such groups optionally substituted by one or more aromatic, cycloaliphatic, or heterocyclic group(s). Suitable examples include, but are not limited to, diacylglycerol, dialkylglycerol, N-N-dialkylamino, 1,2-diacyloxy-3-aminopropane, and 1,2-dialkyl-3-aminopropane.

**[0098]** The terms "cationic lipid" and "amino lipid" are used interchangeably herein to include those lipids and salts thereof having one, two, three, or more fatty acid or fatty alkyl chains and a pH-titratable amino head group (*e.g.,* an alkylamino or dialkylamino head group). The cationic lipid is typically protonated (*i.e.,* positively charged) at a pH below the $pK_a$ of the cationic lipid and is substantially neutral at a pH above the $pK_a$. The cationic lipids of the invention may also be termed titratable cationic lipids. In some embodiments, the cationic lipids comprise: a protonatable tertiary amine (*e.g.,* pH-titratable) head group; $C_{18}$ alkyl chains, wherein each alkyl chain independently has 0 to 3 double bonds; and ether or ketal linkages between the head group and alkyl chains. Such lipids include, but are not limited to, DSDMA, DODMA, DLinDMA, DLenDMA, DLin-K-DMA, DLin-K-C2-DMA (also known as DLin-C2K-DMA, XTC2, and C2K), DLin-K-C3-DMA, and DLin-K-C4-DMA.

**[0099]** The term "salts" includes any anionic and cationic complex, such as the complex formed between a cationic lipid and one or more anions. Non-limiting examples of anions include inorganic and organic anions, *e.g.,* hydride, fluoride, chloride, bromide, iodide, oxalate (*e.g.,* hemioxalate), phosphate, phosphonate, hydrogen phosphate, dihydrogen phosphate, oxide, carbonate, bicarbonate, nitrate, nitrite, nitride, bisulfite, sulfide, sulfite, bisulfate, sulfate, thiosulfate, hydrogen sulfate, borate, formate, acetate, benzoate, citrate, tartrate, lactate, acrylate, polyacrylate, fumarate, maleate, itaconate, glycolate, gluconate, malate, mandelate, tiglate, ascorbate, salicylate, polymethacrylate, perchlorate, chlorate, chlorite, hypochlorite, bromate, hypobromite, iodate, an alkylsulfonate, an arylsulfonate, arsenate, arsenite, chromate, dichromate, cyanide, cyanate, thiocyanate, hydroxide, peroxide, permanganate, and mixtures thereof. In particular embodiments, the salts of the cationic lipids disclosed herein are crystalline salts.

**[0100]** The term "alkyl" includes a straight chain or branched, noncyclic or cyclic, saturated aliphatic hydrocarbon containing from 1 to 24 carbon atoms. Representative saturated straight chain alkyls include, but are not limited to, methyl, ethyl, *n*-propyl, *n*-butyl, *n*-pentyl, *n*-hexyl, and the like, while saturated branched alkyls include, without limitation, isopropyl, *sec*-butyl, isobutyl, *tert*-butyl, isopentyl, and the like. Representative saturated cyclic alkyls include, but are not limited to, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, and the like, while unsaturated cyclic alkyls include, without limitation, cyclopentenyl, cyclohexenyl, and the like.

**[0101]** The term "alkenyl" includes an alkyl, as defined above, containing at least one double bond between adjacent carbon atoms. Alkenyls include both *cis* and *trans* isomers.

Representative straight chain and branched alkenyls include, but are not limited to, ethylenyl, propylenyl, 1-butenyl, 2-butenyl, isobutylenyl, 1-pentenyl, 2-pentenyl, 3-methyl-1-butenyl, 2-methyl-2-butenyl, 2,3-dimethyl-2-butenyl, and the like.

**[0102]** The term "alkynyl" includes any alkyl or alkenyl, as defined above, which additionally contains at least one triple bond between adjacent carbons. Representative straight chain and branched alkynyls include, without limitation, acetylenyl, propynyl, 1-butynyl, 2-butynyl, 1-pentynyl, 2-pentynyl, 3-methyl-1 butynyl, and the like.

**[0103]** The term "acyl" includes any alkyl, alkenyl, or alkynyl wherein the carbon at the point of attachment is substituted with an oxo group, as defined below. The following are non-limiting examples of acyl groups: -C(=O)alkyl, -C(=O)alkenyl, and -C(=O)alkynyl.

**[0104]** The term "heterocycle" includes a 5- to 7-membered monocyclic, or 7- to 10-membered bicyclic, heterocyclic ring which is either saturated, unsaturated, or aromatic, and which contains from 1 or 2 heteroatoms independently selected from nitrogen, oxygen and sulfur, and wherein the nitrogen and sulfur heteroatoms may be optionally oxidized, and the nitrogen heteroatom may be optionally quaternized, including bicyclic rings in which any of the above heterocycles are fused to a benzene ring. The heterocycle may be attached via any heteroatom or carbon atom. Heterocycles include, but are not limited to, heteroaryls as defined below, as well as morpholinyl, pyrrolidinonyl, pyrrolidinyl, piperidinyl, piperizynyl, hydantoinyl, valerolactamyl, oxiranyl, oxetanyl, tetrahydrofuranyl, tetrahydropyranyl, tetrahydropyridinyl, tetrahydroprimidinyl, tetrahydrothiophenyl, tetrahydrothiopyranyl, tetrahydropyrimidinyl, tetrahydrothiophenyl, tetrahydrothiopyranyl, and the like.

**[0105]** The terms "optionally substituted alkyl", "optionally substituted alkenyl", "optionally substituted alkynyl", "optionally substituted acyl", and "optionally substituted heterocycle" mean that, when substituted, at least one hydrogen atom is replaced with a substituent. In the case of an oxo substituent (=O), two hydrogen atoms are replaced. In this regard, substituents include, but are not limited to, oxo, halogen, heterocycle, -CN, $-OR^x$, $-NR^xR^y$, $-NR^xC(=O)R^y$, $-NR^xSO_2R^y$, $-C(=O)R^x$, $-C(=O)OR^x$, $-C(=O)NR^xR^y$, $-SO_nR^x$, and $-SO_nNR^xR^y$, wherein n is 0, 1, or 2, $R^x$ and $R^y$ are the same or different and are independently hydrogen, alkyl, or heterocycle, and each of the alkyl and heterocycle substituents may be further substituted with one or more of oxo, halogen, -OH, -CN, alkyl, $-OR^x$, heterocycle, $-NR^xR^y$, $-NR^xC(=O)R^y$, $-NR^xSO_2R^y$, $-C(=O)R^x$, $-C(=O)OR^x$, $-C(=O)NR^xR^y$, $-SO_nR^x$, and $-SO_nNR^xR^y$. The term "optionally substituted," when used before a list of substituents, means that each of the substituents in the list may be optionally substituted as described herein.

**[0106]** The term "halogen" includes fluoro, chloro, bromo, and iodo.

**[0107]** The term "fusogenic" refers to the ability of a lipid particle, such as a SNALP, to fuse with the membranes of a cell. The membranes can be either the plasma membrane or membranes surrounding organelles, *e.g.*, endosome, nucleus, *etc.*

**[0108]** As used herein, the term "aqueous solution" refers to a composition comprising in whole, or in part, water.

**[0109]** As used herein, the term "organic lipid solution" refers to a composition comprising in whole, or in part, an organic solvent having a lipid.

**[0110]** "Distal site," as used herein, refers to a physically separated site, which is not limited to an adjacent capillary bed, but includes sites broadly distributed throughout an organism.

**[0111]** "Serum-stable" in relation to nucleic acid-lipid particles such as SNALP means that the particle is not significantly degraded after exposure to a serum or nuclease assay that would significantly degrade free DNA or RNA. Suitable assays include, for example, a standard serum assay, a DNAse assay, or an RNAse assay.

**[0112]** "Systemic delivery," as used herein, refers to delivery of lipid particles that leads to a broad biodistribution of an active agent such as an interfering RNA (*e.g.,* dsRNA) within an organism. Some techniques of administration can lead to the systemic delivery of certain agents, but not others. Systemic delivery means that a useful, preferably therapeutic, amount of an agent is exposed to most parts of the body. To obtain broad biodistribution generally requires a blood lifetime such that the agent is not rapidly degraded or cleared (such as by first pass organs (liver, lung, *etc.*) or by rapid, nonspecific cell binding) before reaching a disease site distal to the site of administration. Systemic delivery of lipid particles can be by any means known in the art including, for example, intravenous, subcutaneous, and intraperitoneal. In a preferred embodiment, systemic delivery of lipid particles is by intravenous delivery.

**[0113]** "Local delivery," as used herein, refers to delivery of an active agent such as an interfering RNA (*e.g.,* dsRNA) directly to a target site within an organism. For example, an agent can be locally delivered by direct injection into a disease site, other target site, or a target organ such as the liver, heart, pancreas, kidney, and the like.

**[0114]** The term "mammal" refers to any mammalian species such as a human, mouse, rat, dog, cat, hamster, guinea pig, rabbit, livestock, and the like.

## III. Description of the Embodiments

**[0115]** The present invention provides therapeutic nucleic acids such as interfering RNA that target hepatitis C virus (HCV) gene expression, lipid particles comprising one or more (*e.g.*, a cocktail) of the therapeutic nucleic acids, methods of making the lipid particles, and methods of delivering and/or administering the lipid particles (*e.g.*, for the prevention or treatment of acute or chronic hepatitis C caused by one or more HCV genotypes).

**[0116]** In one aspect, the present invention provides interfering RNA molecules that target HCV gene expression. Non-limiting examples of interfering RNA molecules include double-stranded RNA capable of mediating RNAi such as siRNA, Dicer-substrate dsRNA, shRNA, aiRNA, pre-miRNA, and mixtures thereof. In certain instances, the present invention provides compositions comprising a combination (*e.g.*, a cocktail, pool, or mixture) of interfering RNAs that target different regions of the HCV genome and/or multiple HCV genotypes. The interfering RNA (*e.g.*, dsRNA) molecules of the present invention are capable of reducing HCV viral RNA *in vitro* (*e.g.*, in primary hepatocytes) or *in vivo* (*e.g.*, in liver tissue).

**[0117]** In particular embodiments, the present invention provides an interfering RNA (*e.g.*, dsRNA) that silences HCV gene expression, wherein the interfering RNA comprises a sense strand and a complementary antisense strand, and wherein the interfering RNA comprises a double-stranded region of about 15 to about 60 nucleotides in length (*e.g.*, about 15-60, 15-30, 15-25, 19-30, 19-25, 20-60, 20-55, 20-50, 20-45, 20-40, 20-35, 20-30, 20-25, 21-30, 21-29, 22-30, 22-29, 22-28, 23-30, 23-28, 24-30, 24-28, 25-60, 25-55, 25-50, 25-45, 25-40, 25-35, or 25-30 nucleotides in length, or about 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, or 35 nucleotides in length).

**[0118]** In some embodiments, the antisense strand comprises or consists of a sequence that is complementary to one of the sequences set forth in Figures 1-16. In related embodiments, the antisense strand comprises or consists of at least about 15 contiguous nucleotides (*e.g.*, at least about 15, 16, 17, 18, or 19 contiguous nucleotides) of a sequence that is complementary to one of the sequences set forth in Figures 1-16. In other embodiments, the antisense strand specifically hybridizes to or targets one of the sequences set forth in Figures 1-16. In further embodiments, the antisense strand comprises or consists of a sequence that is at least about 80%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% identical to a sequence that is fully complementary to one of the sequences set forth in Figures 1-16, wherein the interfering RNA comprising such an antisense strand sequence is capable of mediating target-specific RNAi.

**[0119]** In other embodiments, the sense strand comprises or consists of one of the sequences set forth in Figures 1-16. In related embodiments, the sense strand comprises or consists of at least about 15 contiguous nucleotides (*e.g.,* at least about 15, 16, 17, 18, or 19 contiguous nucleotides) of one of the sequences set forth in Figures 1-16. In further embodiments, the sense strand comprises or consists of a sequence that is at least about 80%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% identical to one of the sequences set forth in Figures 1-16, wherein the interfering RNA comprising such a sense strand sequence is capable of mediating target-specific RNAi.

**[0120]** In certain embodiments, the interfering RNA molecule targets one or more of the following HCV genotypes: HCV 1 (*e.g.,* 1a, 1b, *etc.*), 2, 3, 4, 5, and/or 6. In one particular embodiment, the interfering RNA targets both HCV genotypes 1a and 1b.

**[0121]** In some embodiments, the interfering RNA molecule targets a sequence in the HCV genome within the 5'-UTR, the 3'-UTR, the polyprotein translation initiation codon region, the IRES sequence, the core protein, the E1 protein, the E2 protein, the p7 protein, the NS2 protein, the NS3 protease/helicase, the NS4A protein, the NS4B protein, the NS5A protein, the NS5B RNA-dependent RNA polymerase, or combinations thereof.

**[0122]** In certain embodiments, the HCV interfering RNA (*e.g.,* dsRNA) of the present invention may comprise at least one, two, three, four, five, six, seven, eight, nine, ten, or more modified nucleotides such as 2'OMe nucleotides, *e.g.,* in the sense and/or antisense strand of the double-stranded region of the interfering RNA. Preferably, uridine and/or guanosine nucleotides in the interfering RNA are modified with 2'OMe nucleotides. In certain instances, the interfering RNA contains 2'OMe nucleotides in both the sense and antisense strands and comprises at least one 2'OMe-uridine nucleotide and at least one 2'OMe-guanosine nucleotide in the double-stranded region. In some embodiments, the sense and/or antisense strand of the interfering RNA may further comprise modified (*e.g.,* 2'OMe-modified) adenosine and/or modified (*e.g.,* 2'OMe-modified) cytosine nucleotides, *e.g.,* in the double-stranded region of the interfering RNA.

**[0123]** In particular embodiments, one of the sequences set forth in Figures 1-16 (*e.g.,* a sense strand sequence) and/or a complementary sequence thereof (*e.g.,* an antisense strand sequence) may comprise at least one, two, three, four, five, six, seven, eight, nine, ten, or more modified nucleotides such as 2'OMe nucleotides. In certain embodiments, the sense and/or antisense strand sequences may each independently comprise or consist of a modified (*e.g.,* 2'OMe) and/or unmodified 3' overhang of 1, 2, 3, or 4 nucleotides, or one or both ends of the double-stranded molecule may be blunt-ended.

**[0124]** One of skill in the art will understand that the sequences set forth in Figures 1-16 can be modified in accordance with the selective modification patterns described herein (*e.g.*, at selective uridine and/or guanosine nucleotides, and optionally at adenosine and/or cytosine nucleotides, within the RNA duplex), and screened for RNAi activity as well as immune stimulation, such that the degree of chemical modifications introduced into the interfering RNA molecule strikes a balance between reduction or abrogation of the immunostimulatory properties of the interfering RNA and retention of RNAi activity.

**[0125]** In particular embodiments, the HCV interfering RNA molecules of the present invention comprise a 3' overhang of 1, 2, 3, or 4 nucleotides in one or both strands. In certain instances, the interfering RNA may contain at least one blunt end. In particular embodiments, the 3' overhangs in one or both strands of the interfering RNA may each independently comprise 1, 2, 3, or 4 modified and/or unmodified deoxythymidine ("t" or "dT") nucleotides, 1, 2, 3, or 4 modified (*e.g.*, 2'OMe) and/or unmodified uridine ("U") ribonucleotides, or 1, 2, 3, or 4 modified (*e.g.*, 2'OMe) and/or unmodified ribonucleotides or deoxyribonucleotides having complementarity to the target HCV sequence (3' overhang in antisense strand) or the complementary strand thereof (3' overhang in sense strand).

**[0126]** In another embodiment, the present invention provides a composition comprising a cocktail (*e.g.*, at least 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, or more) of the sequences set forth in Figures 1-16. In particular embodiments, at least 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, or more (*e.g.*, all) of these sequences set forth in Figures 1-16 are chemically modified (*e.g.*, 2'OMe-modified) as described herein.

**[0127]** The present invention also provides a pharmaceutical composition comprising one or more (*e.g.*, a cocktail) of the interfering RNAs described herein and a pharmaceutically acceptable carrier.

**[0128]** In another aspect, the present invention provides a nucleic acid-lipid particle (*e.g.*, SNALP) that targets HCV gene expression. The nucleic acid-lipid particles (*e.g.*, SNALP) typically comprise one or more (*e.g.*, a cocktail) of the interfering RNAs described herein, a cationic lipid, and a non-cationic lipid. In certain instances, the nucleic acid-lipid particles (*e.g.*, SNALP) further comprise a conjugated lipid that inhibits aggregation of particles. Preferably, the nucleic acid-lipid particles (*e.g.*, SNALP) comprise one or more (*e.g.*, a cocktail) of the interfering RNAs described herein, a cationic lipid, a non-cationic lipid, and a conjugated lipid that inhibits aggregation of particles. In particular embodiments, the nucleic acid-lipid particles (*e.g.*, SNALP) of the invention comprise 1, 2, 3, 4, 5, 6, 7, 8, or more unmodified and/or modified interfering RNAs that silence 1, 2, 3, 4, 5, 6, 7, 8, or more

different genes associated with hepatitis infection (*e.g.*, HCV genes, alone or in combination with genes expressed by other hepatitis viruses such as the hepatitis A, B, D, E, and/or G virus), a cationic lipid, a non-cationic lipid, and a conjugated lipid that inhibits aggregation of particles.

**[0129]** In some embodiments, the interfering RNAs (*e.g.*, dsRNAs) of the present invention are fully encapsulated in the nucleic acid-lipid particle (*e.g.*, SNALP). With respect to formulations comprising an interfering RNA cocktail, the different types of interfering RNA species present in the cocktail (*e.g.*, interfering RNA compounds with different sequences) may be co-encapsulated in the same particle, or each type of interfering RNA species present in the cocktail may be encapsulated in a separate particle. The interfering RNA cocktail may be formulated in the particles described herein using a mixture of two or more individual interfering RNAs (each having a unique sequence) at identical, similar, or different concentrations or molar ratios. In one embodiment, a cocktail of interfering RNAs (corresponding to a plurality of interfering RNAs with different sequences) is formulated using identical, similar, or different concentrations or molar ratios of each interfering RNA species, and the different types of interfering RNAs are co-encapsulated in the same particle. In another embodiment, each type of interfering RNA species present in the cocktail is encapsulated in different particles at identical, similar, or different interfering RNA concentrations or molar ratios, and the particles thus formed (each containing a different interfering RNA payload) are administered separately (*e.g.*, at different times in accordance with a therapeutic regimen), or are combined and administered together as a single unit dose (*e.g.*, with a pharmaceutically acceptable carrier). The particles described herein are serum-stable, are resistant to nuclease degradation, and are substantially non-toxic to mammals such as humans.

**[0130]** The cationic lipid in the nucleic acid-lipid particles of the present invention (*e.g.*, SNALP) may comprise, *e.g.*, one or more cationic lipids of Formula I-II as disclosed herein or any other cationic lipid species. In one particular embodiment, the cationic lipid is selected from the group consisting of 1,2-dilinoleyloxy-N,N-dimethylaminopropane (DLinDMA), 1,2-dilinolenyloxy-N,N-dimethylaminopropane (DLenDMA), 2,2-dilinoleyl-4-(2-dimethylaminoethyl)-[1,3]-dioxolane (DLin-K-C2-DMA), 2,2-dilinoleyl-4-dimethylaminomethyl-[1,3]-dioxolane (DLin-K-DMA), salts thereof, and mixtures thereof.

**[0131]** The non-cationic lipid in the nucleic acid-lipid particles of the present invention (*e.g.*, SNALP) may comprise, *e.g.*, one or more anionic lipids and/or neutral lipids. In some embodiments, the non-cationic lipid comprises one of the following neutral lipid components:

(1) a mixture of a phospholipid and cholesterol or a derivative thereof; (2) cholesterol or a derivative thereof; or (3) a phospholipid. In certain preferred embodiments, the phospholipid comprises dipalmitoylphosphatidylcholine (DPPC), distearoylphosphatidylcholine (DSPC), or a mixture thereof. In a particularly preferred embodiment, the non-cationic lipid is a mixture of DPPC and cholesterol.

**[0132]** The lipid conjugate in the nucleic acid-lipid particles of the invention (*e.g.,* SNALP) inhibits aggregation of particles and may comprise, *e.g.,* one or more of the lipid conjugates described herein. In one particular embodiment, the lipid conjugate comprises a PEG-lipid conjugate. Examples of PEG-lipid conjugates include, but are not limited to, PEG-DAG conjugates, PEG-DAA conjugates, and mixtures thereof. In certain embodiments, the PEG-DAA conjugate in the lipid particle may comprise a PEG-didecyloxypropyl ($C_{10}$) conjugate, a PEG-dilauryloxypropyl ($C_{12}$) conjugate, a PEG-dimyristyloxypropyl ($C_{14}$) conjugate, a PEG-dipalmityloxypropyl ($C_{16}$) conjugate, a PEG-distearyloxypropyl ($C_{18}$) conjugate, or mixtures thereof.

**[0133]** In some embodiments, the present invention provides nucleic acid-lipid particles (*e.g.,* SNALP) comprising: (a) one or more (*e.g.,* a cocktail) interfering RNA molecules that target HCV gene expression; (b) one or more cationic lipids or salts thereof comprising from about 50 mol % to about 85 mol % of the total lipid present in the particle; (c) one or more non-cationic lipids comprising from about 13 mol % to about 49.5 mol % of the total lipid present in the particle; and (d) one or more conjugated lipids that inhibit aggregation of particles comprising from about 0.5 mol % to about 2 mol % of the total lipid present in the particle.

**[0134]** In one aspect of this embodiment, the nucleic acid-lipid particle comprises: (a) one or more (*e.g.,* a cocktail) interfering RNA molecules that target HCV gene expression; (b) a cationic lipid or a salt thereof comprising from about 52 mol % to about 62 mol % of the total lipid present in the particle; (c) a mixture of a phospholipid and cholesterol or a derivative thereof comprising from about 36 mol % to about 47 mol % of the total lipid present in the particle; and (d) a PEG-lipid conjugate comprising from about 1 mol % to about 2 mol % of the total lipid present in the particle. This embodiment of nucleic acid-lipid particle is generally referred to herein as the "1:57" formulation. In one particular embodiment, the 1:57 formulation is a four-component system comprising about 1.4 mol % PEG-lipid conjugate (*e.g.,* PEG2000-C-DMA), about 57.1 mol % cationic lipid (*e.g.,* DLin-K-C2-DMA) or a salt thereof, about 7.1 mol % DPPC (or DSPC), and about 34.3 mol % cholesterol (or derivative thereof).

**[0135]** In another aspect of this embodiment, the nucleic acid-lipid particle comprises: (a) one or more (*e.g.,* a cocktail) interfering RNA molecules that target HCV gene expression; (b) a cationic lipid or a salt thereof comprising from about 56.5 mol % to about 66.5 mol % of the total lipid present in the particle; (c) cholesterol or a derivative thereof comprising from about 31.5 mol % to about 42.5 mol % of the total lipid present in the particle; and (d) a PEG-lipid conjugate comprising from about 1 mol % to about 2 mol % of the total lipid present in the particle. This embodiment of nucleic acid-lipid particle is generally referred to herein as the "1:62" formulation. In one particular embodiment, the 1:62 formulation is a three-component system which is phospholipid-free and comprises about 1.5 mol % PEG-lipid conjugate (*e.g.,* PEG2000-C-DMA), about 61.5 mol % cationic lipid (*e.g.,* DLin-K-C2-DMA) or a salt thereof, and about 36.9 mol % cholesterol (or derivative thereof).

**[0136]** Additional embodiments related to the 1:57 and 1:62 formulations are described in PCT Publication No. WO 09/127060 and U.S. Provisional Application No. 61/184,652, filed June 5, 2009, the disclosures of which are herein incorporated by reference in their entirety for all purposes.

**[0137]** In other embodiments, the present invention provides nucleic acid-lipid particles (*e.g.,* SNALP) comprising: (a) one or more (*e.g.,* a cocktail) interfering RNA molecules that target HCV gene expression; (b) one or more cationic lipids or salts thereof comprising from about 2 mol % to about 50 mol % of the total lipid present in the particle; (c) one or more non-cationic lipids comprising from about 5 mol % to about 90 mol % of the total lipid present in the particle; and (d) one or more conjugated lipids that inhibit aggregation of particles comprising from about 0.5 mol % to about 20 mol % of the total lipid present in the particle.

**[0138]** In one aspect of this embodiment, the nucleic acid-lipid particle comprises: (a) one or more (*e.g.,* a cocktail) interfering RNA molecules that target HCV gene expression; (b) a cationic lipid or a salt thereof comprising from about 30 mol % to about 50 mol % of the total lipid present in the particle; (c) a mixture of a phospholipid and cholesterol or a derivative thereof comprising from about 47 mol % to about 69 mol % of the total lipid present in the particle; and (d) a PEG-lipid conjugate comprising from about 1 mol % to about 3 mol % of the total lipid present in the particle. This embodiment of nucleic acid-lipid particle is generally referred to herein as the "2:40" formulation. In one particular embodiment, the 2:40 formulation is a four-component system which comprises about 2 mol % PEG-lipid conjugate (*e.g.,* PEG2000-C-DMA), about 40 mol % cationic lipid (*e.g.,* DLin-K-C2-DMA)

or a salt thereof, about 10 mol % DPPC (or DSPC), and about 48 mol % cholesterol (or derivative thereof).

**[0139]** The present invention also provides pharmaceutical compositions comprising a nucleic acid-lipid particle such as a SNALP and a pharmaceutically acceptable carrier.

**[0140]** The nucleic acid-lipid particles of the present invention (*e.g.*, SNALP) are useful for the therapeutic delivery of interfering RNAs (*e.g.*, dsRNAs) that silence the expression of one or more genes associated with hepatitis viral infection (*e.g.*, one or more genes in the HCV genome). In some embodiments, a cocktail of interfering RNAs that target one or more HCV genes and/or genotypes is formulated into the same or different nucleic acid-lipid particles, and the particles are administered to a mammal (*e.g.*, a human) requiring such treatment. In certain instances, a therapeutically effective amount of the nucleic acid-lipid particles can be administered to the mammal, *e.g.*, for treating, preventing, reducing the risk of developing, or delaying the onset of acute or chronic hepatitis C caused by one or more HCV genotypes.

**[0141]** In some embodiments, the interfering RNA (*e.g.*, dsRNA) molecules described herein are used in methods for silencing HCV gene expression, *e.g.*, in a cell such as a liver cell. In particular, it is an object of the invention to provide methods for treating, preventing, reducing the risk of developing, or delaying the onset of an HCV infection in a mammal by downregulating or silencing the transcription and/or translation of one or more HCV genes. In certain embodiments, the present invention provides a method for introducing one or more interfering RNA (*e.g.*, dsRNA) molecules described herein into a cell by contacting the cell with a nucleic acid-lipid particle described herein (*e.g.*, a SNALP formulation). In one particular embodiment, the cell is a liver cell such as, *e.g.*, a hepatocyte present in the liver tissue of a mammal (*e.g.*, a human). In another embodiment, the present invention provides a method for the *in vivo* delivery of one or more interfering RNA (*e.g.*, dsRNA) molecules described herein to a liver cell (*e.g.*, hepatocyte) by administering to a mammal (*e.g.*, human) a nucleic acid-lipid particle described herein (*e.g.*, a SNALP formulation).

**[0142]** In some embodiments, the nucleic acid-lipid particles described herein (*e.g.*, SNALP) are administered by one of the following routes of administration: oral, intranasal, intravenous, intraperitoneal, intramuscular, intra-articular, intralesional, intratracheal, subcutaneous, and intradermal. In particular embodiments, the nucleic acid-lipid particles are administered systemically, *e.g.*, via enteral or parenteral routes of administration.

**[0143]** In particular embodiments, the nucleic acid-lipid particles of the invention (*e.g.*, SNALP) can preferentially deliver a payload such as an interfering RNA (*e.g.*, dsRNA) to the liver as compared to other tissues, *e.g.*, for the treatment of acute or chronic hepatitis C.

**[0144]** In certain aspects, the present invention provides methods for silencing HCV gene expression in a mammal (*e.g.*, human) in need thereof, the method comprising administering to the mammal a therapeutically effective amount of a nucleic acid-lipid particle (*e.g.*, a SNALP formulation) comprising one or more interfering RNAs (*e.g.*, dsRNAs) described herein (*e.g.*, dsRNAs targeting one or more HCV genes and/or HCV genotypes). In some embodiments, administration of nucleic acid-lipid particles comprising one or more HCV-targeting interfering RNAs reduces liver (*e.g.*, hepatocyte) HCV viral RNA levels by at least about 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 80%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% (or any range therein) relative to liver HCV viral RNA levels detected in the absence of the interfering RNA (*e.g.*, buffer control or irrelevant non-HCV targeting interfering RNA control). In other embodiments, administration of nucleic acid-lipid particles comprising one or more HCV-targeting interfering RNAs reduces liver (*e.g.*, hepatocyte) HCV viral RNA levels for at least about 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, or 100 days or more (or any range therein) relative to a negative control such as, *e.g.*, a buffer control or an irrelevant non-HCV targeting interfering RNA control. The HCV-targeting interfering RNA molecules may comprise at least one of the sequences set forth in Figures 1-16 (*e.g.*, Figures 8, 9, 10, 11, 12, 13, 14, 15, and/or 16) and/or complementary sequences thereof in unmodified and/or modified (*e.g.*, 2'OMe-modified) form.

**[0145]** In other aspects, the present invention provides methods for treating, preventing, reducing the risk or likelihood of developing (*e.g.*, reducing the susceptibility to), delaying the onset of, and/or ameliorating one or more symptoms associated with an HCV infection in a mammal (*e.g.*, human) in need thereof, the method comprising administering to the mammal a therapeutically effective amount of a nucleic acid-lipid particle (*e.g.*, a SNALP formulation) comprising one or more interfering RNA molecules (*e.g.*, dsRNAs) described herein (*e.g.*, one or more dsRNAs targeting HCV gene expression). The HCV-targeting interfering RNAs may comprise at least one of the sequences set forth in Figures 1-16 (*e.g.*, Figures 8, 9, 10, 11, 12, 13, 14, 15, and/or 16) and/or complementary sequences thereof in unmodified and/or modified (*e.g.*, 2'OMe-modified) form.

**[0146]** In related aspects, the present invention provides methods for treating, preventing, reducing the risk or likelihood of developing (*e.g.*, reducing the susceptibility to), delaying the onset of, and/or ameliorating one or more symptoms associated with acute or chronic hepatitis C (*e.g.*, caused by one or more HCV genotypes) in a mammal (*e.g.*, human) in need

thereof, the method comprising administering to the mammal a therapeutically effective amount of a nucleic acid-lipid particle (*e.g.*, a SNALP formulation) comprising one or more interfering RNA molecules (*e.g.*, dsRNAs) described herein (*e.g.*, one or more dsRNAs targeting HCV gene expression). The HCV-targeting interfering RNAs may comprise at least one of the sequences set forth in Figures 1-16 (*e.g.*, Figures 8, 9, 10, 11, 12, 13, 14, 15, and/or 16) and/or complementary sequences thereof in unmodified and/or modified (*e.g.*, 2'OMe-modified) form.

**[0147]** In further aspects, the present invention provides a method for inactivating HCV and/or inhibiting the replication of HCV in a mammal (*e.g.*, human) in need thereof (*e.g.*, a mammal with an HCV infection), the method comprising administering to the mammal a therapeutically effective amount of a nucleic acid-lipid particle (*e.g.*, a SNALP formulation) comprising one or more interfering RNAs (*e.g.*, dsRNAs) described herein (*e.g.*, one or more dsRNAs targeting HCV gene expression). In some embodiments, administration of nucleic acid-lipid particles comprising one or more HCV-targeting interfering RNAs lowers, reduces, or decreases HCV viral load or titer by at least about 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 80%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% (or any range therein) relative to the HCV viral load or titer detected in the absence of the interfering RNA (*e.g.*, buffer control or irrelevant non-HCV targeting interfering RNA control). The HCV-targeting interfering RNAs may comprise at least one of the sequences set forth in Figures 1-16 (*e.g.*, Figures 8, 9, 10, 11, 12, 13, 14, 15, and/or 16) and/or complementary sequences thereof in unmodified and/or modified (*e.g.*, 2'OMe-modified) form.

## IV. Therapeutic Nucleic Acids

**[0148]** The term "nucleic acid" includes any oligonucleotide or polynucleotide, with fragments containing up to 60 nucleotides generally termed oligonucleotides, and longer fragments termed polynucleotides. In particular embodiments, oligonucletoides of the invention are from about 15 to about 60 nucleotides in length. In some embodiments, nucleic acid is associated with a carrier system such as the lipid particles described herein. In certain embodiments, the nucleic acid is fully encapsulated in the lipid particle. Nucleic acid may be administered alone in the lipid particles of the present invention, or in combination (*e.g.*, co-administered) with lipid particles comprising peptides, polypeptides, or small molecules such as conventional drugs.

**[0149]** In the context of this invention, the terms "polynucleotide" and "oligonucleotide" refer to a polymer or oligomer of nucleotide or nucleoside monomers consisting of naturally-

occurring bases, sugars and intersugar (backbone) linkages. The terms "polynucleotide" and "oligonucleotide" also include polymers or oligomers comprising non-naturally occurring monomers, or portions thereof, which function similarly. Such modified or substituted oligonucleotides are often preferred over native forms because of properties such as, for example, enhanced cellular uptake, reduced immunogenicity, and increased stability in the presence of nucleases.

**[0150]** Oligonucleotides are generally classified as deoxyribooligonucleotides or ribooligonucleotides. A deoxyribooligonucleotide consists of a 5-carbon sugar called deoxyribose joined covalently to phosphate at the 5' and 3' carbons of this sugar to form an alternating, unbranched polymer. A ribooligonucleotide consists of a similar repeating structure where the 5-carbon sugar is ribose.

**[0151]** The nucleic acid can be single-stranded DNA or RNA, or double-stranded DNA or RNA, or DNA-RNA hybrids. In preferred embodiments, the nucleic acid is double-stranded RNA. Examples of double-stranded RNA are described herein and include, *e.g.,* RNAi agents such as siRNA, Dicer-substrate dsRNA, shRNA, aiRNA, and pre-miRNA. In other embodiments, the nucleic acid is single-stranded. Single-stranded nucleic acids include, *e.g.,* antisense oligonucleotides, ribozymes, mature miRNA, and triplex-forming oligonucleotides.

**[0152]** Nucleic acids of the invention may be of various lengths, generally dependent upon the particular form of nucleic acid. For example, in particular embodiments, plasmids or genes may be from about 1,000 to about 100,000 nucleotide residues in length. In particular embodiments, oligonucleotides may range from about 10 to about 100 nucleotides in length. In various related embodiments, oligonucleotides, both single-stranded, double-stranded, and triple-stranded, may range in length from about 10 to about 60 nucleotides, from about 15 to about 60 nucleotides, from about 20 to about 50 nucleotides, from about 15 to about 30 nucleotides, from about 20 to about 30 nucleotides in length, or from about 25 to about 30 nucleotides in length.

**[0153]** In particular embodiments, an oligonucleotide (or a strand thereof) of the invention specifically hybridizes to or is complementary to a target polynucleotide sequence. The terms "specifically hybridizable" and "complementary" as used herein indicate a sufficient degree of complementarity such that stable and specific binding occurs between the DNA or RNA target and the oligonucleotide. It is understood that an oligonucleotide need not be 100% complementary to its target nucleic acid sequence to be specifically hybridizable. In preferred embodiments, an oligonucleotide is specifically hybridizable when binding of the oligonucleotide to the target sequence interferes with the normal function of the target

sequence to cause a loss of utility or expression therefrom, and there is a sufficient degree of complementarity to avoid non-specific binding of the oligonucleotide to non-target sequences under conditions in which specific binding is desired, *i.e.,* under physiological conditions in the case of *in vivo* assays or therapeutic treatment, or, in the case of *in vitro* assays, under conditions in which the assays are conducted. Thus, the oligonucleotide may include 1, 2, 3, or more base substitutions as compared to the region of a gene or mRNA sequence that it is targeting or to which it specifically hybridizes.

### A. Interfering RNA Overview

**[0154]** In particular aspects, the present invention provides compositions comprising therapeutic nucleic acids such as interfering RNA that target HCV gene expression. In preferred embodiments, the interfering RNA that targets HCV gene expression is double-stranded RNA such as, *e.g.,* siRNA, Dicer-substrate dsRNA, shRNA, aiRNA, pre-miRNA, and combinations thereof.

**[0155]** The unmodified and modified interfering RNA molecules of the present invention are capable of silencing HCV gene expression, *e.g.,* to inactivate HCV and/or inhibit HCV replication and/or treat acute or chronic hepatitis C. Preferably, the interfering RNA is double-stranded RNA. Each strand of the interfering RNA duplex is typically about 15 to about 60 nucleotides in length. In certain embodiments, the interfering RNA comprises at least one modified nucleotide. The modified interfering RNA sequence is generally less immunostimulatory than a corresponding unmodified interfering RNA sequence and retains RNAi activity against the target gene of interest.

**[0156]** In particular embodiments, the interfering RNA comprises modified nucleotides including, but not limited to, 2'-O-methyl (2'OMe) nucleotides, 2'-deoxy-2'-fluoro (2'F) nucleotides, 2'-deoxy nucleotides, 2'-O-(2-methoxyethyl) (MOE) nucleotides, locked nucleic acid (LNA) nucleotides, and mixtures thereof. In preferred embodiments, the interfering RNA comprises 2'OMe nucleotides (*e.g.,* 2'OMe purine and/or pyrimidine nucleotides) such as, *e.g.,* 2'OMe-guanosine nucleotides, 2'OMe-uridine nucleotides, 2'OMe-adenosine nucleotides, 2'OMe-cytosine nucleotides, or mixtures thereof. In one particular embodiment, the interfering RNA comprises at least one 2'OMe-guanosine nucleotide, 2'OMe-uridine nucleotide, or mixtures thereof. In certain instances, the interfering RNA does not comprise 2'OMe-cytosine nucleotides. In other embodiments, the interfering RNA comprises a hairpin loop structure.

**[0157]** The modified nucleotides can be present in one strand (*i.e.,* sense or antisense) or both strands of the interfering RNA. In some preferred embodiments, one or more of the

uridine and/or guanosine nucleotides are modified (*e.g.*, 2'OMe-modified) in one strand (*i.e.*, sense or antisense) or both strands of the interfering RNA. In these embodiments, the modified interfering RNA can further comprise one or more modified (*e.g.*, 2'OMe-modified) adenosine and/or modified (*e.g.*, 2'OMe-modified) cytosine nucleotides. In other preferred embodiments, only uridine and/or guanosine nucleotides are modified (*e.g.*, 2'OMe-modified) at selective positions in one strand (*i.e.*, sense or antisense) or both strands of the interfering RNA. With regard to uridine nucleotide modifications, at least one, two, three, four, five, six, or more of the uridine nucleotides in the sense and/or antisense strand can be a modified uridine nucleotide such as a 2'OMe-uridine nucleotide. In some embodiments, every uridine nucleotide in the sense and/or antisense strand is a 2'OMe-uridine nucleotide. With regard to guanosine nucleotide modifications, at least one, two, three, four, five, six, or more of the guanosine nucleotides in the sense and/or antisense strand can be a modified guanosine nucleotide such as a 2'OMe-guanosine nucleotide. In some embodiments, every guanosine nucleotide in the sense and/or antisense strand is a 2'OMe-guanosine nucleotide. The interfering RNA sequences may have overhangs (*e.g.*, 3' and/or 5' overhangs), or one or both ends of the RNA duplex may lack overhangs (*i.e.*, have blunt ends).

**[0158]** In particular embodiments, the selective incorporation of modified nucleotides such as 2'OMe uridine and/or guanosine nucleotides into the double-stranded region of either or both strands of the HCV interfering RNA reduces or completely abrogates the immune response to that interfering RNA molecule. In certain instances, the immunostimulatory properties of HCV interfering RNA sequences and their ability to silence HCV gene expression can be balanced or optimized by the introduction of minimal and selective 2'OMe modifications within the double-stranded region of the interfering RNA duplex. This can be achieved at therapeutically viable interfering RNA doses without cytokine induction, toxicity, and off-target effects associated with the use of unmodified interfering RNA.

**[0159]** The modified interfering RNA molecule generally comprises from about 1% to about 100% (*e.g.*, about 1%, 2%, 3%, 4%, 5%, 6%, 7%, 8%, 9%, 10%, 11%, 12%, 13%, 14%, 15%, 16%, 17%, 18%, 19%, 20%, 21%, 22%, 23%, 24%, 25%, 26%, 27%, 28%, 29%, 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 80%, 85%, 90%, 95%, or 100%) modified nucleotides in the double-stranded region of the RNA duplex. In certain embodiments, one, two, three, four, five, six, seven, eight, nine, ten, or more of the nucleotides in the double-stranded region of the interfering RNA comprise modified nucleotides. In certain other embodiments, some or all of the modified nucleotides in the double-stranded region of the interfering RNA are 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more

nucleotides apart from each other. In one preferred embodiment, none of the modified nucleotides in the double-stranded region of the interfering RNA are adjacent to each other (*e.g.,* there is a gap of at least 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 unmodified nucleotides between each modified nucleotide).

**[0160]** In some embodiments, less than about 50% (*e.g.,* less than about 49%, 48%, 47%, 46%, 45%, 44%, 43%, 42%, 41%, 40%, 39%, 38%, 37%, or 36%, preferably less than about 35%, 34%, 33%, 32%, 31%, or 30%) of the nucleotides in the double-stranded region of the interfering RNA comprise modified (*e.g.,* 2'OMe) nucleotides. In one aspect of these embodiments, less than about 50% of the uridine and/or guanosine nucleotides in the double-stranded region of one or both strands of the interfering RNA are selectively (*e.g.,* only) modified. In another aspect of these embodiments, less than about 50% of the nucleotides in the double-stranded region of the interfering RNA comprise 2'OMe nucleotides, wherein the interfering RNA comprises 2'OMe nucleotides in both strands of the interfering RNA, wherein the interfering RNA comprises at least one 2'OMe-guanosine nucleotide and at least one 2'OMe-uridine nucleotide, and wherein 2'OMe-guanosine nucleotides and 2'OMe-uridine nucleotides are the only 2'OMe nucleotides present in the double-stranded region. In yet another aspect of these embodiments, less than about 50% of the nucleotides in the double-stranded region of the interfering RNA comprise 2'OMe nucleotides, wherein the interfering RNA comprises 2'OMe nucleotides in both strands of the modified interfering RNA, wherein the interfering RNA comprises 2'OMe nucleotides selected from the group consisting of 2'OMe-guanosine nucleotides, 2'OMe-uridine nucleotides, 2'OMe-adenosine nucleotides, and mixtures thereof, and wherein the interfering RNA does not comprise 2'OMe-cytosine nucleotides in the double-stranded region. In a further aspect of these embodiments, less than about 50% of the nucleotides in the double-stranded region of the interfering RNA comprise 2'OMe nucleotides, wherein the interfering RNA comprises 2'OMe nucleotides in both strands of the interfering RNA, wherein the interfering RNA comprises at least one 2'OMe-guanosine nucleotide and at least one 2'OMe-uridine nucleotide, and wherein the interfering RNA does not comprise 2'OMe-cytosine nucleotides in the double-stranded region. In another aspect of these embodiments, less than about 50% of the nucleotides in the double-stranded region of the interfering RNA comprise 2'OMe nucleotides, wherein the interfering RNA comprises 2'OMe nucleotides in both strands of the modified interfering RNA, wherein the interfering RNA comprises 2'OMe nucleotides selected from the group consisting of 2'OMe-guanosine nucleotides, 2'OMe-uridine

nucleotides, 2'OMe-adenosine nucleotides, and mixtures thereof, and wherein the 2'OMe nucleotides in the double-stranded region are not adjacent to each other.

**[0161]** In other embodiments, from about 1% to about 50% (*e.g.,* from about 5%-50%, 10%-50%, 15%-50%, 20%-50%, 25%-50%, 30%-50%, 35%-50%, 40%-50%, 45%-50%, 5%-45%, 10%-45%, 15%-45%, 20%-45%, 25%-45%, 30%-45%, 35%-45%, 40%-45%, 5%-40%, 10%-40%, 15%-40%, 20%-40%, 25%-40%, 25%-39%, 25%-38%, 25%-37%, 25%-36%, 26%-39%, 26%-38%, 26%-37%, 26%-36%, 27%-39%, 27%-38%, 27%-37%, 27%-36%, 28%-39%, 28%-38%, 28%-37%, 28%-36%, 29%-39%, 29%-38%, 29%-37%, 29%-36%, 30%-40%, 30%-39%, 30%-38%, 30%-37%, 30%-36%, 31%-39%, 31%-38%, 31%-37%, 31%-36%, 32%-39%, 32%-38%, 32%-37%, 32%-36%, 33%-39%, 33%-38%, 33%-37%, 33%-36%, 34%-39%, 34%-38%, 34%-37%, 34%-36%, 35%-40%, 5%-35%, 10%-35%, 15%-35%, 20%-35%, 21%-35%, 22%-35%, 23%-35%, 24%-35%, 25%-35%, 26%-35%, 27%-35%, 28%-35%, 29%-35%, 30%-35%, 31%-35%, 32%-35%, 33%-35%, 34%-35%, 30%-34%, 31%-34%, 32%-34%, 33%-34%, 30%-33%, 31%-33%, 32%-33%, 30%-32%, 31%-32%, 25%-34%, 25%-33%, 25%-32%, 25%-31%, 26%-34%, 26%-33%, 26%-32%, 26%-31%, 27%-34%, 27%-33%, 27%-32%, 27%-31%, 28%-34%, 28%-33%, 28%-32%, 28%-31%, 29%-34%, 29%-33%, 29%-32%, 29%-31%, 5%-30%, 10%-30%, 15%-30%, 20%-34%, 20%-33%, 20%-32%, 20%-31%, 20%-30%, 21%-30%, 22%-30%, 23%-30%, 24%-30%, 25%-30%, 25%-29%, 25%-28%, 25%-27%, 25%-26%, 26%-30%, 26%-29%, 26%-28%, 26%-27%, 27%-30%, 27%-29%, 27%-28%, 28%-30%, 28%-29%, 29%-30%, 5%-25%, 10%-25%, 15%-25%, 20%-29%, 20%-28%, 20%-27%, 20%-26%, 20%-25%, 5%-20%, 10%-20%, 15%-20%, 5%-15%, 10%-15%, or 5%-10%) of the nucleotides in the double-stranded region of the interfering RNA comprise modified nucleotides. In one aspect of these embodiments, from about 1% to about 50% of the uridine and/or guanosine nucleotides in the double-stranded region of one or both strands of the interfering RNA are selectively (*e.g.,* only) modified. In another aspect of these embodiments, from about 1% to about 50% of the nucleotides in the double-stranded region of the interfering RNA comprise 2'OMe nucleotides, wherein the interfering RNA comprises 2'OMe nucleotides in both strands of the interfering RNA, wherein the interfering RNA comprises at least one 2'OMe-guanosine nucleotide and at least one 2'OMe-uridine nucleotide, and wherein 2'OMe-guanosine nucleotides and 2'OMe-uridine nucleotides are the only 2'OMe nucleotides present in the double-stranded region. In yet another aspect of these embodiments, from about 1% to about 50% of the nucleotides in the double-stranded region of the interfering RNA comprise 2'OMe nucleotides, wherein the interfering RNA comprises 2'OMe

nucleotides in both strands of the modified interfering RNA, wherein the interfering RNA comprises 2'OMe nucleotides selected from the group consisting of 2'OMe-guanosine nucleotides, 2'OMe-uridine nucleotides, 2'OMe-adenosine nucleotides, and mixtures thereof, and wherein the interfering RNA does not comprise 2'OMe-cytosine nucleotides in the double-stranded region. In a further aspect of these embodiments, from about 1% to about 50% of the nucleotides in the double-stranded region of the interfering RNA comprise 2'OMe nucleotides, wherein the interfering RNA comprises 2'OMe nucleotides in both strands of the interfering RNA, wherein the interfering RNA comprises at least one 2'OMe-guanosine nucleotide and at least one 2'OMe-uridine nucleotide, and wherein the interfering RNA does not comprise 2'OMe-cytosine nucleotides in the double-stranded region. In another aspect of these embodiments, from about 1% to about 50% of the nucleotides in the double-stranded region of the interfering RNA comprise 2'OMe nucleotides, wherein the interfering RNA comprises 2'OMe nucleotides in both strands of the modified interfering RNA, wherein the interfering RNA comprises 2'OMe nucleotides selected from the group consisting of 2'OMe-guanosine nucleotides, 2'OMe-uridine nucleotides, 2'OMe-adenosine nucleotides, and mixtures thereof, and wherein the 2'OMe nucleotides in the double-stranded region are not adjacent to each other.

**[0162]** In certain embodiments, at least one, two, three, four, five, six, seven, or more 5'-GU-3' motifs in an interfering RNA sequence may be modified, *e.g.,* by introducing mismatches to eliminate the 5'-GU-3' motifs and/or by introducing modified nucleotides such as 2'OMe nucleotides. The 5'-GU-3' motif can be in the sense strand, the antisense strand, or both strands of the interfering RNA sequence. The 5'-GU-3' motifs may be adjacent to each other or, alternatively, they may be separated by 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, or more nucleotides.

**[0163]** In some embodiments, a modified interfering RNA is less immunostimulatory than a corresponding unmodified interfering RNA sequence. In such embodiments, the modified interfering RNA with reduced immunostimulatory properties advantageously retains RNAi activity against the target sequence. In another embodiment, the immunostimulatory properties of the modified interfering RNA molecule and its ability to silence target gene expression can be balanced or optimized by the introduction of minimal and selective 2'OMe modifications within the interfering RNA sequence such as, *e.g.,* within the double-stranded region of the RNA duplex. In certain instances, the modified interfering RNA is at least about 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% less

immunostimulatory than the corresponding unmodified interfering RNA. It will be readily apparent to those of skill in the art that the immunostimulatory properties of the modified interfering RNA molecule and the corresponding unmodified interfering RNA molecule can be determined by, for example, measuring INF-α and/or IL-6 levels from about two to about twelve hours after systemic administration in a mammal or transfection of a mammalian responder cell using an appropriate lipid-based delivery system (such as the SNALP delivery system disclosed herein).

**[0164]** In other embodiments, a modified interfering RNA molecule has an $IC_{50}$ (*i.e.*, half-maximal inhibitory concentration) less than or equal to ten-fold that of the corresponding unmodified interfering RNA (*i.e.*, the modified interfering RNA has an $IC_{50}$ that is less than or equal to ten-times the $IC_{50}$ of the corresponding unmodified interfering RNA). In other embodiments, the modified interfering RNA has an $IC_{50}$ less than or equal to three-fold that of the corresponding unmodified interfering RNA sequence. In yet other embodiments, the modified interfering RNA has an $IC_{50}$ less than or equal to two-fold that of the corresponding unmodified interfering RNA. It will be readily apparent to those of skill in the art that a dose-response curve can be generated and the $IC_{50}$ values for the modified interfering RNA and the corresponding unmodified interfering RNA can be readily determined using methods known to those of skill in the art.

**[0165]** In another embodiment, an unmodified or modified interfering RNA molecule is capable of silencing at least about 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% of the expression of the target sequence (*e.g.*, an HCV gene) relative to a negative control (*e.g.*, buffer only, an interfering RNA sequence that targets a different gene, a scrambled interfering RNA sequence, *etc.*).

**[0166]** In yet another embodiment, a modified interfering RNA molecule is capable of silencing at least about 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 76%, 77%, 78%, 79%, 80%, 81%, 82%, 83%, 84%, 85%, 86%, 87%, 88%, 89%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% of the expression of the target sequence (*e.g.*, an HCV gene) relative to the corresponding unmodified interfering RNA sequence.

**[0167]** In some embodiments, the interfering RNA molecule does not comprise phosphate backbone modifications, *e.g.*, in the sense and/or antisense strand of the double-stranded region. In other embodiments, the interfering RNA comprises one, two, three, four, or more

phosphate backbone modifications, *e.g.,* in the sense and/or antisense strand of the double-stranded region. In preferred embodiments, the interfering RNA does not comprise phosphate backbone modifications.

**[0168]** In further embodiments, the interfering RNA does not comprise 2'-deoxy nucleotides, *e.g.,* in the sense and/or antisense strand of the double-stranded region. In yet further embodiments, the interfering RNA comprises one, two, three, four, or more 2'-deoxy nucleotides, *e.g.,* in the sense and/or antisense strand of the double-stranded region. In preferred embodiments, the interfering RNA does not comprise 2'-deoxy nucleotides.

**[0169]** In certain instances, the nucleotide at the 3'-end of the double-stranded region in the sense and/or antisense strand is not a modified nucleotide. In certain other instances, the nucleotides near the 3'-end (*e.g.,* within one, two, three, or four nucleotides of the 3'-end) of the double-stranded region in the sense and/or antisense strand are not modified nucleotides.

**[0170]** The interfering RNA molecules described herein may have 3' overhangs of one, two, three, four, or more nucleotides on one or both sides of the double-stranded region, or may lack overhangs (*i.e.*, have blunt ends) on one or both sides of the double-stranded region. In certain embodiments, the 3' overhang on the sense and/or antisense strand independently comprises one, two, three, four, or more modified nucleotides such as 2'OMe nucleotides and/or any other modified nucleotide described herein or known in the art.

**[0171]** In particular embodiments, interfering RNAs targeting HCV RNA are administered using a carrier system such as a nucleic acid-lipid particle. In a preferred embodiment, the nucleic acid-lipid particle comprises: (a) one or more interfering RNA molecules targeting HCV gene expression; (b) a cationic lipid (*e.g.,* DLinDMA, DLenDMA, and/or DLin-K-C2-DMA); and (c) a non-cationic lipid (*e.g.,* DPPC, DSPC, DSPE, and/or cholesterol). In certain instances, the nucleic acid-lipid particle may further comprise a conjugated lipid that prevents aggregation of particles (*e.g.,* PEG-DAA).

### 1. Selection of Interfering RNA Sequences

**[0172]** Suitable interfering RNA sequences can be identified using any means known in the art for designing siRNA sequences. In one embodiment, the methods described in Elbashir *et al.*, *Nature,* 411:494-498 (2001) and Elbashir *et al.*, *EMBO J.,* 20:6877-6888 (2001) are combined with rational design rules set forth in Reynolds *et al.*, *Nature Biotech.,* 22(3):326-330 (2004).

**[0173]** As a non-limiting example, the nucleotide sequence 3' of the AUG start codon of a transcript from the target gene of interest may be scanned for dinucleotide sequences (*e.g.,* AA, NA, CC, GG, or UU, wherein N = C, G, or U) (*see, e.g.*, Elbashir *et al.*, *EMBO J.,*

20:6877-6888 (2001)). The nucleotides immediately 3' to the dinucleotide sequences are identified as potential interfering RNA sequences (*i.e.*, a target sequence or a sense strand sequence). Typically, the 19, 21, 23, 25, 27, 29, 31, 33, 35, or more nucleotides immediately 3' to the dinucleotide sequences are identified as potential interfering RNA sequences. In some embodiments, the dinucleotide sequence is an AA or NA sequence and the 19 nucleotides immediately 3' to the AA or NA dinucleotide are identified as potential interfering RNA sequences. Interfering RNA sequences are usually spaced at different positions along the length of the target gene. To further enhance silencing efficiency of the interfering RNA sequences, potential interfering RNA sequences may be analyzed to identify sites that do not contain regions of homology to other coding sequences, *e.g.*, in the target cell or organism. For example, a suitable interfering RNA sequence of about 21 base pairs typically will not have more than 16-17 contiguous base pairs of homology to coding sequences in the target cell or organism. If the interfering RNA sequences are to be expressed from an RNA Pol III promoter, interfering RNA sequences lacking more than 4 contiguous A's or T's are selected.

**[0174]** Once a potential interfering RNA sequence has been identified, a complementary sequence (*i.e.*, an antisense strand sequence) can be designed. A potential interfering RNA sequence can also be analyzed using a variety of criteria known in the art. For example, to enhance their silencing efficiency, the interfering RNA sequences may be analyzed by a rational design algorithm to identify sequences that have one or more of the following features: (1) G/C content of about 25% to about 60% G/C; (2) at least 3 A/Us at positions 15-19 of the sense strand; (3) no internal repeats; (4) an A at position 19 of the sense strand; (5) an A at position 3 of the sense strand; (6) a U at position 10 of the sense strand; (7) no G/C at position 19 of the sense strand; and (8) no G at position 13 of the sense strand. Interfering RNA design tools that incorporate algorithms that assign suitable values to each of these features can be found at, *e.g.*, http://ihome.ust.hk/~bokcmho/siRNA/siRNA.html. One of skill in the art will appreciate that sequences with one or more of the foregoing characteristics may be selected for further analysis and testing as potential interfering RNA sequences.

**[0175]** Additionally, potential interfering RNA sequences with one or more of the following criteria can often be eliminated: (1) sequences comprising a stretch of 4 or more of the same base in a row; (2) sequences comprising homopolymers of Gs (*i.e.*, to reduce possible non-specific effects due to structural characteristics of these polymers; (3) sequences comprising triple base motifs (*e.g.*, GGG, CCC, AAA, or TTT); (4) sequences comprising

stretches of 7 or more G/Cs in a row; and (5) sequences comprising direct repeats of 4 or more bases within the candidates resulting in internal fold-back structures. However, one of skill in the art will appreciate that sequences with one or more of the foregoing characteristics may still be selected for further analysis and testing as potential interfering RNA sequences.

**[0176]** In some embodiments, potential interfering RNA sequences may be further analyzed based on duplex asymmetry as described in, *e.g.,* Khvorova *et al., Cell*, 115:209-216 (2003); and Schwarz *et al.*, *Cell*, 115:199-208 (2003). In other embodiments, potential interfering RNA sequences may be further analyzed based on secondary structure at the target site as described in, *e.g.,* Luo *et al.*, *Biophys. Res. Commun.*, 318:303-310 (2004). For example, secondary structure at the target site can be modeled using the Mfold algorithm (available at http://mfold.burnet.edu.au/rna_form) to select interfering RNA sequences which favor accessibility at the target site where less secondary structure in the form of base-pairing and stem-loops is present.

**[0177]** Once a potential interfering RNA sequence has been identified, the sequence can be analyzed for the presence of any immunostimulatory properties, *e.g.,* using an *in vitro* cytokine assay or an *in vivo* animal model. Motifs in the sense and/or antisense strand of the interfering RNA sequence such as GU-rich motifs (*e.g.,* 5'-GU-3', 5'-UGU-3', 5'-GUGU-3', 5'-UGUGU-3', *etc.*) can also provide an indication of whether the sequence may be immunostimulatory. Once an interfering RNA molecule is found to be immunostimulatory, it can then be modified to decrease its immunostimulatory properties as described herein. As a non-limiting example, an interfering RNA sequence can be contacted with a mammalian responder cell under conditions such that the cell produces a detectable immune response to determine whether the interfering RNA is immunostimulatory or non-immunostimulatory. The mammalian responder cell may be from a naïve mammal (*i.e.*, a mammal that has not previously been in contact with the gene product of the interfering RNA sequence). The mammalian responder cell may be, *e.g.*, a peripheral blood mononuclear cell (PBMC), a macrophage, and the like. The detectable immune response may comprise production of a cytokine or growth factor such as, *e.g.*, TNF-α, IFN-α, IFN-β, IFN-γ, IL-6, IL-12, or a combination thereof. An interfering RNA molecule identified as being immunostimulatory can then be modified to decrease its immunostimulatory properties by replacing at least one of the nucleotides on the sense and/or antisense strand with modified nucleotides. For example, less than about 30% (*e.g.,* less than about 30%, 25%, 20%, 15%, 10%, or 5%) of the nucleotides in the double-stranded region of the RNA duplex can be replaced with modified nucleotides such as 2'OMe nucleotides. The modified interfering RNA can then be contacted

with a mammalian responder cell as described above to confirm that its immunostimulatory properties have been reduced or abrogated.

**[0178]** Suitable *in vitro* assays for detecting an immune response include, but are not limited to, the double monoclonal antibody sandwich immunoassay technique of David *et al.* (U.S. Patent No. 4,376,110); monoclonal-polyclonal antibody sandwich assays (Wide *et al.*, in Kirkham and Hunter, eds., *Radioimmunoassay Methods*, E. and S. Livingstone, Edinburgh (1970)); the "Western blot" method of Gordon *et al.* (U.S. Patent No. 4,452,901); immunoprecipitation of labeled ligand (Brown *et al.*, *J. Biol. Chem.*, 255:4980-4983 (1980)); enzyme-linked immunosorbent assays (ELISA) as described, for example, by Raines *et al.*, *J. Biol. Chem.*, 257:5154-5160 (1982); immunocytochemical techniques, including the use of fluorochromes (Brooks *et al.*, *Clin. Exp. Immunol.*, 39:477 (1980)); and neutralization of activity (Bowen-Pope *et al.*, *Proc. Natl. Acad. Sci. USA*, 81:2396-2400 (1984)). In addition to the immunoassays described above, a number of other immunoassays are available, including those described in U.S. Patent Nos. 3,817,827; 3,850,752; 3,901,654; 3,935,074; 3,984,533; 3,996,345; 4,034,074; and 4,098,876. The disclosures of these references are herein incorporated by reference in their entirety for all purposes.

**[0179]** A non-limiting example of an *in vivo* model for detecting an immune response includes an *in vivo* mouse cytokine induction assay as described in, *e.g.*, Judge *et al.*, *Mol. Ther.*, 13:494-505 (2006). In certain embodiments, the assay that can be performed as follows: (1) interfering RNA can be administered by standard intravenous injection in the lateral tail vein; (2) blood can be collected by cardiac puncture about 6 hours after administration and processed as plasma for cytokine analysis; and (3) cytokines can be quantified using sandwich ELISA kits according to the manufacturer's instructions (*e.g.*, mouse and human IFN-α (PBL Biomedical; Piscataway, NJ); human IL-6 and TNF-α (eBioscience; San Diego, CA); and mouse IL-6, TNF-α, and IFN-γ (BD Biosciences; San Diego, CA)).

**[0180]** Monoclonal antibodies that specifically bind cytokines and growth factors are commercially available from multiple sources and can be generated using methods known in the art (*see, e.g.*, Kohler *et al.*, *Nature*, 256: 495-497 (1975) and Harlow and Lane, ANTIBODIES, A LABORATORY MANUAL, Cold Spring Harbor Publication, New York (1999)). Generation of monoclonal antibodies has been previously described and can be accomplished by any means known in the art (Buhring *et al.*, in Hybridoma, Vol. 10, No. 1, pp. 77-78 (1991)). In some methods, the monoclonal antibody is labeled (*e.g.*, with any

composition detectable by spectroscopic, photochemical, biochemical, electrical, optical, or chemical means) to facilitate detection.

### 2. Generating Interfering RNA Molecules

**[0181]** Suitable interfering RNA sequences can be generated using any means known in the art for synthesizing siRNA sequences.

**[0182]** Interfering RNA can be provided in several forms including, *e.g.*, as one or more isolated small-interfering RNA (siRNA) duplexes, as longer double-stranded RNA (dsRNA), or as siRNA or dsRNA transcribed from a transcriptional cassette in a DNA plasmid. In some embodiments, interfering RNA may be produced enzymatically or by partial/total organic synthesis, and modified ribonucleotides can be introduced by *in vitro* enzymatic or organic synthesis. In certain instances, each strand is prepared chemically. Methods of synthesizing RNA molecules are known in the art, *e.g.*, the chemical synthesis methods as described in Verma and Eckstein (1998) or as described herein.

**[0183]** An RNA population can be used to provide long precursor RNAs, or long precursor RNAs that have substantial or complete identity to a selected target sequence can be used to make the interfering RNA. The RNAs can be isolated from cells or tissue, synthesized, and/or cloned according to methods well known to those of skill in the art. The RNA can be a mixed population (obtained from cells or tissue, transcribed from cDNA, subtracted, selected, *etc.*), or can represent a single target sequence. RNA can be naturally occurring (*e.g.*, isolated from tissue or cell samples), synthesized *in vitro (e.g.,* using T7 or SP6 polymerase and PCR products or a cloned cDNA), or chemically synthesized.

**[0184]** To form a long dsRNA, for synthetic RNAs, the complement is also transcribed *in vitro* and hybridized to form a dsRNA. If a naturally occuring RNA population is used, the RNA complements are also provided (*e.g.*, to form dsRNA for digestion by *E. coli* RNAse III or Dicer), *e.g.*, by transcribing cDNAs corresponding to the RNA population, or by using RNA polymerases. The precursor RNAs are then hybridized to form double stranded RNAs for digestion. The dsRNAs can be directly administered to a subject or can be digested *in vitro* prior to administration.

**[0185]** Methods for isolating RNA, synthesizing RNA, hybridizing nucleic acids, making and screening cDNA libraries, and performing PCR are well known in the art (*see, e.g.,* Gubler and Hoffman, *Gene*, 25:263-269 (1983); Sambrook *et al., supra*; Ausubel *et al., supra*), as are PCR methods (*see,* U.S. Patent Nos. 4,683,195 and 4,683,202; *PCR Protocols: A Guide to Methods and Applications* (Innis *et al.*, eds, 1990)). Expression libraries are also well known to those of skill in the art. Additional basic texts disclosing the general methods

of use in this invention include Sambrook *et al.*, *Molecular Cloning, A Laboratory Manual* (2nd ed. 1989); Kriegler, *Gene Transfer and Expression: A Laboratory Manual* (1990); and *Current Protocols in Molecular Biology* (Ausubel *et al.*, eds., 1994). The disclosures of these references are herein incorporated by reference in their entirety for all purposes.

**[0186]** Preferably, interfering RNA are chemically synthesized. The oligonucleotides that comprise the interfering RNA molecules of the invention can be synthesized using any of a variety of techniques known in the art, such as those described in Usman *et al.*, *J. Am. Chem. Soc.*, 109:7845 (1987); Scaringe *et al.*, *Nucl. Acids Res.*, 18:5433 (1990); Wincott *et al.*, *Nucl. Acids Res.*, 23:2677-2684 (1995); and Wincott *et al., Methods Mol. Bio.*, 74:59 (1997). The synthesis of oligonucleotides makes use of common nucleic acid protecting and coupling groups, such as dimethoxytrityl at the 5'-end and phosphoramidites at the 3'-end. As a non-limiting example, small scale syntheses can be conducted on an Applied Biosystems synthesizer using a 0.2 μmol scale protocol. Alternatively, syntheses at the 0.2 μmol scale can be performed on a 96-well plate synthesizer from Protogene (Palo Alto, CA). However, a larger or smaller scale of synthesis is also within the scope of this invention. Suitable reagents for oligonucleotide synthesis, methods for RNA deprotection, and methods for RNA purification are known to those of skill in the art.

**[0187]** Interfering RNA molecules can also be synthesized via a tandem synthesis technique, wherein both strands are synthesized as a single continuous oligonucleotide fragment or strand separated by a cleavable linker that is subsequently cleaved to provide separate fragments or strands that hybridize to form the RNA duplex. The linker can be a polynucleotide linker or a non-nucleotide linker. The tandem synthesis of interfering RNA can be readily adapted to both multiwell/multiplate synthesis platforms as well as large scale synthesis platforms employing batch reactors, synthesis columns, and the like. Alternatively, interfering RNA molecules can be assembled from two distinct oligonucleotides, wherein one oligonucleotide comprises the sense strand and the other comprises the antisense strand of the interfering RNA. For example, each strand can be synthesized separately and joined together by hybridization or ligation following synthesis and/or deprotection. In certain other instances, interfering RNA can be synthesized as a single continuous oligonucleotide fragment, where the self-complementary sense and antisense regions hybridize to form an RNA duplex having hairpin secondary structure.

### 3. Modifying Interfering RNA Sequences

**[0188]** Suitable interfering RNA sequences can be modified using any means known in the art for modifying siRNA sequences.

**[0189]** In certain aspects, interfering RNA molecules comprise a duplex having two strands and at least one modified nucleotide in the double-stranded region, wherein each strand is about 15 to about 60 nucleotides in length. Advantageously, the modified interfering RNA is less immunostimulatory than a corresponding unmodified interfering RNA sequence, but retains the capability of silencing the expression of a target sequence. In preferred embodiments, the degree of chemical modifications introduced into the interfering RNA molecule strikes a balance between reduction or abrogation of the immunostimulatory properties of the interfering RNA and retention of RNAi activity. As a non-limiting example, an interfering RNA molecule that targets a gene of interest can be minimally modified (*e.g.,* less than about 30%, 25%, 20%, 15%, 10%, or 5% modified) at selective uridine and/or guanosine nucleotides within the RNA duplex to eliminate the immune response generated by the interfering RNA while retaining its capability to silence target gene expression.

**[0190]** Examples of modified nucleotides suitable for use in the invention include, but are not limited to, ribonucleotides having a 2'-O-methyl (2'OMe), 2'-deoxy-2'-fluoro (2'F), 2'-deoxy, 5-C-methyl, 2'-O-(2-methoxyethyl) (MOE), 4'-thio, 2'-amino, or 2'-C-allyl group. Modified nucleotides having a Northern conformation such as those described in, *e.g.,* Saenger, *Principles of Nucleic Acid Structure*, Springer-Verlag Ed. (1984), are also suitable for use in interfering RNA molecules. Such modified nucleotides include, without limitation, locked nucleic acid (LNA) nucleotides (*e.g.,* 2'-O, 4'-C-methylene-(D-ribofuranosyl) nucleotides), 2'-O-(2-methoxyethyl) (MOE) nucleotides, 2'-methyl-thio-ethyl nucleotides, 2'-deoxy-2'-fluoro (2'F) nucleotides, 2'-deoxy-2'-chloro (2'Cl) nucleotides, and 2'-azido nucleotides. In certain instances, the interfering RNA molecules described herein include one or more G-clamp nucleotides. A G-clamp nucleotide refers to a modified cytosine analog wherein the modifications confer the ability to hydrogen bond both Watson-Crick and Hoogsteen faces of a complementary guanine nucleotide within a duplex (*see, e.g.,* Lin *et al., J. Am. Chem. Soc.,* 120:8531-8532 (1998)). In addition, nucleotides having a nucleotide base analog such as, for example, C-phenyl, C-naphthyl, other aromatic derivatives, inosine, azole carboxamides, and nitroazole derivatives such as 3-nitropyrrole, 4-nitroindole, 5-nitroindole, and 6-nitroindole (*see, e.g.,* Loakes, *Nucl. Acids Res.,* 29:2437-2447 (2001)) can be incorporated into interfering RNA molecules.

**[0191]** In certain embodiments, interfering RNA molecules may further comprise one or more chemical modifications such as terminal cap moieties, phosphate backbone modifications, and the like. Examples of terminal cap moieties include, without limitation, inverted deoxy abasic residues, glyceryl modifications, 4',5'-methylene nucleotides, 1-(β-D-erythrofuranosyl) nucleotides, 4'-thio nucleotides, carbocyclic nucleotides, 1,5-anhydrohexitol nucleotides, L-nucleotides, α-nucleotides, modified base nucleotides, *threo*-pentofuranosyl nucleotides, acyclic 3',4'-seco nucleotides, acyclic 3,4-dihydroxybutyl nucleotides, acyclic 3,5-dihydroxypentyl nucleotides, 3'-3'-inverted nucleotide moieties, 3'-3'-inverted abasic moieties, 3'-2'-inverted nucleotide moieties, 3'-2'-inverted abasic moieties, 5'-5'-inverted nucleotide moieties, 5'-5'-inverted abasic moieties, 3'-5'-inverted deoxy abasic moieties, 5'-amino-alkyl phosphate, 1,3-diamino-2-propyl phosphate, 3-aminopropyl phosphate, 6-aminohexyl phosphate, 1,2-aminododecyl phosphate, hydroxypropyl phosphate, 1,4-butanediol phosphate, 3'-phosphoramidate, 5'-phosphoramidate, hexylphosphate, aminohexyl phosphate, 3'-phosphate, 5'-amino, 3'-phosphorothioate, 5'-phosphorothioate, phosphorodithioate, and bridging or non-bridging methylphosphonate or 5'-mercapto moieties (*see, e.g.,* U.S. Patent No. 5,998,203; Beaucage *et al.*, *Tetrahedron* 49:1925 (1993)). Non-limiting examples of phosphate backbone modifications (*i.e.,* resulting in modified internucleotide linkages) include phosphorothioate, phosphorodithioate, methylphosphonate, phosphotriester, morpholino, amidate, carbamate, carboxymethyl, acetamidate, polyamide, sulfonate, sulfonamide, sulfamate, formacetal, thioformacetal, and alkylsilyl substitutions (*see, e.g.,* Hunziker *et al.*, *Nucleic Acid Analogues: Synthesis and Properties*, in *Modern Synthetic Methods*, VCH, 331-417 (1995); Mesmaeker *et al.*, *Novel Backbone Replacements for Oligonucleotides*, in *Carbohydrate Modifications in Antisense Research*, ACS, 24-39 (1994)). Such chemical modifications can occur at the 5'-end and/or 3'-end of the sense strand, antisense strand, or both strands of the interfering RNA. The disclosures of these references are herein incorporated by reference in their entirety for all purposes.

**[0192]** In some embodiments, the sense and/or antisense strand of the interfering RNA molecule can further comprise a 3'-terminal overhang having about 1 to about 4 (*e.g.,* 1, 2, 3, or 4) 2'-deoxy ribonucleotides, modified (*e.g.,* 2'OMe) and/or unmodified uridine ribonucleotides, and/or any other combination of modified (*e.g.,* 2'OMe) and unmodified nucleotides.

**[0193]** Additional examples of modified nucleotides and types of chemical modifications are described, *e.g.,* in UK Patent No. GB 2,397,818 B and U.S. Patent Publication Nos. 20040192626, 20050282188, and 20070135372, the disclosures of which are herein incorporated by reference in their entirety for all purposes.

**[0194]** The interfering RNA molecules described herein can optionally comprise one or more non-nucleotides in one or both strands. As used herein, the term "non-nucleotide" refers to any group or compound that can be incorporated into a nucleic acid chain in the place of one or more nucleotide units, including sugar and/or phosphate substitutions, and allows the remaining bases to exhibit their activity. The group or compound is abasic in that it does not contain a commonly recognized nucleotide base such as adenosine, guanine, cytosine, uracil, or thymine and therefore lacks a base at the 1'-position.

**[0195]** In other embodiments, chemical modification of the interfering RNA comprises attaching a conjugate to the molecule. The conjugate can be attached at the 5' and/or 3'-end of the sense and/or antisense strand of the interfering RNA via a covalent attachment such as, *e.g.,* a biodegradable linker. The conjugate can also be attached, *e.g.,* through a carbamate group or other linking group (*see, e.g.,* U.S. Patent Publication Nos. 20050074771, 20050043219, and 20050158727). In certain instances, the conjugate is a molecule that facilitates the delivery of the interfering RNA into a cell. Examples of conjugate molecules suitable for attachment to interfering RNA include, without limitation, steroids such as cholesterol, glycols such as polyethylene glycol (PEG), human serum albumin (HSA), fatty acids, carotenoids, terpenes, bile acids, folates (*e.g.,* folic acid, folate analogs and derivatives thereof), sugars (*e.g.,* galactose, galactosamine, N-acetyl galactosamine, glucose, mannose, fructose, fucose, *etc.*), phospholipids, peptides, ligands for cellular receptors capable of mediating cellular uptake, and combinations thereof (*see, e.g.,* U.S. Patent Publication Nos. 20030130186, 20040110296, and 20040249178; U.S. Patent No. 6,753,423). Other examples include the lipophilic moiety, vitamin, polymer, peptide, protein, nucleic acid, small molecule, oligosaccharide, carbohydrate cluster, intercalator, minor groove binder, cleaving agent, and cross-linking agent conjugate molecules described in U.S. Patent Publication Nos. 20050119470 and 20050107325. Yet other examples include the 2'-O-alkyl amine, 2'-O-alkoxyalkyl amine, polyamine, C5-cationic modified pyrimidine, cationic peptide, guanidinium group, amidininium group, cationic amino acid conjugate molecules described in U.S. Patent Publication No. 20050153337. Additional examples include the hydrophobic group, membrane active compound, cell penetrating compound, cell targeting signal, interaction modifier, and steric stabilizer conjugate molecules described in U.S. Patent

Publication No. 20040167090. Further examples include the conjugate molecules described in U.S. Patent Publication No. 20050239739. The type of conjugate used and the extent of conjugation to the interfering RNA molecule can be evaluated for improved pharmacokinetic profiles, bioavailability, and/or stability of the interfering RNA while retaining RNAi activity. As such, one skilled in the art can screen interfering RNA molecules having various conjugates attached thereto to identify ones having improved properties and full RNAi activity using any of a variety of well-known *in vitro* cell culture or *in vivo* animal models. The disclosures of the above-described patent documents are herein incorporated by reference in their entirety for all purposes.

### 4. Target Genes

**[0196]** The interfering RNA molecules of the invention can be used to downregulate or silence the translation (*i.e.*, expression) of one or more HCV genes, alone or in combination with at least one interfering RNA that silences the expression of one or more genes from other hepatitis viruses such as hepatitis A, B, D, E, and/or G virus. In certain embodiments, the invention provides a cocktail of interfering RNA that silences HCV gene expression, wherein each interfering RNA present in the cocktail is complementary to a different part of the HCV RNA sequence. Each interfering RNA present in the cocktail may target a distinct region of the HCV RNA sequence, or there may be some degree of overlap between two or more HCV interfering RNAs present in the cocktail. In certain other embodiments, the present invention provides a cocktail of interfering RNA molecules that silences HCV gene expression and one or more additional genes associated with other hepatitis viruses such as, *e.g.*, hepatitis A, B, D, E, and/or G virus. In some instances, the cocktail of interfering RNA molecules is fully encapsulated in a lipid particle such as a nucleic acid-lipid particle (*e.g.*, SNALP). The interfering RNA molecules present in the cocktail may be co-encapsulated in the same lipid particle, or each interfering RNA species present in the cocktail may be formulated in separate particles.

**[0197]** Exemplary hepatitis virus nucleic acid sequences that can be silenced include, but are not limited to, nucleic acid sequences involved in transcription and translation (*e.g.*, En1, En2, X, P) and nucleic acid sequences encoding structural proteins (*e.g.*, core proteins including C and C-related proteins, capsid and envelope proteins including S, M, and/or L proteins, or fragments thereof) (*see, e.g.*, FIELDS VIROLOGY, *supra*). Exemplary hepatitis A virus nucleic acid sequences are set forth in, *e.g.*, Genbank Accession No. NC_001489; exemplary hepatitis B virus nucleic acid sequences are set forth in, *e.g.*, Genbank Accession No. NC_003977; exemplary hepatitis D virus nucleic acid sequence are set forth in, *e.g.*,

Genbank Accession No. NC_001653; exemplary hepatitis E virus nucleic acid sequences are set forth in, *e.g.*, Genbank Accession No. NC_001434; and exemplary hepatitis G virus nucleic acid sequences are set forth in, *e.g.*, Genbank Accession No. NC_001710. Interfering RNAs that silence hepatitis A, B, D, E, and/or G virus gene expression may be identified, synthesized, and modified in accodance with the teachings described herein. Silencing of sequences that encode genes associated with viral infection and survival can conveniently be used in combination with the administration of conventional agents used to treat the viral condition.

**[0198]** In addition to its utility in silencing HCV gene expression for therapeutic purposes, the interfering RNA molecules described herein are also useful in research and development applications as well as diagnostic, prophylactic, prognostic, clinical, and other healthcare applications.

**B. siRNA**

**[0199]** The unmodified and modified siRNA molecules of the invention are capable of silencing HCV gene expression, *e.g.,* to inactivate HCV and/or inhibit HCV replication and/or treat acute or chronic hepatitis C. Each strand of the siRNA duplex is typically about 15 to about 60 nucleotides in length, preferably about 15 to about 30 nucleotides in length. In certain embodiments, the siRNA comprises at least one modified nucleotide. The modified siRNA is generally less immunostimulatory than a corresponding unmodified siRNA sequence and retains RNAi activity against the target gene of interest. In some embodiments, the modified siRNA contains at least one 2'OMe purine or pyrimidine nucleotide such as a 2'OMe-guanosine, 2'OMe-uridine, 2'OMe-adenosine, and/or 2'OMe-cytosine nucleotide. The modified nucleotides can be present in one strand (*i.e.,* sense or antisense) or both strands of the siRNA. In some preferred embodiments, one or more of the uridine and/or guanosine nucleotides are modified (*e.g.,* 2'OMe-modified) in one strand (*i.e.,* sense or antisense) or both strands of the siRNA. In these embodiments, the modified siRNA can further comprise one or more modified (*e.g.,* 2'OMe-modified) adenosine and/or modified (*e.g.,* 2'OMe-modified) cytosine nucleotides. In other preferred embodiments, only uridine and/or guanosine nucleotides are modified (*e.g.,* 2'OMe-modified) in one strand (*i.e.,* sense or antisense) or both strands of the siRNA. The siRNA sequences may have one or more overhangs (*e.g.*, 3' and/or 5' overhangs as described in Elbashir *et al.*, *Genes Dev.*, 15:188 (2001) or Nykänen *et al.*, *Cell,* 107:309 (2001)), or may have one or more blunt ends.

**[0200]** In some embodiments, each strand of the siRNA molecule comprises from about 15 to about 60 nucleotides in length (*e.g.,* about 15-60, 15-50, 15-40, 15-30, 15-25, or 19-25

nucleotides in length, or 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, or 25 nucleotides in length). In one particular embodiment, the siRNA is chemically synthesized. The siRNA molecules of the invention are capable of silencing the expression of a target sequence, such as HCV, *in vitro* and/or *in vivo*.

**[0201]** In particular embodiments, siRNAs targeting HCV RNA are administered using a carrier system such as a nucleic acid-lipid particle. In a preferred embodiment, the nucleic acid-lipid particle comprises: (a) one or more siRNA molecules targeting HCV RNA; (b) a cationic lipid (*e.g.,* DLinDMA, DLenDMA, and/or DLin-K-C2-DMA); and (c) a non-cationic lipid (*e.g.,* DPPC, DSPC, DSPE, and/or cholesterol). In certain instances, the nucleic acid-lipid particle may further comprise a conjugated lipid that prevents aggregation of particles (*e.g.,* PEG-DAA).

**[0202]** Additional embodiments related to the siRNA molecules of the present invention, as well as methods for identifying, synthesizing, and modifying them, are described above.

### C. Dicer-Substrate dsRNA

**[0203]** As used herein, the term "Dicer-substrate dsRNA" or "precursor RNAi molecule" is intended to include any precursor molecule that is processed *in vivo* by Dicer to produce an active siRNA which is incorporated into the RISC complex for RNA interference of a target gene.

**[0204]** The unmodified and modified Dicer-substrate dsRNA molecules of the invention are capable of silencing HCV gene expression, *e.g.,* to inactivate HCV and/or inhibit HCV replication and/or treat acute or chronic hepatitis C. In certain embodiments, the Dicer-substrate dsRNA comprises at least one modified nucleotide. The modified Dicer-substrate dsRNA is generally less immunostimulatory than a corresponding unmodified Dicer-substrate dsRNA sequence and retains RNAi activity against the target gene of interest. In some embodiments, the modified Dicer-substrate dsRNA contains at least one 2'OMe purine or pyrimidine nucleotide such as a 2'OMe-guanosine, 2'OMe-uridine, 2'OMe-adenosine, and/or 2'OMe-cytosine nucleotide. The modified nucleotides can be present in one strand (*i.e.,* sense or antisense) or both strands of the Dicer-substrate dsRNA. In some preferred embodiments, one or more of the uridine and/or guanosine nucleotides are modified (*e.g.,* 2'OMe-modified) in one strand (*i.e.,* sense or antisense) or both strands of the Dicer-substrate dsRNA. In these embodiments, the modified Dicer-substrate dsRNA can further comprise one or more modified (*e.g.,* 2'OMe-modified) adenosine and/or modified (*e.g.,* 2'OMe-modified) cytosine nucleotides. In other preferred embodiments, only uridine and/or guanosine nucleotides are modified (*e.g.,* 2'OMe-modified) in one strand (*i.e.,* sense or

antisense) or both strands of the Dicer-substrate dsRNA. The Dicer-substrate dsRNA sequences may have one or more overhangs (*e.g.*, 3' and/or 5' overhangs), or may have one or more blunt ends.

**[0205]** In particular embodiments, the Dicer-substrate dsRNA is chemically synthesized. The Dicer-substrate dsRNA molecules of the present invention are capable of silencing the expression of a target sequence, such as HCV, *in vitro* and/or *in vivo*.

**[0206]** In one embodiment, the Dicer-substrate dsRNA has a length sufficient such that it is processed by Dicer to produce an siRNA. According to this embodiment, the Dicer-substrate dsRNA comprises (i) a first oligonucleotide sequence (also termed the sense strand) that is between about 25 and about 60 nucleotides in length (*e.g.,* about 25-60, 25-55, 25-50, 25-45, 25-40, 25-35, or 25-30 nucleotides in length), preferably between about 25 and about 30 nucleotides in length (*e.g.,* 25, 26, 27, 28, 29, or 30 nucleotides in length), and (ii) a second oligonucleotide sequence (also termed the antisense strand) that anneals to the first sequence under biological conditions, such as the conditions found in the cytoplasm of a cell. The second oligonucleotide sequence may be between about 25 and about 60 nucleotides in length (*e.g.,* about 25-60, 25-55, 25-50, 25-45, 25-40, 25-35, or 25-30 nucleotides in length), and is preferably between about 25 and about 30 nucleotides in length (*e.g.,* 25, 26, 27, 28, 29, or 30 nucleotides in length). In addition, a region of one of the sequences, particularly of the antisense strand, of the Dicer-substrate dsRNA has a sequence length of at least about 19 nucleotides, for example, from about 19 to about 60 nucleotides (*e.g.,* about 19-60, 19-55, 19-50, 19-45, 19-40, 19-35, 19-30, or 19-25 nucleotides), preferably from about 19 to about 23 nucleotides (*e.g.,* 19, 20, 21, 22, or 23 nucleotides) that are sufficiently complementary to a nucleotide sequence of the target RNA to trigger an RNAi response.

**[0207]** In a second embodiment, the Dicer-substrate dsRNA has several properties which enhance its processing by Dicer. According to this embodiment, the dsRNA has a length sufficient such that it is processed by Dicer to produce an siRNA and has at least one of the following properties: (i) the dsRNA is asymmetric, *e.g.,* has a 3' overhang on the antisense strand; and/or (ii) the dsRNA has a modified 3'-end on the sense strand to direct orientation of Dicer binding and processing of the dsRNA to an active siRNA. According to this latter embodiment, the sense strand comprises from about 22 to about 28 nucleotides and the antisense strand comprises from about 24 to about 30 nucleotides.

**[0208]** In one embodiment, the Dicer-substrate dsRNA has an overhang on the 3'-end of the antisense strand. In another embodiment, the sense strand is modified for Dicer binding and processing by suitable modifiers located at the 3'-end of the sense strand. Suitable

modifiers include nucleotides such as deoxyribonucleotides, acyclonucleotides, and the like, and sterically hindered molecules such as fluorescent molecules and the like. When nucleotide modifiers are used, they replace ribonucleotides in the dsRNA such that the length of the dsRNA does not change. In another embodiment, the Dicer-substrate dsRNA has an overhang on the 3'-end of the antisense strand and the sense strand is modified for Dicer processing. In another embodiment, the 5'-end of the sense strand has a phosphate. In another embodiment, the 5'-end of the antisense strand has a phosphate. In another embodiment, the antisense strand or the sense strand or both strands have one or more 2'-O-methyl (2'OMe) modified nucleotides. In another embodiment, the antisense strand contains 2'OMe modified nucleotides. In another embodiment, the antisense stand contains a 3' overhang that is comprised of 2'OMe modified nucleotides. The antisense strand could also include additional 2'OMe modified nucleotides. The sense and antisense strands anneal under biological conditions, such as the conditions found in the cytoplasm of a cell. In addition, a region of one of the sequences, particularly of the antisense strand, of the Dicer-substrate dsRNA has a sequence length of at least about 19 nucleotides, wherein these nucleotides are in the 21-nucleotide region adjacent to the 3'-end of the antisense strand and are sufficiently complementary to a nucleotide sequence of the target RNA. Further, in accordance with this embodiment, the Dicer-substrate dsRNA may also have one or more of the following additional properties: (a) the antisense strand has a right shift from the typical 21-mer (*i.e.,* the antisense strand includes nucleotides on the right side of the molecule when compared to the typical 21-mer); (b) the strands may not be completely complementary, *i.e.,* the strands may contain simple mismatch pairings; and (c) base modifications such as locked nucleic acid(s) may be included in the 5'-end of the sense strand.

**[0209]** In a third embodiment, the sense strand comprises from about 25 to about 28 nucleotides (*e.g.,* 25, 26, 27, or 28 nucleotides), wherein the 2 nucleotides on the 3'-end of the sense strand are deoxyribonucleotides. The sense strand contains a phosphate at the 5'-end. The antisense strand comprises from about 26 to about 30 nucleotides (*e.g.,* 26, 27, 28, 29, or 30 nucleotides) and contains a 3' overhang of 1-4 nucleotides. The nucleotides comprising the 3' overhang are modified with 2'OMe modified ribonucleotides. The antisense strand contains alternating 2'OMe modified nucleotides beginning at the first monomer of the antisense strand adjacent to the 3' overhang, and extending 15-19 nucleotides from the first monomer adjacent to the 3' overhang. For example, for a 27-nucleotide antisense strand and counting the first base at the 5'-end of the antisense strand as position number 1, 2'OMe modifications would be placed at bases 9, 11, 13, 15, 17, 19, 21,

23, 25, 26, and 27. In one embodiment, the Dicer-substrate dsRNA has the following structure:

5′-pXXXXXXXXXXXXXXXXXXXXXXXXDD-3′

3′-YXXXXXXXXXXXXXXXXXXXXXXXXXXXXp-5′

wherein "X" = RNA, "p" = a phosphate group, "X" = 2'OMe RNA, "Y" is an overhang domain comprised of 1, 2, 3, or 4 RNA monomers that are optionally 2'OMe RNA monomers, and "D" = DNA. The top strand is the sense strand, and the bottom strand is the antisense strand.

**[0210]** In a fourth embodiment, the Dicer-substrate dsRNA has several properties which enhance its processing by Dicer. According to this embodiment, the dsRNA has a length sufficient such that it is processed by Dicer to produce an siRNA and at least one of the following properties: (i) the dsRNA is asymmetric, *e.g.,* has a 3' overhang on the sense strand; and (ii) the dsRNA has a modified 3'-end on the antisense strand to direct orientation of Dicer binding and processing of the dsRNA to an active siRNA. According to this embodiment, the sense strand comprises from about 24 to about 30 nucleotides (*e.g.,* 24, 25, 26, 27, 28, 29, or 30 nucleotides) and the antisense strand comprises from about 22 to about 28 nucleotides (*e.g.,* 22, 23, 24, 25, 26, 27, or 28 nucleotides). In one embodiment, the Dicer-substrate dsRNA has an overhang on the 3'-end of the sense strand. In another embodiment, the antisense strand is modified for Dicer binding and processing by suitable modifiers located at the 3'-end of the antisense strand. Suitable modifiers include nucleotides such as deoxyribonucleotides, acyclonucleotides, and the like, and sterically hindered molecules such as fluorescent molecules and the like. When nucleotide modifiers are used, they replace ribonucleotides in the dsRNA such that the length of the dsRNA does not change. In another embodiment, the dsRNA has an overhang on the 3'-end of the sense strand and the antisense strand is modified for Dicer processing. In one embodiment, the antisense strand has a 5'-phosphate. The sense and antisense strands anneal under biological conditions, such as the conditions found in the cytoplasm of a cell. In addition, a region of one of the sequences, particularly of the antisense strand, of the dsRNA has a sequence length of at least 19 nucleotides, wherein these nucleotides are adjacent to the 3'-end of antisense strand and are sufficiently complementary to a nucleotide sequence of the target RNA. Further, in accordance with this embodiment, the Dicer-substrate dsRNA may also have one or more of the following additional properties: (a) the antisense strand has a left shift from the typical 21-mer (*i.e.,* the antisense strand includes nucleotides on the left side of the molecule when

compared to the typical 21-mer); and (b) the strands may not be completely complementary, *i.e.,* the strands may contain simple mismatch pairings.

**[0211]** In a preferred embodiment, the Dicer-substrate dsRNA has an asymmetric structure, with the sense strand having a 25-base pair length, and the antisense strand having a 27-base pair length with a 2 base 3' overhang. In certain instances, this dsRNA having an asymmetric structure further contains 2 deoxynucleotides at the 3'-end of the sense strand in place of two of the ribonucleotides. In certain other instances, this dsRNA having an asymmetric structure further contains 2'OMe modifications at positions 9, 11, 13, 15, 17, 19, 21, 23, and 25 of the antisense strand (wherein the first base at the 5'-end of the antisense strand is position 1). In certain additional instances, this dsRNA having an asymmetric structure further contains a 3' overhang on the antisense strand comprising 1, 2, 3, or 4 2'OMe nucleotides (*e.g.,* a 3' overhang of 2'OMe nucleotides at positions 26 and 27 on the antisense strand).

**[0212]** In another embodiment, Dicer-substrate dsRNAs may be designed by first selecting an antisense strand siRNA sequence having a length of at least 19 nucleotides. In some instances, the antisense siRNA is modified to include about 5 to about 11 ribonucleotides on the 5'-end to provide a length of about 24 to about 30 nucleotides. When the antisense strand has a length of 21 nucleotides, 3-9, preferably 4-7, or more preferably 6 nucleotides may be added on the 5'-end. Although the added ribonucleotides may be complementary to the target gene sequence, full complementarity between the target sequence and the antisense siRNA is not required. That is, the resultant antisense siRNA is sufficiently complementary with the target sequence. A sense strand is then produced that has about 22 to about 28 nucleotides. The sense strand is substantially complementary with the antisense strand to anneal to the antisense strand under biological conditions. In one embodiment, the sense strand is synthesized to contain a modified 3'-end to direct Dicer processing of the antisense strand. In another embodiment, the antisense strand of the dsRNA has a 3' overhang. In a further embodiment, the sense strand is synthesized to contain a modified 3'-end for Dicer binding and processing and the antisense strand of the dsRNA has a 3' overhang.

**[0213]** In a related embodiment, the antisense siRNA may be modified to include about 1 to about 9 ribonucleotides on the 5'-end to provide a length of about 22 to about 28 nucleotides. When the antisense strand has a length of 21 nucleotides, 1-7, preferably 2-5, or more preferably 4 ribonucleotides may be added on the 5'-end. The added ribonucleotides may have any sequence. Although the added ribonucleotides may be complementary to the target gene sequence, full complementarity between the target sequence and the antisense siRNA is not required. That is, the resultant antisense siRNA is sufficiently complementary

with the target sequence. A sense strand is then produced that has about 24 to about 30 nucleotides. The sense strand is substantially complementary with the antisense strand to anneal to the antisense strand under biological conditions. In one embodiment, the antisense strand is synthesized to contain a modified 3'-end to direct Dicer processing. In another embodiment, the sense strand of the dsRNA has a 3' overhang. In a further embodiment, the antisense strand is synthesized to contain a modified 3'-end for Dicer binding and processing and the sense strand of the dsRNA has a 3' overhang.

**[0214]** In particular embodiments, Dicer-substrate dsRNAs targeting HCV RNA are administered using a carrier system such as a nucleic acid-lipid particle. In a preferred embodiment, the nucleic acid-lipid particle comprises: (a) one or more Dicer-substrate dsRNA molecules targeting HCV RNA; (b) a cationic lipid (*e.g.*, DLinDMA, DLenDMA, and/or DLin-K-C2-DMA); and (c) a non-cationic lipid (*e.g.*, DPPC, DSPC, DSPE, and/or cholesterol). In certain instances, the nucleic acid-lipid particle may further comprise a conjugated lipid that prevents aggregation of particles (*e.g.*, PEG-DAA).

**[0215]** Additional embodiments related to the Dicer-substrate dsRNA molecules of the present invention, as well as methods for identifying, synthesizing, and modifying them, are described above. Further methods for designing and synthesizing such Dicer-substrate dsRNAs are described in U.S. Patent Publication Nos. 20050244858, 20050277610, and 20070265220, and U.S. Provisional Application No. 61/184,652, filed June 5, 2009, the disclosures of which are herein incorporated by reference in their entirety for all purposes.

**D. shRNA**

**[0216]** A "small hairpin RNA" or "short hairpin RNA" or "shRNA" includes a short RNA sequence that makes a tight hairpin turn that can be used to silence gene expression via RNA interference. The shRNAs of the invention may be chemically synthesized or transcribed from a transcriptional cassette in a DNA plasmid. The shRNA hairpin structure is cleaved by the cellular machinery into siRNA, which is then bound to the RNA-induced silencing complex (RISC).

**[0217]** The unmodified and modified shRNA molecules of the invention are capable of silencing HCV gene expression, *e.g.*, to inactivate HCV and/or inhibit HCV replication and/or treat acute or chronic hepatitis C. In certain embodiments, the shRNA comprises at least one modified nucleotide. The modified shRNA is generally less immunostimulatory than a corresponding unmodified shRNA sequence and retains RNAi activity against the target gene of interest. In some embodiments, the modified shRNA contains at least one 2'OMe purine or pyrimidine nucleotide such as a 2'OMe-guanosine, 2'OMe-uridine, 2'OMe-

adenosine, and/or 2'OMe-cytosine nucleotide. The modified nucleotides can be present in one strand (*i.e.,* sense or antisense) or both strands of the shRNA. In some preferred embodiments, one or more of the uridine and/or guanosine nucleotides are modified (*e.g.,* 2'OMe-modified) in one strand (*i.e.,* sense or antisense) or both strands of the shRNA. In these embodiments, the modified shRNA can further comprise one or more modified (*e.g.,* 2'OMe-modified) adenosine and/or modified (*e.g.,* 2'OMe-modified) cytosine nucleotides. In other preferred embodiments, only uridine and/or guanosine nucleotides are modified (*e.g.,* 2'OMe-modified) in one strand (*i.e.,* sense or antisense) or both strands of the shRNA. The shRNA sequences may have one or more overhangs (*e.g.*, 3' and/or 5' overhangs), or may have one or more blunt ends.

**[0218]** In particular embodiments, the shRNA is chemically synthesized. The shRNA molecules of the invention are capable of silencing the expression of a target sequence, such as HCV, *in vitro* and/or *in vivo*.

**[0219]** The shRNAs of the invention are typically about 15-60, 15-50, or 15-40 (duplex) nucleotides in length, more typically about 15-30, 15-25, or 19-25 (duplex) nucleotides in length, and are preferably about 20-24, 21-22, or 21-23 (duplex) nucleotides in length (*e.g.,* each complementary sequence of the double-stranded shRNA is 15-60, 15-50, 15-40, 15-30, 15-25, or 19-25 nucleotides in length, preferably about 20-24, 21-22, or 21-23 nucleotides in length, and the double-stranded shRNA is about 15-60, 15-50, 15-40, 15-30, 15-25, or 19-25 base pairs in length, preferably about 18-22, 19-20, or 19-21 base pairs in length). shRNA duplexes may comprise 3' overhangs of about 1 to about 4 nucleotides or about 2 to about 3 nucleotides on the antisense strand and/or 5'-phosphate termini on the sense strand. In some embodiments, the shRNA comprises a sense strand and/or antisense strand sequence of from about 15 to about 60 nucleotides in length (*e.g.,* about 15-60, 15-55, 15-50, 15-45, 15-40, 15-35, 15-30, or 15-25 nucleotides in length), preferably from about 19 to about 40 nucleotides in length (*e.g.,* about 19-40, 19-35, 19-30, or 19-25 nucleotides in length), more preferably from about 19 to about 23 nucleotides in length (*e.g.,* 19, 20, 21, 22, or 23 nucleotides in length).

**[0220]** Non-limiting examples of shRNA include a double-stranded polynucleotide molecule assembled from a single-stranded molecule, where the sense and antisense regions are linked by a nucleic acid-based or non-nucleic acid-based linker; and a double-stranded polynucleotide molecule with a hairpin secondary structure having self-complementary sense and antisense regions. In preferred embodiments, the sense and antisense strands of the shRNA are linked by a loop structure comprising from about 1 to about 25 nucleotides, from

about 2 to about 20 nucleotides, from about 4 to about 15 nucleotides, from about 5 to about 12 nucleotides, or 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, or more nucleotides.

**[0221]** In particular embodiments, shRNAs targeting HCV RNA are administered using a carrier system such as a nucleic acid-lipid particle. In a preferred embodiment, the nucleic acid-lipid particle comprises: (a) one or more shRNA molecules targeting HCV RNA; (b) a cationic lipid (*e.g.,* DLinDMA, DLenDMA, and/or DLin-K-C2-DMA); and (c) a non-cationic lipid (*e.g.,* DPPC, DSPC, DSPE, and/or cholesterol). In certain instances, the nucleic acid-lipid particle may further comprise a conjugated lipid that prevents aggregation of particles (*e.g.,* PEG-DAA).

**[0222]** Additional embodiments related to the shRNAs of the invention, as well as methods for identifying, synthesizing, and modifying them, are described above. Further methods for designing and synthesizing such shRNAs are described in U.S. Provisional Application No. 61/184,652, filed June 5, 2009, the disclosure of which is herein incorporated by reference in its entirety for all purposes.

**E. aiRNA**

**[0223]** Like siRNA, asymmetrical interfering RNA (aiRNA) can recruit the RNA-induced silencing complex (RISC) and lead to effective silencing of a variety of genes in mammalian cells by mediating sequence-specific cleavage of the target sequence between nucleotide 10 and 11 relative to the 5' end of the antisense strand (Sun *et al.*, *Nat. Biotech.*, 26:1379-1382 (2008)). Typically, an aiRNA molecule comprises a short RNA duplex having a sense strand and an antisense strand, wherein the duplex contains overhangs at the 3' and 5' ends of the antisense strand. The aiRNA is generally asymmetric because the sense strand is shorter on both ends when compared to the complementary antisense strand. In some aspects, aiRNA molecules may be designed, synthesized, and annealed under conditions similar to those used for siRNA molecules.

**[0224]** The unmodified and modified aiRNA molecules of the invention are capable of silencing HCV gene expression, *e.g.,* to inactivate HCV and/or inhibit HCV replication and/or treat acute or chronic hepatitis C. In certain embodiments, the aiRNA comprises at least one modified nucleotide. The modified aiRNA is generally less immunostimulatory than a corresponding unmodified aiRNA sequence and retains RNAi activity against the target gene of interest. In some embodiments, the modified aiRNA contains at least one 2'OMe purine or pyrimidine nucleotide such as a 2'OMe-guanosine, 2'OMe-uridine, 2'OMe-adenosine, and/or 2'OMe-cytosine nucleotide. The modified nucleotides can be present in

one strand (*i.e.,* sense or antisense) or both strands of the aiRNA. In some preferred embodiments, one or more of the uridine and/or guanosine nucleotides are modified (*e.g.,* 2'OMe-modified) in one strand (*i.e.,* sense or antisense) or both strands of the aiRNA. In these embodiments, the modified aiRNA can further comprise one or more modified (*e.g.,* 2'OMe-modified) adenosine and/or modified (*e.g.,* 2'OMe-modified) cytosine nucleotides. In other preferred embodiments, only uridine and/or guanosine nucleotides are modified (*e.g.,* 2'OMe-modified) in one strand (*i.e.,* sense or antisense) or both strands of the aiRNA. The aiRNA sequences may have one or more overhangs (*e.g.,* 3' and/or 5' overhangs), or may have one or more blunt ends.

**[0225]** In particular embodiments, the aiRNA is chemically synthesized. The aiRNA molecules of the invention are capable of silencing the expression of a target sequence, such as HCV, *in vitro* and/or *in vivo*.

**[0226]** In another embodiment, aiRNA duplexes of various lengths (*e.g.,* about 10-25, 12-20, 12-19, 12-18, 13-17, or 14-17 base pairs, more typically 12, 13, 14, 15, 16, 17, 18, 19, or 20 base pairs) may be designed with overhangs at the 3' and 5' ends of the antisense strand to target an RNA of interest. In certain instances, the sense strand of the aiRNA molecule is about 10-25, 12-20, 12-19, 12-18, 13-17, or 14-17 nucleotides in length, more typically 12, 13, 14, 15, 16, 17, 18, 19, or 20 nucleotides in length. In certain other instances, the antisense strand of the aiRNA molecule is about 15-60, 15-50, or 15-40 nucleotides in length, more typically about 15-30, 15-25, or 19-25 nucleotides in length, and is preferably about 20-24, 21-22, or 21-23 nucleotides in length.

**[0227]** In some embodiments, the 5' antisense overhang contains one, two, three, four, or more nontargeting nucleotides (*e.g.,* "AA", "UU", "dTdT", *etc.*). In other embodiments, the 3' antisense overhang contains one, two, three, four, or more nontargeting nucleotides (*e.g.,* "AA", "UU", "dTdT", *etc.*). In certain aspects, the aiRNA molecules described herein may comprise one or more modified nucleotides, *e.g.,* in the double-stranded (duplex) region and/or in the antisense overhangs. In certain instances, aiRNA molecules may comprise an antisense strand which corresponds to the antisense strand of an siRNA molecule.

**[0228]** In particular embodiments, aiRNAs targeting HCV RNA are administered using a carrier system such as a nucleic acid-lipid particle. In a preferred embodiment, the nucleic acid-lipid particle comprises: (a) one or more aiRNA molecules targeting HCV RNA; (b) a cationic lipid (*e.g.,* DLinDMA, DLenDMA, and/or DLin-K-C2-DMA); and (c) a non-cationic lipid (*e.g.,* DPPC, DSPC, DSPE, and/or cholesterol). In certain instances, the nucleic acid-

lipid particle may further comprise a conjugated lipid that prevents aggregation of particles (*e.g.*, PEG-DAA).

**[0229]** Additional embodiments related to the aiRNAs of the present invention, as well as methods for identifying, synthesizing, and modifying them, are described above. Further embodiments related to the aiRNA molecules of the invention are described in U.S. Patent Publication No. 20090291131 and PCT Publication No. WO 09/127060, the disclosures of which are herein incorporated by reference in their entirety for all purposes.

**F. miRNA**

**[0230]** Generally, microRNAs (miRNA) are single-stranded RNA molecules of about 21-23 nucleotides in length which regulate gene expression. miRNAs are encoded by genes from whose DNA they are transcribed, but miRNAs are not translated into protein (non-coding RNA); instead, each primary transcript (a pri-miRNA) is processed into a short stem-loop structure called a pre-miRNA and finally into a functional mature miRNA. Mature miRNA molecules are either partially or completely complementary to one or more messenger RNA (mRNA) molecules, and their main function is to downregulate gene expression. The identification of miRNA molecules is described, *e.g.*, in Lagos-Quintana *et al.*, *Science*, 294:853-858 (2001); Lau *et al.*, *Science*, 294:858-862 (2001); and Lee *et al.*, *Science*, 294:862-864 (2001).

**[0231]** The genes encoding miRNA are much longer than the processed mature miRNA molecule. miRNA are first transcribed as primary transcripts or pri-miRNA with a cap and poly-A tail and processed to short, ~70-nucleotide stem-loop structures known as pre-miRNA in the cell nucleus. This processing is performed in animals by a protein complex known as the Microprocessor complex, consisting of the nuclease Drosha and the double-stranded RNA binding protein Pasha (Denli *et al.*, *Nature*, 432:231-235 (2004)). These pre-miRNA are then processed to mature miRNA in the cytoplasm by interaction with the endonuclease Dicer, which also initiates the formation of the RNA-induced silencing complex (RISC) (Bernstein *et al.*, *Nature*, 409:363-366 (2001). Either the sense strand or antisense strand of DNA can function as templates to give rise to miRNA.

**[0232]** When Dicer cleaves the pre-miRNA stem-loop, two complementary short RNA molecules are formed, but only one is integrated into the RISC complex. This strand is known as the guide strand and is selected by the argonaute protein, the catalytically active RNase in the RISC complex, on the basis of the stability of the 5' end (Preall *et al.*, *Curr. Biol.*, 16:530-535 (2006)). The remaining strand, known as the anti-guide or passenger strand, is degraded as a RISC complex substrate (Gregory *et al.*, *Cell*, 123:631-640 (2005)).

After integration into the active RISC complex, miRNAs base pair with their complementary mRNA molecules and induce target mRNA degradation and/or translational silencing.

**[0233]** Mammalian miRNA molecules are usually complementary to a site in the 3' UTR of the target mRNA sequence. In certain instances, the annealing of the miRNA to the target mRNA inhibits protein translation by blocking the protein translation machinery. In certain other instances, the annealing of the miRNA to the target mRNA facilitates the cleavage and degradation of the target mRNA through a process similar to RNA interference (RNAi). miRNA may also target methylation of genomic sites which correspond to targeted mRNA. Generally, miRNA function in association with a complement of proteins collectively termed the miRNP.

**[0234]** In certain aspects, the miRNA molecules described herein are about 15-100, 15-90, 15-80, 15-75, 15-70, 15-60, 15-50, or 15-40 nucleotides in length, more typically about 15-30, 15-25, or 19-25 nucleotides in length, and are preferably about 20-24, 21-22, or 21-23 nucleotides in length. In certain other aspects, miRNA molecules may comprise one or more modified nucleotides. As a non-limiting example, miRNA sequences may comprise one or more of the modified nucleotides described above. In a preferred embodiment, the miRNA molecule comprises 2'OMe nucleotides such as, for example, 2'OMe-guanosine nucleotides, 2'OMe-uridine nucleotides, or mixtures thereof.

**[0235]** In particular embodiments, miRNAs targeting HCV RNA are administered using a carrier system such as a nucleic acid-lipid particle. In a preferred embodiment, the nucleic acid-lipid particle comprises: (a) one or more miRNA molecules targeting HCV RNA; (b) a cationic lipid (*e.g.,* DLinDMA, DLenDMA, and/or DLin-K-C2-DMA); and (c) a non-cationic lipid (*e.g.,* DPPC, DSPC, DSPE, and/or cholesterol). In certain instances, the nucleic acid-lipid particle may further comprise a conjugated lipid that prevents aggregation of particles (*e.g.,* PEG-DAA).

**[0236]** In other embodiments, one or more agents that block the activity of an miRNA targeting HCV RNA are administered using a lipid particle of the invention (*e.g.,* a nucleic acid-lipid particle). Examples of blocking agents include, but are not limited to, steric blocking oligonucleotides, locked nucleic acid oligonucleotides, and Morpholino oligonucleotides. Such blocking agents may bind directly to the miRNA or to the miRNA binding site on the target RNA.

**[0237]** Additional embodiments related to the miRNAs of the present invention, as well as methods for identifying, synthesizing, and modifying them, are described above. Further embodiments related to the miRNA molecules of the invention are described in U.S. Patent

Publication No. 20090291131 and PCT Publication No. WO 09/127060, the disclosures of which are herein incorporated by reference in their entirety for all purposes.

## V. Carrier Systems Containing Therapeutic Nucleic Acids

**[0238]** In one aspect, the present invention provides carrier systems containing one or more therapeutic nucleic acids (*e.g.*, interfering RNA such as dsRNA). In some embodiments, the carrier system is a lipid-based carrier system such as a lipid particle (*e.g.*, SNALP), a cationic lipid or liposome nucleic acid complex (*i.e.*, lipoplex), a liposome, a micelle, a virosome, or a mixture thereof. In other embodiments, the carrier system is a polymer-based carrier system such as a cationic polymer-nucleic acid complex (*i.e.*, polyplex). In additional embodiments, the carrier system is a cyclodextrin-based carrier system such as a cyclodextrin polymer-nucleic acid complex. In further embodiments, the carrier system is a protein-based carrier system such as a cationic peptide-nucleic acid complex. Preferably, the carrier system is a lipid particle such as a SNALP. One skilled in the art will appreciate that the therapeutic nucleic acids of the present invention can also be delivered as a naked molecule.

### A. Lipid Particles

**[0239]** In certain aspects, the present invention provides lipid particles comprising one or more therapeutic nucleic acids (*e.g.*, interfering RNA such as dsRNA) and one or more of cationic (amino) lipids or salts thereof. In some embodiments, the lipid particles of the invention further comprise one or more non-cationic lipids. In other embodiments, the lipid particles further comprise one or more conjugated lipids capable of reducing or inhibiting particle aggregation.

**[0240]** The lipid particles of the invention preferably comprise a therapeutic nucleic acid such as an interfering RNA (*e.g.*, dsRNA), a cationic lipid, a non-cationic lipid, and a conjugated lipid that inhibits aggregation of particles. In some embodiments, the therapeutic nucleic acid is fully encapsulated within the lipid portion of the lipid particle such that the therapeutic nucleic acid in the lipid particle is resistant in aqueous solution to nuclease degradation. In other embodiments, the lipid particles described herein are substantially non-toxic to mammals such as humans. The lipid particles of the invention typically have a mean diameter of from about 30 nm to about 150 nm, from about 40 nm to about 150 nm, from about 50 nm to about 150 nm, from about 60 nm to about 130 nm, from about 70 nm to about 110 nm, or from about 70 to about 90 nm. The lipid particles of the invention also typically have a lipid:therapeutic agent (*e.g.*, lipid:nucleic acid) ratio (mass/mass ratio) of from about 1:1 to about 100:1, from about 1:1 to about 50:1, from about 2:1 to about 25:1, from about 3:1 to about 20:1, from about 5:1 to about 15:1, or from about 5:1 to about 10:1.

**[0241]** In preferred embodiments, the lipid particles of the invention are serum-stable nucleic acid-lipid particles (SNALP) which comprise an interfering RNA (*e.g.*, dsRNA such as siRNA, Dicer-substrate dsRNA, shRNA, aiRNA, and/or miRNA), a cationic lipid (*e.g.*, one or more cationic lipids of Formula I-II or salts thereof as set forth herein), a non-cationic lipid (*e.g.*, mixtures of one or more phospholipids and cholesterol), and a conjugated lipid that inhibits aggregation of the particles (*e.g.*, one or more PEG-lipid conjugates). The SNALP may comprise at least 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more unmodified and/or modified interfering RNA (*e.g.*, dsRNA) molecules that target one or more HCV genotypes. Nucleic acid-lipid particles and their method of preparation are described in, *e.g.*, U.S. Patent Nos. 5,753,613; 5,785,992; 5,705,385; 5,976,567; 5,981,501; 6,110,745; and 6,320,017; and PCT Publication No. WO 96/40964, the disclosures of which are each herein incorporated by reference in their entirety for all purposes.

**[0242]** In the nucleic acid-lipid particles of the invention, the nucleic acid may be fully encapsulated within the lipid portion of the particle, thereby protecting the nucleic acid from nuclease degradation. In preferred embodiments, a SNALP comprising a nucleic acid such as an interfering RNA is fully encapsulated within the lipid portion of the particle, thereby protecting the nucleic acid from nuclease degradation. In certain instances, the nucleic acid in the SNALP is not substantially degraded after exposure of the particle to a nuclease at 37°C for at least about 20, 30, 45, or 60 minutes. In certain other instances, the nucleic acid in the SNALP is not substantially degraded after incubation of the particle in serum at 37°C for at least about 30, 45, or 60 minutes or at least about 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, or 36 hours. In other embodiments, the nucleic acid is complexed with the lipid portion of the particle. One of the benefits of the formulations of the present invention is that the nucleic acid-lipid particle compositions are substantially non-toxic to mammals such as humans.

**[0243]** The term "fully encapsulated" indicates that the nucleic acid in the nucleic acid-lipid particle is not significantly degraded after exposure to serum or a nuclease assay that would significantly degrade free DNA or RNA. In a fully encapsulated system, preferably less than about 25% of the nucleic acid in the particle is degraded in a treatment that would normally degrade 100% of free nucleic acid, more preferably less than about 10%, and most preferably less than about 5% of the nucleic acid in the particle is degraded. "Fully encapsulated" also indicates that the nucleic acid-lipid particles are serum-stable, that is, that they do not rapidly decompose into their component parts upon *in vivo* administration.

**[0244]** In the context of nucleic acids, full encapsulation may be determined by performing a membrane-impermeable fluorescent dye exclusion assay, which uses a dye that has enhanced fluorescence when associated with nucleic acid. Specific dyes such as OliGreen® and RiboGreen® (Invitrogen Corp.; Carlsbad, CA) are available for the quantitative determination of plasmid DNA, single-stranded deoxyribonucleotides, and/or single- or double-stranded ribonucleotides. Encapsulation is determined by adding the dye to a liposomal formulation, measuring the resulting fluorescence, and comparing it to the fluorescence observed upon addition of a small amount of nonionic detergent. Detergent-mediated disruption of the liposomal bilayer releases the encapsulated nucleic acid, allowing it to interact with the membrane-impermeable dye. Nucleic acid encapsulation may be calculated as $E = (I_o - I)/I_o$, where $I$ and $I_o$ refer to the fluorescence intensities before and after the addition of detergent (*see,* Wheeler *et al.*, *Gene Ther.*, 6:271-281 (1999)).

**[0245]** In other embodiments, the present invention provides a nucleic acid-lipid particle (*e.g.*, SNALP) composition comprising a plurality of nucleic acid-lipid particles.

**[0246]** In some instances, the SNALP composition comprises nucleic acid that is fully encapsulated within the lipid portion of the particles, such that from about 30% to about 100%, from about 40% to about 100%, from about 50% to about 100%, from about 60% to about 100%, from about 70% to about 100%, from about 80% to about 100%, from about 90% to about 100%, from about 30% to about 95%, from about 40% to about 95%, from about 50% to about 95%, from about 60% to about 95%, from about 70% to about 95%, from about 80% to about 95%, from about 85% to about 95%, from about 90% to about 95%, from about 30% to about 90%, from about 40% to about 90%, from about 50% to about 90%, from about 60% to about 90%, from about 70% to about 90%, from about 80% to about 90%, or at least about 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% (or any fraction thereof or range therein) of the particles have the nucleic acid encapsulated therein.

**[0247]** In other instances, the SNALP composition comprises nucleic acid that is fully encapsulated within the lipid portion of the particles, such that from about 30% to about 100%, from about 40% to about 100%, from about 50% to about 100%, from about 60% to about 100%, from about 70% to about 100%, from about 80% to about 100%, from about 90% to about 100%, from about 30% to about 95%, from about 40% to about 95%, from about 50% to about 95%, from about 60% to about 95%, from about 70% to about 95%, from about 80% to about 95%, from about 85% to about 95%, from about 90% to about 95%, from about 30% to about 90%, from about 40% to about 90%, from about 50% to about 90%, from

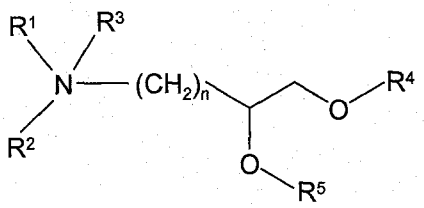
about 60% to about 90%, from about 70% to about 90%, from about 80% to about 90%, or at least about 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 80%, 85%, 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, or 99% (or any fraction thereof or range therein) of the input nucleic acid is encapsulated in the particles.

**[0248]** Depending on the intended use of the lipid particles of the invention, the proportions of the components can be varied and the delivery efficiency of a particular formulation can be measured using, *e.g.,* an endosomal release parameter (ERP) assay.

### 1. Cationic Lipids

**[0249]** Any of a variety of cationic lipids or salts thereof may be used in the lipid particles of the present invention (*e.g.,* SNALP), either alone or in combination with one or more other cationic lipid species or non-cationic lipid species. The cationic lipids include the (R) and/or (S) enantiomers thereof.

**[0250]** In one aspect, cationic lipids of Formula I having the following structure are useful in the present invention:




(I),

or salts thereof, wherein:

$R^1$ and $R^2$ are either the same or different and are independently hydrogen (H) or an optionally substituted $C_1$-$C_6$ alkyl, $C_2$-$C_6$ alkenyl, or $C_2$-$C_6$ alkynyl, or $R^1$ and $R^2$ may join to form an optionally substituted heterocyclic ring of 4 to 6 carbon atoms and 1 or 2 heteroatoms selected from the group consisting of nitrogen (N), oxygen (O), and mixtures thereof;

$R^3$ is either absent or is hydrogen (H) or a $C_1$-$C_6$ alkyl to provide a quaternary amine;

$R^4$ and $R^5$ are either the same or different and are independently an optionally substituted $C_{10}$-$C_{24}$ alkyl, $C_{10}$-$C_{24}$ alkenyl, $C_{10}$-$C_{24}$ alkynyl, or $C_{10}$-$C_{24}$ acyl, wherein at least one of $R^4$ and $R^5$ comprises at least two sites of unsaturation; and

n is 0, 1, 2, 3, or 4.

**[0251]** In some embodiments, $R^1$ and $R^2$ are independently an optionally substituted $C_1$-$C_4$ alkyl, $C_2$-$C_4$ alkenyl, or $C_2$-$C_4$ alkynyl. In one preferred embodiment, $R^1$ and $R^2$ are both methyl groups. In other preferred embodiments, n is 1 or 2. In other embodiments, $R^3$ is absent when the pH is above the $pK_a$ of the cationic lipid and $R^3$ is hydrogen when the pH is

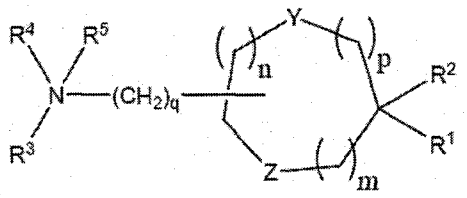
below the $pK_a$ of the cationic lipid such that the amino head group is protonated. In an alternative embodiment, $R^3$ is an optionally substituted $C_1$-$C_4$ alkyl to provide a quaternary amine. In further embodiments, $R^4$ and $R^5$ are independently an optionally substituted $C_{12}$-$C_{20}$ or $C_{14}$-$C_{22}$ alkyl, $C_{12}$-$C_{20}$ or $C_{14}$-$C_{22}$ alkenyl, $C_{12}$-$C_{20}$ or $C_{14}$-$C_{22}$ alkynyl, or $C_{12}$-$C_{20}$ or $C_{14}$-$C_{22}$ acyl, wherein at least one of $R^4$ and $R^5$ comprises at least two or at least three sites of unsaturation.

**[0252]** In certain embodiments, $R^4$ and $R^5$ are independently selected from the group consisting of a dodecadienyl moiety, a tetradecadienyl moiety, a hexadecadienyl moiety, an octadecadienyl moiety, an icosadienyl moiety, a dodecatrienyl moiety, a tetradectrienyl moiety, a hexadecatrienyl moiety, an octadecatrienyl moiety, an icosatrienyl moiety, an arachidonyl moiety, and a docosahexaenoyl moiety, as well as acyl derivatives thereof. In certain instances, the octadecadienyl moiety is a linoleyl moiety. In certain other instances, the octadecatrienyl moiety is a linolenyl moiety. In certain embodiments, $R^4$ and $R^5$ are both linoleyl moieties or linolenyl moieties. In particular embodiments, the cationic lipid of Formula I is 1,2-dilinoleyloxy-N,N-dimethylaminopropane (DLinDMA), 1,2-dilinolenyloxy-N,N-dimethylaminopropane (DLenDMA), or mixtures thereof.

**[0253]** In some embodiments, the cationic lipid of Formula I forms a salt (preferably a crystalline salt) with one or more anions. In one particular embodiment, the cationic lipid of Formula I is the oxalate (*e.g.,* hemioxalate) salt thereof, which is preferably a crystalline salt.

**[0254]** The synthesis of cationic lipids such as DLinDMA and DLenDMA, as well as additional cationic lipids, is described in U.S. Patent Publication No. 20060083780, the disclosure of which is herein incorporated by reference in its entirety for all purposes.

**[0255]** In another aspect, cationic lipids of Formula II having the following structure (or salts thereof) are useful in the present invention:




(II),

wherein $R^1$ and $R^2$ are either the same or different and are independently an optionally substituted $C_{12}$-$C_{24}$ alkyl, $C_{12}$-$C_{24}$ alkenyl, $C_{12}$-$C_{24}$ alkynyl, or $C_{12}$-$C_{24}$ acyl; $R^3$ and $R^4$ are either the same or different and are independently an optionally substituted $C_1$-$C_6$ alkyl, $C_2$-$C_6$ alkenyl, or $C_2$-$C_6$ alkynyl, or $R^3$ and $R^4$ may join to form an optionally substituted heterocyclic ring of 4 to 6 carbon atoms and 1 or 2 heteroatoms chosen from nitrogen and

oxygen; $R^5$ is either absent or is hydrogen (H) or a $C_1$-$C_6$ alkyl to provide a quaternary amine; m, n, and p are either the same or different and are independently either 0, 1, or 2, with the proviso that m, n, and p are not simultaneously 0; q is 0, 1, 2, 3, or 4; and Y and Z are either the same or different and are independently O, S, or NH. In a preferred embodiment, q is 2.

**[0256]** In some embodiments, the cationic lipid of Formula II is 2,2-dilinoleyl-4-(2-dimethylaminoethyl)-[1,3]-dioxolane (DLin-K-C2-DMA; "XTC2" or "C2K"), 2,2-dilinoleyl-4-(3-dimethylaminopropyl)-[1,3]-dioxolane (DLin-K-C3-DMA; "C3K"), 2,2-dilinoleyl-4-(4-dimethylaminobutyl)-[1,3]-dioxolane (DLin-K-C4-DMA; "C4K"), 2,2-dilinoleyl-5-dimethylaminomethyl-[1,3]-dioxane (DLin-K6-DMA), 2,2-dilinoleyl-4-N-methylpepiazino-[1,3]-dioxolane (DLin-K-MPZ), 2,2-dilinoleyl-4-dimethylaminomethyl-[1,3]-dioxolane (DLin-K-DMA), 2,2-dioleoyl-4-dimethylaminomethyl-[1,3]-dioxolane (DO-K-DMA), 2,2-distearoyl-4-dimethylaminomethyl-[1,3]-dioxolane (DS-K-DMA), 2,2-dilinoleyl-4-N-morpholino-[1,3]-dioxolane (DLin-K-MA), 2,2-Dilinoleyl-4-trimethylamino-[1,3]-dioxolane chloride (DLin-K-TMA.Cl), 2,2-dilinoleyl-4,5-bis(dimethylaminomethyl)-[1,3]-dioxolane (DLin-$K^2$-DMA), 2,2-dilinoleyl-4-methylpiperzine-[1,3]-dioxolane (D-Lin-K-N-methylpiperzine), or mixtures thereof. In preferred embodiments, the cationic lipid of Formula II is DLin-K-C2-DMA.

**[0257]** In some embodiments, the cationic lipid of Formula II forms a salt (preferably a crystalline salt) with one or more anions. In one particular embodiment, the cationic lipid of Formula II is the oxalate (*e.g.*, hemioxalate) salt thereof, which is preferably a crystalline salt.

**[0258]** The synthesis of cationic lipids such as DLin-K-DMA, as well as additional cationic lipids, is described in PCT Publication No. WO 09/086558, the disclosure of which is herein incorporated by reference in its entirety for all purposes. The synthesis of cationic lipids such as DLin-K-C2-DMA, DLin-K-C3-DMA, DLin-K-C4-DMA, DLin-K6-DMA, DLin-K-MPZ, DO-K-DMA, DS-K-DMA, DLin-K-MA, DLin-K-TMA.Cl, DLin-$K^2$-DMA, and D-Lin-K-N-methylpiperzine, as well as additional cationic lipids, is described in PCT Application No. PCT/US2009/060251, entitled "Improved Amino Lipids and Methods for the Delivery of Nucleic Acids," filed October 9, 2009, the disclosure of which is incorporated herein by reference in its entirety for all purposes.

**[0259]** Examples of other cationic lipids or salts thereof which may be included in the lipid particles of the present invention include, but are not limited to, cationic lipids such as those described in U.S. Provisional Application No. 61/222,462, entitled "Improved Cationic Lipids and Methods for the Delivery of Nucleic Acids," filed July 1, 2009, the disclosure of which is herein incorporated by reference in its entirety for all purposes, as well as cationic

lipids such as N,N-dioleyl-N,N-dimethylammonium chloride (DODAC), 1,2-dioleyloxy-N,N-dimethylaminopropane (DODMA), 1,2-distearyloxy-N,N-dimethylaminopropane (DSDMA), N-(1-(2,3-dioleyloxy)propyl)-N,N,N-trimethylammonium chloride (DOTMA), N,N-distearyl-N,N-dimethylammonium bromide (DDAB), N-(1-(2,3-dioleoyloxy)propyl)-N,N,N-trimethylammonium chloride (DOTAP), 3 -(N-(N',N'-dimethylaminoethane)-carbamoyl)cholesterol (DC-Chol), N-(1,2-dimyristyloxyprop-3-yl)-N,N-dimethyl-N-hydroxyethyl ammonium bromide (DMRIE), 2,3-dioleyloxy-N-[2(spermine-carboxamido)ethyl]-N,N-dimethyl-1-propanaminiumtrifluoroacetate (DOSPA), dioctadecylamidoglycyl spermine (DOGS), 3-dimethylamino-2-(cholest-5-en-3-beta-oxybutan-4-oxy)-1-(cis,cis-9,12-octadecadienoxy)propane (CLinDMA), 2-[5'-(cholest-5-en-3-beta-oxy)-3'-oxapentoxy)-3-dimethy-1-(cis,cis-9',1-2'-octadecadienoxy)propane (CpLinDMA), N,N-dimethyl-3,4-dioleyloxybenzylamine (DMOBA), 1,2-N,N'-dioleylcarbamyl-3-dimethylaminopropane (DOcarbDAP), 1,2-N,N'-dilinoleylcarbamyl-3-dimethylaminopropane (DLincarbDAP), 1,2-dilinoleylcarbamoyloxy-3-dimethylaminopropane (DLin-C-DAP), 1,2-dilinoleyoxy-3-(dimethylamino)acetoxypropane (DLin-DAC), 1,2-dilinoleyoxy-3-morpholinopropane (DLin-MA), 1,2-dilinoleoyl-3-dimethylaminopropane (DLinDAP), 1,2-dilinoleylthio-3-dimethylaminopropane (DLin-S-DMA), 1-linoleoyl-2-linoleyloxy-3-dimethylaminopropane (DLin-2-DMAP), 1,2-dilinoleyloxy-3-trimethylaminopropane chloride salt (DLin-TMA.Cl), 1,2-dilinoleoyl-3-trimethylaminopropane chloride salt (DLin-TAP.Cl), 1,2-dilinoleyloxy-3-(N-methylpiperazino)propane (DLin-MPZ), 3-(N,N-dilinoleylamino)-1,2-propanediol (DLinAP), 3-(N,N-dioleylamino)-1,2-propanedio (DOAP), 1,2-dilinoleyloxo-3-(2-N,N-dimethylamino)ethoxypropane (DLin-EG-DMA), 1,2-dioeylcarbamoyloxy-3-dimethylaminopropane (DO-C-DAP), 1,2-dimyristoleoyl-3-dimethylaminopropane (DMDAP), 1,2-dioleoyl-3-trimethylaminopropane chloride (DOTAP.Cl), dilinoleylmethyl-3-dimethylaminopropionate (DLin-M-K-DMA; also known as DLin-M-DMA), and mixtures thereof. Additional cationic lipids or salts thereof which may be included in the lipid particles of the present invention are described in U.S. Patent Publication No. 20090023673, the disclosure of which is herein incorporated by reference in its entirety for all purposes.

**[0260]** The synthesis of cationic lipids such as CLinDMA, as well as additional cationic lipids, is described in U.S. Patent Publication No. 20060240554, the disclosure of which is herein incorporated by reference in its entirety for all purposes. The synthesis of cationic lipids such as DLin-C-DAP, DLinDAC, DLinMA, DLinDAP, DLin-S-DMA, DLin-2-DMAP, DLinTMA.Cl, DLinTAP.Cl, DLinMPZ, DLinAP, DOAP, and DLin-EG-DMA, as

well as additional cationic lipids, is described in PCT Publication No. WO 09/086558, the disclosure of which is herein incorporated by reference in its entirety for all purposes. The synthesis of cationic lipids such as DO-C-DAP, DMDAP, DOTAP.Cl, DLin-M-K-DMA, as well as additional cationic lipids, is described in PCT Application No. PCT/US2009/060251, entitled "Improved Amino Lipids and Methods for the Delivery of Nucleic Acids," filed October 9, 2009, the disclosure of which is incorporated herein by reference in its entirety for all purposes. The synthesis of a number of other cationic lipids and related analogs has been described in U.S. Patent Nos. 5,208,036; 5,264,618; 5,279,833; 5,283,185; 5,753,613; and 5,785,992; and PCT Publication No. WO 96/10390, the disclosures of which are each herein incorporated by reference in their entirety for all purposes. Additionally, a number of commercial preparations of cationic lipids can be used, such as, *e.g.*, LIPOFECTIN® (including DOTMA and DOPE, available from Invitrogen); LIPOFECTAMINE® (including DOSPA and DOPE, available from Invitrogen); and TRANSFECTAM® (including DOGS, available from Promega Corp.).

**[0261]** In some embodiments, the cationic lipid comprises from about 50 mol % to about 90 mol %, from about 50 mol % to about 85 mol %, from about 50 mol % to about 80 mol %, from about 50 mol % to about 75 mol %, from about 50 mol % to about 70 mol %, from about 50 mol % to about 65 mol %, from about 50 mol % to about 60 mol %, from about 55 mol % to about 65 mol %, or from about 55 mol % to about 70 mol % (or any fraction thereof or range therein) of the total lipid present in the particle. In particular embodiments, the cationic lipid comprises about 50 mol %, 51 mol %, 52 mol %, 53 mol %, 54 mol %, 55 mol %, 56 mol %, 57 mol %, 58 mol %, 59 mol %, 60 mol %, 61 mol %, 62 mol %, 63 mol %, 64 mol %, or 65 mol % (or any fraction thereof) of the total lipid present in the particle.

**[0262]** In other embodiments, the cationic lipid comprises from about 2 mol % to about 60 mol %, from about 5 mol % to about 50 mol %, from about 10 mol % to about 50 mol %, from about 20 mol % to about 50 mol %, from about 20 mol % to about 40 mol %, from about 30 mol % to about 40 mol %, or about 40 mol % (or any fraction thereof or range therein) of the total lipid present in the particle.

**[0263]** Additional percentages and ranges of cationic lipids suitable for use in the lipid particles of the present invention are described in PCT Publication No. WO 09/127060, U.S. Provisional Application No. 61/184,652, filed June 5, 2009, U.S. Provisional Application No. 61/222,462, filed July 1, 2009, and U.S. Provisional Application No. 61/222,469, filed July 1, 2009, the disclosures of which are herein incorporated by reference in their entirety for all purposes.

**[0264]** It should be understood that the percentage of cationic lipid present in the lipid particles of the invention is a target amount, and that the actual amount of cationic lipid present in the formulation may vary, for example, by ± 5 mol %. For example, in the 1:57 lipid particle (*e.g.,* SNALP) formulation, the target amount of cationic lipid is 57.1 mol %, but the actual amount of cationic lipid may be ± 5 mol %, ± 4 mol %, ± 3 mol %, ± 2 mol %, ± 1 mol %, ± 0.75 mol %, ± 0.5 mol %, ± 0.25 mol %, or ± 0.1 mol % of that target amount, with the balance of the formulation being made up of other lipid components (adding up to 100 mol % of total lipids present in the particle).

### 2. Non-cationic Lipids

**[0265]** The non-cationic lipids used in the lipid particles of the invention (*e.g.,* SNALP) can be any of a variety of neutral uncharged, zwitterionic, or anionic lipids capable of producing a stable complex.

**[0266]** Non-limiting examples of non-cationic lipids include phospholipids such as lecithin, phosphatidylethanolamine, lysolecithin, lysophosphatidylethanolamine, phosphatidylserine, phosphatidylinositol, sphingomyelin, egg sphingomyelin (ESM), cephalin, cardiolipin, phosphatidic acid, cerebrosides, dicetylphosphate, distearoylphosphatidylcholine (DSPC), dioleoylphosphatidylcholine (DOPC), dipalmitoylphosphatidylcholine (DPPC), dioleoylphosphatidylglycerol (DOPG), dipalmitoylphosphatidylglycerol (DPPG), dioleoylphosphatidylethanolamine (DOPE), palmitoyloleoyl-phosphatidylcholine (POPC), palmitoyloleoyl-phosphatidylethanolamine (POPE), palmitoyloleyol-phosphatidylglycerol (POPG), dioleoylphosphatidylethanolamine 4-(N-maleimidomethyl)-cyclohexane-1-carboxylate (DOPE-mal), dipalmitoyl-phosphatidylethanolamine (DPPE), dimyristoyl-phosphatidylethanolamine (DMPE), distearoyl-phosphatidylethanolamine (DSPE), monomethyl-phosphatidylethanolamine, dimethyl-phosphatidylethanolamine, dielaidoyl-phosphatidylethanolamine (DEPE), stearoyloleoyl-phosphatidylethanolamine (SOPE), lysophosphatidylcholine, dilinoleoylphosphatidylcholine, and mixtures thereof. Other diacylphosphatidylcholine and diacylphosphatidylethanolamine phospholipids can also be used. The acyl groups in these lipids are preferably acyl groups derived from fatty acids having $C_{10}$-$C_{24}$ carbon chains, *e.g.,* lauroyl, myristoyl, palmitoyl, stearoyl, or oleoyl.

**[0267]** Additional examples of non-cationic lipids include sterols such as cholesterol and derivatives thereof. Non-limiting examples of cholesterol derivatives include polar analogues such as 5α-cholestanol, 5β-coprostanol, cholesteryl-(2'-hydroxy)-ethyl ether, cholesteryl-(4'-hydroxy)-butyl ether, and 6-ketocholestanol; non-polar analogues such as 5α-cholestane, cholestenone, 5α-cholestanone, 5β-cholestanone, and cholesteryl decanoate; and mixtures

thereof. In preferred embodiments, the cholesterol derivative is a polar analogue such as cholesteryl-(4'-hydroxy)-butyl ether. The synthesis of cholesteryl-(2'-hydroxy)-ethyl ether is described in PCT Publication No. WO 09/127060, the disclosure of which is herein incorporated by reference in its entirety for all purposes.

**[0268]** In some embodiments, the non-cationic lipid present in the lipid particles (*e.g.*, SNALP) comprises or consists of a mixture of one or more phospholipids and cholesterol or a derivative thereof. In other embodiments, the non-cationic lipid present in the lipid particles (*e.g.*, SNALP) comprises or consists of one or more phospholipids, *e.g.*, a cholesterol-free lipid particle formulation. In yet other embodiments, the non-cationic lipid present in the lipid particles (*e.g.*, SNALP) comprises or consists of cholesterol or a derivative thereof, *e.g.*, a phospholipid-free lipid particle formulation.

**[0269]** Other examples of non-cationic lipids suitable for use in the present invention include nonphosphorous containing lipids such as, *e.g.*, stearylamine, dodecylamine, hexadecylamine, acetyl palmitate, glycerolricinoleate, hexadecyl stereate, isopropyl myristate, amphoteric acrylic polymers, triethanolamine-lauryl sulfate, alkyl-aryl sulfate polyethyloxylated fatty acid amides, dioctadecyldimethyl ammonium bromide, ceramide, sphingomyelin, and the like.

**[0270]** In some embodiments, the non-cationic lipid comprises from about 10 mol % to about 60 mol %, from about 20 mol % to about 55 mol %, from about 20 mol % to about 45 mol %, from about 20 mol % to about 40 mol %, from about 25 mol % to about 50 mol %, from about 25 mol % to about 45 mol %, from about 30 mol % to about 50 mol %, from about 30 mol % to about 45 mol %, from about 30 mol % to about 40 mol %, from about 35 mol % to about 45 mol %, from about 37 mol % to about 42 mol %, or about 35 mol %, 36 mol %, 37 mol %, 38 mol %, 39 mol %, 40 mol %, 41 mol %, 42 mol %, 43 mol %, 44 mol %, or 45 mol % (or any fraction thereof or range therein) of the total lipid present in the particle.

**[0271]** In embodiments where the lipid particles contain a mixture of phospholipid and cholesterol or a cholesterol derivative, the mixture may comprise up to about 40 mol %, 45 mol %, 50 mol %, 55 mol %, or 60 mol % of the total lipid present in the particle.

**[0272]** In some embodiments, the phospholipid component in the mixture may comprise from about 2 mol % to about 20 mol %, from about 2 mol % to about 15 mol %, from about 2 mol % to about 12 mol %, from about 4 mol % to about 15 mol %, or from about 4 mol % to about 10 mol % (or any fraction thereof or range therein) of the total lipid present in the particle. In certain preferred embodiments, the phospholipid component in the mixture

comprises from about 5 mol % to about 10 mol %, from about 5 mol % to about 9 mol %, from about 5 mol % to about 8 mol %, from about 6 mol % to about 9 mol %, from about 6 mol % to about 8 mol %, or about 5 mol %, 6 mol %, 7 mol %, 8 mol %, 9 mol %, or 10 mol % (or any fraction thereof or range therein) of the total lipid present in the particle. As a non-limiting example, a 1:57 lipid particle formulation comprising a mixture of phospholipid and cholesterol may comprise a phospholipid such as DPPC or DSPC at about 7 mol % (or any fraction thereof), *e.g.,* in a mixture with cholesterol or a cholesterol derivative at about 34 mol % (or any fraction thereof) of the total lipid present in the particle.

**[0273]** In other embodiments, the cholesterol component in the mixture may comprise from about 25 mol % to about 45 mol %, from about 25 mol % to about 40 mol %, from about 30 mol % to about 45 mol %, from about 30 mol % to about 40 mol %, from about 27 mol % to about 37 mol %, from about 25 mol % to about 30 mol %, or from about 35 mol % to about 40 mol % (or any fraction thereof or range therein) of the total lipid present in the particle. In certain preferred embodiments, the cholesterol component in the mixture comprises from about 25 mol % to about 35 mol %, from about 27 mol % to about 35 mol %, from about 29 mol % to about 35 mol %, from about 30 mol % to about 35 mol %, from about 30 mol % to about 34 mol %, from about 31 mol % to about 33 mol %, or about 30 mol %, 31 mol %, 32 mol %, 33 mol %, 34 mol %, or 35 mol % (or any fraction thereof or range therein) of the total lipid present in the particle. Typically, a 1:57 lipid particle formulation comprising a mixture of phospholipid and cholesterol may comprise cholesterol or a cholesterol derivative at about 34 mol % (or any fraction thereof), *e.g.,* in a mixture with a phospholipid such as DPPC or DSPC at about 7 mol % (or any fraction thereof) of the total lipid present in the particle.

**[0274]** In embodiments where the lipid particles are phospholipid-free, the cholesterol or derivative thereof may comprise up to about 25 mol %, 30 mol %, 35 mol %, 40 mol %, 45 mol %, 50 mol %, 55 mol %, or 60 mol % of the total lipid present in the particle.

**[0275]** In some embodiments, the cholesterol or derivative thereof in the phospholipid-free lipid particle formulation may comprise from about 25 mol % to about 45 mol %, from about 25 mol % to about 40 mol %, from about 30 mol % to about 45 mol %, from about 30 mol % to about 40 mol %, from about 31 mol % to about 39 mol %, from about 32 mol % to about 38 mol %, from about 33 mol % to about 37 mol %, from about 35 mol % to about 45 mol %, from about 30 mol % to about 35 mol %, from about 35 mol % to about 40 mol %, or about 30 mol %, 31 mol %, 32 mol %, 33 mol %, 34 mol %, 35 mol %, 36 mol %, 37 mol %, 38 mol %, 39 mol %, or 40 mol % (or any fraction thereof or range therein) of the total lipid

present in the particle. As a non-limiting example, a 1:62 lipid particle formulation may comprise cholesterol at about 37 mol % (or any fraction thereof) of the total lipid present in the particle.

**[0276]** In other embodiments, the non-cationic lipid comprises from about 5 mol % to about 90 mol %, from about 10 mol % to about 85 mol %, from about 20 mol % to about 80 mol %, about 10 mol % (*e.g.*, phospholipid only), or about 60 mol % (*e.g.*, phospholipid and cholesterol or derivative thereof) (or any fraction thereof or range therein) of the total lipid present in the particle.

**[0277]** Additional percentages and ranges of non-cationic lipids suitable for use in the lipid particles of the present invention are described in PCT Publication No. WO 09/127060, U.S. Provisional Application No. 61/184,652, filed June 5, 2009, U.S. Provisional Application No. 61/222,462, filed July 1, 2009, and U.S. Provisional Application No. 61/222,469, filed July 1, 2009, the disclosures of which are herein incorporated by reference in their entirety for all purposes.

**[0278]** It should be understood that the percentage of non-cationic lipid present in the lipid particles of the invention is a target amount, and that the actual amount of non-cationic lipid present in the formulation may vary, for example, by ± 5 mol %. For example, in the 1:57 lipid particle (*e.g.*, SNALP) formulation, the target amount of phospholipid is 7.1 mol % and the target amount of cholesterol is 34.3 mol %, but the actual amount of phospholipid may be ± 2 mol %, ± 1.5 mol %, ± 1 mol %, ± 0.75 mol %, ± 0.5 mol %, ± 0.25 mol %, or ± 0.1 mol % of that target amount, and the actual amount of cholesterol may be ± 3 mol %, ± 2 mol %, ± 1 mol %, ± 0.75 mol %, ± 0.5 mol %, ± 0.25 mol %, or ± 0.1 mol % of that target amount, with the balance of the formulation being made up of other lipid components (adding up to 100 mol % of total lipids present in the particle).

### 3. Lipid Conjugates

**[0279]** In addition to cationic and non-cationic lipids, the lipid particles of the invention (*e.g.*, SNALP) may further comprise a lipid conjugate. The conjugated lipid is useful in that it prevents the aggregation of particles. Suitable conjugated lipids include, but are not limited to, PEG-lipid conjugates, ATTA-lipid conjugates, cationic-polymer-lipid conjugates (CPLs), and mixtures thereof. In certain embodiments, the particles comprise either a PEG-lipid conjugate or an ATTA-lipid conjugate together with a CPL.

**[0280]** In a preferred embodiment, the lipid conjugate is a PEG-lipid. Examples of PEG-lipids include, but are not limited to, PEG coupled to dialkyloxypropyls (PEG-DAA) as described in, *e.g.*, PCT Publication No. WO 05/026372, PEG coupled to diacylglycerol

(PEG-DAG) as described in, *e.g.*, U.S. Patent Publication Nos. 20030077829 and 2005008689, PEG coupled to phospholipids such as phosphatidylethanolamine (PEG-PE), PEG conjugated to ceramides as described in, *e.g.*, U.S. Patent No. 5,885,613, PEG conjugated to cholesterol or a derivative thereof, and mixtures thereof. The disclosures of these patent documents are herein incorporated by reference in their entirety for all purposes.

**[0281]** Additional PEG-lipids suitable for use in the invention include, without limitation, mPEG2000-1,2-di-O-alkyl-*sn*3-carbomoylglyceride (PEG-C-DOMG). The synthesis of PEG-C-DOMG is described in PCT Publication No. WO 09/086558, the disclosure of which is herein incorporated by reference in its entirety for all purposes. Yet additional suitable PEG-lipid conjugates include, without limitation, 1-[8'-(1,2-dimyristoyl-3-propanoxy)-carboxamido-3',6'-dioxaoctanyl]carbamoyl-ω-methyl-poly(ethylene glycol) (2KPEG-DMG). The synthesis of 2KPEG-DMG is described in U.S. Patent No. 7,404,969, the disclosure of which is herein incorporated by reference in its entirety for all purposes.

**[0282]** PEG is a linear, water-soluble polymer of ethylene PEG repeating units with two terminal hydroxyl groups. PEGs are classified by their molecular weights; for example, PEG 2000 has an average molecular weight of about 2,000 daltons, and PEG 5000 has an average molecular weight of about 5,000 daltons. PEGs are commercially available from Sigma Chemical Co. and other companies and include, but are not limited to, the following: monomethoxypolyethylene glycol (MePEG-OH), monomethoxypolyethylene glycol-succinate (MePEG-S), monomethoxypolyethylene glycol-succinimidyl succinate (MePEG-S-NHS), monomethoxypolyethylene glycol-amine (MePEG-$NH_2$), monomethoxypolyethylene glycol-tresylate (MePEG-TRES), monomethoxypolyethylene glycol-imidazolyl-carbonyl (MePEG-IM), as well as such compounds containing a terminal hydroxyl group instead of a terminal methoxy group (*e.g.*, HO-PEG-S, HO-PEG-S-NHS, HO-PEG-$NH_2$, *etc.*). Other PEGs such as those described in U.S. Patent Nos. 6,774,180 and 7,053,150 (*e.g.*, mPEG (20 KDa) amine) are also useful for preparing the PEG-lipid conjugates of the present invention. The disclosures of these patents are herein incorporated by reference in their entirety for all purposes. In addition, monomethoxypolyethyleneglycol-acetic acid (MePEG-$CH_2COOH$) is particularly useful for preparing PEG-lipid conjugates including, *e.g.*, PEG-DAA conjugates.

**[0283]** The PEG moiety of the PEG-lipid conjugates described herein may comprise an average molecular weight ranging from about 550 daltons to about 10,000 daltons. In certain instances, the PEG moiety has an average molecular weight of from about 750 daltons to about 5,000 daltons (*e.g.*, from about 1,000 daltons to about 5,000 daltons, from about 1,500 daltons to about 3,000 daltons, from about 750 daltons to about 3,000 daltons, from about

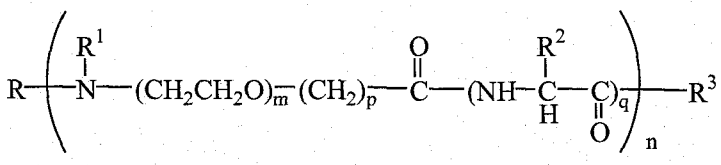
750 daltons to about 2,000 daltons, *etc.*). In preferred embodiments, the PEG moiety has an average molecular weight of about 2,000 daltons.

**[0284]** In certain instances, the PEG can be optionally substituted by an alkyl, alkoxy, acyl, or aryl group. The PEG can be conjugated directly to the lipid or may be linked to the lipid via a linker moiety. Any linker moiety suitable for coupling the PEG to a lipid can be used including, *e.g.*, non-ester containing linker moieties and ester-containing linker moieties. In a preferred embodiment, the linker moiety is a non-ester containing linker moiety. As used herein, the term "non-ester containing linker moiety" refers to a linker moiety that does not contain a carboxylic ester bond (-OC(O)-). Suitable non-ester containing linker moieties include, but are not limited to, amido (-C(O)NH-), amino (-NR-), carbonyl (-C(O)-), carbamate (-NHC(O)O-), urea (-NHC(O)NH-), disulphide (-S-S-), ether (-O-), succinyl (-(O)C$CH_2CH_2$C(O)-), succinamidyl (-NHC(O)$CH_2CH_2$C(O)NH-), ether, disulphide, as well as combinations thereof (such as a linker containing both a carbamate linker moiety and an amido linker moiety). In a preferred embodiment, a carbamate linker is used to couple the PEG to the lipid.

**[0285]** In other embodiments, an ester containing linker moiety is used to couple the PEG to the lipid. Suitable ester containing linker moieties include, *e.g.*, carbonate (-OC(O)O-), succinoyl, phosphate esters (-O-(O)POH-O-), sulfonate esters, and combinations thereof.

**[0286]** Phosphatidylethanolamines having a variety of acyl chain groups of varying chain lengths and degrees of saturation can be conjugated to PEG to form the lipid conjugate. Such phosphatidylethanolamines are commercially available, or can be isolated or synthesized using conventional techniques known to those of skilled in the art. Phosphatidyl-ethanolamines containing saturated or unsaturated fatty acids with carbon chain lengths in the range of $C_{10}$ to $C_{20}$ are preferred. Phosphatidylethanolamines with mono- or diunsaturated fatty acids and mixtures of saturated and unsaturated fatty acids can also be used. Suitable phosphatidylethanolamines include, but are not limited to, dimyristoyl-phosphatidylethanolamine (DMPE), dipalmitoyl-phosphatidylethanolamine (DPPE), dioleoylphosphatidylethanolamine (DOPE), and distearoyl-phosphatidylethanolamine (DSPE).

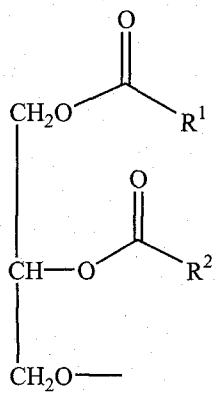
**[0287]** The term "ATTA" or "polyamide" includes, without limitation, compounds described in U.S. Patent Nos. 6,320,017 and 6,586,559, the disclosures of which are herein incorporated by reference in their entirety for all purposes. These compounds include a compound having the formula:



(III),

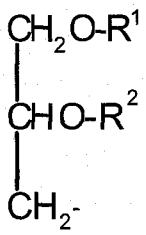
wherein R is a member selected from the group consisting of hydrogen, alkyl and acyl; $R^1$ is a member selected from the group consisting of hydrogen and alkyl; or optionally, R and $R^1$ and the nitrogen to which they are bound form an azido moiety; $R^2$ is a member of the group selected from hydrogen, optionally substituted alkyl, optionally substituted aryl and a side chain of an amino acid; $R^3$ is a member selected from the group consisting of hydrogen, halogen, hydroxy, alkoxy, mercapto, hydrazino, amino and $NR^4R^5$, wherein $R^4$ and $R^5$ are independently hydrogen or alkyl; n is 4 to 80; m is 2 to 6; p is 1 to 4; and q is 0 or 1. It will be apparent to those of skill in the art that other polyamides can be used in the compounds of the present invention.

**[0288]** The term "diacylglycerol" or "DAG" includes a compound having 2 fatty acyl chains, $R^1$ and $R^2$, both of which have independently between 2 and 30 carbons bonded to the 1- and 2-position of glycerol by ester linkages. The acyl groups can be saturated or have varying degrees of unsaturation. Suitable acyl groups include, but are not limited to, lauroyl ($C_{12}$), myristoyl ($C_{14}$), palmitoyl ($C_{16}$), stearoyl ($C_{18}$), and icosoyl ($C_{20}$). In preferred embodiments, $R^1$ and $R^2$ are the same, *i.e.*, $R^1$ and $R^2$ are both myristoyl (*i.e.*, dimyristoyl), $R^1$ and $R^2$ are both stearoyl (*i.e.*, distearoyl), *etc.* Diacylglycerols have the following general formula:



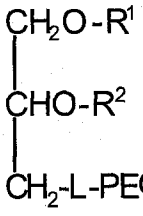
(IV).

**[0289]** The term "dialkyloxypropyl" or "DAA" includes a compound having 2 alkyl chains, $R^1$ and $R^2$, both of which have independently between 2 and 30 carbons. The alkyl groups can be saturated or have varying degrees of unsaturation. Dialkyloxypropyls have the following general formula:



(V).

**[0290]** In a preferred embodiment, the PEG-lipid is a PEG-DAA conjugate having the following formula:



(VI),

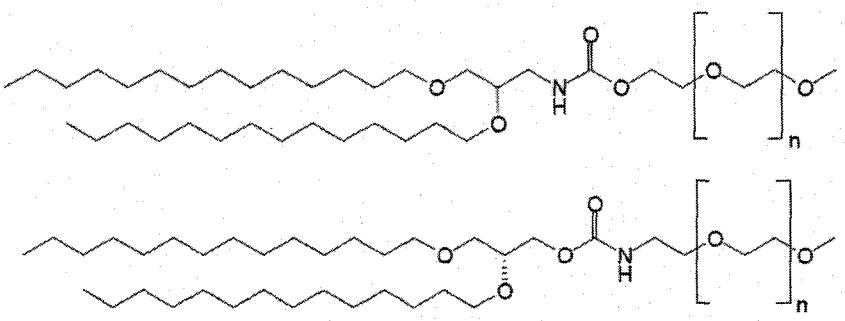
wherein $R^1$ and $R^2$ are independently selected and are long-chain alkyl groups having from about 10 to about 22 carbon atoms; PEG is a polyethyleneglycol; and L is a non-ester containing linker moiety or an ester containing linker moiety as described above. The long-chain alkyl groups can be saturated or unsaturated. Suitable alkyl groups include, but are not limited to, decyl ($C_{10}$), lauryl ($C_{12}$), myristyl ($C_{14}$), palmityl ($C_{16}$), stearyl ($C_{18}$), and icosyl ($C_{20}$). In preferred embodiments, $R^1$ and $R^2$ are the same, *i.e.*, $R^1$ and $R^2$ are both myristyl (*i.e.*, dimyristyl), $R^1$ and $R^2$ are both stearyl (*i.e.*, distearyl), *etc.*

**[0291]** In Formula VI above, the PEG has an average molecular weight ranging from about 550 daltons to about 10,000 daltons. In certain instances, the PEG has an average molecular weight of from about 750 daltons to about 5,000 daltons (*e.g.*, from about 1,000 daltons to about 5,000 daltons, from about 1,500 daltons to about 3,000 daltons, from about 750 daltons to about 3,000 daltons, from about 750 daltons to about 2,000 daltons, *etc.*). In preferred embodiments, the PEG has an average molecular weight of about 2,000 daltons. The PEG can be optionally substituted with alkyl, alkoxy, acyl, or aryl groups. In certain instances, the terminal hydroxyl group is substituted with a methoxy or methyl group.

**[0292]** In a preferred embodiment, "L" is a non-ester containing linker moiety. Suitable non-ester containing linkers include, but are not limited to, an amido linker moiety, an amino linker moiety, a carbonyl linker moiety, a carbamate linker moiety, a urea linker moiety, an ether linker moiety, a disulphide linker moiety, a succinamidyl linker moiety, and combinations thereof. In a preferred embodiment, the non-ester containing linker moiety is a carbamate linker moiety (*i.e.*, a PEG-*C*-DAA conjugate). In another preferred embodiment, the non-ester containing linker moiety is an amido linker moiety (*i.e.*, a PEG-*A*-DAA

conjugate). In yet another preferred embodiment, the non-ester containing linker moiety is a succinamidyl linker moiety (*i.e.*, a PEG-*S*-DAA conjugate).

**[0293]** In particular embodiments, the PEG-lipid conjugate is selected from:



(PEG-C-DMA); and



(PEG-C-DOMG).

**[0294]** The PEG-DAA conjugates are synthesized using standard techniques and reagents known to those of skill in the art. It will be recognized that the PEG-DAA conjugates will contain various amide, amine, ether, thio, carbamate, and urea linkages. Those of skill in the art will recognize that methods and reagents for forming these bonds are well known and readily available. *See, e.g.,* March, ADVANCED ORGANIC CHEMISTRY (Wiley 1992); Larock, COMPREHENSIVE ORGANIC TRANSFORMATIONS (VCH 1989); and Furniss, VOGEL'S TEXTBOOK OF PRACTICAL ORGANIC CHEMISTRY, 5th ed. (Longman 1989). It will also be appreciated that any functional groups present may require protection and deprotection at different points in the synthesis of the PEG-DAA conjugates. Those of skill in the art will recognize that such techniques are well known. *See, e.g.,* Green and Wuts, PROTECTIVE GROUPS IN ORGANIC SYNTHESIS (Wiley 1991).

**[0295]** Preferably, the PEG-DAA conjugate is a PEG-didecyloxypropyl ($C_{10}$) conjugate, a PEG-dilauryloxypropyl ($C_{12}$) conjugate, a PEG-dimyristyloxypropyl ($C_{14}$) conjugate, a PEG-dipalmityloxypropyl ($C_{16}$) conjugate, or a PEG-distearyloxypropyl ($C_{18}$) conjugate. In these embodiments, the PEG preferably has an average molecular weight of about 2,000 daltons. In one particularly preferred embodiment, the PEG-lipid conjugate comprises PEG2000-C-DMA, wherein the "2000" denotes the average molecular weight of the PEG, the "C" denotes a carbamate linker moiety, and the "DMA" denotes dimyristyloxypropyl. In particular embodiments, the terminal hydroxyl group of the PEG is substituted with a methyl group. Those of skill in the art will readily appreciate that other dialkyloxypropyls can be used in the PEG-DAA conjugates of the present invention.

**[0296]** In addition to the foregoing, it will be readily apparent to those of skill in the art that other hydrophilic polymers can be used in place of PEG. Examples of suitable polymers that can be used in place of PEG include, but are not limited to, polyvinylpyrrolidone,

polymethyloxazoline, polyethyloxazoline, polyhydroxypropyl methacrylamide, polymethacrylamide and polydimethylacrylamide, polylactic acid, polyglycolic acid, and derivatized celluloses such as hydroxymethylcellulose or hydroxyethylcellulose.

**[0297]** In addition to the foregoing components, the lipid particles (*e.g.*, SNALP) of the present invention can further comprise cationic poly(ethylene glycol) (PEG) lipids or CPLs (*see, e.g.*, Chen *et al.*, *Bioconj. Chem.*, 11:433-437 (2000); U.S. Patent No. 6,852,334; PCT Publication No. WO 00/62813, the disclosures of which are herein incorporated by reference in their entirety for all purposes).

**[0298]** Suitable CPLs include compounds of Formula VII:

A-W-Y (VII),

wherein A, W, and Y are as described below.

**[0299]** With reference to Formula VII, "A" is a lipid moiety such as an amphipathic lipid, a neutral lipid, or a hydrophobic lipid that acts as a lipid anchor. Suitable lipid examples include, but are not limited to, diacylglycerolyls, dialkylglycerolyls, N-N-dialkylaminos, 1,2-diacyloxy-3-aminopropanes, and 1,2-dialkyl-3-aminopropanes.

**[0300]** "W" is a polymer or an oligomer such as a hydrophilic polymer or oligomer. Preferably, the hydrophilic polymer is a biocompatable polymer that is nonimmunogenic or possesses low inherent immunogenicity. Alternatively, the hydrophilic polymer can be weakly antigenic if used with appropriate adjuvants. Suitable nonimmunogenic polymers include, but are not limited to, PEG, polyamides, polylactic acid, polyglycolic acid, polylactic acid/polyglycolic acid copolymers, and combinations thereof. In a preferred embodiment, the polymer has a molecular weight of from about 250 to about 7,000 daltons.

**[0301]** "Y" is a polycationic moiety. The term polycationic moiety refers to a compound, derivative, or functional group having a positive charge, preferably at least 2 positive charges at a selected pH, preferably physiological pH. Suitable polycationic moieties include basic amino acids and their derivatives such as arginine, asparagine, glutamine, lysine, and histidine; spermine; spermidine; cationic dendrimers; polyamines; polyamine sugars; and amino polysaccharides. The polycationic moieties can be linear, such as linear tetralysine, branched or dendrimeric in structure. Polycationic moieties have between about 2 to about 15 positive charges, preferably between about 2 to about 12 positive charges, and more preferably between about 2 to about 8 positive charges at selected pH values. The selection of which polycationic moiety to employ may be determined by the type of particle application which is desired.

**[0302]** The charges on the polycationic moieties can be either distributed around the entire particle moiety, or alternatively, they can be a discrete concentration of charge density in one particular area of the particle moiety *e.g.,* a charge spike. If the charge density is distributed on the particle, the charge density can be equally distributed or unequally distributed. All variations of charge distribution of the polycationic moiety are encompassed by the present invention.

**[0303]** The lipid "A" and the nonimmunogenic polymer "W" can be attached by various methods and preferably by covalent attachment. Methods known to those of skill in the art can be used for the covalent attachment of "A" and "W." Suitable linkages include, but are not limited to, amide, amine, carboxyl, carbonate, carbamate, ester, and hydrazone linkages. It will be apparent to those skilled in the art that "A" and "W" must have complementary functional groups to effectuate the linkage. The reaction of these two groups, one on the lipid and the other on the polymer, will provide the desired linkage. For example, when the lipid is a diacylglycerol and the terminal hydroxyl is activated, for instance with NHS and DCC, to form an active ester, and is then reacted with a polymer which contains an amino group, such as with a polyamide (*see, e.g.,* U.S. Patent Nos. 6,320,017 and 6,586,559, the disclosures of which are herein incorporated by reference in their entirety for all purposes), an amide bond will form between the two groups.

**[0304]** In certain instances, the polycationic moiety can have a ligand attached, such as a targeting ligand or a chelating moiety for complexing calcium. Preferably, after the ligand is attached, the cationic moiety maintains a positive charge. In certain instances, the ligand that is attached has a positive charge. Suitable ligands include, but are not limited to, a compound or device with a reactive functional group and include lipids, amphipathic lipids, carrier compounds, bioaffinity compounds, biomaterials, biopolymers, biomedical devices, analytically detectable compounds, therapeutically active compounds, enzymes, peptides, proteins, antibodies, immune stimulators, radiolabels, fluorogens, biotin, drugs, haptens, DNA, RNA, polysaccharides, liposomes, virosomes, micelles, immunoglobulins, functional groups, other targeting moieties, or toxins.

**[0305]** In some embodiments, the lipid conjugate (*e.g.,* PEG-lipid) comprises from about 0.1 mol % to about 2 mol %, from about 0.5 mol % to about 2 mol %, from about 1 mol % to about 2 mol %, from about 0.6 mol % to about 1.9 mol %, from about 0.7 mol % to about 1.8 mol %, from about 0.8 mol % to about 1.7 mol %, from about 0.9 mol % to about 1.6 mol %, from about 0.9 mol % to about 1.8 mol %, from about 1 mol % to about 1.8 mol %, from about 1 mol % to about 1.7 mol %, from about 1.2 mol % to about 1.8 mol %, from about 1.2

mol % to about 1.7 mol %, from about 1.3 mol % to about 1.6 mol %, or from about 1.4 mol % to about 1.5 mol % (or any fraction thereof or range therein) of the total lipid present in the particle.

**[0306]** In other embodiments, the lipid conjugate (*e.g.,* PEG-lipid) comprises from about 0 mol % to about 20 mol %, from about 0.5 mol % to about 20 mol %, from about 2 mol % to about 20 mol %, from about 1 mol % to about 15 mol %, from about 1.5 mol % to about 18 mol %, from about 2 mol % to about 15 mol %, from about 4 mol % to about 15 mol %, from about 2 mol % to about 12 mol %, from about 5 mol % to about 12 mol %, from about 4 mol % to about 10 mol %, or about 2 mol % (or any fraction thereof or range therein) of the total lipid present in the particle.

**[0307]** Additional percentages and ranges of lipid conjugates suitable for use in the lipid particles of the present invention are described in PCT Publication No. WO 09/127060, U.S. Provisional Application No. 61/184,652, filed June 5, 2009, U.S. Provisional Application No. 61/222,462, filed July 1, 2009, and U.S. Provisional Application No. 61/222,469, filed July 1, 2009, the disclosures of which are herein incorporated by reference in their entirety for all purposes.

**[0308]** It should be understood that the percentage of lipid conjugate (*e.g.,* PEG-lipid) present in the lipid particles of the invention is a target amount, and that the actual amount of lipid conjugate present in the formulation may vary, for example, by ± 2 mol %. For example, in the 1:57 lipid particle (*e.g.,* SNALP) formulation, the target amount of lipid conjugate is 1.4 mol %, but the actual amount of lipid conjugate may be ± 0.5 mol %, ± 0.4 mol %, ± 0.3 mol %, ± 0.2 mol %, ± 0.1 mol %, or ± 0.05 mol % of that target amount, with the balance of the formulation being made up of other lipid components (adding up to 100 mol % of total lipids present in the particle).

**[0309]** One of ordinary skill in the art will appreciate that the concentration of the lipid conjugate can be varied depending on the lipid conjugate employed and the rate at which the lipid particle is to become fusogenic.

**[0310]** By controlling the composition and concentration of the lipid conjugate, one can control the rate at which the lipid conjugate exchanges out of the lipid particle and, in turn, the rate at which the lipid particle becomes fusogenic. For instance, when a PEG-DAA conjugate is used as the lipid conjugate, the rate at which the lipid particle becomes fusogenic can be varied, for example, by varying the concentration of the lipid conjugate, by varying the molecular weight of the PEG, or by varying the chain length and degree of saturation of the alkyl groups on the PEG-DAA conjugate. In addition, other variables including, for

example, pH, temperature, ionic strength, *etc.* can be used to vary and/or control the rate at which the lipid particle becomes fusogenic. Other methods which can be used to control the rate at which the lipid particle becomes fusogenic will become apparent to those of skill in the art upon reading this disclosure. Also, by controlling the composition and concentration of the lipid conjugate, one can control the lipid particle (*e.g.*, SNALP) size.

**B. Additional Carrier Systems**

**[0311]** Non-limiting examples of additional lipid-based carrier systems suitable for use in the present invention include lipoplexes (*see, e.g.*, U.S. Patent Publication No. 20030203865; and Zhang *et al.*, *J. Control Release*, 100:165-180 (2004)), pH-sensitive lipoplexes (*see, e.g.*, U.S. Patent Publication No. 20020192275), reversibly masked lipoplexes (*see, e.g.*, U.S. Patent Publication Nos. 20030180950), cationic lipid-based compositions (*see, e.g.*, U.S. Patent No. 6,756,054; and U.S. Patent Publication No. 20050234232), cationic liposomes (*see, e.g.*, U.S. Patent Publication Nos. 20030229040, 20020160038, and 20020012998; U.S. Patent No. 5,908,635; and PCT Publication No. WO 01/72283), anionic liposomes (*see, e.g.*, U.S. Patent Publication No. 20030026831), pH-sensitive liposomes (*see, e.g.*, U.S. Patent Publication No. 20020192274; and AU 2003210303), antibody-coated liposomes (*see, e.g.*, U.S. Patent Publication No. 20030108597; and PCT Publication No. WO 00/50008), cell-type specific liposomes (*see, e.g.*, U.S. Patent Publication No. 20030198664), liposomes containing nucleic acid and peptides (*see, e.g.*, U.S. Patent No. 6,207,456), liposomes containing lipids derivatized with releasable hydrophilic polymers (*see, e.g.*, U.S. Patent Publication No. 20030031704), lipid-entrapped nucleic acid (*see, e.g.*, PCT Publication Nos. WO 03/057190 and WO 03/059322), lipid-encapsulated nucleic acid (*see, e.g.*, U.S. Patent Publication No. 20030129221; and U.S. Patent No. 5,756,122), other liposomal compositions (*see, e.g.*, U.S. Patent Publication Nos. 20030035829 and 20030072794; and U.S. Patent No. 6,200,599), stabilized mixtures of liposomes and emulsions (*see, e.g.*, EP1304160), emulsion compositions (*see, e.g.*, U.S. Patent No. 6,747,014), and nucleic acid micro-emulsions (*see, e.g.*, U.S. Patent Publication No. 20050037086).

**[0312]** Examples of polymer-based carrier systems suitable for use in the present invention include, but are not limited to, cationic polymer-nucleic acid complexes (*i.e.*, polyplexes). To form a polyplex, a nucleic acid (*e.g.*, interfering RNA) is typically complexed with a cationic polymer having a linear, branched, star, or dendritic polymeric structure that condenses the nucleic acid into positively charged particles capable of interacting with anionic proteoglycans at the cell surface and entering cells by endocytosis. In some embodiments, the polyplex comprises nucleic acid (*e.g.*, interfering RNA) complexed with a cationic

polymer such as polyethylenimine (PEI) (*see, e.g.,* U.S. Patent No. 6,013,240; commercially available from Qbiogene, Inc. (Carlsbad, CA) as *In vivo* jetPEI™, a linear form of PEI), polypropylenimine (PPI), polyvinylpyrrolidone (PVP), poly-L-lysine (PLL), diethylaminoethyl (DEAE)-dextran, poly(β-amino ester) (PAE) polymers (*see, e.g.,* Lynn *et al.*, *J. Am. Chem. Soc.*, 123:8155-8156 (2001)), chitosan, polyamidoamine (PAMAM) dendrimers (*see, e.g.,* Kukowska-Latallo *et al.*, *Proc. Natl. Acad. Sci. USA*, 93:4897-4902 (1996)), porphyrin (*see, e.g.,* U.S. Patent No. 6,620,805), polyvinylether (*see, e.g.,* U.S. Patent Publication No. 20040156909), polycyclic amidinium (*see, e.g.,* U.S. Patent Publication No. 20030220289), other polymers comprising primary amine, imine, guanidine, and/or imidazole groups (*see, e.g.,* U.S. Patent No. 6,013,240; PCT Publication No. WO/9602655; PCT Publication No. WO95/21931; Zhang *et al.*, *J. Control Release*, 100:165-180 (2004); and Tiera *et al.*, *Curr. Gene Ther.*, 6:59-71 (2006)), and a mixture thereof. In other embodiments, the polyplex comprises cationic polymer-nucleic acid complexes as described in U.S. Patent Publication Nos. 20060211643, 20050222064, 20030125281, and 20030185890, and PCT Publication No. WO 03/066069; biodegradable poly(β-amino ester) polymer-nucleic acid complexes as described in U.S. Patent Publication No. 20040071654; microparticles containing polymeric matrices as described in U.S. Patent Publication No. 20040142475; other microparticle compositions as described in U.S. Patent Publication No. 20030157030; condensed nucleic acid complexes as described in U.S. Patent Publication No. 20050123600; and nanocapsule and microcapsule compositions as described in AU 2002358514 and PCT Publication No. WO 02/096551.

**[0313]** In certain instances, the interfering RNA may be complexed with cyclodextrin or a polymer thereof. Non-limiting examples of cyclodextrin-based carrier systems include the cyclodextrin-modified polymer-nucleic acid complexes described in U.S. Patent Publication No. 20040087024; the linear cyclodextrin copolymer-nucleic acid complexes described in U.S. Patent Nos. 6,509,323, 6,884,789, and 7,091,192; and the cyclodextrin polymer-complexing agent-nucleic acid complexes described in U.S. Patent No. 7,018,609. In certain other instances, the interfering RNA may be complexed with a peptide or polypeptide. An example of a protein-based carrier system includes, but is not limited to, the cationic oligopeptide-nucleic acid complex described in PCT Publication No. WO95/21931.

## VI. Preparation of Lipid Particles

**[0314]** The lipid particles of the present invention, *e.g.,* SNALP, in which a nucleic acid such as an interfering RNA (*e.g.,* dsRNA) is entrapped within the lipid portion of the particle

and is protected from degradation, can be formed by any method known in the art including, but not limited to, a continuous mixing method, a direct dilution process, and an in-line dilution process.

**[0315]** In particular embodiments, the cationic lipids may comprise lipids of Formula I and II or salts thereof, alone or in combination with other cationic lipids. In other embodiments, the non-cationic lipids are egg sphingomyelin (ESM), distearoylphosphatidylcholine (DSPC), dioleoylphosphatidylcholine (DOPC), 1-palmitoyl-2-oleoyl-phosphatidylcholine (POPC), dipalmitoyl-phosphatidylcholine (DPPC), monomethyl-phosphatidylethanolamine, dimethyl-phosphatidylethanolamine, 14:0 PE (1,2-dimyristoyl-phosphatidylethanolamine (DMPE)), 16:0 PE (1,2-dipalmitoyl-phosphatidylethanolamine (DPPE)), 18:0 PE (1,2-distearoyl-phosphatidylethanolamine (DSPE)), 18:1 PE (1,2-dioleoyl-phosphatidylethanolamine (DOPE)), 18:1 trans PE (1,2-dielaidoyl-phosphatidylethanolamine (DEPE)), 18:0-18:1 PE (1-stearoyl-2-oleoyl-phosphatidylethanolamine (SOPE)), 16:0-18:1 PE (1-palmitoyl-2-oleoyl-phosphatidylethanolamine (POPE)), polyethylene glycol-based polymers (*e.g.*, PEG 2000, PEG 5000, PEG-modified diacylglycerols, or PEG-modified dialkyloxypropyls), cholesterol, derivatives thereof, or combinations thereof.

**[0316]** In certain embodiments, the present invention provides nucleic acid-lipid particles (*e.g.*, SNALP) produced via a continuous mixing method, *e.g.*, a process that includes providing an aqueous solution comprising a nucleic acid (*e.g.*, interfering RNA) in a first reservoir, providing an organic lipid solution in a second reservoir (wherein the lipids present in the organic lipid solution are solubilized in an organic solvent, *e.g.*, a lower alkanol such as ethanol), and mixing the aqueous solution with the organic lipid solution such that the organic lipid solution mixes with the aqueous solution so as to substantially instantaneously produce a lipid vesicle (*e.g.*, liposome) encapsulating the nucleic acid within the lipid vesicle. This process and the apparatus for carrying out this process are described in detail in U.S. Patent Publication No. 20040142025, the disclosure of which is herein incorporated by reference in its entirety for all purposes.

**[0317]** The action of continuously introducing lipid and buffer solutions into a mixing environment, such as in a mixing chamber, causes a continuous dilution of the lipid solution with the buffer solution, thereby producing a lipid vesicle substantially instantaneously upon mixing. As used herein, the phrase "continuously diluting a lipid solution with a buffer solution" (and variations) generally means that the lipid solution is diluted sufficiently rapidly in a hydration process with sufficient force to effectuate vesicle generation. By mixing the aqueous solution comprising a nucleic acid with the organic lipid solution, the organic lipid

solution undergoes a continuous stepwise dilution in the presence of the buffer solution (*i.e.*, aqueous solution) to produce a nucleic acid-lipid particle.

**[0318]** The nucleic acid-lipid particles formed using the continuous mixing method typically have a size of from about 30 nm to about 150 nm, from about 40 nm to about 150 nm, from about 50 nm to about 150 nm, from about 60 nm to about 130 nm, from about 70 nm to about 110 nm, from about 70 nm to about 100 nm, from about 80 nm to about 100 nm, from about 90 nm to about 100 nm, from about 70 to about 90 nm, from about 80 nm to about 90 nm, from about 70 nm to about 80 nm, less than about 120 nm, 110 nm, 100 nm, 90 nm, or 80 nm, or about 30 nm, 35 nm, 40 nm, 45 nm, 50 nm, 55 nm, 60 nm, 65 nm, 70 nm, 75 nm, 80 nm, 85 nm, 90 nm, 95 nm, 100 nm, 105 nm, 110 nm, 115 nm, 120 nm, 125 nm, 130 nm, 135 nm, 140 nm, 145 nm, or 150 nm (or any fraction thereof or range therein). The particles thus formed do not aggregate and are optionally sized to achieve a uniform particle size.

**[0319]** In another embodiment, the present invention provides nucleic acid-lipid particles (*e.g.*, SNALP) produced via a direct dilution process that includes forming a lipid vesicle (*e.g.*, liposome) solution and immediately and directly introducing the lipid vesicle solution into a collection vessel containing a controlled amount of dilution buffer. In preferred aspects, the collection vessel includes one or more elements configured to stir the contents of the collection vessel to facilitate dilution. In one aspect, the amount of dilution buffer present in the collection vessel is substantially equal to the volume of lipid vesicle solution introduced thereto. As a non-limiting example, a lipid vesicle solution in 45% ethanol when introduced into the collection vessel containing an equal volume of dilution buffer will advantageously yield smaller particles.

**[0320]** In yet another embodiment, the present invention provides nucleic acid-lipid particles (*e.g.*, SNALP) produced via an in-line dilution process in which a third reservoir containing dilution buffer is fluidly coupled to a second mixing region. In this embodiment, the lipid vesicle (*e.g.*, liposome) solution formed in a first mixing region is immediately and directly mixed with dilution buffer in the second mixing region. In preferred aspects, the second mixing region includes a T-connector arranged so that the lipid vesicle solution and the dilution buffer flows meet as opposing 180° flows; however, connectors providing shallower angles can be used, *e.g.*, from about 27° to about 180° (*e.g.*, about 90°). A pump mechanism delivers a controllable flow of buffer to the second mixing region. In one aspect, the flow rate of dilution buffer provided to the second mixing region is controlled to be substantially equal to the flow rate of lipid vesicle solution introduced thereto from the first

mixing region. This embodiment advantageously allows for more control of the flow of dilution buffer mixing with the lipid vesicle solution in the second mixing region, and therefore also the concentration of lipid vesicle solution in buffer throughout the second mixing process. Such control of the dilution buffer flow rate advantageously allows for small particle size formation at reduced concentrations.

**[0321]** These processes and the apparatuses for carrying out these direct dilution and in-line dilution processes are described in detail in U.S. Patent Publication No. 20070042031, the disclosure of which is herein incorporated by reference in its entirety for all purposes.

**[0322]** The nucleic acid-lipid particles formed using the direct dilution and in-line dilution processes typically have a size of from about 30 nm to about 150 nm, from about 40 nm to about 150 nm, from about 50 nm to about 150 nm, from about 60 nm to about 130 nm, from about 70 nm to about 110 nm, from about 70 nm to about 100 nm, from about 80 nm to about 100 nm, from about 90 nm to about 100 nm, from about 70 to about 90 nm, from about 80 nm to about 90 nm, from about 70 nm to about 80 nm, less than about 120 nm, 110 nm, 100 nm, 90 nm, or 80 nm, or about 30 nm, 35 nm, 40 nm, 45 nm, 50 nm, 55 nm, 60 nm, 65 nm, 70 nm, 75 nm, 80 nm, 85 nm, 90 nm, 95 nm, 100 nm, 105 nm, 110 nm, 115 nm, 120 nm, 125 nm, 130 nm, 135 nm, 140 nm, 145 nm, or 150 nm (or any fraction thereof or range therein). The particles thus formed do not aggregate and are optionally sized to achieve a uniform particle size.

**[0323]** If needed, the lipid particles of the invention (*e.g.*, SNALP) can be sized by any of the methods available for sizing liposomes. The sizing may be conducted in order to achieve a desired size range and relatively narrow distribution of particle sizes.

**[0324]** Several techniques are available for sizing the particles to a desired size. One sizing method, used for liposomes and equally applicable to the present particles, is described in U.S. Patent No. 4,737,323, the disclosure of which is herein incorporated by reference in its entirety for all purposes. Sonicating a particle suspension either by bath or probe sonication produces a progressive size reduction down to particles of less than about 50 nm in size. Homogenization is another method which relies on shearing energy to fragment larger particles into smaller ones. In a typical homogenization procedure, particles are recirculated through a standard emulsion homogenizer until selected particle sizes, typically between about 60 and about 80 nm, are observed. In both methods, the particle size distribution can be monitored by conventional laser-beam particle size discrimination, or QELS.

**[0325]** Extrusion of the particles through a small-pore polycarbonate membrane or an asymmetric ceramic membrane is also an effective method for reducing particle sizes to a

relatively well-defined size distribution. Typically, the suspension is cycled through the membrane one or more times until the desired particle size distribution is achieved. The particles may be extruded through successively smaller-pore membranes, to achieve a gradual reduction in size.

**[0326]** In some embodiments, the nucleic acids present in the particles are precondensed as described in, *e.g.*, U.S. Patent Application No. 09/744,103, the disclosure of which is herein incorporated by reference in its entirety for all purposes.

**[0327]** In other embodiments, the methods may further comprise adding non-lipid polycations which are useful to effect the lipofection of cells using the present compositions. Examples of suitable non-lipid polycations include, hexadimethrine bromide (sold under the brand name POLYBRENE®, from Aldrich Chemical Co., Milwaukee, Wisconsin, USA) or other salts of hexadimethrine. Other suitable polycations include, for example, salts of poly-L-ornithine, poly-L-arginine, poly-L-lysine, poly-D-lysine, polyallylamine, and polyethyleneimine. Addition of these salts is preferably after the particles have been formed.

**[0328]** In some embodiments, the nucleic acid to lipid ratios (mass/mass ratios) in a formed nucleic acid-lipid particle (*e.g.*, SNALP) will range from about 0.01 to about 0.2, from about 0.05 to about 0.2, from about 0.02 to about 0.1, from about 0.03 to about 0.1, or from about 0.01 to about 0.08. The ratio of the starting materials (input) also falls within this range. In other embodiments, the particle preparation uses about 400 μg nucleic acid per 10 mg total lipid or a nucleic acid to lipid mass ratio of about 0.01 to about 0.08 and, more preferably, about 0.04, which corresponds to 1.25 mg of total lipid per 50 μg of nucleic acid. In other preferred embodiments, the particle has a nucleic acid:lipid mass ratio of about 0.08.

**[0329]** In other embodiments, the lipid to nucleic acid ratios (mass/mass ratios) in a formed nucleic acid-lipid particle (*e.g.*, SNALP) will range from about 1 (1:1) to about 100 (100:1), from about 5 (5:1) to about 100 (100:1), from about 1 (1:1) to about 50 (50:1), from about 2 (2:1) to about 50 (50:1), from about 3 (3:1) to about 50 (50:1), from about 4 (4:1) to about 50 (50:1), from about 5 (5:1) to about 50 (50:1), from about 1 (1:1) to about 25 (25:1), from about 2 (2:1) to about 25 (25:1), from about 3 (3:1) to about 25 (25:1), from about 4 (4:1) to about 25 (25:1), from about 5 (5:1) to about 25 (25:1), from about 5 (5:1) to about 20 (20:1), from about 5 (5:1) to about 15 (15:1), from about 5 (5:1) to about 10 (10:1), or about 5 (5:1), 6 (6:1), 7 (7:1), 8 (8:1), 9 (9:1), 10 (10:1), 11 (11:1), 12 (12:1), 13 (13:1), 14 (14:1), 15 (15:1), 16 (16:1), 17 (17:1), 18 (18:1), 19 (19:1), 20 (20:1), 21 (21:1), 22 (22:1), 23 (23:1), 24 (24:1), or 25 (25:1), or any fraction thereof or range therein. The ratio of the starting materials (input) also falls within this range.

**[0330]** As previously discussed, the conjugated lipid may further include a CPL. A variety of general methods for making SNALP-CPLs (CPL-containing SNALP) are discussed herein. Two general techniques include the "post-insertion" technique, that is, insertion of a CPL into, for example, a pre-formed SNALP, and the "standard" technique, wherein the CPL is included in the lipid mixture during, for example, the SNALP formation steps. The post-insertion technique results in SNALP having CPLs mainly in the external face of the SNALP bilayer membrane, whereas standard techniques provide SNALP having CPLs on both internal and external faces. The method is especially useful for vesicles made from phospholipids (which can contain cholesterol) and also for vesicles containing PEG-lipids (such as PEG-DAAs and PEG-DAGs). Methods of making SNALP-CPLs are taught, for example, in U.S. Patent Nos. 5,705,385; 6,586,410; 5,981,501; 6,534,484; and 6,852,334; U.S. Patent Publication No. 20020072121; and PCT Publication No. WO 00/62813, the disclosures of which are herein incorporated by reference in their entirety for all purposes.

## VII. Kits

**[0331]** The present invention also provides lipid particles (*e.g.*, SNALP) in kit form. In some embodiments, the kit comprises a container which is compartmentalized for holding the various elements of the lipid particles (*e.g.*, the active agents or therapeutic agents such as nucleic acids and the individual lipid components of the particles). Preferably, the kit comprises a container (*e.g.*, a vial or ampoule) which holds the lipid particles of the invention (*e.g.*, SNALP), wherein the particles are produced by one of the processes set forth herein. In certain embodiments, the kit may further comprise an endosomal membrane destabilizer (*e.g.*, calcium ions). The kit typically contains the particle compositions of the invention, either as a suspension in a pharmaceutically acceptable carrier or in dehydrated form, with instructions for their rehydration (if lyophilized) and administration.

**[0332]** The SNALP formulations of the present invention can be tailored to preferentially target particular tissues or organs of interest. Preferential targeting of SNALP may be carried out by controlling the composition of the SNALP itself. For instance, it has been found that the 1:57 SNALP formulation can be used to preferentially target the liver. In particular embodiments, the kits of the invention comprise these lipid particles, wherein the particles are present in a container as a suspension or in dehydrated form. Such kits are particularly advantageous for use in providing effective treatment of acute or chronic hepatitis C caused by one or more HCV genotypes.

**[0333]** In certain instances, it may be desirable to have a targeting moiety attached to the surface of the lipid particle to further enhance the targeting of the particle. Methods of

attaching targeting moieties (*e.g.*, antibodies, proteins, *etc.*) to lipids (such as those used in the present particles) are known to those of skill in the art.

**VIII. Administration of Lipid Particles**

**[0334]** Once formed, the lipid particles of the invention (*e.g.*, SNALP) are particularly useful for the introduction of nucleic acids (*e.g.*, interfering RNA such as dsRNA) into cells. Accordingly, the present invention also provides methods for introducing a nucleic acid (*e.g.*, interfering RNA) into a cell. In particular embodiments, the nucleic acid (*e.g.*, interfering RNA) is introduced into an HCV-infected cell such as a hepatocyte or other liver cell. The methods described herein may be carried out *in vitro* or *in vivo* by first forming the lipid particles as described above and then contacting the particles with the cells for a period of time sufficient for delivery of the nucleic acid to the cells to occur.

**[0335]** The lipid particles of the invention (*e.g.*, SNALP) can be adsorbed to almost any cell type with which they are mixed or contacted. Once adsorbed, the particles can either be endocytosed by a portion of the cells, exchange lipids with cell membranes, or fuse with the cells. Transfer or incorporation of the nucleic acid (*e.g.*, interfering RNA) portion of the particle can take place via any one of these pathways. In particular, when fusion takes place, the particle membrane is integrated into the cell membrane and the contents of the particle combine with the intracellular fluid.

**[0336]** The lipid particles of the invention (*e.g.*, SNALP) can be administered either alone or in a mixture with a pharmaceutically acceptable carrier (*e.g.*, physiological saline or phosphate buffer) selected in accordance with the route of administration and standard pharmaceutical practice. Generally, normal buffered saline (*e.g.*, 135-150 mM NaCl) will be employed as the pharmaceutically acceptable carrier. Other suitable carriers include, *e.g.*, water, buffered water, 0.4% saline, 0.3% glycine, and the like, including glycoproteins for enhanced stability, such as albumin, lipoprotein, globulin, *etc.* Additional suitable carriers are described in, *e.g.*, REMINGTON'S PHARMACEUTICAL SCIENCES, Mack Publishing Company, Philadelphia, PA, 17th ed. (1985). As used herein, "carrier" includes any and all solvents, dispersion media, vehicles, coatings, diluents, antibacterial and antifungal agents, isotonic and absorption delaying agents, buffers, carrier solutions, suspensions, colloids, and the like. The phrase "pharmaceutically acceptable" refers to molecular entities and compositions that do not produce an allergic or similar untoward reaction when administered to a human.

**[0337]** The pharmaceutically acceptable carrier is generally added following lipid particle formation. Thus, after the lipid particle (*e.g.*, SNALP) is formed, the particle can be diluted into pharmaceutically acceptable carriers such as normal buffered saline.

**[0338]** The concentration of particles in the pharmaceutical formulations can vary widely, *i.e.*, from less than about 0.05%, usually at or at least about 2 to 5%, to as much as about 10 to 90% by weight, and will be selected primarily by fluid volumes, viscosities, *etc.*, in accordance with the particular mode of administration selected. For example, the concentration may be increased to lower the fluid load associated with treatment. This may be particularly desirable in patients having atherosclerosis-associated congestive heart failure or severe hypertension. Alternatively, particles composed of irritating lipids may be diluted to low concentrations to lessen inflammation at the site of administration.

**[0339]** The pharmaceutical compositions of the present invention may be sterilized by conventional, well-known sterilization techniques. Aqueous solutions can be packaged for use or filtered under aseptic conditions and lyophilized, the lyophilized preparation being combined with a sterile aqueous solution prior to administration. The compositions can contain pharmaceutically acceptable auxiliary substances as required to approximate physiological conditions, such as pH adjusting and buffering agents, tonicity adjusting agents and the like, for example, sodium acetate, sodium lactate, sodium chloride, potassium chloride, and calcium chloride. Additionally, the particle suspension may include lipid-protective agents which protect lipids against free-radical and lipid-peroxidative damages on storage. Lipophilic free-radical quenchers, such as alphatocopherol, and water-soluble iron-specific chelators, such as ferrioxamine, are suitable.

**[0340]** In some embodiments, the lipid particles of the invention (*e.g.*, SNALP) are particularly useful in methods for the therapeutic delivery of one or more nucleic acids comprising an interfering RNA sequence (*e.g.*, dsRNA). In particular, it is an object of this invention to provide *in vitro* and *in vivo* methods for the treatment of HCV-mediated diseases and disorders in a mammal (*e.g.*, a rodent such as a mouse or a primate such as a human, chimpanzee, or monkey) by downregulating or silencing the transcription and/or translation of one or more HCV genes and/or genotypes, alone or in combination with one or more additional target nucleic acid sequences or genes of interest. As a non-limiting example, the methods of the present invention are useful for the *in vivo* delivery of interfering RNA (*e.g.*, dsRNA) to the liver cells (*e.g.*, hepatocytes) of a mammal such as a human for inactivating HCV and/or inhibiting the replication of HCV and/or for the treatment of acute or chronic hepatitis C caused by one or more HCV genotypes. In certain embodiments, the HCV-

mediated disease or disorder is associated with expression and/or overexpression of one or more HCV genes and expression or overexpression of the one or more genes is reduced by the interfering RNA (*e.g.,* dsRNA). In certain other embodiments, a therapeutically effective amount of the lipid particle may be administered to the mammal. In some instances, one, two, three, or more interfering RNA molecules (*e.g.,* dsRNA molecules targeting different regions of the HCV genome and/or different HCV genotypes) are formulated into a SNALP, and the particles are administered to patients requiring such treatment. In other instances, cells are removed from a patient, the interfering RNA is delivered *in vitro* (*e.g.,* using a SNALP described herein), and the cells are reinjected into the patient.

### A. *In vivo* Administration

**[0341]** Systemic delivery for *in vivo* therapy, *e.g.*, delivery of a therapeutic nucleic acid to a distal target cell via body systems such as the circulation, has been achieved using nucleic acid-lipid particles such as those described in PCT Publication Nos. WO 05/007196, WO 05/121348, WO 05/120152, and WO 04/002453, the disclosures of which are herein incorporated by reference in their entirety for all purposes. The present invention also provides fully encapsulated lipid particles that protect the nucleic acid from nuclease degradation in serum, are non-immunogenic, are small in size, and are suitable for repeat dosing.

**[0342]** For *in vivo* administration, administration can be in any manner known in the art, *e.g.*, by injection, oral administration, inhalation (*e.g.*, intransal or intratracheal), transdermal application, or rectal administration. Administration can be accomplished via single or divided doses. The pharmaceutical compositions can be administered parenterally, *i.e.*, intraarticularly, intravenously, intraperitoneally, subcutaneously, or intramuscularly. In some embodiments, the pharmaceutical compositions are administered intravenously or intraperitoneally by a bolus injection (*see, e.g.*, U.S. Patent No. 5,286,634). Intracellular nucleic acid delivery has also been discussed in Straubringer *et al.*, *Methods Enzymol.*, 101:512 (1983); Mannino *et al.*, *Biotechniques,* 6:682 (1988); Nicolau *et al.*, *Crit. Rev. Ther. Drug Carrier Syst.*, 6:239 (1989); and Behr, *Acc. Chem. Res.*, 26:274 (1993). Still other methods of administering lipid-based therapeutics are described in, for example, U.S. Patent Nos. 3,993,754; 4,145,410; 4,235,871; 4,224,179; 4,522,803; and 4,588,578. The lipid particles can be administered by direct injection at the site of disease or by injection at a site distal from the site of disease (*see, e.g.*, US Patent Publication No. 20050118253). The disclosures of the above-described references are herein incorporated by reference in their entirety for all purposes.

**[0343]** In embodiments where the lipid particles of the present invention (*e.g.*, SNALP) are administered intravenously, at least about 5%, 10%, 15%, 20%, or 25% of the total injected dose of the particles is present in plasma about 8, 12, 24, 36, or 48 hours after injection. In other embodiments, more than about 20%, 30%, 40% and as much as about 60%, 70% or 80% of the total injected dose of the lipid particles is present in plasma about 8, 12, 24, 36, or 48 hours after injection. In certain instances, more than about 10% of a plurality of the particles is present in the plasma of a mammal about 1 hour after administration. In certain other instances, the presence of the lipid particles is detectable at least about 1 hour after administration of the particle. In some embodiments, the presence of a therapeutic nucleic acid such as an interfering RNA molecule (*e.g.*, dsRNA) is detectable in cells (*e.g.*, liver cells such as hepatocytes) at about 8, 12, 24, 36, 48, 60, 72 or 96 hours after administration. In other embodiments, downregulation of expression of a target sequence, such as an HCV sequence, by an interfering RNA (*e.g.*, dsRNA) is detectable at about 8, 12, 24, 36, 48, 60, 72 or 96 hours after administration. In yet other embodiments, downregulation of expression of a target sequence, such as an HCV sequence, by an interfering RNA (*e.g.*, dsRNA) occurs preferentially in liver cells such as hepatocytes. In further embodiments, the presence or effect of an interfering RNA (*e.g.*, dsRNA) in cells at a site proximal or distal to the site of administration is detectable at about 12, 24, 48, 72, or 96 hours, or at about 6, 8, 10, 12, 14, 16, 18, 19, 20, 22, 24, 26, or 28 days after administration. In additional embodiments, the lipid particles (*e.g.*, SNALP) of the present invention are administered parenterally or intraperitoneally.

**[0344]** The compositions of the present invention, either alone or in combination with other suitable components, can be made into aerosol formulations (*i.e.*, they can be "nebulized") to be administered via inhalation (*e.g.*, intranasally or intratracheally) (*see*, Brigham *et al.*, *Am. J. Sci.*, 298:278 (1989)). Aerosol formulations can be placed into pressurized acceptable propellants, such as dichlorodifluoromethane, propane, nitrogen, and the like.

**[0345]** In certain embodiments, the pharmaceutical compositions may be delivered by intranasal sprays, inhalation, and/or other aerosol delivery vehicles. Methods for delivering nucleic acid compositions directly to the lungs via nasal aerosol sprays have been described, *e.g.*, in U.S. Patent Nos. 5,756,353 and 5,804,212. Likewise, the delivery of drugs using intranasal microparticle resins and lysophosphatidyl-glycerol compounds (U.S. Patent 5,725,871) are also well-known in the pharmaceutical arts. Similarly, transmucosal drug delivery in the form of a polytetrafluoroetheylene support matrix is described in U.S. Patent

No. 5,780,045. The disclosures of the above-described patents are herein incorporated by reference in their entirety for all purposes.

**[0346]** Formulations suitable for parenteral administration, such as, for example, by intraarticular (in the joints), intravenous, intramuscular, intradermal, intraperitoneal, and subcutaneous routes, include aqueous and non-aqueous, isotonic sterile injection solutions, which can contain antioxidants, buffers, bacteriostats, and solutes that render the formulation isotonic with the blood of the intended recipient, and aqueous and non-aqueous sterile suspensions that can include suspending agents, solubilizers, thickening agents, stabilizers, and preservatives. In the practice of this invention, compositions are preferably administered, for example, by intravenous infusion, orally, topically, intraperitoneally, intravesically, or intrathecally.

**[0347]** Generally, when administered intravenously, the lipid particle formulations are formulated with a suitable pharmaceutical carrier. Many pharmaceutically acceptable carriers may be employed in the compositions and methods of the present invention. Suitable formulations for use in the present invention are found, for example, in REMINGTON'S PHARMACEUTICAL SCIENCES, Mack Publishing Company, Philadelphia, PA, 17th ed. (1985). A variety of aqueous carriers may be used, for example, water, buffered water, 0.4% saline, 0.3% glycine, and the like, and may include glycoproteins for enhanced stability, such as albumin, lipoprotein, globulin, *etc.* Generally, normal buffered saline (135-150 mM NaCl) will be employed as the pharmaceutically acceptable carrier, but other suitable carriers will suffice. These compositions can be sterilized by conventional liposomal sterilization techniques, such as filtration. The compositions may contain pharmaceutically acceptable auxiliary substances as required to approximate physiological conditions, such as pH adjusting and buffering agents, tonicity adjusting agents, wetting agents and the like, for example, sodium acetate, sodium lactate, sodium chloride, potassium chloride, calcium chloride, sorbitan monolaurate, triethanolamine oleate, *etc.* These compositions can be sterilized using the techniques referred to above or, alternatively, they can be produced under sterile conditions. The resulting aqueous solutions may be packaged for use or filtered under aseptic conditions and lyophilized, the lyophilized preparation being combined with a sterile aqueous solution prior to administration.

**[0348]** In certain applications, the lipid particles disclosed herein may be delivered via oral administration to the individual. The particles may be incorporated with excipients and used in the form of ingestible tablets, buccal tablets, troches, capsules, pills, lozenges, elixirs, mouthwash, suspensions, oral sprays, syrups, wafers, and the like (*see, e.g.,* U.S. Patent Nos.

5,641,515, 5,580,579, and 5,792,451, the disclosures of which are herein incorporated by reference in their entirety for all purposes). These oral dosage forms may also contain the following: binders, gelatin; excipients, lubricants, and/or flavoring agents. When the unit dosage form is a capsule, it may contain, in addition to the materials described above, a liquid carrier. Various other materials may be present as coatings or to otherwise modify the physical form of the dosage unit. Of course, any material used in preparing any unit dosage form should be pharmaceutically pure and substantially non-toxic in the amounts employed.

**[0349]** Typically, these oral formulations may contain at least about 0.1% of the lipid particles or more, although the percentage of the particles may, of course, be varied and may conveniently be between about 1% or 2% and about 60% or 70% or more of the weight or volume of the total formulation. Naturally, the amount of particles in each therapeutically useful composition may be prepared is such a way that a suitable dosage will be obtained in any given unit dose of the compound. Factors such as solubility, bioavailability, biological half-life, route of administration, product shelf life, as well as other pharmacological considerations will be contemplated by one skilled in the art of preparing such pharmaceutical formulations, and as such, a variety of dosages and treatment regimens may be desirable.

**[0350]** Formulations suitable for oral administration can consist of: (a) liquid solutions, such as an effective amount of a packaged therapeutic nucleic acid (*e.g.,* interfering RNA) suspended in diluents such as water, saline, or PEG 400; (b) capsules, sachets, or tablets, each containing a predetermined amount of a therapeutic nucleic acid (*e.g.,* interfering RNA), as liquids, solids, granules, or gelatin; (c) suspensions in an appropriate liquid; and (d) suitable emulsions. Tablet forms can include one or more of lactose, sucrose, mannitol, sorbitol, calcium phosphates, corn starch, potato starch, microcrystalline cellulose, gelatin, colloidal silicon dioxide, talc, magnesium stearate, stearic acid, and other excipients, colorants, fillers, binders, diluents, buffering agents, moistening agents, preservatives, flavoring agents, dyes, disintegrating agents, and pharmaceutically compatible carriers. Lozenge forms can comprise a therapeutic nucleic acid (*e.g.,* interfering RNA) in a flavor, *e.g.*, sucrose, as well as pastilles comprising the therapeutic nucleic acid in an inert base, such as gelatin and glycerin or sucrose and acacia emulsions, gels, and the like containing, in addition to the therapeutic nucleic acid, carriers known in the art.

**[0351]** In another example of their use, lipid particles can be incorporated into a broad range of topical dosage forms. For instance, a suspension containing nucleic acid-lipid

particles such as SNALP can be formulated and administered as gels, oils, emulsions, topical creams, pastes, ointments, lotions, foams, mousses, and the like.

**[0352]** When preparing pharmaceutical preparations of the lipid particles of the invention, it is preferable to use quantities of the particles which have been purified to reduce or eliminate empty particles or particles with therapeutic agents such as nucleic acid associated with the external surface.

**[0353]** The methods of the present invention may be practiced in a variety of hosts. Preferred hosts include mammalian species, such as primates (*e.g.*, humans and chimpanzees as well as other nonhuman primates), canines, felines, equines, bovines, ovines, caprines, rodents (*e.g.*, rats and mice), lagomorphs, and swine.

**[0354]** The amount of particles administered will depend upon the ratio of therapeutic nucleic acid (*e.g.,* interfering RNA) to lipid, the particular therapeutic nucleic acid used, the disease or disorder being treated, the age, weight, and condition of the patient, and the judgment of the clinician, but will generally be between about 0.01 and about 50 mg per kilogram of body weight, preferably between about 0.1 and about 5 mg/kg of body weight, or about $10^8$-$10^{10}$ particles per administration (*e.g.,* injection).

### B. *In vitro* Administration

**[0355]** For *in vitro* applications, the delivery of therapeutic nucleic acids (*e.g.,* interfering RNA) can be to any cell grown in culture, whether of plant or animal origin, vertebrate or invertebrate, and of any tissue or type. In preferred embodiments, the cells are animal cells, more preferably mammalian cells, and most preferably human cells.

**[0356]** Contact between the cells and the lipid particles, when carried out *in vitro*, takes place in a biologically compatible medium. The concentration of particles varies widely depending on the particular application, but is generally between about 1 μmol and about 10 mmol. Treatment of the cells with the lipid particles is generally carried out at physiological temperatures (about 37°C) for periods of time of from about 1 to 48 hours, preferably of from about 2 to 4 hours.

**[0357]** In one group of preferred embodiments, a lipid particle suspension is added to 60-80% confluent plated cells having a cell density of from about $10^3$ to about $10^5$ cells/ml, more preferably about 2 x $10^4$ cells/ml. The concentration of the suspension added to the cells is preferably of from about 0.01 to 0.2 μg/ml, more preferably about 0.1 μg/ml.

**[0358]** To the extent that tissue culture of cells may be required, it is well-known in the art. For example, Freshney, Culture of Animal Cells, a Manual of Basic Technique, 3rd Ed., Wiley-Liss, New York (1994), Kuchler *et al.*, Biochemical Methods in Cell Culture and

Virology, Dowden, Hutchinson and Ross, Inc. (1977), and the references cited therein provide a general guide to the culture of cells. Cultured cell systems often will be in the form of monolayers of cells, although cell suspensions are also used.

**[0359]** Using an Endosomal Release Parameter (ERP) assay, the delivery efficiency of the SNALP or other lipid particle of the invention can be optimized. An ERP assay is described in detail in U.S. Patent Publication No. 20030077829, the disclosure of which is herein incorporated by reference in its entirety for all purposes. More particularly, the purpose of an ERP assay is to distinguish the effect of various cationic lipids and helper lipid components of SNALP or other lipid particle based on their relative effect on binding/uptake or fusion with/destabilization of the endosomal membrane. This assay allows one to determine quantitatively how each component of the SNALP or other lipid particle affects delivery efficiency, thereby optimizing the SNALP or other lipid particle. Usually, an ERP assay measures expression of a reporter protein (*e.g.*, luciferase, β-galactosidase, green fluorescent protein (GFP), *etc.*), and in some instances, a SNALP formulation optimized for an expression plasmid will also be appropriate for encapsulating an interfering RNA. In other instances, an ERP assay can be adapted to measure downregulation of transcription or translation of a target sequence in the presence or absence of an interfering RNA (*e.g.*, dsRNA). By comparing the ERPs for each of the various SNALP or other lipid particles, one can readily determine the optimized system, *e.g.*, the SNALP or other lipid particle that has the greatest uptake in the cell.

### C. Cells for Delivery of Lipid Particles

**[0360]** The compositions and methods of the present invention are particularly well suited for treating any of a variety of HCV-mediated diseases and disorders by targeting HCV gene expression *in vivo*. The present invention can be practiced on a wide variety of cell types from any vertebrate species, including mammals, such as, *e.g,* canines, felines, equines, bovines, ovines, caprines, rodents (*e.g.*, mice, rats, and guinea pigs), lagomorphs, swine, and primates (*e.g.* monkeys, chimpanzees, and humans). Suitable cells include, but are not limited to, liver cells such as hepatocytes, hematopoietic precursor (stem) cells, fibroblasts, keratinocytes, endothelial cells, skeletal and smooth muscle cells, osteoblasts, neurons, quiescent lymphocytes, terminally differentiated cells, slow or noncycling primary cells, parenchymal cells, lymphoid cells, epithelial cells (*e.g.*, intestinal epithelial cells), bone cells, and the like. In preferred embodiments, an interfering RNA (*e.g.*, dsRNA) is delivered to hepatocytes.

### D. Detection of Lipid Particles

**[0361]** In some embodiments, the lipid particles of the present invention (*e.g.*, SNALP) are detectable in the subject at about 1, 2, 3, 4, 5, 6, 7, 8 or more hours. In other embodiments, the lipid particles of the present invention (*e.g.*, SNALP) are detectable in the subject at about 8, 12, 24, 48, 60, 72, or 96 hours, or about 6, 8, 10, 12, 14, 16, 18, 19, 22, 24, 25, or 28 days after administration of the particles. The presence of the particles can be detected in the cells, tissues, or other biological samples from the subject. The particles may be detected, *e.g.*, by direct detection of the particles, detection of a therapeutic nucleic acid such as an interfering RNA (*e.g.*, dsRNA) sequence, detection of the target sequence of interest (*i.e.*, by detecting expression or reduced expression of the sequence of interest), detection of hepatitis C viral load in the subject, or a combination thereof.

#### 1. Detection of Particles

**[0362]** Lipid particles of the invention such as SNALP can be detected using any method known in the art. For example, a label can be coupled directly or indirectly to a component of the lipid particle using methods well-known in the art. A wide variety of labels can be used, with the choice of label depending on sensitivity required, ease of conjugation with the lipid particle component, stability requirements, and available instrumentation and disposal provisions. Suitable labels include, but are not limited to, spectral labels such as fluorescent dyes (*e.g.*, fluorescein and derivatives, such as fluorescein isothiocyanate (FITC) and Oregon Green™; rhodamine and derivatives such Texas red, tetrarhodimine isothiocynate (TRITC), *etc.*, digoxigenin, biotin, phycoerythrin, AMCA, CyDyes™, and the like; radiolabels such as $^{3}H$, $^{125}I$, $^{35}S$, $^{14}C$, $^{32}P$, $^{33}P$, *etc.*; enzymes such as horseradish peroxidase, alkaline phosphatase, *etc.*; spectral colorimetric labels such as colloidal gold or colored glass or plastic beads such as polystyrene, polypropylene, latex, *etc.* The label can be detected using any means known in the art.

#### 2. Detection of Nucleic Acids

**[0363]** Nucleic acids (*e.g.*, interfering RNA) are detected and quantified herein by any of a number of means well-known to those of skill in the art. The detection of nucleic acids may proceed by well-known methods such as Southern analysis, Northern analysis, gel electrophoresis, PCR, radiolabeling, scintillation counting, and affinity chromatography. Additional analytic biochemical methods such as spectrophotometry, radiography, electrophoresis, capillary electrophoresis, high performance liquid chromatography (HPLC), thin layer chromatography (TLC), and hyperdiffusion chromatography may also be employed.

**[0364]** The selection of a nucleic acid hybridization format is not critical. A variety of nucleic acid hybridization formats are known to those skilled in the art. For example, common formats include sandwich assays and competition or displacement assays. Hybridization techniques are generally described in, *e.g.*, "Nucleic Acid Hybridization, A Practical Approach," Eds. Hames and Higgins, IRL Press (1985).

**[0365]** The sensitivity of the hybridization assays may be enhanced through the use of a nucleic acid amplification system which multiplies the target nucleic acid being detected. *In vitro* amplification techniques suitable for amplifying sequences for use as molecular probes or for generating nucleic acid fragments for subsequent subcloning are known. Examples of techniques sufficient to direct persons of skill through such *in vitro* amplification methods, including the polymerase chain reaction (PCR), the ligase chain reaction (LCR), Qβ-replicase amplification, and other RNA polymerase mediated techniques (*e.g.*, NASBA™) are found in Sambrook *et al.*, In *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory Press (2000); and Ausubel *et al.*, SHORT PROTOCOLS IN MOLECULAR BIOLOGY, eds., Current Protocols, Greene Publishing Associates, Inc. and John Wiley & Sons, Inc. (2002); as well as U.S. Patent No. 4,683,202; PCR Protocols, A Guide to Methods and Applications (Innis *et al.* eds.) Academic Press Inc. San Diego, CA (1990); Arnheim & Levinson (October 1, 1990), *C&EN* 36; The *Journal Of NIH Research*, 3:81 (1991); Kwoh *et al.*, *Proc. Natl. Acad. Sci. USA*, 86:1173 (1989); Guatelli *et al.*, *Proc. Natl. Acad. Sci. USA*, 87:1874 (1990); Lomell *et al.*, *J. Clin. Chem.*, 35:1826 (1989); Landegren *et al.*, *Science*, 241:1077 (1988); Van Brunt, *Biotechnology*, 8:291 (1990); Wu and Wallace, *Gene*, 4:560 (1989); Barringer *et al.*, *Gene*, 89:117 (1990); and Sooknanan and Malek, *Biotechnology*, 13:563 (1995). Improved methods of cloning *in vitro* amplified nucleic acids are described in U.S. Pat. No. 5,426,039. Other methods described in the art are the nucleic acid sequence based amplification (NASBA™, Cangene, Mississauga, Ontario) and Qβ-replicase systems. These systems can be used to directly identify mutants where the PCR or LCR primers are designed to be extended or ligated only when a select sequence is present. Alternatively, the select sequences can be generally amplified using, for example, nonspecific PCR primers and the amplified target region later probed for a specific sequence indicative of a mutation. The disclosures of the above-described references are herein incorporated by reference in their entirety for all purposes.

**[0366]** Nucleic acids for use as probes, *e.g.*, in *in vitro* amplification methods, for use as gene probes, or as inhibitor components are typically synthesized chemically according to the solid phase phosphoramidite triester method described by Beaucage *et al.*, *Tetrahedron*

*Letts.*, 22:1859 1862 (1981), *e.g.*, using an automated synthesizer, as described in Needham VanDevanter *et al.*, *Nucleic Acids Res.*, 12:6159 (1984). Purification of polynucleotides, where necessary, is typically performed by either native acrylamide gel electrophoresis or by anion exchange HPLC as described in Pearson *et al.*, *J. Chrom.*, 255:137 149 (1983). The sequence of the synthetic polynucleotides can be verified using the chemical degradation method of Maxam and Gilbert (1980) in Grossman and Moldave (eds.) Academic Press, New York, *Methods in Enzymology*, 65:499.

**[0367]** An alternative means for determining the level of transcription is *in situ* hybridization. *In situ* hybridization assays are well-known and are generally described in Angerer *et al.*, *Methods Enzymol.*, 152:649 (1987). In an *in situ* hybridization assay, cells are fixed to a solid support, typically a glass slide. If DNA is to be probed, the cells are denatured with heat or alkali. The cells are then contacted with a hybridization solution at a moderate temperature to permit annealing of specific probes that are labeled. The probes are preferably labeled with radioisotopes or fluorescent reporters.

## IX. Combination Therapy

**[0368]** In some embodiments, the present invention provides methods for treating multiple viral infections (*e.g.*, HBV and HCV infections) by administering an HCV interfering RNA (*e.g.*, HCV dsRNA) in combination with one or more interfering RNAs that target other viruses (*e.g.*, HBV dsRNA). In other embodiments, the present invention provides methods for treating an HCV infection by administering an HCV interfering RNA (*e.g.*, HCV dsRNA) in combination with one or more conventional agents used to treat HCV infections. Non-limiting examples of conventional agents suitable for combination therapy with the interfering RNA molecules described herein include interferon-α (*e.g.*, PEGylated interferon-α) and the antiviral drug ribavirin. The methods of the invention can be carried out *in vivo* by administering the interfering RNA and conventional agent as described herein or using any means known in the art. In a preferred embodiment, the combination of therapeutic agents is delivered to a liver cell (*e.g.*, hepatocyte) in a mammal such as a human.

**[0369]** In certain aspects, a patient about to begin therapy with either a conventional agent or an interfering RNA that targets another virus (*e.g.*, HBV dsRNA) is first pretreated with a suitable dose of one or more nucleic acid-lipid particles (*e.g.*, SNALP) containing HCV interfering RNA (*e.g.*, HCV dsRNA). The patient can be pretreated with a suitable dose of one or more nucleic acid-lipid particles containing HCV interfering RNA at any reasonable time prior to administration of the conventional agent or other interfering RNA. As non-limiting examples, the dose of one or more nucleic acid-lipid particles containing HCV

interfering RNA can be administered about 96, 84, 72, 60, 48, 36, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0.9, 0.8, 0.7, 0.6, 0.5, 0.4, 0.3, 0.2, or 0.1 hours, or any interval thereof, before administration of the conventional agent or other interfering RNA.

**[0370]** Additionally, a patient about to begin therapy with either a conventional agent or an interfering RNA that targets another virus (*e.g.*, HBV dsRNA) can be pretreated with more than one dose of nucleic acid-lipid particles (*e.g.*, SNALP) containing HCV interfering RNA (*e.g.*, HCV dsRNA) at different times before administration of the conventional agent or other interfering RNA. As such, the methods of the present invention can further comprise administering a second dose of nucleic acid-lipid particles containing HCV interfering RNA prior to administration of the conventional agent or other interfering RNA. In certain instances, the nucleic acid-lipid particles of the first dose are the same as the nucleic acid-lipid particles of the second dose. In certain other instances, the nucleic acid-lipid particles of the first dose are different from the nucleic acid-lipid particles of the second dose. Preferably, the two pretreatment doses use the same nucleic acid-lipid particles, *e.g.*, SNALP containing the same HCV interfering RNA sequence. One skilled in the art will appreciate that the second dose of nucleic acid-lipid particles can occur at any reasonable time following the first dose. As a non-limiting example, if the first dose was administered about 12 hours before administration of the conventional agent or other interfering RNA, the second dose can be administered about 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0.9, 0.8, 0.7, 0.6, 0.5, 0.4, 0.3, 0.2, or 0.1 hours, or any interval thereof, before administration of the conventional agent or other interfering RNA. One skilled in the art will also appreciate that the second dose of nucleic acid-lipid particles can be the same or a different dose. In additional embodiments of the present invention, the patient can be pretreated with a third, fourth, fifth, sixth, seventh, eighth, ninth, tenth, or more dose of the same or different nucleic acid-lipid particles containing HCV interfering RNA prior to administration of the conventional agent or other interfering RNA.

**[0371]** A patient can also be treated with a suitable dose of one or more nucleic acid-lipid particles (*e.g.*, SNALP) containing HCV interfering RNA (*e.g.*, HCV dsRNA) at any reasonable time during administration of either a conventional agent or an interfering RNA that targets another virus (*e.g.*, HBV dsRNA). As such, the methods of the present invention can further comprise administering a dose of nucleic acid-lipid particles containing HCV interfering RNA during administration of the conventional agent or other interfering RNA. One skilled in the art will appreciate that more than one dose of nucleic acid-lipid particles

containing HCV interfering RNA can be administered at different times during administration of the conventional agent or other interfering RNA. As a non-limiting example, a SNALP containing an unmodified and/or modified HCV dsRNA sequence can be administered at the beginning of administration of the conventional agent or other interfering RNA, while administration of the conventional agent or other interfering RNA is in progress, and/or at the end of administration of the conventional agent or other interfering RNA. One skilled in the art will also appreciate that the pretreatment and intra-treatment (*i.e.*, during administration of the conventional agent or other interfering RNA) doses of nucleic acid-lipid particles containing HCV interfering RNA can be the same or a different dose.

**[0372]** In addition, a patient can be treated with a suitable dose of one or more nucleic acid-lipid particles (*e.g.*, SNALP) containing HCV interfering RNA (*e.g.*, HCV dsRNA) at any reasonable time following administration of either a conventional agent or an interfering RNA that targets another virus (*e.g.*, HBV dsRNA). As such, the methods of the present invention can further comprise administering a dose of nucleic acid-lipid particles containing HCV interfering RNA after administration of the conventional agent or other interfering RNA. As non-limiting examples, the dose of one or more nucleic acid-lipid particles can be administered about 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 36, 48, 60, 72, 84, 96, 108, or more hours, or any interval thereof, after administration of the conventional agent or other interfering RNA. In certain instances, the same nucleic acid-lipid particle containing HCV interfering RNA is used before and after administration of the conventional agent or other interfering RNA. In certain other instances, a different nucleic acid-lipid particle containing HCV interfering RNA is used following administration of the conventional agent or other interfering RNA. One skilled in the art will appreciate that more than one dose of nucleic acid-lipid particles containing HCV interfering RNA can be administered at different times following administration of the conventional agent or other interfering RNA. One skilled in the art will also appreciate that the pretreatment and posttreatment (*i.e.*, following administration of the conventional agent or other interfering RNA) doses of nucleic acid-lipid particles containing HCV interfering RNA can be the same or a different dose.

**[0373]** Conventional agents or interfering RNA molecules that target other viruses can be administered with a suitable pharmaceutical excipient as necessary and can be carried out via any of the accepted modes of administration. Thus, administration can be, for example, oral, buccal, sublingual, gingival, palatal, intravenous, topical, subcutaneous, transcutaneous, transdermal, intramuscular, intra-joint, parenteral, intra-arteriole, intradermal,

intraventricular, intracranial, intraperitoneal, intravesical, intrathecal, intralesional, intranasal, rectal, vaginal, or by inhalation. By "co-administer" it is meant that the HCV interfering RNA is administered at the same time, just prior to, or just after the administration of the conventional agent or interfering RNA that targets another virus.

**[0374]** A therapeutically effective amount of a conventional agent may be administered repeatedly, *e.g.,* at least 2, 3, 4, 5, 6, 7, 8, or more times, or the dose may be administered by continuous infusion. The dose may take the form of solid, semi-solid, lyophilized powder, or liquid dosage forms, such as, for example, tablets, pills, pellets, capsules, powders, solutions, suspensions, emulsions, suppositories, retention enemas, creams, ointments, lotions, gels, aerosols, foams, or the like, preferably in unit dosage forms suitable for simple administration of precise dosages. One skilled in the art will appreciate that administered dosages of conventional agents will vary depending on a number of factors, including, but not limited to, the particular conventional agent or set of conventional agents to be administered, the mode of administration, the type of application, the age of the patient, and the physical condition of the patient. Preferably, the smallest dose and concentration required to produce the desired result should be used. Dosage should be appropriately adjusted for children, the elderly, debilitated patients, and patients with cardiac and/or liver disease. Further guidance can be obtained from studies known in the art using experimental animal models for evaluating dosage.

**[0375]** As used herein, the term "unit dosage form" refers to physically discrete units suitable as unitary dosages for human subjects and other mammals, each unit containing a predetermined quantity of a conventional agent calculated to produce the desired onset, tolerability, and/or therapeutic effects, in association with a suitable pharmaceutical excipient (*e.g.,* an ampoule). In addition, more concentrated dosage forms may be prepared, from which the more dilute unit dosage forms may then be produced. The more concentrated dosage forms thus will contain substantially more than, *e.g.,* at least 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, or more times the amount of the conventional agent.

**[0376]** Methods for preparing such dosage forms are known to those skilled in the art (*see, e.g., REMINGTON'S PHARMACEUTICAL SCIENCES*, 18TH ED., Mack Publishing Co., Easton, PA (1990)). The dosage forms typically include a conventional pharmaceutical carrier or excipient and may additionally include other medicinal agents, carriers, adjuvants, diluents, tissue permeation enhancers, solubilizers, and the like. Appropriate excipients can be tailored to the particular dosage form and route of administration by methods well known in the art (*see, e.g., REMINGTON'S PHARMACEUTICAL SCIENCES, supra*).

**[0377]** Examples of suitable excipients include, but are not limited to, lactose, dextrose, sucrose, sorbitol, mannitol, starches, gum acacia, calcium phosphate, alginates, tragacanth, gelatin, calcium silicate, microcrystalline cellulose, polyvinylpyrrolidone, cellulose, water, saline, syrup, methylcellulose, ethylcellulose, hydroxypropylmethylcellulose, and polyacrylic acids such as Carbopols, *e.g.,* Carbopol 941, Carbopol 980, Carbopol 981, *etc.* The dosage forms can additionally include lubricating agents such as talc, magnesium stearate, and mineral oil; wetting agents; emulsifying agents; suspending agents; preserving agents such as methyl-, ethyl-, and propyl-hydroxy-benzoates (*i.e.,* the parabens); pH adjusting agents such as inorganic and organic acids and bases; sweetening agents; and flavoring agents. The dosage forms may also comprise biodegradable polymer beads, dextran, and cyclodextrin inclusion complexes.

**[0378]** For oral administration, the therapeutically effective dose can be in the form of tablets, capsules, emulsions, suspensions, solutions, syrups, sprays, lozenges, powders, and sustained-release formulations. Suitable excipients for oral administration include pharmaceutical grades of mannitol, lactose, starch, magnesium stearate, sodium saccharine, talcum, cellulose, glucose, gelatin, sucrose, magnesium carbonate, and the like.

**[0379]** In some embodiments, the therapeutically effective dose takes the form of a pill, tablet, or capsule, and thus, the dosage form can contain, along with a conventional agent, any of the following: a diluent such as lactose, sucrose, dicalcium phosphate, and the like; a disintegrant such as starch or derivatives thereof; a lubricant such as magnesium stearate and the like; and a binder such a starch, gum acacia, polyvinylpyrrolidone, gelatin, cellulose and derivatives thereof. A conventional agent can also be formulated into a suppository disposed, for example, in a polyethylene glycol (PEG) carrier.

**[0380]** Liquid dosage forms can be prepared by dissolving or dispersing a conventional agent and optionally one or more pharmaceutically acceptable adjuvants in a carrier such as, for example, aqueous saline (*e.g.,* 0.9% w/v sodium chloride), aqueous dextrose, glycerol, ethanol, and the like, to form a solution or suspension, *e.g.,* for oral, topical, or intravenous administration. A conventional agent can also be formulated into a retention enema.

**[0381]** For topical administration, the therapeutically effective dose can be in the form of emulsions, lotions, gels, foams, creams, jellies, solutions, suspensions, ointments, and transdermal patches. For administration by inhalation, a conventional agent can be delivered as a dry powder or in liquid form via a nebulizer. For parenteral administration, the therapeutically effective dose can be in the form of sterile injectable solutions and sterile

packaged powders. Preferably, injectable solutions are formulated at a pH of from about 4.5 to about 7.5.

**[0382]** The therapeutically effective dose can also be provided in a lyophilized form. Such dosage forms may include a buffer, *e.g.,* bicarbonate, for reconstitution prior to administration, or the buffer may be included in the lyophilized dosage form for reconstitution with, *e.g.,* water. The lyophilized dosage form may further comprise a suitable vasoconstrictor, *e.g.,* epinephrine. The lyophilized dosage form can be provided in a syringe, optionally packaged in combination with the buffer for reconstitution, such that the reconstituted dosage form can be immediately administered to a subject.

## X. Examples

**[0383]** The present invention will be described in greater detail by way of specific examples. The following examples are offered for illustrative purposes, and are not intended to limit the invention in any manner. Those of skill in the art will readily recognize a variety of noncritical parameters which can be changed or modified to yield essentially the same results.

### Example 1. Materials and Methods.

**[0384]** **Interfering RNA.** Interfering RNA molecules are chemically synthesized, desalted and annealed using standard procedures.

**[0385]** **Lipid Encapsulation of Interfering RNA.** Interfering RNA molecules can be encapsulated into nucleic acid-lipid particles composed of the following lipids: a lipid conjugate such as PEG-C-DMA (3-N-[(-Methoxy poly(ethylene glycol)2000)carbamoyl]-1,2-dimyrestyloxy-propylamine); a cationic lipid of Formula I and/or II such as DLinDMA (1,2-Dilinoleyloxy-3-(N,N-dimethyl)aminopropane), DLenDMA, and/or DLin-K-C2-DMA; a phospholipid such as DPPC (1,2-dipalmitoyl-sn-glycero-3-phosphocholine; Avanti Polar Lipids; Alabaster, AL); and synthetic cholesterol (Sigma-Aldrich Corp.; St. Louis, MO) in the molar ratio 1.4:57.1:7.1:34.3, respectively. In other words, interfering RNAs can be encapsulated into stable nucleic acid-lipid particles ("SNALP") of the following "1:57" formulation: 1.4 mol % lipid conjugate (*e.g.,* PEG-C-DMA); 57.1 mol % cationic lipid (*e.g.,* DLinDMA, DLenDMA, and/or DLin-K-C2-DMA); 7.1 mol % phospholipid (*e.g.,* DPPC); and 34.3 mol % cholesterol. For vehicle controls, empty particles with identical lipid composition are formed in the absence of interfering RNA. It should be understood that the 1:57 formulation is a target formulation, and that the amount of lipid (both cationic and non-cationic) present and the amount of lipid conjugate present in the formulation may vary. Typically, in the 1:57 formulation, the amount of cationic lipid will be 57 mol % ± 5 mol %,

and the amount of lipid conjugate will be 1.5 mol % ± 0.5 mol %, with the balance of the 1:57 formulation being made up of non-cationic lipid (*e.g.*, phospholipid, cholesterol, or a mixture of the two).

**[0386] Target vRNA Quantitation.** The QuantiGene® branched DNA assay (Panomics, Inc.; Fremont, CA) can be used to quantify the reduction of target vRNA in cell cultures treated with SNALP. Cell lysates are prepared according to the manufacturer's instructions and used directly for HCV RNA quantification. Relative HCV RNA levels are expressed relative to the vehicle (PBS) treated control cells. Specific probe sets used for detection of vRNA are designed to target HCV RNA.

**[0387] Hepatocyte Isolation and Culture.** Primary hepatocytes can be isolated from C57Bl/6J mice by standard procedures. Briefly, mice are anesthetized by intraperitoneal injection of Ketamine-Xylazine and the livers are perfused with Hanks' Buffered Salt Solution (Invitrogen) solution containing 0.5 M EDTA and 1 mg/ml insulin followed by Hanks' collagenase solution (100 U/ml). The hepatocytes are dispersed in Williams' Media E (Invitrogen) and washed two times in Hepatocyte Wash Medium (Invitrogen), then suspended in Williams' Media E containing 10% fetal bovine serum and plated on 96-well plates ($2.5 \times 10^4$ cells/well). For an exemplary *in vitro* interfering RNA silencing activity assay, hepatocytes can be transfected with varying concentrations of SNALP-formulated HCV interfering RNAs in 96-well plates. HCV vRNA levels can be evaluated 24 h after transfection by a branched DNA assay (Panomics).

**[0388] Cell Culture.** The HepG2 cell line can be obtained from ATCC and cultured in complete media (Invitrogen GibcoBRL Minimal Essential Medium, 10% heat-inactivated FBS, 200 mM L-glutamine, 10mM MEM non-essential amino acids, 100 mM sodium pyruvate, 7.5% w/v sodium bicarbonate and 1% penicillin-streptomycin) in T175 flasks. For an exemplary *in vitro* interfering RNA silencing activity assay, HepG2 cells can be reverse transfected with varying concentrations of SNALP-formulated HCV interfering RNAs in 96-well plates at an initial cell confluency of 50%. After 24 hours of treatment, media can be removed and fresh complete media added.

**[0389] Cytokine Induction Assays.** Flt3-ligand derived murine dendritic cells (Flt3L DC) can be generated as described by Gilliet *et al.* (*J. Exp. Med.*, 195:953-958) using 100ng/ml murine Flt3-ligand (PeproTech Inc.; Rocky Hill, NJ) supplemented media. As a non-limiting example, femurs and tibiae of female Balb/C mice are isolated and rinsed in sterile PBS. The ends of bones are cut and marrow harvested in complete media (RPMI 1640, 10% heat inactivated FBS, 1% penicillin/streptomycin, 2mM L-glutamine, 1mM sodium pyruvate,

25mM HEPES, 50μM 2-mercaptoethanol). Bone marrow cells are passed through a 70μm strainer, centrifuged at 1000 rpm for 7minutes, and resuspended in complete media supplemented with 100ng/ml murine Flt3L to $2x10^6$ cells/ml. 2mls of cells are seeded in 6-well plates and 1ml fresh complete media added every two or three days. On day 9 of culture, non-adherent cells are washed in complete media and plated into 96-well plates at concentrations ranging from 0.5 to $2.5x10^5$ cells/well. 2'OMe-modified and unmodified (0/0) HCV SNALP are diluted in PBS and added to Flt3L DC cultures at 5μg/ml interfering RNA. Cells are incubated for 24 hours at 37°C before supernatants are assayed for cytokines by ELISA.

**[0390] Cytokine ELISA.** Interferon-α (IFN-α) and IL-6 in culture supernatants can be quantified using sandwich ELISA kits available from PBL Biomedical (Piscataway, NJ) and eBioscience (San Diego, CA) according to the manufacturer's instructions.

**[0391] Measurement of *Ifit1* mRNA Levels.** Liver tissue can be processed for bDNA assay to quantitate *Ifit1* mRNA. The *Ifit1* probe set can be specific to *Ifit1* mRNA (positions 4-499 of NM_008331) and the *Gapdh* probe set can be specific to *Gapdh* mRNA (positions 9-319 of NM_008084). Data can be shown as the ratio of *Ifit1* relative light units (RLU) to *Gapdh* RLU.

**[0392] Statistics.** Data can be presented as means plus or minus standard deviation. Analyses can be performed using the unpaired two-tailed Student's *t*-test. Differences are typically deemed significant at $P < 0.05$.

**Example 2. Exemplary Interfering RNA Molecules Targeting HCV.**

**[0393]** Figures 1-16 provide non-limiting examples of interfering RNA target and sense strand sequences that are suitable for modulating (*e.g.*, silencing) HCV gene expression.

**[0394]** In some embodiments, the interfering RNA (*e.g.*, dsRNA) sense strand sequence comprises or consists of one of the sequences set forth in Figures 1-16. In certain instances, the interfering RNA (*e.g.*, dsRNA) sense strand sequence comprises or consists of at least about 15 contiguous nucleotides (*e.g.*, at least 15, 16, 17, 18, or 19 contiguous nucleotides) of one of the sequences set forth in Figures 1-16. One of skill in the art will appreciate that the sense strand sequence may comprise or consist of at least about 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, or more additional nucleotides at the 5' and/or 3' end of one of the 19-mer sequences set forth in Figures 1-16 that correspond to the contiguous nucleotides adjacent to the corresponding 19-mer sequence found in SEQ ID NOS:1-7.

**[0395]** In other embodiments, the interfering RNA (*e.g.*, dsRNA) antisense strand sequence comprises or consists of a sequence that is complementary to (*e.g.*, specifically hybridizes to) one of the sequences set forth in Figures 1-16. In certain instances, the interfering RNA (*e.g.*, dsRNA) antisense strand sequence comprises or consists of at least about 15 contiguous nucleotides (*e.g.*, at least 15, 16, 17, 18, or 19 contiguous nucleotides) of a sequence that is complementary to (*e.g.*, specifically hybridizes to) one of the sequences set forth in Figures 1-16. One of skill in the art will appreciate that the antisense strand sequence may comprise or consist of at least about 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, or more additional complementary nucleotides at the 5' and/or 3' end of one of the 19-mer sequences set forth in Figures 1-16, wherein the additional nucleotides at the 5' and/or 3' end of the sequence have complementarity to the contiguous nucleotides adjacent to the corresponding 19-mer sequence found in SEQ ID NOS:1-7.

**[0396]** The number next to each target or sense strand sequence (5' → 3') in Figures 1-16 refers to the nucleotide position of the 5' base of that sequence relative to the HCV genotype 1a RNA sequence NC_004102 (SEQ ID NO:1), HCV genotype 1b RNA sequence AJ238799 (SEQ ID NO:2), HCV genotype 2 RNA sequence NC_009823 (SEQ ID NO:3), HCV genotype 3 RNA sequence NC_009824 (SEQ ID NO:4), HCV genotype 4 RNA sequence NC_009825 (SEQ ID NO:5), HCV genotype 5 RNA sequence NC_009826 (SEQ ID NO:6), or HCV genotype 6 RNA sequence NC_009827 (SEQ ID NO:7).

**[0397]** In certain embodiments, the sense and/or antisense strand comprises modified nucleotides such as 2'-O-methyl (2'OMe) nucleotides, 2'-deoxy-2'-fluoro (2'F) nucleotides, 2'-deoxy nucleotides, 2'-O-(2-methoxyethyl) (MOE) nucleotides, and/or locked nucleic acid (LNA) nucleotides. In particular embodiments, the sense and/or antisense strand comprises 2'OMe nucleotides in accordance with one or more of the selective modification patterns described herein. In some instances, the sense and/or antisense strand contains "dTdT" or "UU" 3' overhangs. In other instances, the sense and/or antisense strand contains 3' overhangs that have complementarity to the target sequence (3' overhang in the antisense strand) or the complementary strand thereof (3' overhang in the sense strand). In further embodiments, the 3' overhang on the sense strand, antisense strand, or both strands may comprise one, two, three, four, or more modified nucleotides such as those described herein (*e.g.*, 2'OMe nucleotides).

**[0398]** Figure 8 illustrates preferred interfering RNA (*e.g.*, dsRNA) target and sense strand sequences for silencing HCV genotype 1a. Figure 9 illustrates preferred interfering RNA

(*e.g.*, dsRNA) target and sense strand sequences for silencing HCV genotype 1b. These sequences were identified by inputting the HCV genotype 1a or 1b sequence into the Whitehead Institute for Biomedical Research siRNA design algorithm (*see, e.g.*, Elbashir *et al.*, *Genes Dev.*, 15:188-200 (2001); Schwarz *et al.*, *Cell*, 115:199-208 (2003); and Khvorova *et al Cell*, 115: 209-216 (2003); available at http://jura.wi.mit.edu/bioc/siRNAext/home.php) using the NNN21 rule with a thermodynamic cutoff of -2.0 and the following default settings: (1) a G/C content between 30-52%; (2) no more than 4 T, A, or G's in a row; and (3) no more than 7 consecutive GC's in a row.

**[0399]** Figure 10 illustrates exemplary interfering RNA (*e.g.*, dsRNA) target and sense strand sequences for silencing conserved regions between HCV genotypes 1a and 1b. These sequences represent a subset of the conserved sequences between HCV genotypes 1a and 1b drawn from Figures 8 and 9 based on CLUSTAL alignment with a net thermodynamic value of ends cutoff of -2.9.

**[0400]** Figure 11 illustrates additional preferred interfering RNA (*e.g.*, dsRNA) target and sense strand sequences for silencing HCV genotype 1a. These sequences were identified by inputting the HCV genotype 1a sequence into the Whitehead Institute algorithm using the NNN21 rule with a thermodynamic cutoff of -2.0 and the following default settings: (1) a G/C content between 10-90%; (2) no more than 9 T, A, or G's in a row; and (3) no more than 9 consecutive GC's in a row.

**[0401]** Figures 12-16 illustrate preferred interfering RNA (*e.g.*, dsRNA) target and sense strand sequences for silencing HCV genotypes 2-6. These sequences were identified by inputting the HCV genotype 2-6 sequence into the Whitehead Institute algorithm using the NNN21 rule with a thermodynamic cutoff of -2.0 and the following default settings: (1) a G/C content between 30-52%; (2) no more than 4 T, A, or G's in a row; and (3) no more than 7 consecutive GC's in a row.

**[0402]** In certain instances, BLASTn searches against the human and/or mouse nucleotide sequence databases may be performed on an identified interfering RNA (*e.g.*, dsRNA) sequence. In certain other instances, interfering RNA sequences may be eliminated that cross-hybridize with >15 of its internal nucleotides.

**Example 3. Inhibition of HCV Using Interfering RNA Molecules of the Invention.**

**[0403]** In some embodiments, the HCV interfering RNA (*e.g.*, dsRNA) described herein may be tested for inhibition of HCV replication using a chimeric HCV/poliovirus system in HeLa Cells. As a non-limiting example, the interfering RNAs of the invention are screened in two cell culture systems dependent upon the 5'-UTR of HCV: one requiring translation of

an HCV/luciferase gene, and the other involving replication of a chimeric HCV/poliovirus (PV) (*see, e.g.,* U.S. Patent Publication No. 20030125270). In particular embodiments, interfering RNA that provide potent inhibition of HCV RNA in the HCV/poliovirus chimera system represent an important class of therapeutic agents for treating chronic HCV infection.

**[0404]** In other embodiments, the HCV interfering RNA (*e.g.,* dsRNA) described herein may be tested for inhibition of HCV RNA expression using an HCV replicon system. As a non-limiting example, the interfering RNAs of the invention are tested in cell culture using Huh7 cells (*see, e.g.,* Randall *et al.*, *PNAS USA*, 100:235-240 (2003)) to determine the extent of RNA and protein inhibition. Interfering RNAs are selected against the HCV target as described herein. RNA inhibition is measured after delivery of these interfering RNAs by a suitable transfection agent (*e.g.,* SNALP) to Huh7 cells. Relative amounts of target RNA are measured versus actin using real-time PCR monitoring of amplification (*e.g.,* ABI 7700 TaqMan®). A comparison is made to a mixture of oligonucleotide sequences designed to target unrelated targets or to a randomized interfering RNA control with the same overall length and chemistry, but with randomly substituted nucleotides at each position. Primary and secondary lead interfering RNAs may be chosen for the target and optimization may be performed. After an optimal transfection agent concentration is chosen, an RNA time-course of inhibition may be performed with the lead interfering RNA molecule(s). In addition, a cell-plating format can be used to determine RNA inhibition.

**[0405]** In further embodiments, the HCV interfering RNA (*e.g.,* dsRNA) described herein may be tested for their effectiveness in inhibiting the ability of HCV to replicate in an infected liver. As a non-limiting example, portions of HCV-infected human liver are xenografted onto transgenic severe combined immunodeficient (SCID) mice according to methods known in the art. Once the HCV-infected liver has supplanted the mouse liver, SNALP-encapsulated interfering RNAs of the invention or control SNALPs are administered by intravenous injection to the mice through the tail vein, or another accessible vein. The mice are dosed one time a day for 3-10 days. At the end of the dosing regimen, the mice are sacrificed and blood collected and the livers removed. The liver is divided into portions such that a portion is frozen using liquid nitrogen, a portion is fixed for paraffin embedding, and a portion is fixed for sectioning onto slides. HCV RNA is quantified using the TaqMan® RNA assay kit to determine the levels of HCV RNA in the liver cells. Anti-HCV antibody titers can also be measured in the collected blood samples, along with serum ALT levels.

**[0406]** In additional embodiments, the HCV interfering RNA (*e.g.,* dsRNA) described herein may be tested for their effectiveness in inhibiting the ability of HCV to infect a healthy

liver. As a non-limiting example, potions of normal human liver are xenografted onto transgenic severe combined immunodeficient (SCID) mice according to methods known in the art. Once the healthy liver has supplanted the mouse liver, SNALP-encapsulated interfering RNAs of the invention or control SNALPs are administered by intravenous injection to the mice through the tail vein, or another accessible vein. The mice are dosed one time a day for 3-10 days. After the pre-dosing regimen, active HCV is then injected intravenously, or via hepatic injection, into the mice. At about 6, 12, 18, and 24 hours, and periodically up to about 5 days after the mice are infected with HCV, the mice are sacrificed and blood collected and the livers removed. The liver is divided into portions such that a portion is frozen using liquid nitrogen, a portion is fixed for paraffin embedding, and a portion is fixed for sectioning onto slides. HCV RNA is quantified using the TaqMan® RNA assay kit to determine the levels of HCV RNA in the liver cells. Anti-HCV antibody titers can also be measured in the collected blood samples, along with serum ALT levels.

**[0407]** It is to be understood that the above description is intended to be illustrative and not restrictive. Many embodiments will be apparent to those of skill in the art upon reading the above description. The scope of the invention should, therefore, be determined not with reference to the above description, but should instead be determined with reference to the appended claims, along with the full scope of equivalents to which such claims are entitled. The disclosures of all articles and references, including patent applications, patents, PCT publications, and Genbank Accession Nos., are incorporated herein by reference for all purposes.

INFORMAL SEQUENCE LISTING

SEQ ID NO:1

Hepatitis C virus genotype 1a, complete genome, ssRNA

NC_004102

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9601 ctgatactgg cctctctgca gttcatgt

WHAT IS CLAIMED IS:

1. A composition comprising an interfering RNA that silences hepatitis C virus (HCV) gene expression, wherein the interfering RNA comprises a sense strand and a complementary antisense strand, and wherein the interfering RNA comprises a double-stranded region of about 15 to about 60 nucleotides in length.

2. The composition of claim 1, wherein the interfering RNA comprises a double-stranded region of about 19 to about 25 nucleotides in length.

3. The composition of claim 1, wherein the interfering RNA is chemically synthesized.

4. The composition of claim 1, wherein the interfering RNA comprises a 3' overhang in one or both strands of the interfering RNA.

5. The composition of claim 1, wherein the interfering RNA comprises at least one modified nucleotide in the double-stranded region.

6. The composition of claim 5, wherein less than about 30% of the nucleotides in the double-stranded region comprise modified nucleotides.

7. The composition of claim 5, wherein the modified nucleotide is a 2'-O-methyl (2'OMe) nucleotide.

8. The composition of claim 7, wherein the 2'OMe nucleotide comprises a 2'OMe-guanosine nucleotide, a 2'OMe-uridine nucleotide, or mixtures thereof.

9. The composition of claim 1, wherein the HCV is selected from the group consisting of HCV genotypes 1a, 1b, 2, 3, 4, 5, 6, and combinations thereof.

10. The composition of claim 1, wherein the interfering RNA targets a sequence in the HCV genome within the 5'-untranslated region (5'-UTR), the 3'-untranslated region (3'-UTR), the polyprotein translation initiation codon region, the internal ribosome entry site (IRES) sequence, the core protein, the E1 protein, the E2 protein, the p7 protein, the NS2 protein, the NS3 protease/helicase, the NS4A protein, the NS4B protein, the NS5A protein, the NS5B RNA-dependent RNA polymerase, or combinations thereof.

11. The composition of claim 10, wherein the interfering RNA targets a sequence in the genome of HCV genotype 1a, HCV genotype 1b, or combinations thereof.

12. The composition of claim 1, wherein the sense strand comprises one of the sequences set forth in Figures 1-16.

13. The composition of claim 1, wherein the sense strand comprises at least 15 contiguous nucleotides of one of the sequences set forth in Figures 1-16.

14. The composition of claim 1, wherein the sense strand comprises a sequence that is at least 80% identical to one of the sequences set forth in Figures 1-16.

15. The composition of any of claims 1 or 12 to 14, wherein the antisense strand comprises a sequence that is complementary to one of the sequences set forth in Figures 1-16.

16. The composition of any of claims 1 or 12 to 14, wherein the antisense strand comprises at least 15 contiguous nucleotides of a sequence that is complementary to one of the sequences set forth in Figures 1-16.

17. The composition of any of claims 1 or 12 to 14, wherein the antisense strand comprises a sequence that is at least 80% identical to a complementary sequence of one of the sequences set forth in Figures 1-16.

18. The composition of any of claims 1 or 12 to 14, wherein the antisense strand specifically hybridizes to one of the sequences set forth in Figures 1-16.

19. The composition of claim 1, further comprising a pharmaceutically acceptable carrier.

20. A nucleic acid-lipid particle comprising:

(a) an interfering RNA of claim 1;

(b) a cationic lipid; and

(c) a non-cationic lipid.

21. The nucleic acid-lipid particle of claim 20, wherein the cationic lipid comprises 1,2-dilinoleyloxy-N,N-dimethylaminopropane (DLinDMA), 1,2-dilinolenyloxy-N,N-dimethylaminopropane (DLenDMA), 2,2-dilinoleyl-4-(2-dimethylaminoethyl)-[1,3]-dioxolane (DLin-K-C2-DMA), 2,2-dilinoleyl-4-dimethylaminomethyl-[1,3]-dioxolane (DLin-K-DMA), or a mixture thereof.

22. The nucleic acid-lipid particle of claim 20, wherein the non-cationic lipid is a phospholipid.

23. The nucleic acid-lipid particle of claim 20, wherein the non-cationic lipid is cholesterol or a derivative thereof.

24. The nucleic acid-lipid particle of claim 20, wherein the non-cationic lipid is a mixture of a phospholipid and cholesterol or a derivative thereof.

25. The nucleic acid-lipid particle of claim 24, wherein the phospholipid comprises dipalmitoylphosphatidylcholine (DPPC), distearoylphosphatidylcholine (DSPC), or a mixture thereof.

26. The nucleic acid-lipid particle of claim 20, wherein the non-cationic lipid is a mixture of DPPC and cholesterol.

27. The nucleic acid-lipid particle of claim 20, further comprising a conjugated lipid that inhibits aggregation of particles.

28. The nucleic acid-lipid particle of claim 27, wherein the conjugated lipid that inhibits aggregation of particles is a polyethyleneglycol (PEG)-lipid conjugate.

29. The nucleic acid-lipid particle of claim 28, wherein the PEG-lipid conjugate is selected from the group consisting of a PEG-diacylglycerol (PEG-DAG) conjugate, a PEG-dialkyloxypropyl (PEG-DAA) conjugate, a PEG-phospholipid conjugate, a PEG-ceramide (PEG-Cer) conjugate, and a mixture thereof.

30. The nucleic acid-lipid particle of claim 29, wherein the PEG-lipid conjugate is a PEG-DAA conjugate.

31. The nucleic acid-lipid particle of claim 30, wherein the PEG-DAA conjugate is selected from the group consisting of a PEG-didecyloxypropyl ($C_{10}$) conjugate, a PEG-dilauryloxypropyl ($C_{12}$) conjugate, a PEG-dimyristyloxypropyl ($C_{14}$) conjugate, a PEG-dipalmityloxypropyl ($C_{16}$) conjugate, a PEG-distearyloxypropyl ($C_{18}$) conjugate, and a mixture thereof.

32. The nucleic acid-lipid particle of claim 20, wherein the interfering RNA in the particle is not substantially degraded after exposure of the particle to a nuclease at 37° C for 20 minutes.

33. The nucleic acid-lipid particle of claim 20, wherein the interfering RNA in the particle is not substantially degraded after incubation of the particle in serum at 37°C for 30 minutes.

34. The nucleic acid-lipid particle of claim 20, wherein the interfering RNA is fully encapsulated in the particle.

35. The nucleic acid-lipid particle of claim 20, wherein the particle has a lipid:interfering RNA mass ratio of from about 5:1 to about 15:1.

36. The nucleic acid-lipid particle of claim 20, wherein the particle has a median diameter of from about 30 nm to about 150 nm.

37. The nucleic acid-lipid particle of claim 20, wherein the cationic lipid comprises from about 50 mol % to about 65 mol % of the total lipid present in the particle.

38. The nucleic acid-lipid particle of claim 20, wherein the non-cationic lipid comprises a mixture of a phospholipid and cholesterol or a derivative thereof, wherein

the phospholipid comprises from about 4 mol % to about 10 mol % of the total lipid present in the particle and the cholesterol or derivative thereof comprises from about 30 mol % to about 40 mol % of the total lipid present in the particle.

39. The nucleic acid-lipid particle of claim 38, wherein the phospholipid comprises from about 5 mol % to about 9 mol % of the total lipid present in the particle and the cholesterol or derivative thereof comprises from about 32 mol % to about 37 mol % of the total lipid present in the particle.

40. The nucleic acid-lipid particle of claim 27, wherein the conjugated lipid that inhibits aggregation of particles comprises from about 0.5 mol % to about 2 mol % of the total lipid present in the particle.

41. A pharmaceutical composition comprising a nucleic acid-lipid particle of claim 20 and a pharmaceutically acceptable carrier.

42. A method for introducing an interfering RNA that silences HCV gene expression into a cell, the method comprising:

contacting the cell with a nucleic acid-lipid particle of claim 20.

43. The method of claim 42, wherein the cell is a liver cell.

44. The method of claim 42, wherein the cell is in a mammal.

45. The method of claim 44, wherein the cell is contacted by administering the particle to the mammal via a systemic route.

46. The method of claim 44, wherein the mammal is a human.

47. The method of claim 44, wherein the mammal has been diagnosed with an HCV infection.

48. A method for silencing HCV gene expression in a mammal in need thereof, the method comprising:

administering to the mammal a nucleic acid-lipid particle of claim 20.

49. The method of claim 48, wherein the particle is administered via a systemic route.

50. The method of claim 48, wherein the mammal is a human.

51. The method of claim 48, wherein the mammal has been diagnosed with an HCV infection.

52. The method of claim 48, wherein administration of the particle reduces liver HCV viral RNA levels in the mammal by at least about 50% relative to liver HCV viral RNA levels in the absence of the particle.

53. A method for the *in vivo* delivery of an interfering RNA that silences HCV gene expression, the method comprising:

administering to a mammal a nucleic acid-lipid particle of claim 20.

54. The method of claim 53, wherein the particle is administered via a systemic route.

55. The method of claim 53, wherein the mammal is a human.

56. The method of claim 53, wherein the mammal has been diagnosed with an HCV infection.

57. The method of claim 53, wherein the delivery is to the liver.

58. A method for treating and/or ameliorating one or more symptoms associated with an HCV infection in a mammal in need thereof, the method comprising:

administering to the mammal a therapeutically effective amount of a nucleic acid-lipid particle of claim 20.

59. The method of claim 58, wherein the particle is administered via a systemic route.

60. The method of claim 58, wherein the mammal is a human.

61. The method of claim 58, wherein the mammal has acute or chronic hepatitis C.

62. A method for inactivating and/or inhibiting the replication of HCV in a mammal in need thereof, the method comprising:

administering to the mammal a therapeutically effective amount of a nucleic acid-lipid particle of claim 20.

63. The method of claim 62, wherein the particle is administered via a systemic route.

64. The method of claim 62, wherein the mammal is a human.

65. The method of claim 62, wherein the mammal has acute or chronic hepatitis C.

66. The method of claim 62, wherein administration of the particle reduces viral load in the mammal by at least about 50% relative to the viral load in the absence of the particle.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | GCCAGCCCCCUGAUGGGGG | 47 | GUGAGGAACUACUGUCUUC | 95 | UAUGAGUGUCGUGCAGCCU | 143 | GUGGUCUGCGGAACCGGUG |
| 2 | CCAGCCCCCUGAUGGGGGC | 48 | UGAGGAACUACUGUCUUCA | 96 | AUGAGUGUCGUGCAGCCUC | 144 | UGGUCUGCGGAACCGGUGA |
| 3 | CAGCCCCCUGAUGGGGGCG | 49 | GAGGAACUACUGUCUUCAC | 97 | UGAGUGUCGUGCAGCCUCC | 145 | GGUCUGCGGAACCGGUGAG |
| 4 | AGCCCCCUGAUGGGGGCGA | 50 | AGGAACUACUGUCUUCACG | 98 | GAGUGUCGUGCAGCCUCCA | 146 | GUCUGCGGAACCGGUGAGU |
| 5 | GCCCCCUGAUGGGGGCGAC | 51 | GGAACUACUGUCUUCACGC | 99 | AGUGUCGUGCAGCCUCCAG | 147 | UCUGCGGAACCGGUGAGUA |
| 6 | CCCCCUGAUGGGGGCGACA | 52 | GAACUACUGUCUUCACGCA | 100 | GUGUCGUGCAGCCUCCAGG | 148 | CUGCGGAACCGGUGAGUAC |
| 7 | CCCCUGAUGGGGGCGACAC | 53 | AACUACUGUCUUCACGCAG | 101 | UGUCGUGCAGCCUCCAGGA | 149 | UGCGGAACCGGUGAGUACA |
| 8 | CCCUGAUGGGGGCGACACU | 54 | ACUACUGUCUUCACGCAGA | 102 | GUCGUGCAGCCUCCAGGAC | 150 | GCGGAACCGGUGAGUACAC |
| 9 | CCUGAUGGGGGCGACACUC | 55 | CUACUGUCUUCACGCAGAA | 103 | UCGUGCAGCCUCCAGGACC | 151 | CGGAACCGGUGAGUACACC |
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| 11 | UGAUGGGGGCGACACUCCA | 57 | ACUGUCUUCACGCAGAAAG | 105 | GUGCAGCCUCCAGGACCCC | 153 | GAACCGGUGAGUACACCGG |
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| 13 | AUGGGGGCGACACUCCACC | 59 | UGUCUUCACGCAGAAAGCG | 107 | GCAGCCUCCAGGACCCCCC | 155 | ACCGGUGAGUACACCGGAA |
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| 16 | GGGGCGACACUCCACCAUG | 62 | CUUCACGCAGAAAGCGUCU | 110 | GCCUCCAGGACCCCCCCUC | 158 | GGUGAGUACACCGGAAUUG |
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| 18 | GGCGACACUCCACCAUGAA | 64 | UCACGCAGAAAGCGUCUAG | 112 | CUCCAGGACCCCCCCUCCC | 160 | UGAGUACACCGGAAUUGCC |
| 19 | GCGACACUCCACCAUGAAU | 65 | CACGCAGAAAGCGUCUAGC | 113 | UCCAGGACCCCCCCUCCCG | 161 | GAGUACACCGGAAUUGCCA |
| 20 | CGACACUCCACCAUGAAUC | 66 | ACGCAGAAAGCGUCUAGCC | 114 | CCAGGACCCCCCCUCCCGG | 162 | AGUACACCGGAAUUGCCAG |
| 21 | GACACUCCACCAUGAAUCA | 67 | CGCAGAAAGCGUCUAGCCA | 115 | CAGGACCCCCCCUCCCGGG | 163 | GUACACCGGAAUUGCCAGG |
| 22 | ACACUCCACCAUGAAUCAC | 68 | GCAGAAAGCGUCUAGCCAU | 116 | AGGACCCCCCCUCCCGGGA | 164 | UACACCGGAAUUGCCAGGA |
| 23 | CACUCCACCAUGAAUCACU | 69 | CAGAAAGCGUCUAGCCAUG | 117 | GGACCCCCCCUCCCGGGAG | 165 | ACACCGGAAUUGCCAGGAC |
| 24 | ACUCCACCAUGAAUCACUC | 70 | AGAAAGCGUCUAGCCAUGG | 118 | GACCCCCCCUCCCGGGAGA | 166 | CACCGGAAUUGCCAGGACG |
| 25 | CUCCACCAUGAAUCACUCC | 71 | GAAAGCGUCUAGCCAUGGC | 119 | ACCCCCCCUCCCGGGAGAG | 167 | ACCGGAAUUGCCAGGACGA |
| 26 | UCCACCAUGAAUCACUCCC | 72 | AAAGCGUCUAGCCAUGGCG | 120 | CCCCCCCUCCCGGGAGAGC | 168 | CCGGAAUUGCCAGGACGAC |
| 27 | CCACCAUGAAUCACUCCCC | 73 | AAGCGUCUAGCCAUGGCGU | 121 | CCCCCCUCCCGGGAGAGCC | 169 | CGGAAUUGCCAGGACGACC |
| 28 | CACCAUGAAUCACUCCCCU | 74 | AGCGUCUAGCCAUGGCGUU | 122 | CCCCCUCCCGGGAGAGCCA | 170 | GGAAUUGCCAGGACGACCG |
| 29 | ACCAUGAAUCACUCCCCUG | 75 | GCGUCUAGCCAUGGCGUUA | 123 | CCCCUCCCGGGAGAGCCAU | 171 | GAAUUGCCAGGACGACCGG |
| 30 | CCAUGAAUCACUCCCCUGU | 76 | CGUCUAGCCAUGGCGUUAG | 124 | CCCUCCCGGGAGAGCCAUA | 172 | AAUUGCCAGGACGACCGGG |
| 31 | CAUGAAUCACUCCCCUGUG | 77 | GUCUAGCCAUGGCGUUAGU | 125 | CCUCCCGGGAGAGCCAUAG | 173 | AUUGCCAGGACGACCGGGU |
| 32 | AUGAAUCACUCCCCUGUGA | 78 | UCUAGCCAUGGCGUUAGUA | 126 | CUCCCGGGAGAGCCAUAGU | 174 | UUGCCAGGACGACCGGGUC |
| 33 | UGAAUCACUCCCCUGUGAG | 79 | CUAGCCAUGGCGUUAGUAU | 127 | UCCCGGGAGAGCCAUAGUG | 175 | UGCCAGGACGACCGGGUCC |
| 34 | GAAUCACUCCCCUGUGAGG | 80 | UAGCCAUGGCGUUAGUAUG | 128 | CCCGGGAGAGCCAUAGUGG | 176 | GCCAGGACGACCGGGUCCU |
| 35 | AAUCACUCCCCUGUGAGGA | 81 | AGCCAUGGCGUUAGUAUGA | 129 | CCGGGAGAGCCAUAGUGGU | 177 | CCAGGACGACCGGGUCCUU |
| 36 | AUCACUCCCCUGUGAGGAA | 82 | GCCAUGGCGUUAGUAUGAG | 130 | CGGGAGAGCCAUAGUGGUC | 178 | CAGGACGACCGGGUCCUUU |
| 37 | UCACUCCCCUGUGAGGAAC | 83 | CCAUGGCGUUAGUAUGAGU | 131 | GGGAGAGCCAUAGUGGUCU | 179 | AGGACGACCGGGUCCUUUC |
| 38 | CACUCCCCUGUGAGGAACU | 84 | CAUGGCGUUAGUAUGAGUG | 132 | GGAGAGCCAUAGUGGUCUG | 180 | GGACGACCGGGUCCUUUCU |
| 39 | ACUCCCCUGUGAGGAACUA | 85 | AUGGCGUUAGUAUGAGUGU | 133 | GAGAGCCAUAGUGGUCUGC | 181 | GACGACCGGGUCCUUUCUU |
| 40 | CUCCCCUGUGAGGAACUAC | 86 | UGGCGUUAGUAUGAGUGUC | 134 | AGAGCCAUAGUGGUCUGCG | 182 | ACGACCGGGUCCUUUCUUG |
| 41 | UCCCCUGUGAGGAACUACU | 87 | GGCGUUAGUAUGAGUGUCG | 135 | GAGCCAUAGUGGUCUGCGG | 183 | CGACCGGGUCCUUUCUUGG |
| 42 | CCCCUGUGAGGAACUACUG | 88 | GCGUUAGUAUGAGUGUCGU | 136 | AGCCAUAGUGGUCUGCGGA | 184 | GACCGGGUCCUUUCUUGGA |
| 43 | CCCUGUGAGGAACUACUGU | 89 | CGUUAGUAUGAGUGUCGUG | 137 | GCCAUAGUGGUCUGCGGAA | 185 | ACCGGGUCCUUUCUUGGAU |
| 44 | CCUGUGAGGAACUACUGUC | 90 | GUUAGUAUGAGUGUCGUGC | 138 | CCAUAGUGGUCUGCGGAAC | 186 | CCGGGUCCUUUCUUGGAUA |
| 45 | CUGUGAGGAACUACUGUCU | 91 | UUAGUAUGAGUGUCGUGCA | 139 | CAUAGUGGUCUGCGGAACC | 187 | CGGGUCCUUUCUUGGAUAA |
| 46 | UGUGAGGAACUACUGUCUU | 92 | UAGUAUGAGUGUCGUGCAG | 140 | AUAGUGGUCUGCGGAACCG | 188 | GGGUCCUUUCUUGGAUAAA |
| | | 93 | AGUAUGAGUGUCGUGCAGC | 141 | UAGUGGUCUGCGGAACCGG | 189 | GGUCCUUUCUUGGAUAAAC |
| | | 94 | GUAUGAGUGUCGUGCAGCC | 142 | AGUGGUCUGCGGAACCGGU | 190 | GUCCUUUCUUGGAUAAACC |

**FIG. 1 (page 1 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 191 | UCCUUUCUUGGAUAAACCC | 239 | CCGCAAGACUGCUAGCCGA | 287 | UACUGCCUGAUAGGGUGCU | 335 | GUGCACCAUGAGCACGAAU |
| 192 | CCUUUCUUGGAUAAACCCG | 240 | CGCAAGACUGCUAGCCGAG | 288 | ACUGCCUGAUAGGGUGCUU | 336 | UGCACCAUGAGCACGAAUC |
| 193 | CUUUCUUGGAUAAACCCGC | 241 | GCAAGACUGCUAGCCGAGU | 289 | CUGCCUGAUAGGGUGCUUG | 337 | GCACCAUGAGCACGAAUCC |
| 194 | UUUCUUGGAUAAACCCGCU | 242 | CAAGACUGCUAGCCGAGUA | 290 | UGCCUGAUAGGGUGCUUGC | 338 | CACCAUGAGCACGAAUCCU |
| 195 | UUCUUGGAUAAACCCGCUC | 243 | AAGACUGCUAGCCGAGUAG | 291 | GCCUGAUAGGGUGCUUGCG | 339 | ACCAUGAGCACGAAUCCUA |
| 196 | UCUUGGAUAAACCCGCUCA | 244 | AGACUGCUAGCCGAGUAGU | 292 | CCUGAUAGGGUGCUUGCGA | 340 | CCAUGAGCACGAAUCCUAA |
| 197 | CUUGGAUAAACCCGCUCAA | 245 | GACUGCUAGCCGAGUAGUG | 293 | CUGAUAGGGUGCUUGCGAG | 341 | CAUGAGCACGAAUCCUAAA |
| 198 | UUGGAUAAACCCGCUCAAU | 246 | ACUGCUAGCCGAGUAGUGU | 294 | UGAUAGGGUGCUUGCGAGU | 342 | AUGAGCACGAAUCCUAAAC |
| 199 | UGGAUAAACCCGCUCAAUG | 247 | CUGCUAGCCGAGUAGUGUU | 295 | GAUAGGGUGCUUGCGAGUG | 343 | UGAGCACGAAUCCUAAACC |
| 200 | GGAUAAACCCGCUCAAUGC | 248 | UGCUAGCCGAGUAGUGUUG | 296 | AUAGGGUGCUUGCGAGUGC | 344 | GAGCACGAAUCCUAAACCU |
| 201 | GAUAAACCCGCUCAAUGCC | 249 | GCUAGCCGAGUAGUGUUGG | 297 | UAGGGUGCUUGCGAGUGCC | 345 | AGCACGAAUCCUAAACCUC |
| 202 | AUAAACCCGCUCAAUGCCU | 250 | CUAGCCGAGUAGUGUUGGG | 298 | AGGGUGCUUGCGAGUGCCC | 346 | GCACGAAUCCUAAACCUCA |
| 203 | UAAACCCGCUCAAUGCCUG | 251 | UAGCCGAGUAGUGUUGGGU | 299 | GGGUGCUUGCGAGUGCCCC | 347 | CACGAAUCCUAAACCUCAA |
| 204 | AAACCCGCUCAAUGCCUGG | 252 | AGCCGAGUAGUGUUGGGUC | 300 | GGUGCUUGCGAGUGCCCCG | 348 | ACGAAUCCUAAACCUCAAA |
| 205 | AACCCGCUCAAUGCCUGGA | 253 | GCCGAGUAGUGUUGGGUCG | 301 | GUGCUUGCGAGUGCCCCGG | 349 | CGAAUCCUAAACCUCAAAG |
| 206 | ACCCGCUCAAUGCCUGGAG | 254 | CCGAGUAGUGUUGGGUCGC | 302 | UGCUUGCGAGUGCCCCGGG | 350 | GAAUCCUAAACCUCAAAGA |
| 207 | CCCGCUCAAUGCCUGGAGA | 255 | CGAGUAGUGUUGGGUCGCG | 303 | GCUUGCGAGUGCCCCGGGA | 351 | AAUCCUAAACCUCAAAGAA |
| 208 | CCGCUCAAUGCCUGGAGAU | 256 | GAGUAGUGUUGGGUCGCGA | 304 | CUUGCGAGUGCCCCGGGAG | 352 | AUCCUAAACCUCAAAGAAA |
| 209 | CGCUCAAUGCCUGGAGAUU | 257 | AGUAGUGUUGGGUCGCGAA | 305 | UUGCGAGUGCCCCGGGAGG | 353 | UCCUAAACCUCAAAGAAAA |
| 210 | GCUCAAUGCCUGGAGAUUU | 258 | GUAGUGUUGGGUCGCGAAA | 306 | UGCGAGUGCCCCGGGAGGU | 354 | CCUAAACCUCAAAGAAAAA |
| 211 | CUCAAUGCCUGGAGAUUUG | 259 | UAGUGUUGGGUCGCGAAAG | 307 | GCGAGUGCCCCGGGAGGUC | 355 | CUAAACCUCAAAGAAAAAC |
| 212 | UCAAUGCCUGGAGAUUUGG | 260 | AGUGUUGGGUCGCGAAAGG | 308 | CGAGUGCCCCGGGAGGUCU | 356 | UAAACCUCAAAGAAAAACC |
| 213 | CAAUGCCUGGAGAUUUGGG | 261 | GUGUUGGGUCGCGAAAGGC | 309 | GAGUGCCCCGGGAGGUCUC | 357 | AAACCUCAAAGAAAAACCA |
| 214 | AAUGCCUGGAGAUUUGGGC | 262 | UGUUGGGUCGCGAAAGGCC | 310 | AGUGCCCCGGGAGGUCUCG | 358 | AACCUCAAAGAAAAACCAA |
| 215 | AUGCCUGGAGAUUUGGGCG | 263 | GUUGGGUCGCGAAAGGCCU | 311 | GUGCCCCGGGAGGUCUCGU | 359 | ACCUCAAAGAAAAACCAAA |
| 216 | UGCCUGGAGAUUUGGGCGU | 264 | UUGGGUCGCGAAAGGCCUU | 312 | UGCCCCGGGAGGUCUCGUA | 360 | CCUCAAAGAAAAACCAAAC |
| 217 | GCCUGGAGAUUUGGGCGUG | 265 | UGGGUCGCGAAAGGCCUUG | 313 | GCCCCGGGAGGUCUCGUAG | 361 | CUCAAAGAAAAACCAAACG |
| 218 | CCUGGAGAUUUGGGCGUGC | 266 | GGGUCGCGAAAGGCCUUGU | 314 | CCCCGGGAGGUCUCGUAGA | 362 | UCAAAGAAAAACCAAACGU |
| 219 | CUGGAGAUUUGGGCGUGCC | 267 | GGUCGCGAAAGGCCUUGUG | 315 | CCCGGGAGGUCUCGUAGAC | 363 | CAAAGAAAAACCAAACGUA |
| 220 | UGGAGAUUUGGGCGUGCCC | 268 | GUCGCGAAAGGCCUUGUGG | 316 | CCGGGAGGUCUCGUAGACC | 364 | AAAGAAAAACCAAACGUAA |
| 221 | GGAGAUUUGGGCGUGCCCC | 269 | UCGCGAAAGGCCUUGUGGU | 317 | CGGGAGGUCUCGUAGACCG | 365 | AAGAAAAACCAAACGUAAC |
| 222 | GAGAUUUGGGCGUGCCCCC | 270 | CGCGAAAGGCCUUGUGGUA | 318 | GGGAGGUCUCGUAGACCGU | 366 | AGAAAAACCAAACGUAACA |
| 223 | AGAUUUGGGCGUGCCCCCG | 271 | GCGAAAGGCCUUGUGGUAC | 319 | GGAGGUCUCGUAGACCGUG | 367 | GAAAAACCAAACGUAACAC |
| 224 | GAUUUGGGCGUGCCCCCGC | 272 | CGAAAGGCCUUGUGGUACU | 320 | GAGGUCUCGUAGACCGUGC | 368 | AAAAACCAAACGUAACACC |
| 225 | AUUUGGGCGUGCCCCCGCA | 273 | GAAAGGCCUUGUGGUACUG | 321 | AGGUCUCGUAGACCGUGCA | 369 | AAAACCAAACGUAACACCA |
| 226 | UUUGGGCGUGCCCCCGCAA | 274 | AAAGGCCUUGUGGUACUGC | 322 | GGUCUCGUAGACCGUGCAC | 370 | AAACCAAACGUAACACCAA |
| 227 | UUGGGCGUGCCCCCGCAAG | 275 | AAGGCCUUGUGGUACUGCC | 323 | GUCUCGUAGACCGUGCACC | 371 | AACCAAACGUAACACCAAC |
| 228 | UGGGCGUGCCCCCGCAAGA | 276 | AGGCCUUGUGGUACUGCCU | 324 | UCUCGUAGACCGUGCACCA | 372 | ACCAAACGUAACACCAACC |
| 229 | GGGCGUGCCCCCGCAAGAC | 277 | GGCCUUGUGGUACUGCCUG | 325 | CUCGUAGACCGUGCACCAU | 373 | CCAAACGUAACACCAACCG |
| 230 | GGCGUGCCCCCGCAAGACU | 278 | GCCUUGUGGUACUGCCUGA | 326 | UCGUAGACCGUGCACCAUG | 374 | CAAACGUAACACCAACCGU |
| 231 | GCGUGCCCCCGCAAGACUG | 279 | CCUUGUGGUACUGCCUGAU | 327 | CGUAGACCGUGCACCAUGA | 375 | AAACGUAACACCAACCGUC |
| 232 | CGUGCCCCCGCAAGACUGC | 280 | CUUGUGGUACUGCCUGAUA | 328 | GUAGACCGUGCACCAUGAG | 376 | AACGUAACACCAACCGUCG |
| 233 | GUGCCCCCGCAAGACUGCU | 281 | UUGUGGUACUGCCUGAUAG | 329 | UAGACCGUGCACCAUGAGC | 377 | ACGUAACACCAACCGUCGC |
| 234 | UGCCCCCGCAAGACUGCUA | 282 | UGUGGUACUGCCUGAUAGG | 330 | AGACCGUGCACCAUGAGCA | 378 | CGUAACACCAACCGUCGCC |
| 235 | GCCCCCGCAAGACUGCUAG | 283 | GUGGUACUGCCUGAUAGGG | 331 | GACCGUGCACCAUGAGCAC | 379 | GUAACACCAACCGUCGCCC |
| 236 | CCCCCGCAAGACUGCUAGC | 284 | UGGUACUGCCUGAUAGGGU | 332 | ACCGUGCACCAUGAGCACG | 380 | UAACACCAACCGUCGCCCA |
| 237 | CCCCGCAAGACUGCUAGCC | 285 | GGUACUGCCUGAUAGGGUG | 333 | CCGUGCACCAUGAGCACGA | 381 | AACACCAACCGUCGCCCAC |
| 238 | CCCGCAAGACUGCUAGCCG | 286 | GUACUGCCUGAUAGGGUGC | 334 | CGUGCACCAUGAGCACGAA | 382 | ACACCAACCGUCGCCCACA |

**FIG. 1 (page 2 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 383 | CACCAACCGUCGCCCACAG | 431 | CGUUGGUGGAGUUUACUUG | 479 | GCGCGCGACGAGGAAGACU | 527 | UCAGCCUAUCCCCAAGGCA |
| 384 | ACCAACCGUCGCCCACAGG | 432 | GUUGGUGGAGUUUACUUGU | 480 | CGCGCGACGAGGAAGACUU | 528 | CAGCCUAUCCCCAAGGCAC |
| 385 | CCAACCGUCGCCCACAGGA | 433 | UUGGUGGAGUUUACUUGUU | 481 | GCGCGACGAGGAAGACUUC | 529 | AGCCUAUCCCCAAGGCACG |
| 386 | CAACCGUCGCCCACAGGAC | 434 | UGGUGGAGUUUACUUGUUG | 482 | CGCGACGAGGAAGACUUCC | 530 | GCCUAUCCCCAAGGCACGU |
| 387 | AACCGUCGCCCACAGGACG | 435 | GGUGGAGUUUACUUGUUGC | 483 | GCGACGAGGAAGACUUCCG | 531 | CCUAUCCCCAAGGCACGUC |
| 388 | ACCGUCGCCCACAGGACGU | 436 | GUGGAGUUUACUUGUUGCC | 484 | CGACGAGGAAGACUUCCGA | 532 | CUAUCCCCAAGGCACGUCG |
| 389 | CCGUCGCCCACAGGACGUC | 437 | UGGAGUUUACUUGUUGCCG | 485 | GACGAGGAAGACUUCCGAG | 533 | UAUCCCCAAGGCACGUCGG |
| 390 | CGUCGCCCACAGGACGUCA | 438 | GGAGUUUACUUGUUGCCGC | 486 | ACGAGGAAGACUUCCGAGC | 534 | AUCCCCAAGGCACGUCGGC |
| 391 | GUCGCCCACAGGACGUCAA | 439 | GAGUUUACUUGUUGCCGCG | 487 | CGAGGAAGACUUCCGAGCG | 535 | UCCCCAAGGCACGUCGGCC |
| 392 | UCGCCCACAGGACGUCAAG | 440 | AGUUUACUUGUUGCCGCGC | 488 | GAGGAAGACUUCCGAGCGG | 536 | CCCCAAGGCACGUCGGCCC |
| 393 | CGCCCACAGGACGUCAAGU | 441 | GUUUACUUGUUGCCGCGCA | 489 | AGGAAGACUUCCGAGCGGU | 537 | CCCAAGGCACGUCGGCCCG |
| 394 | GCCCACAGGACGUCAAGUU | 442 | UUUACUUGUUGCCGCGCAG | 490 | GGAAGACUUCCGAGCGGUC | 538 | CCAAGGCACGUCGGCCCGA |
| 395 | CCCACAGGACGUCAAGUUC | 443 | UUACUUGUUGCCGCGCAGG | 491 | GAAGACUUCCGAGCGGUCG | 539 | CAAGGCACGUCGGCCCGAG |
| 396 | CCACAGGACGUCAAGUUCC | 444 | UACUUGUUGCCGCGCAGGG | 492 | AAGACUUCCGAGCGGUCGC | 540 | AAGGCACGUCGGCCCGAGG |
| 397 | CACAGGACGUCAAGUUCCC | 445 | ACUUGUUGCCGCGCAGGGG | 493 | AGACUUCCGAGCGGUCGCA | 541 | AGGCACGUCGGCCCGAGGG |
| 398 | ACAGGACGUCAAGUUCCCG | 446 | CUUGUUGCCGCGCAGGGGC | 494 | GACUUCCGAGCGGUCGCAA | 542 | GGCACGUCGGCCCGAGGGC |
| 399 | CAGGACGUCAAGUUCCCGG | 447 | UUGUUGCCGCGCAGGGGCC | 495 | ACUUCCGAGCGGUCGCAAC | 543 | GCACGUCGGCCCGAGGGCA |
| 400 | AGGACGUCAAGUUCCCGGG | 448 | UGUUGCCGCGCAGGGGCCC | 496 | CUUCCGAGCGGUCGCAACC | 544 | CACGUCGGCCCGAGGGCAG |
| 401 | GGACGUCAAGUUCCCGGGU | 449 | GUUGCCGCGCAGGGGCCCU | 497 | UUCCGAGCGGUCGCAACCU | 545 | ACGUCGGCCCGAGGGCAGG |
| 402 | GACGUCAAGUUCCCGGGUG | 450 | UUGCCGCGCAGGGGCCCUA | 498 | UCCGAGCGGUCGCAACCUC | 546 | CGUCGGCCCGAGGGCAGGA |
| 403 | ACGUCAAGUUCCCGGGUGG | 451 | UGCCGCGCAGGGGCCCUAG | 499 | CCGAGCGGUCGCAACCUCG | 547 | GUCGGCCCGAGGGCAGGAC |
| 404 | CGUCAAGUUCCCGGGUGGC | 452 | GCCGCGCAGGGGCCCUAGA | 500 | CGAGCGGUCGCAACCUCGA | 548 | UCGGCCCGAGGGCAGGACC |
| 405 | GUCAAGUUCCCGGGUGGCG | 453 | CCGCGCAGGGGCCCUAGAU | 501 | GAGCGGUCGCAACCUCGAG | 549 | CGGCCCGAGGGCAGGACCU |
| 406 | UCAAGUUCCCGGGUGGCGG | 454 | CGCGCAGGGGCCCUAGAUU | 502 | AGCGGUCGCAACCUCGAGG | 550 | GGCCCGAGGGCAGGACCUG |
| 407 | CAAGUUCCCGGGUGGCGGU | 455 | GCGCAGGGGCCCUAGAUUG | 503 | GCGGUCGCAACCUCGAGGU | 551 | GCCCGAGGGCAGGACCUGG |
| 408 | AAGUUCCCGGGUGGCGGUC | 456 | CGCAGGGGCCCUAGAUUGG | 504 | CGGUCGCAACCUCGAGGUA | 552 | CCCGAGGGCAGGACCUGGG |
| 409 | AGUUCCCGGGUGGCGGUCA | 457 | GCAGGGGCCCUAGAUUGGG | 505 | GGUCGCAACCUCGAGGUAG | 553 | CCGAGGGCAGGACCUGGGC |
| 410 | GUUCCCGGGUGGCGGUCAG | 458 | CAGGGGCCCUAGAUUGGGU | 506 | GUCGCAACCUCGAGGUAGA | 554 | CGAGGGCAGGACCUGGGCU |
| 411 | UUCCCGGGUGGCGGUCAGA | 459 | AGGGGCCCUAGAUUGGGUG | 507 | UCGCAACCUCGAGGUAGAC | 555 | GAGGGCAGGACCUGGGCUC |
| 412 | UCCCGGGUGGCGGUCAGAU | 460 | GGGGCCCUAGAUUGGGUGU | 508 | CGCAACCUCGAGGUAGACG | 556 | AGGGCAGGACCUGGGCUCA |
| 413 | CCCGGGUGGCGGUCAGAUC | 461 | GGGCCCUAGAUUGGGUGUG | 509 | GCAACCUCGAGGUAGACGU | 557 | GGGCAGGACCUGGGCUCAG |
| 414 | CCGGGUGGCGGUCAGAUCG | 462 | GGCCCUAGAUUGGGUGUGC | 510 | CAACCUCGAGGUAGACGUC | 558 | GGCAGGACCUGGGCUCAGC |
| 415 | CGGGUGGCGGUCAGAUCGU | 463 | GCCCUAGAUUGGGUGUGCG | 511 | AACCUCGAGGUAGACGUCA | 559 | GCAGGACCUGGGCUCAGCC |
| 416 | GGGUGGCGGUCAGAUCGUU | 464 | CCCUAGAUUGGGUGUGCGC | 512 | ACCUCGAGGUAGACGUCAG | 560 | CAGGACCUGGGCUCAGCCC |
| 417 | GGUGGCGGUCAGAUCGUUG | 465 | CCUAGAUUGGGUGUGCGCG | 513 | CCUCGAGGUAGACGUCAGC | 561 | AGGACCUGGGCUCAGCCCG |
| 418 | GUGGCGGUCAGAUCGUUGG | 466 | CUAGAUUGGGUGUGCGCGC | 514 | CUCGAGGUAGACGUCAGCC | 562 | GGACCUGGGCUCAGCCCGG |
| 419 | UGGCGGUCAGAUCGUUGGU | 467 | UAGAUUGGGUGUGCGCGCG | 515 | UCGAGGUAGACGUCAGCCU | 563 | GACCUGGGCUCAGCCCGGG |
| 420 | GGCGGUCAGAUCGUUGGUG | 468 | AGAUUGGGUGUGCGCGCGA | 516 | CGAGGUAGACGUCAGCCUA | 564 | ACCUGGGCUCAGCCCGGGU |
| 421 | GCGGUCAGAUCGUUGGUGG | 469 | GAUUGGGUGUGCGCGCGAC | 517 | GAGGUAGACGUCAGCCUAU | 565 | CCUGGGCUCAGCCCGGGUA |
| 422 | CGGUCAGAUCGUUGGUGGA | 470 | AUUGGGUGUGCGCGCGACG | 518 | AGGUAGACGUCAGCCUAUC | 566 | CUGGGCUCAGCCCGGGUAC |
| 423 | GGUCAGAUCGUUGGUGGAG | 471 | UUGGGUGUGCGCGCGACGA | 519 | GGUAGACGUCAGCCUAUCC | 567 | UGGGCUCAGCCCGGGUACC |
| 424 | GUCAGAUCGUUGGUGGAGU | 472 | UGGGUGUGCGCGCGACGAG | 520 | GUAGACGUCAGCCUAUCCC | 568 | GGGCUCAGCCCGGGUACCC |
| 425 | UCAGAUCGUUGGUGGAGUU | 473 | GGGUGUGCGCGCGACGAGG | 521 | UAGACGUCAGCCUAUCCCC | 569 | GGCUCAGCCCGGGUACCCU |
| 426 | CAGAUCGUUGGUGGAGUUU | 474 | GGUGUGCGCGCGACGAGGA | 522 | AGACGUCAGCCUAUCCCCA | 570 | GCUCAGCCCGGGUACCCUU |
| 427 | AGAUCGUUGGUGGAGUUUA | 475 | GUGUGCGCGCGACGAGGAA | 523 | GACGUCAGCCUAUCCCCAA | 571 | CUCAGCCCGGGUACCCUUG |
| 428 | GAUCGUUGGUGGAGUUUAC | 476 | UGUGCGCGCGACGAGGAAG | 524 | ACGUCAGCCUAUCCCCAAG | 572 | UCAGCCCGGGUACCCUUGG |
| 429 | AUCGUUGGUGGAGUUUACU | 477 | GUGCGCGCGACGAGGAAGA | 525 | CGUCAGCCUAUCCCCAAGG | 573 | CAGCCCGGGUACCCUUGGC |
| 430 | UCGUUGGUGGAGUUUACUU | 478 | UGCGCGCGACGAGGAAGAC | 526 | GUCAGCCUAUCCCCAAGGC | 574 | AGCCCGGGUACCCUUGGCC |

**FIG. 1 (page 3 of 479)**

575 GCCCGGGUACCCUUGGCCC
576 CCCGGGUACCCUUGGCCCC
577 CCGGGUACCCUUGGCCCCU
578 CGGGUACCCUUGGCCCCUC
579 GGGUACCCUUGGCCCCUCU
580 GGUACCCUUGGCCCCUCUA
581 GUACCCUUGGCCCCUCUAU
582 UACCCUUGGCCCCUCUAUG
583 ACCCUUGGCCCCUCUAUGG
584 CCCUUGGCCCCUCUAUGGC
585 CCUUGGCCCCUCUAUGGCA
586 CUUGGCCCCUCUAUGGCAA
587 UUGGCCCCUCUAUGGCAAU
588 UGGCCCCUCUAUGGCAAUG
589 GGCCCCUCUAUGGCAAUGA
590 GCCCCUCUAUGGCAAUGAG
591 CCCCUCUAUGGCAAUGAGG
592 CCCUCUAUGGCAAUGAGGG
593 CCUCUAUGGCAAUGAGGGU
594 CUCUAUGGCAAUGAGGGUU
595 UCUAUGGCAAUGAGGGUUG
596 CUAUGGCAAUGAGGGUUGC
597 UAUGGCAAUGAGGGUUGCG
598 AUGGCAAUGAGGGUUGCGG
599 UGGCAAUGAGGGUUGCGGG
600 GGCAAUGAGGGUUGCGGGU
601 GCAAUGAGGGUUGCGGGUG
602 CAAUGAGGGUUGCGGGUGG
603 AAUGAGGGUUGCGGGUGGG
604 AUGAGGGUUGCGGGUGGGC
605 UGAGGGUUGCGGGUGGGCG
606 GAGGGUUGCGGGUGGGCGG
607 AGGGUUGCGGGUGGGCGGG
608 GGGUUGCGGGUGGGCGGGA
609 GGUUGCGGGUGGGCGGGAU
610 GUUGCGGGUGGGCGGGAUG
611 UUGCGGGUGGGCGGGAUGG
612 UGCGGGUGGGCGGGAUGGC
613 GCGGGUGGGCGGGAUGGCU
614 CGGGUGGGCGGGAUGGCUC
615 GGGUGGGCGGGAUGGCUCC
616 GGUGGGCGGGAUGGCUCCU
617 GUGGGCGGGAUGGCUCCUG
618 UGGGCGGGAUGGCUCCUGU
619 GGGCGGGAUGGCUCCUGUC
620 GGCGGGAUGGCUCCUGUCU
621 GCGGGAUGGCUCCUGUCUC
622 CGGGAUGGCUCCUGUCUCC
623 GGGAUGGCUCCUGUCUCCC
624 GGAUGGCUCCUGUCUCCCC
625 GAUGGCUCCUGUCUCCCCG
626 AUGGCUCCUGUCUCCCCGU
627 UGGCUCCUGUCUCCCCGUG
628 GGCUCCUGUCUCCCCGUGG
629 GCUCCUGUCUCCCCGUGGC
630 CUCCUGUCUCCCCGUGGCU
631 UCCUGUCUCCCCGUGGCUC
632 CCUGUCUCCCCGUGGCUCU
633 CUGUCUCCCCGUGGCUCUC
634 UGUCUCCCCGUGGCUCUCG
635 GUCUCCCCGUGGCUCUCGG
636 UCUCCCCGUGGCUCUCGGC
637 CUCCCCGUGGCUCUCGGCC
638 UCCCCGUGGCUCUCGGCCU
639 CCCCGUGGCUCUCGGCCUA
640 CCCGUGGCUCUCGGCCUAG
641 CCGUGGCUCUCGGCCUAGC
642 CGUGGCUCUCGGCCUAGCU
643 GUGGCUCUCGGCCUAGCUG
644 UGGCUCUCGGCCUAGCUGG
645 GGCUCUCGGCCUAGCUGGG
646 GCUCUCGGCCUAGCUGGGG
647 CUCUCGGCCUAGCUGGGGC
648 UCUCGGCCUAGCUGGGGCC
649 CUCGGCCUAGCUGGGGCCC
650 UCGGCCUAGCUGGGGCCCC
651 CGGCCUAGCUGGGGCCCCA
652 GGCCUAGCUGGGGCCCCAC
653 GCCUAGCUGGGGCCCCACA
654 CCUAGCUGGGGCCCCACAG
655 CUAGCUGGGGCCCCACAGA
656 UAGCUGGGGCCCCACAGAC
657 AGCUGGGGCCCCACAGACC
658 GCUGGGGCCCCACAGACCC
659 CUGGGGCCCCACAGACCCC
660 UGGGGCCCCACAGACCCCC
661 GGGGCCCCACAGACCCCCG
662 GGGCCCCACAGACCCCCGG
663 GGCCCCACAGACCCCCGGC
664 GCCCCACAGACCCCCGGCG
665 CCCCACAGACCCCCGGCGU
666 CCCACAGACCCCCGGCGUA
667 CCACAGACCCCCGGCGUAG
668 CACAGACCCCCGGCGUAGG
669 ACAGACCCCCGGCGUAGGU
670 CAGACCCCCGGCGUAGGUC
671 AGACCCCCGGCGUAGGUCG
672 GACCCCCGGCGUAGGUCGC
673 ACCCCCGGCGUAGGUCGCG
674 CCCCCGGCGUAGGUCGCGC
675 CCCCGGCGUAGGUCGCGCA
676 CCCGGCGUAGGUCGCGCAA
677 CCGGCGUAGGUCGCGCAAU
678 CGGCGUAGGUCGCGCAAUU
679 GGCGUAGGUCGCGCAAUUU
680 GCGUAGGUCGCGCAAUUUG
681 CGUAGGUCGCGCAAUUUGG
682 GUAGGUCGCGCAAUUUGGG
683 UAGGUCGCGCAAUUUGGGU
684 AGGUCGCGCAAUUUGGGUA
685 GGUCGCGCAAUUUGGGUAA
686 GUCGCGCAAUUUGGGUAAG
687 UCGCGCAAUUUGGGUAAGG
688 CGCGCAAUUUGGGUAAGGU
689 GCGCAAUUUGGGUAAGGUC
690 CGCAAUUUGGGUAAGGUCA
691 GCAAUUUGGGUAAGGUCAU
692 CAAUUUGGGUAAGGUCAUC
693 AAUUUGGGUAAGGUCAUCG
694 AUUUGGGUAAGGUCAUCGA
695 UUUGGGUAAGGUCAUCGAU
696 UUGGGUAAGGUCAUCGAUA
697 UGGGUAAGGUCAUCGAUAC
698 GGGUAAGGUCAUCGAUACC
699 GGUAAGGUCAUCGAUACCC
700 GUAAGGUCAUCGAUACCCU
701 UAAGGUCAUCGAUACCCUU
702 AAGGUCAUCGAUACCCUUA
703 AGGUCAUCGAUACCCUUAC
704 GGUCAUCGAUACCCUUACG
705 GUCAUCGAUACCCUUACGU
706 UCAUCGAUACCCUUACGUG
707 CAUCGAUACCCUUACGUGC
708 AUCGAUACCCUUACGUGCG
709 UCGAUACCCUUACGUGCGG
710 CGAUACCCUUACGUGCGGC
711 GAUACCCUUACGUGCGGCU
712 AUACCCUUACGUGCGGCUU
713 UACCCUUACGUGCGGCUUC
714 ACCCUUACGUGCGGCUUCG
715 CCCUUACGUGCGGCUUCGC
716 CCUUACGUGCGGCUUCGCC
717 CUUACGUGCGGCUUCGCCG
718 UUACGUGCGGCUUCGCCGA
719 UACGUGCGGCUUCGCCGAC
720 ACGUGCGGCUUCGCCGACC
721 CGUGCGGCUUCGCCGACCU
722 GUGCGGCUUCGCCGACCUC
723 UGCGGCUUCGCCGACCUCA
724 GCGGCUUCGCCGACCUCAU
725 CGGCUUCGCCGACCUCAUG
726 GGCUUCGCCGACCUCAUGG
727 GCUUCGCCGACCUCAUGGG
728 CUUCGCCGACCUCAUGGGG
729 UUCGCCGACCUCAUGGGGU
730 UCGCCGACCUCAUGGGGUA
731 CGCCGACCUCAUGGGGUAC
732 GCCGACCUCAUGGGGUACA
733 CCGACCUCAUGGGGUACAU
734 CGACCUCAUGGGGUACAUA
735 GACCUCAUGGGGUACAUAC
736 ACCUCAUGGGGUACAUACC
737 CCUCAUGGGGUACAUACCG
738 CUCAUGGGGUACAUACCGC
739 UCAUGGGGUACAUACCGCU
740 CAUGGGGUACAUACCGCUC
741 AUGGGGUACAUACCGCUCG
742 UGGGGUACAUACCGCUCGU
743 GGGGUACAUACCGCUCGUC
744 GGGUACAUACCGCUCGUCG
745 GGUACAUACCGCUCGUCGG
746 GUACAUACCGCUCGUCGGC
747 UACAUACCGCUCGUCGGCG
748 ACAUACCGCUCGUCGGCGC
749 CAUACCGCUCGUCGGCGCC
750 AUACCGCUCGUCGGCGCCC
751 UACCGCUCGUCGGCGCCCC
752 ACCGCUCGUCGGCGCCCCU
753 CCGCUCGUCGGCGCCCCUC
754 CGCUCGUCGGCGCCCCUCU
755 GCUCGUCGGCGCCCCUCUU
756 CUCGUCGGCGCCCCUCUUG
757 UCGUCGGCGCCCCUCUUGG
758 CGUCGGCGCCCCUCUUGGA
759 GUCGGCGCCCCUCUUGGAG
760 UCGGCGCCCCUCUUGGAGG
761 CGGCGCCCCUCUUGGAGGC
762 GGCGCCCCUCUUGGAGGCG
763 GCGCCCCUCUUGGAGGCGC
764 CGCCCCUCUUGGAGGCGCU
765 GCCCCUCUUGGAGGCGCUG
766 CCCCUCUUGGAGGCGCUGC

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 767 | CCCUCUUGGAGGCGCUGCC | 815 | GGAAGACGGCGUGAACUAU | 863 | CUCUAUCUUCCUUCUGGCC | 911 | AGCCUACCAAGUGCGCAAU |
| 768 | CCUCUUGGAGGCGCUGCCA | 816 | GAAGACGGCGUGAACUAUG | 864 | UCUAUCUUCCUUCUGGCCC | 912 | GCCUACCAAGUGCGCAAUU |
| 769 | CUCUUGGAGGCGCUGCCAG | 817 | AAGACGGCGUGAACUAUGC | 865 | CUAUCUUCCUUCUGGCCCU | 913 | CCUACCAAGUGCGCAAUUC |
| 770 | UCUUGGAGGCGCUGCCAGG | 818 | AGACGGCGUGAACUAUGCA | 866 | UAUCUUCCUUCUGGCCCUG | 914 | CUACCAAGUGCGCAAUUCC |
| 771 | CUUGGAGGCGCUGCCAGGG | 819 | GACGGCGUGAACUAUGCAA | 867 | AUCUUCCUUCUGGCCCUGC | 915 | UACCAAGUGCGCAAUUCCU |
| 772 | UUGGAGGCGCUGCCAGGGC | 820 | ACGGCGUGAACUAUGCAAC | 868 | UCUUCCUUCUGGCCCUGCU | 916 | ACCAAGUGCGCAAUUCCUC |
| 773 | UGGAGGCGCUGCCAGGGCC | 821 | CGGCGUGAACUAUGCAACA | 869 | CUUCCUUCUGGCCCUGCUC | 917 | CCAAGUGCGCAAUUCCUCG |
| 774 | GGAGGCGCUGCCAGGGCCC | 822 | GGCGUGAACUAUGCAACAG | 870 | UUCCUUCUGGCCCUGCUCU | 918 | CAAGUGCGCAAUUCCUCGG |
| 775 | GAGGCGCUGCCAGGGCCCU | 823 | GCGUGAACUAUGCAACAGG | 871 | UCCUUCUGGCCCUGCUCUC | 919 | AAGUGCGCAAUUCCUCGGG |
| 776 | AGGCGCUGCCAGGGCCCUG | 824 | CGUGAACUAUGCAACAGGG | 872 | CCUUCUGGCCCUGCUCUCU | 920 | AGUGCGCAAUUCCUCGGGG |
| 777 | GGCGCUGCCAGGGCCCUGG | 825 | GUGAACUAUGCAACAGGGA | 873 | CUUCUGGCCCUGCUCUCUU | 921 | GUGCGCAAUUCCUCGGGGC |
| 778 | GCGCUGCCAGGGCCCUGGC | 826 | UGAACUAUGCAACAGGGAA | 874 | UUCUGGCCCUGCUCUCUUG | 922 | UGCGCAAUUCCUCGGGGCU |
| 779 | CGCUGCCAGGGCCCUGGCG | 827 | GAACUAUGCAACAGGGAAC | 875 | UCUGGCCCUGCUCUCUUGC | 923 | GCGCAAUUCCUCGGGGCUU |
| 780 | GCUGCCAGGGCCCUGGCGC | 828 | AACUAUGCAACAGGGAACC | 876 | CUGGCCCUGCUCUCUUGCC | 924 | CGCAAUUCCUCGGGGCUUU |
| 781 | CUGCCAGGGCCCUGGCGCA | 829 | ACUAUGCAACAGGGAACCU | 877 | UGGCCCUGCUCUCUUGCCU | 925 | GCAAUUCCUCGGGGCUUUA |
| 782 | UGCCAGGGCCCUGGCGCAU | 830 | CUAUGCAACAGGGAACCUU | 878 | GGCCCUGCUCUCUUGCCUG | 926 | CAAUUCCUCGGGGCUUUAC |
| 783 | GCCAGGGCCCUGGCGCAUG | 831 | UAUGCAACAGGGAACCUUC | 879 | GCCCUGCUCUCUUGCCUGA | 927 | AAUUCCUCGGGGCUUUACC |
| 784 | CCAGGGCCCUGGCGCAUGG | 832 | AUGCAACAGGGAACCUUCC | 880 | CCCUGCUCUCUUGCCUGAC | 928 | AUUCCUCGGGGCUUUACCA |
| 785 | CAGGGCCCUGGCGCAUGGC | 833 | UGCAACAGGGAACCUUCCU | 881 | CCUGCUCUCUUGCCUGACU | 929 | UUCCUCGGGGCUUUACCAU |
| 786 | AGGGCCCUGGCGCAUGGCG | 834 | GCAACAGGGAACCUUCCUG | 882 | CUGCUCUCUUGCCUGACUG | 930 | UCCUCGGGGCUUUACCAUG |
| 787 | GGGCCCUGGCGCAUGGCGU | 835 | CAACAGGGAACCUUCCUGG | 883 | UGCUCUCUUGCCUGACUGU | 931 | CCUCGGGGCUUUACCAUGU |
| 788 | GGCCCUGGCGCAUGGCGUC | 836 | AACAGGGAACCUUCCUGGU | 884 | GCUCUCUUGCCUGACUGUG | 932 | CUCGGGGCUUUACCAUGUC |
| 789 | GCCCUGGCGCAUGGCGUCC | 837 | ACAGGGAACCUUCCUGGUU | 885 | CUCUCUUGCCUGACUGUGC | 933 | UCGGGGCUUUACCAUGUCA |
| 790 | CCCUGGCGCAUGGCGUCCG | 838 | CAGGGAACCUUCCUGGUUG | 886 | UCUCUUGCCUGACUGUGCC | 934 | CGGGGCUUUACCAUGUCAC |
| 791 | CCUGGCGCAUGGCGUCCGG | 839 | AGGGAACCUUCCUGGUUGC | 887 | CUCUUGCCUGACUGUGCCC | 935 | GGGGCUUUACCAUGUCACC |
| 792 | CUGGCGCAUGGCGUCCGGG | 840 | GGGAACCUUCCUGGUUGCU | 888 | UCUUGCCUGACUGUGCCCG | 936 | GGGCUUUACCAUGUCACCA |
| 793 | UGGCGCAUGGCGUCCGGGU | 841 | GGAACCUUCCUGGUUGCUC | 889 | CUUGCCUGACUGUGCCCGC | 937 | GGCUUUACCAUGUCACCAA |
| 794 | GGCGCAUGGCGUCCGGGUU | 842 | GAACCUUCCUGGUUGCUCU | 890 | UUGCCUGACUGUGCCCGCU | 938 | GCUUUACCAUGUCACCAAU |
| 795 | GCGCAUGGCGUCCGGGUUC | 843 | AACCUUCCUGGUUGCUCUU | 891 | UGCCUGACUGUGCCCGCUU | 939 | CUUUACCAUGUCACCAAUG |
| 796 | CGCAUGGCGUCCGGGUUCU | 844 | ACCUUCCUGGUUGCUCUUU | 892 | GCCUGACUGUGCCCGCUUC | 940 | UUUACCAUGUCACCAAUGA |
| 797 | GCAUGGCGUCCGGGUUCUG | 845 | CCUUCCUGGUUGCUCUUUC | 893 | CCUGACUGUGCCCGCUUCA | 941 | UUACCAUGUCACCAAUGAU |
| 798 | CAUGGCGUCCGGGUUCUGG | 846 | CUUCCUGGUUGCUCUUUCU | 894 | CUGACUGUGCCCGCUUCAG | 942 | UACCAUGUCACCAAUGAUU |
| 799 | AUGGCGUCCGGGUUCUGGA | 847 | UUCCUGGUUGCUCUUUCUC | 895 | UGACUGUGCCCGCUUCAGC | 943 | ACCAUGUCACCAAUGAUUG |
| 800 | UGGCGUCCGGGUUCUGGAA | 848 | UCCUGGUUGCUCUUUCUCU | 896 | GACUGUGCCCGCUUCAGCC | 944 | CCAUGUCACCAAUGAUUGC |
| 801 | GGCGUCCGGGUUCUGGAAG | 849 | CCUGGUUGCUCUUUCUCUA | 897 | ACUGUGCCCGCUUCAGCCU | 945 | CAUGUCACCAAUGAUUGCC |
| 802 | GCGUCCGGGUUCUGGAAGA | 850 | CUGGUUGCUCUUUCUCUAU | 898 | CUGUGCCCGCUUCAGCCUA | 946 | AUGUCACCAAUGAUUGCCC |
| 803 | CGUCCGGGUUCUGGAAGAC | 851 | UGGUUGCUCUUUCUCUAUC | 899 | UGUGCCCGCUUCAGCCUAC | 947 | UGUCACCAAUGAUUGCCCU |
| 804 | GUCCGGGUUCUGGAAGACG | 852 | GGUUGCUCUUUCUCUAUCU | 900 | GUGCCCGCUUCAGCCUACC | 948 | GUCACCAAUGAUUGCCCUA |
| 805 | UCCGGGUUCUGGAAGACGG | 853 | GUUGCUCUUUCUCUAUCUU | 901 | UGCCCGCUUCAGCCUACCA | 949 | UCACCAAUGAUUGCCCUAA |
| 806 | CCGGGUUCUGGAAGACGGC | 854 | UUGCUCUUUCUCUAUCUUC | 902 | GCCCGCUUCAGCCUACCAA | 950 | CACCAAUGAUUGCCCUAAC |
| 807 | CGGGUUCUGGAAGACGGCG | 855 | UGCUCUUUCUCUAUCUUCC | 903 | CCCGCUUCAGCCUACCAAG | 951 | ACCAAUGAUUGCCCUAACU |
| 808 | GGGUUCUGGAAGACGGCGU | 856 | GCUCUUUCUCUAUCUUCCU | 904 | CCGCUUCAGCCUACCAAGU | 952 | CCAAUGAUUGCCCUAACUC |
| 809 | GGUUCUGGAAGACGGCGUG | 857 | CUCUUUCUCUAUCUUCCUU | 905 | CGCUUCAGCCUACCAAGUG | 953 | CAAUGAUUGCCCUAACUCG |
| 810 | GUUCUGGAAGACGGCGUGA | 858 | UCUUUCUCUAUCUUCCUUC | 906 | GCUUCAGCCUACCAAGUGC | 954 | AAUGAUUGCCCUAACUCGA |
| 811 | UUCUGGAAGACGGCGUGAA | 859 | CUUUCUCUAUCUUCCUUCU | 907 | CUUCAGCCUACCAAGUGCG | 955 | AUGAUUGCCCUAACUCGAG |
| 812 | UCUGGAAGACGGCGUGAAC | 860 | UUUCUCUAUCUUCCUUCUG | 908 | UUCAGCCUACCAAGUGCGC | 956 | UGAUUGCCCUAACUCGAGU |
| 813 | CUGGAAGACGGCGUGAACU | 861 | UUCUCUAUCUUCCUUCUGG | 909 | UCAGCCUACCAAGUGCGCA | 957 | GAUUGCCCUAACUCGAGUA |
| 814 | UGGAAGACGGCGUGAACUA | 862 | UCUCUAUCUUCCUUCUGGC | 910 | CAGCCUACCAAGUGCGCAA | 958 | AUUGCCCUAACUCGAGUAU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 959 | UUGCCCUAACUCGAGUAUU | 1007 | CACUCCGGGGUGUGUCCCU | 1055 | UUGGGUGGCGGUGACCCCC | 1103 | CACAACGCAGCUUCGACGU |
| 960 | UGCCCUAACUCGAGUAUUG | 1008 | ACUCCGGGGUGUGUCCCUU | 1056 | UGGGUGGCGGUGACCCCCA | 1104 | ACAACGCAGCUUCGACGUC |
| 961 | GCCCUAACUCGAGUAUUGU | 1009 | CUCCGGGGUGUGUCCCUUG | 1057 | GGGUGGCGGUGACCCCCAC | 1105 | CAACGCAGCUUCGACGUCA |
| 962 | CCCUAACUCGAGUAUUGUG | 1010 | UCCGGGGUGUGUCCCUUGC | 1058 | GGUGGCGGUGACCCCCACG | 1106 | AACGCAGCUUCGACGUCAU |
| 963 | CCUAACUCGAGUAUUGUGU | 1011 | CCGGGGUGUGUCCCUUGCG | 1059 | GUGGCGGUGACCCCCACGG | 1107 | ACGCAGCUUCGACGUCAUA |
| 964 | CUAACUCGAGUAUUGUGUA | 1012 | CGGGGUGUGUCCCUUGCGU | 1060 | UGGCGGUGACCCCCACGGU | 1108 | CGCAGCUUCGACGUCAUAU |
| 965 | UAACUCGAGUAUUGUGUAC | 1013 | GGGGUGUGUCCCUUGCGUU | 1061 | GGCGGUGACCCCCACGGUG | 1109 | GCAGCUUCGACGUCAUAUC |
| 966 | AACUCGAGUAUUGUGUACG | 1014 | GGGUGUGUCCCUUGCGUUC | 1062 | GCGGUGACCCCCACGGUGG | 1110 | CAGCUUCGACGUCAUAUCG |
| 967 | ACUCGAGUAUUGUGUACGA | 1015 | GGUGUGUCCCUUGCGUUCG | 1063 | CGGUGACCCCCACGGUGGC | 1111 | AGCUUCGACGUCAUAUCGA |
| 968 | CUCGAGUAUUGUGUACGAG | 1016 | GUGUGUCCCUUGCGUUCGC | 1064 | GGUGACCCCCACGGUGGCC | 1112 | GCUUCGACGUCAUAUCGAU |
| 969 | UCGAGUAUUGUGUACGAGG | 1017 | UGUGUCCCUUGCGUUCGCG | 1065 | GUGACCCCCACGGUGGCCA | 1113 | CUUCGACGUCAUAUCGAUC |
| 970 | CGAGUAUUGUGUACGAGGC | 1018 | GUGUCCCUUGCGUUCGCGA | 1066 | UGACCCCCACGGUGGCCAC | 1114 | UUCGACGUCAUAUCGAUCU |
| 971 | GAGUAUUGUGUACGAGGCG | 1019 | UGUCCCUUGCGUUCGCGAG | 1067 | GACCCCCACGGUGGCCACC | 1115 | UCGACGUCAUAUCGAUCUG |
| 972 | AGUAUUGUGUACGAGGCGG | 1020 | GUCCCUUGCGUUCGCGAGG | 1068 | ACCCCCACGGUGGCCACCA | 1116 | CGACGUCAUAUCGAUCUGC |
| 973 | GUAUUGUGUACGAGGCGGC | 1021 | UCCCUUGCGUUCGCGAGGG | 1069 | CCCCCACGGUGGCCACCAG | 1117 | GACGUCAUAUCGAUCUGCU |
| 974 | UAUUGUGUACGAGGCGGCC | 1022 | CCCUUGCGUUCGCGAGGGU | 1070 | CCCCACGGUGGCCACCAGG | 1118 | ACGUCAUAUCGAUCUGCUU |
| 975 | AUUGUGUACGAGGCGGCCG | 1023 | CCUUGCGUUCGCGAGGGUA | 1071 | CCCACGGUGGCCACCAGGG | 1119 | CGUCAUAUCGAUCUGCUUG |
| 976 | UUGUGUACGAGGCGGCCGA | 1024 | CUUGCGUUCGCGAGGGUAA | 1072 | CCACGGUGGCCACCAGGGA | 1120 | GUCAUAUCGAUCUGCUUGU |
| 977 | UGUGUACGAGGCGGCCGAU | 1025 | UUGCGUUCGCGAGGGUAAC | 1073 | CACGGUGGCCACCAGGGAC | 1121 | UCAUAUCGAUCUGCUUGUC |
| 978 | GUGUACGAGGCGGCCGAUG | 1026 | UGCGUUCGCGAGGGUAACG | 1074 | ACGGUGGCCACCAGGGACG | 1122 | CAUAUCGAUCUGCUUGUCG |
| 979 | UGUACGAGGCGGCCGAUGC | 1027 | GCGUUCGCGAGGGUAACGC | 1075 | CGGUGGCCACCAGGGACGG | 1123 | AUAUCGAUCUGCUUGUCGG |
| 980 | GUACGAGGCGGCCGAUGCC | 1028 | CGUUCGCGAGGGUAACGCC | 1076 | GGUGGCCACCAGGGACGGC | 1124 | UAUCGAUCUGCUUGUCGGG |
| 981 | UACGAGGCGGCCGAUGCCA | 1029 | GUUCGCGAGGGUAACGCCU | 1077 | GUGGCCACCAGGGACGGCA | 1125 | AUCGAUCUGCUUGUCGGGA |
| 982 | ACGAGGCGGCCGAUGCCAU | 1030 | UUCGCGAGGGUAACGCCUC | 1078 | UGGCCACCAGGGACGGCAA | 1126 | UCGAUCUGCUUGUCGGGAG |
| 983 | CGAGGCGGCCGAUGCCAUC | 1031 | UCGCGAGGGUAACGCCUCG | 1079 | GGCCACCAGGGACGGCAAA | 1127 | CGAUCUGCUUGUCGGGAGC |
| 984 | GAGGCGGCCGAUGCCAUCC | 1032 | CGCGAGGGUAACGCCUCGA | 1080 | GCCACCAGGGACGGCAAAC | 1128 | GAUCUGCUUGUCGGGAGCG |
| 985 | AGGCGGCCGAUGCCAUCCU | 1033 | GCGAGGGUAACGCCUCGAG | 1081 | CCACCAGGGACGGCAAACU | 1129 | AUCUGCUUGUCGGGAGCGC |
| 986 | GGCGGCCGAUGCCAUCCUG | 1034 | CGAGGGUAACGCCUCGAGG | 1082 | CACCAGGGACGGCAAACUC | 1130 | UCUGCUUGUCGGGAGCGCC |
| 987 | GCGGCCGAUGCCAUCCUGC | 1035 | GAGGGUAACGCCUCGAGGU | 1083 | ACCAGGGACGGCAAACUCC | 1131 | CUGCUUGUCGGGAGCGCCA |
| 988 | CGGCCGAUGCCAUCCUGCA | 1036 | AGGGUAACGCCUCGAGGUG | 1084 | CCAGGGACGGCAAACUCCC | 1132 | UGCUUGUCGGGAGCGCCAC |
| 989 | GGCCGAUGCCAUCCUGCAC | 1037 | GGGUAACGCCUCGAGGUGU | 1085 | CAGGGACGGCAAACUCCCC | 1133 | GCUUGUCGGGAGCGCCACC |
| 990 | GCCGAUGCCAUCCUGCACA | 1038 | GGUAACGCCUCGAGGUGUU | 1086 | AGGGACGGCAAACUCCCCA | 1134 | CUUGUCGGGAGCGCCACCC |
| 991 | CCGAUGCCAUCCUGCACAC | 1039 | GUAACGCCUCGAGGUGUUG | 1087 | GGGACGGCAAACUCCCCAC | 1135 | UUGUCGGGAGCGCCACCCU |
| 992 | CGAUGCCAUCCUGCACACU | 1040 | UAACGCCUCGAGGUGUUGG | 1088 | GGACGGCAAACUCCCCACA | 1136 | UGUCGGGAGCGCCACCCUC |
| 993 | GAUGCCAUCCUGCACACUC | 1041 | AACGCCUCGAGGUGUUGGG | 1089 | GACGGCAAACUCCCCACAA | 1137 | GUCGGGAGCGCCACCCUCU |
| 994 | AUGCCAUCCUGCACACUCC | 1042 | ACGCCUCGAGGUGUUGGGU | 1090 | ACGGCAAACUCCCCACAAC | 1138 | UCGGGAGCGCCACCCUCUG |
| 995 | UGCCAUCCUGCACACUCCG | 1043 | CGCCUCGAGGUGUUGGGUG | 1091 | CGGCAAACUCCCCACAACG | 1139 | CGGGAGCGCCACCCUCUGC |
| 996 | GCCAUCCUGCACACUCCGG | 1044 | GCCUCGAGGUGUUGGGUGG | 1092 | GGCAAACUCCCCACAACGC | 1140 | GGGAGCGCCACCCUCUGCU |
| 997 | CCAUCCUGCACACUCCGGG | 1045 | CCUCGAGGUGUUGGGUGGC | 1093 | GCAAACUCCCCACAACGCA | 1141 | GGAGCGCCACCCUCUGCUC |
| 998 | CAUCCUGCACACUCCGGGG | 1046 | CUCGAGGUGUUGGGUGGCG | 1094 | CAAACUCCCCACAACGCAG | 1142 | GAGCGCCACCCUCUGCUCG |
| 999 | AUCCUGCACACUCCGGGGU | 1047 | UCGAGGUGUUGGGUGGCGG | 1095 | AAACUCCCCACAACGCAGC | 1143 | AGCGCCACCCUCUGCUCGG |
| 1000 | UCCUGCACACUCCGGGGUG | 1048 | CGAGGUGUUGGGUGGCGGU | 1096 | AACUCCCCACAACGCAGCU | 1144 | GCGCCACCCUCUGCUCGGC |
| 1001 | CCUGCACACUCCGGGGUGU | 1049 | GAGGUGUUGGGUGGCGGUG | 1097 | ACUCCCCACAACGCAGCUU | 1145 | CGCCACCCUCUGCUCGGCC |
| 1002 | CUGCACACUCCGGGGUGUG | 1050 | AGGUGUUGGGUGGCGGUGA | 1098 | CUCCCCACAACGCAGCUUC | 1146 | GCCACCCUCUGCUCGGCCC |
| 1003 | UGCACACUCCGGGGUGUGU | 1051 | GGUGUUGGGUGGCGGUGAC | 1099 | UCCCCACAACGCAGCUUCG | 1147 | CCACCCUCUGCUCGGCCCU |
| 1004 | GCACACUCCGGGGUGUGUC | 1052 | GUGUUGGGUGGCGGUGACC | 1100 | CCCCACAACGCAGCUUCGA | 1148 | CACCCUCUGCUCGGCCCUC |
| 1005 | CACACUCCGGGGUGUGUCC | 1053 | UGUUGGGUGGCGGUGACCC | 1101 | CCCACAACGCAGCUUCGAC | 1149 | ACCCUCUGCUCGGCCCUCU |
| 1006 | ACACUCCGGGGUGUGUCCC | 1054 | GUUGGGUGGCGGUGACCCC | 1102 | CCACAACGCAGCUUCGACG | 1150 | CCCUCUGCUCGGCCCUCUA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1151 | CCUCUGCUCGGCCCUCUAC | 1199 | UGUUGGUCAACUGUUUACC | 1247 | AGACUGCAAUUGUUCUAUC | 1295 | GGCAUGGGAUAUGAUGAUG |
| 1152 | CUCUGCUCGGCCCUCUACG | 1200 | GUUGGUCAACUGUUUACCU | 1248 | GACUGCAAUUGUUCUAUCU | 1296 | GCAUGGGAUAUGAUGAUGA |
| 1153 | UCUGCUCGGCCCUCUACGU | 1201 | UUGGUCAACUGUUUACCUU | 1249 | ACUGCAAUUGUUCUAUCUA | 1297 | CAUGGGAUAUGAUGAUGAA |
| 1154 | CUGCUCGGCCCUCUACGUG | 1202 | UGGUCAACUGUUUACCUUC | 1250 | CUGCAAUUGUUCUAUCUAU | 1298 | AUGGGAUAUGAUGAUGAAC |
| 1155 | UGCUCGGCCCUCUACGUGG | 1203 | GGUCAACUGUUUACCUUCU | 1251 | UGCAAUUGUUCUAUCUAUC | 1299 | UGGGAUAUGAUGAUGAACU |
| 1156 | GCUCGGCCCUCUACGUGGG | 1204 | GUCAACUGUUUACCUUCUC | 1252 | GCAAUUGUUCUAUCUAUCC | 1300 | GGGAUAUGAUGAUGAACUG |
| 1157 | CUCGGCCCUCUACGUGGGG | 1205 | UCAACUGUUUACCUUCUCU | 1253 | CAAUUGUUCUAUCUAUCCC | 1301 | GGAUAUGAUGAUGAACUGG |
| 1158 | UCGGCCCUCUACGUGGGGG | 1206 | CAACUGUUUACCUUCUCUC | 1254 | AAUUGUUCUAUCUAUCCCG | 1302 | GAUAUGAUGAUGAACUGGU |
| 1159 | CGGCCCUCUACGUGGGGGA | 1207 | AACUGUUUACCUUCUCUCC | 1255 | AUUGUUCUAUCUAUCCCGG | 1303 | AUAUGAUGAUGAACUGGUC |
| 1160 | GGCCCUCUACGUGGGGGAC | 1208 | ACUGUUUACCUUCUCUCCC | 1256 | UUGUUCUAUCUAUCCCGGC | 1304 | UAUGAUGAUGAACUGGUCC |
| 1161 | GCCCUCUACGUGGGGGACC | 1209 | CUGUUUACCUUCUCUCCCA | 1257 | UGUUCUAUCUAUCCCGGCC | 1305 | AUGAUGAUGAACUGGUCCC |
| 1162 | CCCUCUACGUGGGGGACCU | 1210 | UGUUUACCUUCUCUCCCAG | 1258 | GUUCUAUCUAUCCCGGCCA | 1306 | UGAUGAUGAACUGGUCCCC |
| 1163 | CCUCUACGUGGGGGACCUG | 1211 | GUUUACCUUCUCUCCCAGG | 1259 | UUCUAUCUAUCCCGGCCAU | 1307 | GAUGAUGAACUGGUCCCCU |
| 1164 | CUCUACGUGGGGGACCUGU | 1212 | UUUACCUUCUCUCCCAGGC | 1260 | UCUAUCUAUCCCGGCCAUA | 1308 | AUGAUGAACUGGUCCCCUA |
| 1165 | UCUACGUGGGGGACCUGUG | 1213 | UUACCUUCUCUCCCAGGCG | 1261 | CUAUCUAUCCCGGCCAUAU | 1309 | UGAUGAACUGGUCCCCUAC |
| 1166 | CUACGUGGGGGACCUGUGC | 1214 | UACCUUCUCUCCCAGGCGC | 1262 | UAUCUAUCCCGGCCAUAUA | 1310 | GAUGAACUGGUCCCCUACG |
| 1167 | UACGUGGGGGACCUGUGCG | 1215 | ACCUUCUCUCCCAGGCGCC | 1263 | AUCUAUCCCGGCCAUAUAA | 1311 | AUGAACUGGUCCCCUACGG |
| 1168 | ACGUGGGGGACCUGUGCGG | 1216 | CCUUCUCUCCCAGGCGCCA | 1264 | UCUAUCCCGGCCAUAUAAC | 1312 | UGAACUGGUCCCCUACGGC |
| 1169 | CGUGGGGGACCUGUGCGGG | 1217 | CUUCUCUCCCAGGCGCCAC | 1265 | CUAUCCCGGCCAUAUAACG | 1313 | GAACUGGUCCCCUACGGCA |
| 1170 | GUGGGGGACCUGUGCGGGU | 1218 | UUCUCUCCCAGGCGCCACU | 1266 | UAUCCCGGCCAUAUAACGG | 1314 | AACUGGUCCCCUACGGCAG |
| 1171 | UGGGGGACCUGUGCGGGUC | 1219 | UCUCUCCCAGGCGCCACUG | 1267 | AUCCCGGCCAUAUAACGGG | 1315 | ACUGGUCCCCUACGGCAGC |
| 1172 | GGGGGACCUGUGCGGGUCU | 1220 | CUCUCCCAGGCGCCACUGG | 1268 | UCCCGGCCAUAUAACGGGU | 1316 | CUGGUCCCCUACGGCAGCG |
| 1173 | GGGGACCUGUGCGGGUCUG | 1221 | UCUCCCAGGCGCCACUGGA | 1269 | CCCGGCCAUAUAACGGGUC | 1317 | UGGUCCCCUACGGCAGCGU |
| 1174 | GGGACCUGUGCGGGUCUGU | 1222 | CUCCCAGGCGCCACUGGAC | 1270 | CCGGCCAUAUAACGGGUCA | 1318 | GGUCCCCUACGGCAGCGUU |
| 1175 | GGACCUGUGCGGGUCUGUC | 1223 | UCCCAGGCGCCACUGGACG | 1271 | CGGCCAUAUAACGGGUCAU | 1319 | GUCCCCUACGGCAGCGUUG |
| 1176 | GACCUGUGCGGGUCUGUCU | 1224 | CCCAGGCGCCACUGGACGA | 1272 | GGCCAUAUAACGGGUCAUC | 1320 | UCCCCUACGGCAGCGUUGG |
| 1177 | ACCUGUGCGGGUCUGUCUU | 1225 | CCAGGCGCCACUGGACGAC | 1273 | GCCAUAUAACGGGUCAUCG | 1321 | CCCCUACGGCAGCGUUGGU |
| 1178 | CCUGUGCGGGUCUGUCUUU | 1226 | CAGGCGCCACUGGACGACG | 1274 | CCAUAUAACGGGUCAUCGC | 1322 | CCCUACGGCAGCGUUGGUG |
| 1179 | CUGUGCGGGUCUGUCUUUC | 1227 | AGGCGCCACUGGACGACGC | 1275 | CAUAUAACGGGUCAUCGCA | 1323 | CCUACGGCAGCGUUGGUGG |
| 1180 | UGUGCGGGUCUGUCUUUCU | 1228 | GGCGCCACUGGACGACGCA | 1276 | AUAUAACGGGUCAUCGCAU | 1324 | CUACGGCAGCGUUGGUGGU |
| 1181 | GUGCGGGUCUGUCUUUCUU | 1229 | GCGCCACUGGACGACGCAA | 1277 | UAUAACGGGUCAUCGCAUG | 1325 | UACGGCAGCGUUGGUGGUA |
| 1182 | UGCGGGUCUGUCUUUCUUG | 1230 | CGCCACUGGACGACGCAAG | 1278 | AUAACGGGUCAUCGCAUGG | 1326 | ACGGCAGCGUUGGUGGUAG |
| 1183 | GCGGGUCUGUCUUUCUUGU | 1231 | GCCACUGGACGACGCAAGA | 1279 | UAACGGGUCAUCGCAUGGC | 1327 | CGGCAGCGUUGGUGGUAGC |
| 1184 | CGGGUCUGUCUUUCUUGUU | 1232 | CCACUGGACGACGCAAGAC | 1280 | AACGGGUCAUCGCAUGGCA | 1328 | GGCAGCGUUGGUGGUAGCU |
| 1185 | GGGUCUGUCUUUCUUGUUG | 1233 | CACUGGACGACGCAAGACU | 1281 | ACGGGUCAUCGCAUGGCAU | 1329 | GCAGCGUUGGUGGUAGCUC |
| 1186 | GGUCUGUCUUUCUUGUUGG | 1234 | ACUGGACGACGCAAGACUG | 1282 | CGGGUCAUCGCAUGGCAUG | 1330 | CAGCGUUGGUGGUAGCUCA |
| 1187 | GUCUGUCUUUCUUGUUGGU | 1235 | CUGGACGACGCAAGACUGC | 1283 | GGGUCAUCGCAUGGCAUGG | 1331 | AGCGUUGGUGGUAGCUCAG |
| 1188 | UCUGUCUUUCUUGUUGGUC | 1236 | UGGACGACGCAAGACUGCA | 1284 | GGUCAUCGCAUGGCAUGGG | 1332 | GCGUUGGUGGUAGCUCAGC |
| 1189 | CUGUCUUUCUUGUUGGUCA | 1237 | GGACGACGCAAGACUGCAA | 1285 | GUCAUCGCAUGGCAUGGGA | 1333 | CGUUGGUGGUAGCUCAGCU |
| 1190 | UGUCUUUCUUGUUGGUCAA | 1238 | GACGACGCAAGACUGCAAU | 1286 | UCAUCGCAUGGCAUGGGAU | 1334 | GUUGGUGGUAGCUCAGCUG |
| 1191 | GUCUUUCUUGUUGGUCAAC | 1239 | ACGACGCAAGACUGCAAUU | 1287 | CAUCGCAUGGCAUGGGAUA | 1335 | UUGGUGGUAGCUCAGCUGC |
| 1192 | UCUUUCUUGUUGGUCAACU | 1240 | CGACGCAAGACUGCAAUUG | 1288 | AUCGCAUGGCAUGGGAUAU | 1336 | UGGUGGUAGCUCAGCUGCU |
| 1193 | CUUUCUUGUUGGUCAACUG | 1241 | GACGCAAGACUGCAAUUGU | 1289 | UCGCAUGGCAUGGGAUAUG | 1337 | GGUGGUAGCUCAGCUGCUC |
| 1194 | UUUCUUGUUGGUCAACUGU | 1242 | ACGCAAGACUGCAAUUGUU | 1290 | CGCAUGGCAUGGGAUAUGA | 1338 | GUGGUAGCUCAGCUGCUCC |
| 1195 | UUCUUGUUGGUCAACUGUU | 1243 | CGCAAGACUGCAAUUGUUC | 1291 | GCAUGGCAUGGGAUAUGAU | 1339 | UGGUAGCUCAGCUGCUCCG |
| 1196 | UCUUGUUGGUCAACUGUUU | 1244 | GCAAGACUGCAAUUGUUCU | 1292 | CAUGGCAUGGGAUAUGAUG | 1340 | GGUAGCUCAGCUGCUCCGG |
| 1197 | CUUGUUGGUCAACUGUUUA | 1245 | CAAGACUGCAAUUGUUCUA | 1293 | AUGGCAUGGGAUAUGAUGA | 1341 | GUAGCUCAGCUGCUCCGGA |
| 1198 | UUGUUGGUCAACUGUUUAC | 1246 | AAGACUGCAAUUGUUCUAU | 1294 | UGGCAUGGGAUAUGAUGAU | 1342 | UAGCUCAGCUGCUCCGGAU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1343 | AGCUCAGCUGCUCCGGAUC | 1391 | UGCUCACUGGGGAGUCCUG | 1439 | GAACUGGGCGAAGGUCCUG | 1487 | CGCGGAAACCCACGUCACC |
| 1344 | GCUCAGCUGCUCCGGAUCC | 1392 | GCUCACUGGGGAGUCCUGG | 1440 | AACUGGGCGAAGGUCCUGG | 1488 | GCGGAAACCCACGUCACCG |
| 1345 | CUCAGCUGCUCCGGAUCCC | 1393 | CUCACUGGGGAGUCCUGGC | 1441 | ACUGGGCGAAGGUCCUGGU | 1489 | CGGAAACCCACGUCACCGG |
| 1346 | UCAGCUGCUCCGGAUCCCA | 1394 | UCACUGGGGAGUCCUGGCG | 1442 | CUGGGCGAAGGUCCUGGUA | 1490 | GGAAACCCACGUCACCGGG |
| 1347 | CAGCUGCUCCGGAUCCCAC | 1395 | CACUGGGGAGUCCUGGCGG | 1443 | UGGGCGAAGGUCCUGGUAG | 1491 | GAAACCCACGUCACCGGGG |
| 1348 | AGCUGCUCCGGAUCCCACA | 1396 | ACUGGGGAGUCCUGGCGGG | 1444 | GGGCGAAGGUCCUGGUAGU | 1492 | AAACCCACGUCACCGGGGG |
| 1349 | GCUGCUCCGGAUCCCACAA | 1397 | CUGGGGAGUCCUGGCGGGC | 1445 | GGCGAAGGUCCUGGUAGUG | 1493 | AACCCACGUCACCGGGGGA |
| 1350 | CUGCUCCGGAUCCCACAAG | 1398 | UGGGGAGUCCUGGCGGGCA | 1446 | GCGAAGGUCCUGGUAGUGC | 1494 | ACCCACGUCACCGGGGGAA |
| 1351 | UGCUCCGGAUCCCACAAGC | 1399 | GGGGAGUCCUGGCGGGCAU | 1447 | CGAAGGUCCUGGUAGUGCU | 1495 | CCCACGUCACCGGGGGAAG |
| 1352 | GCUCCGGAUCCCACAAGCC | 1400 | GGGAGUCCUGGCGGGCAUA | 1448 | GAAGGUCCUGGUAGUGCUG | 1496 | CCACGUCACCGGGGGAAGU |
| 1353 | CUCCGGAUCCCACAAGCCA | 1401 | GGAGUCCUGGCGGGCAUAG | 1449 | AAGGUCCUGGUAGUGCUGC | 1497 | CACGUCACCGGGGGAAGUG |
| 1354 | UCCGGAUCCCACAAGCCAU | 1402 | GAGUCCUGGCGGGCAUAGC | 1450 | AGGUCCUGGUAGUGCUGCU | 1498 | ACGUCACCGGGGGAAGUGC |
| 1355 | CCGGAUCCCACAAGCCAUC | 1403 | AGUCCUGGCGGGCAUAGCG | 1451 | GGUCCUGGUAGUGCUGCUG | 1499 | CGUCACCGGGGGAAGUGCC |
| 1356 | CGGAUCCCACAAGCCAUCA | 1404 | GUCCUGGCGGGCAUAGCGU | 1452 | GUCCUGGUAGUGCUGCUGC | 1500 | GUCACCGGGGGAAGUGCCG |
| 1357 | GGAUCCCACAAGCCAUCAU | 1405 | UCCUGGCGGGCAUAGCGUA | 1453 | UCCUGGUAGUGCUGCUGCU | 1501 | UCACCGGGGGAAGUGCCGG |
| 1358 | GAUCCCACAAGCCAUCAUG | 1406 | CCUGGCGGGCAUAGCGUAU | 1454 | CCUGGUAGUGCUGCUGCUA | 1502 | CACCGGGGGAAGUGCCGGC |
| 1359 | AUCCCACAAGCCAUCAUGG | 1407 | CUGGCGGGCAUAGCGUAUU | 1455 | CUGGUAGUGCUGCUGCUAU | 1503 | ACCGGGGGAAGUGCCGGCC |
| 1360 | UCCCACAAGCCAUCAUGGA | 1408 | UGGCGGGCAUAGCGUAUUU | 1456 | UGGUAGUGCUGCUGCUAUU | 1504 | CCGGGGGAAGUGCCGGCCG |
| 1361 | CCCACAAGCCAUCAUGGAC | 1409 | GGCGGGCAUAGCGUAUUUC | 1457 | GGUAGUGCUGCUGCUAUUU | 1505 | CGGGGGAAGUGCCGGCCGC |
| 1362 | CCACAAGCCAUCAUGGACA | 1410 | GCGGGCAUAGCGUAUUUCU | 1458 | GUAGUGCUGCUGCUAUUUG | 1506 | GGGGGAAGUGCCGGCCGCA |
| 1363 | CACAAGCCAUCAUGGACAU | 1411 | CGGGCAUAGCGUAUUUCUC | 1459 | UAGUGCUGCUGCUAUUUGC | 1507 | GGGGAAGUGCCGGCCGCAC |
| 1364 | ACAAGCCAUCAUGGACAUG | 1412 | GGGCAUAGCGUAUUUCUCC | 1460 | AGUGCUGCUGCUAUUUGCC | 1508 | GGGAAGUGCCGGCCGCACC |
| 1365 | CAAGCCAUCAUGGACAUGA | 1413 | GGCAUAGCGUAUUUCUCCA | 1461 | GUGCUGCUGCUAUUUGCCG | 1509 | GGAAGUGCCGGCCGCACCA |
| 1366 | AAGCCAUCAUGGACAUGAU | 1414 | GCAUAGCGUAUUUCUCCAU | 1462 | UGCUGCUGCUAUUUGCCGG | 1510 | GAAGUGCCGGCCGCACCAC |
| 1367 | AGCCAUCAUGGACAUGAUC | 1415 | CAUAGCGUAUUUCUCCAUG | 1463 | GCUGCUGCUAUUUGCCGGC | 1511 | AAGUGCCGGCCGCACCACG |
| 1368 | GCCAUCAUGGACAUGAUCG | 1416 | AUAGCGUAUUUCUCCAUGG | 1464 | CUGCUGCUAUUUGCCGGCG | 1512 | AGUGCCGGCCGCACCACGG |
| 1369 | CCAUCAUGGACAUGAUCGC | 1417 | UAGCGUAUUUCUCCAUGGU | 1465 | UGCUGCUAUUUGCCGGCGU | 1513 | GUGCCGGCCGCACCACGGC |
| 1370 | CAUCAUGGACAUGAUCGCU | 1418 | AGCGUAUUUCUCCAUGGUG | 1466 | GCUGCUAUUUGCCGGCGUC | 1514 | UGCCGGCCGCACCACGGCU |
| 1371 | AUCAUGGACAUGAUCGCUG | 1419 | GCGUAUUUCUCCAUGGUGG | 1467 | CUGCUAUUUGCCGGCGUCG | 1515 | GCCGGCCGCACCACGGCUG |
| 1372 | UCAUGGACAUGAUCGCUGG | 1420 | CGUAUUUCUCCAUGGUGGG | 1468 | UGCUAUUUGCCGGCGUCGA | 1516 | CCGGCCGCACCACGGCUGG |
| 1373 | CAUGGACAUGAUCGCUGGU | 1421 | GUAUUUCUCCAUGGUGGGG | 1469 | GCUAUUUGCCGGCGUCGAC | 1517 | CGGCCGCACCACGGCUGGG |
| 1374 | AUGGACAUGAUCGCUGGUG | 1422 | UAUUUCUCCAUGGUGGGGA | 1470 | CUAUUUGCCGGCGUCGACG | 1518 | GGCCGCACCACGGCUGGGC |
| 1375 | UGGACAUGAUCGCUGGUGC | 1423 | AUUUCUCCAUGGUGGGGAA | 1471 | UAUUUGCCGGCGUCGACGC | 1519 | GCCGCACCACGGCUGGGCU |
| 1376 | GGACAUGAUCGCUGGUGCU | 1424 | UUUCUCCAUGGUGGGGAAC | 1472 | AUUUGCCGGCGUCGACGCG | 1520 | CCGCACCACGGCUGGGCUU |
| 1377 | GACAUGAUCGCUGGUGCUC | 1425 | UUCUCCAUGGUGGGGAACU | 1473 | UUUGCCGGCGUCGACGCGG | 1521 | CGCACCACGGCUGGGCUUG |
| 1378 | ACAUGAUCGCUGGUGCUCA | 1426 | UCUCCAUGGUGGGGAACUG | 1474 | UUGCCGGCGUCGACGCGGA | 1522 | GCACCACGGCUGGGCUUGU |
| 1379 | CAUGAUCGCUGGUGCUCAC | 1427 | CUCCAUGGUGGGGAACUGG | 1475 | UGCCGGCGUCGACGCGGAA | 1523 | CACCACGGCUGGGCUUGUU |
| 1380 | AUGAUCGCUGGUGCUCACU | 1428 | UCCAUGGUGGGGAACUGGG | 1476 | GCCGGCGUCGACGCGGAAA | 1524 | ACCACGGCUGGGCUUGUUG |
| 1381 | UGAUCGCUGGUGCUCACUG | 1429 | CCAUGGUGGGGAACUGGGC | 1477 | CCGGCGUCGACGCGGAAAC | 1525 | CCACGGCUGGGCUUGUUGG |
| 1382 | GAUCGCUGGUGCUCACUGG | 1430 | CAUGGUGGGGAACUGGGCG | 1478 | CGGCGUCGACGCGGAAACC | 1526 | CACGGCUGGGCUUGUUGGU |
| 1383 | AUCGCUGGUGCUCACUGGG | 1431 | AUGGUGGGGAACUGGGCGA | 1479 | GGCGUCGACGCGGAAACCC | 1527 | ACGGCUGGGCUUGUUGGUC |
| 1384 | UCGCUGGUGCUCACUGGGG | 1432 | UGGUGGGGAACUGGGCGAA | 1480 | GCGUCGACGCGGAAACCCA | 1528 | CGGCUGGGCUUGUUGGUCU |
| 1385 | CGCUGGUGCUCACUGGGGA | 1433 | GGUGGGGAACUGGGCGAAG | 1481 | CGUCGACGCGGAAACCCAC | 1529 | GGCUGGGCUUGUUGGUCUC |
| 1386 | GCUGGUGCUCACUGGGGAG | 1434 | GUGGGGAACUGGGCGAAGG | 1482 | GUCGACGCGGAAACCCACG | 1530 | GCUGGGCUUGUUGGUCUCC |
| 1387 | CUGGUGCUCACUGGGGAGU | 1435 | UGGGGAACUGGGCGAAGGU | 1483 | UCGACGCGGAAACCCACGU | 1531 | CUGGGCUUGUUGGUCUCCU |
| 1388 | UGGUGCUCACUGGGGAGUC | 1436 | GGGGAACUGGGCGAAGGUC | 1484 | CGACGCGGAAACCCACGUC | 1532 | UGGGCUUGUUGGUCUCCUU |
| 1389 | GGUGCUCACUGGGGAGUCC | 1437 | GGGAACUGGGCGAAGGUCC | 1485 | GACGCGGAAACCCACGUCA | 1533 | GGGCUUGUUGGUCUCCUUA |
| 1390 | GUGCUCACUGGGGAGUCCU | 1438 | GGAACUGGGCGAAGGUCCU | 1486 | ACGCGGAAACCCACGUCAC | 1534 | GGCUUGUUGGUCUCCUUAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1535 | GCUUGUUGGUCUCCUUACA | 1583 | CAACACCAACGGCAGUUGG | 1631 | UGAAAGCCUUAACACCGGC | 1679 | AUUCAACUCUUCAGGCUGU |
| 1536 | CUUGUUGGUCUCCUUACAC | 1584 | AACACCAACGGCAGUUGGC | 1632 | GAAAGCCUUAACACCGGCU | 1680 | UUCAACUCUUCAGGCUGUC |
| 1537 | UUGUUGGUCUCCUUACACC | 1585 | ACACCAACGGCAGUUGGCA | 1633 | AAAGCCUUAACACCGGCUG | 1681 | UCAACUCUUCAGGCUGUCC |
| 1538 | UGUUGGUCUCCUUACACCA | 1586 | CACCAACGGCAGUUGGCAC | 1634 | AAGCCUUAACACCGGCUGG | 1682 | CAACUCUUCAGGCUGUCCU |
| 1539 | GUUGGUCUCCUUACACCAG | 1587 | ACCAACGGCAGUUGGCACA | 1635 | AGCCUUAACACCGGCUGGU | 1683 | AACUCUUCAGGCUGUCCUG |
| 1540 | UUGGUCUCCUUACACCAGG | 1588 | CCAACGGCAGUUGGCACAU | 1636 | GCCUUAACACCGGCUGGUU | 1684 | ACUCUUCAGGCUGUCCUGA |
| 1541 | UGGUCUCCUUACACCAGGC | 1589 | CAACGGCAGUUGGCACAUC | 1637 | CCUUAACACCGGCUGGUUA | 1685 | CUCUUCAGGCUGUCCUGAG |
| 1542 | GGUCUCCUUACACCAGGCG | 1590 | AACGGCAGUUGGCACAUCA | 1638 | CUUAACACCGGCUGGUUAG | 1686 | UCUUCAGGCUGUCCUGAGA |
| 1543 | GUCUCCUUACACCAGGCGC | 1591 | ACGGCAGUUGGCACAUCAA | 1639 | UUAACACCGGCUGGUUAGC | 1687 | CUUCAGGCUGUCCUGAGAG |
| 1544 | UCUCCUUACACCAGGCGCC | 1592 | CGGCAGUUGGCACAUCAAU | 1640 | UAACACCGGCUGGUUAGCA | 1688 | UUCAGGCUGUCCUGAGAGG |
| 1545 | CUCCUUACACCAGGCGCCA | 1593 | GGCAGUUGGCACAUCAAUA | 1641 | AACACCGGCUGGUUAGCAG | 1689 | UCAGGCUGUCCUGAGAGGU |
| 1546 | UCCUUACACCAGGCGCCAA | 1594 | GCAGUUGGCACAUCAAUAG | 1642 | ACACCGGCUGGUUAGCAGG | 1690 | CAGGCUGUCCUGAGAGGUU |
| 1547 | CCUUACACCAGGCGCCAAG | 1595 | CAGUUGGCACAUCAAUAGC | 1643 | CACCGGCUGGUUAGCAGGG | 1691 | AGGCUGUCCUGAGAGGUUG |
| 1548 | CUUACACCAGGCGCCAAGC | 1596 | AGUUGGCACAUCAAUAGCA | 1644 | ACCGGCUGGUUAGCAGGGC | 1692 | GGCUGUCCUGAGAGGUUGG |
| 1549 | UUACACCAGGCGCCAAGCA | 1597 | GUUGGCACAUCAAUAGCAC | 1645 | CCGGCUGGUUAGCAGGGCU | 1693 | GCUGUCCUGAGAGGUUGGC |
| 1550 | UACACCAGGCGCCAAGCAG | 1598 | UUGGCACAUCAAUAGCACG | 1646 | CGGCUGGUUAGCAGGGCUC | 1694 | CUGUCCUGAGAGGUUGGCC |
| 1551 | ACACCAGGCGCCAAGCAGA | 1599 | UGGCACAUCAAUAGCACGG | 1647 | GGCUGGUUAGCAGGGCUCU | 1695 | UGUCCUGAGAGGUUGGCCA |
| 1552 | CACCAGGCGCCAAGCAGAA | 1600 | GGCACAUCAAUAGCACGGC | 1648 | GCUGGUUAGCAGGGCUCUU | 1696 | GUCCUGAGAGGUUGGCCAG |
| 1553 | ACCAGGCGCCAAGCAGAAC | 1601 | GCACAUCAAUAGCACGGCC | 1649 | CUGGUUAGCAGGGCUCUUC | 1697 | UCCUGAGAGGUUGGCCAGC |
| 1554 | CCAGGCGCCAAGCAGAACA | 1602 | CACAUCAAUAGCACGGCCU | 1650 | UGGUUAGCAGGGCUCUUCU | 1698 | CCUGAGAGGUUGGCCAGCU |
| 1555 | CAGGCGCCAAGCAGAACAU | 1603 | ACAUCAAUAGCACGGCCUU | 1651 | GGUUAGCAGGGCUCUUCUA | 1699 | CUGAGAGGUUGGCCAGCUG |
| 1556 | AGGCGCCAAGCAGAACAUC | 1604 | CAUCAAUAGCACGGCCUUG | 1652 | GUUAGCAGGGCUCUUCUAU | 1700 | UGAGAGGUUGGCCAGCUGC |
| 1557 | GGCGCCAAGCAGAACAUCC | 1605 | AUCAAUAGCACGGCCUUGA | 1653 | UUAGCAGGGCUCUUCUAUC | 1701 | GAGAGGUUGGCCAGCUGCC |
| 1558 | GCGCCAAGCAGAACAUCCA | 1606 | UCAAUAGCACGGCCUUGAA | 1654 | UAGCAGGGCUCUUCUAUCA | 1702 | AGAGGUUGGCCAGCUGCCG |
| 1559 | CGCCAAGCAGAACAUCCAA | 1607 | CAAUAGCACGGCCUUGAAC | 1655 | AGCAGGGCUCUUCUAUCAG | 1703 | GAGGUUGGCCAGCUGCCGA |
| 1560 | GCCAAGCAGAACAUCCAAC | 1608 | AAUAGCACGGCCUUGAACU | 1656 | GCAGGGCUCUUCUAUCAGC | 1704 | AGGUUGGCCAGCUGCCGAC |
| 1561 | CCAAGCAGAACAUCCAACU | 1609 | AUAGCACGGCCUUGAACUG | 1657 | CAGGGCUCUUCUAUCAGCA | 1705 | GGUUGGCCAGCUGCCGACG |
| 1562 | CAAGCAGAACAUCCAACUG | 1610 | UAGCACGGCCUUGAACUGC | 1658 | AGGGCUCUUCUAUCAGCAC | 1706 | GUUGGCCAGCUGCCGACGC |
| 1563 | AAGCAGAACAUCCAACUGA | 1611 | AGCACGGCCUUGAACUGCA | 1659 | GGGCUCUUCUAUCAGCACA | 1707 | UUGGCCAGCUGCCGACGCC |
| 1564 | AGCAGAACAUCCAACUGAU | 1612 | GCACGGCCUUGAACUGCAA | 1660 | GGCUCUUCUAUCAGCACAA | 1708 | UGGCCAGCUGCCGACGCCU |
| 1565 | GCAGAACAUCCAACUGAUC | 1613 | CACGGCCUUGAACUGCAAU | 1661 | GCUCUUCUAUCAGCACAAA | 1709 | GGCCAGCUGCCGACGCCUU |
| 1566 | CAGAACAUCCAACUGAUCA | 1614 | ACGGCCUUGAACUGCAAUG | 1662 | CUCUUCUAUCAGCACAAAU | 1710 | GCCAGCUGCCGACGCCUUA |
| 1567 | AGAACAUCCAACUGAUCAA | 1615 | CGGCCUUGAACUGCAAUGA | 1663 | UCUUCUAUCAGCACAAAUU | 1711 | CCAGCUGCCGACGCCUUAC |
| 1568 | GAACAUCCAACUGAUCAAC | 1616 | GGCCUUGAACUGCAAUGAA | 1664 | CUUCUAUCAGCACAAAUUC | 1712 | CAGCUGCCGACGCCUUACC |
| 1569 | AACAUCCAACUGAUCAACA | 1617 | GCCUUGAACUGCAAUGAAA | 1665 | UUCUAUCAGCACAAAUUCA | 1713 | AGCUGCCGACGCCUUACCG |
| 1570 | ACAUCCAACUGAUCAACAC | 1618 | CCUUGAACUGCAAUGAAAG | 1666 | UCUAUCAGCACAAAUUCAA | 1714 | GCUGCCGACGCCUUACCGA |
| 1571 | CAUCCAACUGAUCAACACC | 1619 | CUUGAACUGCAAUGAAAGC | 1667 | CUAUCAGCACAAAUUCAAC | 1715 | CUGCCGACGCCUUACCGAU |
| 1572 | AUCCAACUGAUCAACACCA | 1620 | UUGAACUGCAAUGAAAGCC | 1668 | UAUCAGCACAAAUUCAACU | 1716 | UGCCGACGCCUUACCGAUU |
| 1573 | UCCAACUGAUCAACACCAA | 1621 | UGAACUGCAAUGAAAGCCU | 1669 | AUCAGCACAAAUUCAACUC | 1717 | GCCGACGCCUUACCGAUUU |
| 1574 | CCAACUGAUCAACACCAAC | 1622 | GAACUGCAAUGAAAGCCUU | 1670 | UCAGCACAAAUUCAACUCU | 1718 | CCGACGCCUUACCGAUUUU |
| 1575 | CAACUGAUCAACACCAACG | 1623 | AACUGCAAUGAAAGCCUUA | 1671 | CAGCACAAAUUCAACUCUU | 1719 | CGACGCCUUACCGAUUUUG |
| 1576 | AACUGAUCAACACCAACGG | 1624 | ACUGCAAUGAAAGCCUUAA | 1672 | AGCACAAAUUCAACUCUUC | 1720 | GACGCCUUACCGAUUUUGC |
| 1577 | ACUGAUCAACACCAACGGC | 1625 | CUGCAAUGAAAGCCUUAAC | 1673 | GCACAAAUUCAACUCUUCA | 1721 | ACGCCUUACCGAUUUUGCC |
| 1578 | CUGAUCAACACCAACGGCA | 1626 | UGCAAUGAAAGCCUUAACA | 1674 | CACAAAUUCAACUCUUCAG | 1722 | CGCCUUACCGAUUUUGCCC |
| 1579 | UGAUCAACACCAACGGCAG | 1627 | GCAAUGAAAGCCUUAACAC | 1675 | ACAAAUUCAACUCUUCAGG | 1723 | GCCUUACCGAUUUUGCCCA |
| 1580 | GAUCAACACCAACGGCAGU | 1628 | CAAUGAAAGCCUUAACACC | 1676 | CAAAUUCAACUCUUCAGGC | 1724 | CCUUACCGAUUUUGCCCAG |
| 1581 | AUCAACACCAACGGCAGUU | 1629 | AAUGAAAGCCUUAACACCG | 1677 | AAAUUCAACUCUUCAGGCU | 1725 | CUUACCGAUUUUGCCCAGG |
| 1582 | UCAACACCAACGGCAGUUG | 1630 | AUGAAAGCCUUAACACCGG | 1678 | AAUUCAACUCUUCAGGCUG | 1726 | UUACCGAUUUUGCCCAGGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1727 | UACCGAUUUUGCCCAGGGC | 1775 | CGGCCUCGACGAACGCCCC | 1823 | UGGCAUUGUGCCCGCAAAG | 1871 | UCCCAGCCCCGUGGUGGUG |
| 1728 | ACCGAUUUUGCCCAGGGCU | 1776 | GGCCUCGACGAACGCCCCU | 1824 | GGCAUUGUGCCCGCAAAGA | 1872 | CCCAGCCCCGUGGUGGUGG |
| 1729 | CCGAUUUUGCCCAGGGCUG | 1777 | GCCUCGACGAACGCCCCUA | 1825 | GCAUUGUGCCCGCAAAGAG | 1873 | CCAGCCCCGUGGUGGUGGG |
| 1730 | CGAUUUUGCCCAGGGCUGG | 1778 | CCUCGACGAACGCCCCUAC | 1826 | CAUUGUGCCCGCAAAGAGC | 1874 | CAGCCCCGUGGUGGUGGGA |
| 1731 | GAUUUUGCCCAGGGCUGGG | 1779 | CUCGACGAACGCCCCUACU | 1827 | AUUGUGCCCGCAAAGAGCG | 1875 | AGCCCCGUGGUGGUGGGAA |
| 1732 | AUUUUGCCCAGGGCUGGGG | 1780 | UCGACGAACGCCCCUACUG | 1828 | UUGUGCCCGCAAAGAGCGU | 1876 | GCCCCGUGGUGGUGGGAAC |
| 1733 | UUUUGCCCAGGGCUGGGGU | 1781 | CGACGAACGCCCCUACUGC | 1829 | UGUGCCCGCAAAGAGCGUG | 1877 | CCCCGUGGUGGUGGGAACG |
| 1734 | UUUGCCCAGGGCUGGGGUC | 1782 | GACGAACGCCCCUACUGCU | 1830 | GUGCCCGCAAAGAGCGUGU | 1878 | CCCGUGGUGGUGGGAACGA |
| 1735 | UUGCCCAGGGCUGGGGUCC | 1783 | ACGAACGCCCCUACUGCUG | 1831 | UGCCCGCAAAGAGCGUGUG | 1879 | CCGUGGUGGUGGGAACGAC |
| 1736 | UGCCCAGGGCUGGGGUCCU | 1784 | CGAACGCCCCUACUGCUGG | 1832 | GCCCGCAAAGAGCGUGUGU | 1880 | CGUGGUGGUGGGAACGACC |
| 1737 | GCCCAGGGCUGGGGUCCUA | 1785 | GAACGCCCCUACUGCUGGC | 1833 | CCCGCAAAGAGCGUGUGUG | 1881 | GUGGUGGUGGGAACGACCG |
| 1738 | CCCAGGGCUGGGGUCCUAU | 1786 | AACGCCCCUACUGCUGGCA | 1834 | CCGCAAAGAGCGUGUGUGG | 1882 | UGGUGGUGGGAACGACCGA |
| 1739 | CCAGGGCUGGGGUCCUAUC | 1787 | ACGCCCCUACUGCUGGCAC | 1835 | CGCAAAGAGCGUGUGUGGC | 1883 | GGUGGUGGGAACGACCGAC |
| 1740 | CAGGGCUGGGGUCCUAUCA | 1788 | CGCCCCUACUGCUGGCACU | 1836 | GCAAAGAGCGUGUGUGGCC | 1884 | GUGGUGGGAACGACCGACA |
| 1741 | AGGGCUGGGGUCCUAUCAG | 1789 | GCCCCUACUGCUGGCACUA | 1837 | CAAAGAGCGUGUGUGGCCC | 1885 | UGGUGGGAACGACCGACAG |
| 1742 | GGGCUGGGGUCCUAUCAGU | 1790 | CCCCUACUGCUGGCACUAC | 1838 | AAAGAGCGUGUGUGGCCCG | 1886 | GGUGGGAACGACCGACAGG |
| 1743 | GGCUGGGGUCCUAUCAGUU | 1791 | CCCUACUGCUGGCACUACC | 1839 | AAGAGCGUGUGUGGCCCGG | 1887 | GUGGGAACGACCGACAGGU |
| 1744 | GCUGGGGUCCUAUCAGUUA | 1792 | CCUACUGCUGGCACUACCC | 1840 | AGAGCGUGUGUGGCCCGGU | 1888 | UGGGAACGACCGACAGGUC |
| 1745 | CUGGGGUCCUAUCAGUUAU | 1793 | CUACUGCUGGCACUACCCU | 1841 | GAGCGUGUGUGGCCCGGUA | 1889 | GGGAACGACCGACAGGUCG |
| 1746 | UGGGGUCCUAUCAGUUAUG | 1794 | UACUGCUGGCACUACCCUC | 1842 | AGCGUGUGUGGCCCGGUAU | 1890 | GGAACGACCGACAGGUCGG |
| 1747 | GGGGUCCUAUCAGUUAUGC | 1795 | ACUGCUGGCACUACCCUCC | 1843 | GCGUGUGUGGCCCGGUAUA | 1891 | GAACGACCGACAGGUCGGG |
| 1748 | GGGUCCUAUCAGUUAUGCC | 1796 | CUGCUGGCACUACCCUCCA | 1844 | CGUGUGUGGCCCGGUAUAU | 1892 | AACGACCGACAGGUCGGGC |
| 1749 | GGUCCUAUCAGUUAUGCCA | 1797 | UGCUGGCACUACCCUCCAA | 1845 | GUGUGUGGCCCGGUAUAUU | 1893 | ACGACCGACAGGUCGGGCG |
| 1750 | GUCCUAUCAGUUAUGCCAA | 1798 | GCUGGCACUACCCUCCAAG | 1846 | UGUGUGGCCCGGUAUAUUG | 1894 | CGACCGACAGGUCGGGCGC |
| 1751 | UCCUAUCAGUUAUGCCAAC | 1799 | CUGGCACUACCCUCCAAGA | 1847 | GUGUGGCCCGGUAUAUUGC | 1895 | GACCGACAGGUCGGGCGCG |
| 1752 | CCUAUCAGUUAUGCCAACG | 1800 | UGGCACUACCCUCCAAGAC | 1848 | UGUGGCCCGGUAUAUUGCU | 1896 | ACCGACAGGUCGGGCGCGC |
| 1753 | CUAUCAGUUAUGCCAACGG | 1801 | GGCACUACCCUCCAAGACC | 1849 | GUGGCCCGGUAUAUUGCUU | 1897 | CCGACAGGUCGGGCGCGCC |
| 1754 | UAUCAGUUAUGCCAACGGA | 1802 | GCACUACCCUCCAAGACCU | 1850 | UGGCCCGGUAUAUUGCUUC | 1898 | CGACAGGUCGGGCGCGCCU |
| 1755 | AUCAGUUAUGCCAACGGAA | 1803 | CACUACCCUCCAAGACCUU | 1851 | GGCCCGGUAUAUUGCUUCA | 1899 | GACAGGUCGGGCGCGCCUA |
| 1756 | UCAGUUAUGCCAACGGAAG | 1804 | ACUACCCUCCAAGACCUUG | 1852 | GCCCGGUAUAUUGCUUCAC | 1900 | ACAGGUCGGGCGCGCCUAC |
| 1757 | CAGUUAUGCCAACGGAAGC | 1805 | CUACCCUCCAAGACCUUGU | 1853 | CCCGGUAUAUUGCUUCACU | 1901 | CAGGUCGGGCGCGCCUACC |
| 1758 | AGUUAUGCCAACGGAAGCG | 1806 | UACCCUCCAAGACCUUGUG | 1854 | CCGGUAUAUUGCUUCACUC | 1902 | AGGUCGGGCGCGCCUACCU |
| 1759 | GUUAUGCCAACGGAAGCGG | 1807 | ACCCUCCAAGACCUUGUGG | 1855 | CGGUAUAUUGCUUCACUCC | 1903 | GGUCGGGCGCGCCUACCUA |
| 1760 | UUAUGCCAACGGAAGCGGC | 1808 | CCCUCCAAGACCUUGUGGC | 1856 | GGUAUAUUGCUUCACUCCC | 1904 | GUCGGGCGCGCCUACCUAC |
| 1761 | UAUGCCAACGGAAGCGGCC | 1809 | CCUCCAAGACCUUGUGGCA | 1857 | GUAUAUUGCUUCACUCCCA | 1905 | UCGGGCGCGCCUACCUACA |
| 1762 | AUGCCAACGGAAGCGGCCU | 1810 | CUCCAAGACCUUGUGGCAU | 1858 | UAUAUUGCUUCACUCCCAG | 1906 | CGGGCGCGCCUACCUACAG |
| 1763 | UGCCAACGGAAGCGGCCUC | 1811 | UCCAAGACCUUGUGGCAUU | 1859 | AUAUUGCUUCACUCCCAGC | 1907 | GGGCGCGCCUACCUACAGC |
| 1764 | GCCAACGGAAGCGGCCUCG | 1812 | CCAAGACCUUGUGGCAUUG | 1860 | UAUUGCUUCACUCCCAGCC | 1908 | GGCGCGCCUACCUACAGCU |
| 1765 | CCAACGGAAGCGGCCUCGA | 1813 | CAAGACCUUGUGGCAUUGU | 1861 | AUUGCUUCACUCCCAGCCC | 1909 | GCGCGCCUACCUACAGCUG |
| 1766 | CAACGGAAGCGGCCUCGAC | 1814 | AAGACCUUGUGGCAUUGUG | 1862 | UUGCUUCACUCCCAGCCCC | 1910 | CGCGCCUACCUACAGCUGG |
| 1767 | AACGGAAGCGGCCUCGACG | 1815 | AGACCUUGUGGCAUUGUGC | 1863 | UGCUUCACUCCCAGCCCCG | 1911 | GCGCCUACCUACAGCUGGG |
| 1768 | ACGGAAGCGGCCUCGACGA | 1816 | GACCUUGUGGCAUUGUGCC | 1864 | GCUUCACUCCCAGCCCCGU | 1912 | CGCCUACCUACAGCUGGGG |
| 1769 | CGGAAGCGGCCUCGACGAA | 1817 | ACCUUGUGGCAUUGUGCCC | 1865 | CUUCACUCCCAGCCCCGUG | 1913 | GCCUACCUACAGCUGGGGU |
| 1770 | GGAAGCGGCCUCGACGAAC | 1818 | CCUUGUGGCAUUGUGCCCG | 1866 | UUCACUCCCAGCCCCGUGG | 1914 | CCUACCUACAGCUGGGGUG |
| 1771 | GAAGCGGCCUCGACGAACG | 1819 | CUUGUGGCAUUGUGCCCGC | 1867 | UCACUCCCAGCCCCGUGGU | 1915 | CUACCUACAGCUGGGGUGC |
| 1772 | AAGCGGCCUCGACGAACGC | 1820 | UUGUGGCAUUGUGCCCGCA | 1868 | CACUCCCAGCCCCGUGGUG | 1916 | UACCUACAGCUGGGGUGCA |
| 1773 | AGCGGCCUCGACGAACGCC | 1821 | UGUGGCAUUGUGCCCGCAA | 1869 | ACUCCCAGCCCCGUGGUGG | 1917 | ACCUACAGCUGGGGUGCAA |
| 1774 | GCGGCCUCGACGAACGCCC | 1822 | GUGGCAUUGUGCCCGCAAA | 1870 | CUCCCAGCCCCGUGGUGGU | 1918 | CCUACAGCUGGGGUGCAAA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1919 | CUACAGCUGGGGUGCAAAU | 1967 | CAGGCCACCGCUGGGCAAU | 2015 | UGGAUUCACCAAAGUGUGC | 2063 | GGGCAACAACACCUUGCUC |
| 1920 | UACAGCUGGGGUGCAAAUG | 1968 | AGGCCACCGCUGGGCAAUU | 2016 | GGAUUCACCAAAGUGUGCG | 2064 | GGCAACAACACCUUGCUCU |
| 1921 | ACAGCUGGGGUGCAAAUGA | 1969 | GGCCACCGCUGGGCAAUUG | 2017 | GAUUCACCAAAGUGUGCGG | 2065 | GCAACAACACCUUGCUCUG |
| 1922 | CAGCUGGGGUGCAAAUGAU | 1970 | GCCACCGCUGGGCAAUUGG | 2018 | AUUCACCAAAGUGUGCGGA | 2066 | CAACAACACCUUGCUCUGC |
| 1923 | AGCUGGGGUGCAAAUGAUA | 1971 | CCACCGCUGGGCAAUUGGU | 2019 | UUCACCAAAGUGUGCGGAG | 2067 | AACAACACCUUGCUCUGCC |
| 1924 | GCUGGGGUGCAAAUGAUAC | 1972 | CACCGCUGGGCAAUUGGUU | 2020 | UCACCAAAGUGUGCGGAGC | 2068 | ACAACACCUUGCUCUGCCC |
| 1925 | CUGGGGUGCAAAUGAUACG | 1973 | ACCGCUGGGCAAUUGGUUC | 2021 | CACCAAAGUGUGCGGAGCG | 2069 | CAACACCUUGCUCUGCCCC |
| 1926 | UGGGGUGCAAAUGAUACGG | 1974 | CCGCUGGGCAAUUGGUUCG | 2022 | ACCAAAGUGUGCGGAGCGC | 2070 | AACACCUUGCUCUGCCCCA |
| 1927 | GGGGUGCAAAUGAUACGGA | 1975 | CGCUGGGCAAUUGGUUCGG | 2023 | CCAAAGUGUGCGGAGCGCC | 2071 | ACACCUUGCUCUGCCCCAC |
| 1928 | GGGUGCAAAUGAUACGGAU | 1976 | GCUGGGCAAUUGGUUCGGU | 2024 | CAAAGUGUGCGGAGCGCCC | 2072 | CACCUUGCUCUGCCCCACU |
| 1929 | GGUGCAAAUGAUACGGAUG | 1977 | CUGGGCAAUUGGUUCGGUU | 2025 | AAAGUGUGCGGAGCGCCCC | 2073 | ACCUUGCUCUGCCCCACUG |
| 1930 | GUGCAAAUGAUACGGAUGU | 1978 | UGGGCAAUUGGUUCGGUUG | 2026 | AAGUGUGCGGAGCGCCCCC | 2074 | CCUUGCUCUGCCCCACUGA |
| 1931 | UGCAAAUGAUACGGAUGUC | 1979 | GGGCAAUUGGUUCGGUUGU | 2027 | AGUGUGCGGAGCGCCCCCU | 2075 | CUUGCUCUGCCCCACUGAU |
| 1932 | GCAAAUGAUACGGAUGUCU | 1980 | GGCAAUUGGUUCGGUUGUA | 2028 | GUGUGCGGAGCGCCCCCUU | 2076 | UUGCUCUGCCCCACUGAUU |
| 1933 | CAAAUGAUACGGAUGUCUU | 1981 | GCAAUUGGUUCGGUUGUAC | 2029 | UGUGCGGAGCGCCCCCUUG | 2077 | UGCUCUGCCCCACUGAUUG |
| 1934 | AAAUGAUACGGAUGUCUUC | 1982 | CAAUUGGUUCGGUUGUACC | 2030 | GUGCGGAGCGCCCCCUUGU | 2078 | GCUCUGCCCCACUGAUUGU |
| 1935 | AAUGAUACGGAUGUCUUCG | 1983 | AAUUGGUUCGGUUGUACCU | 2031 | UGCGGAGCGCCCCCUUGUG | 2079 | CUCUGCCCCACUGAUUGUU |
| 1936 | AUGAUACGGAUGUCUUCGU | 1984 | AUUGGUUCGGUUGUACCUG | 2032 | GCGGAGCGCCCCCUUGUGU | 2080 | UCUGCCCCACUGAUUGUUU |
| 1937 | UGAUACGGAUGUCUUCGUC | 1985 | UUGGUUCGGUUGUACCUGG | 2033 | CGGAGCGCCCCCUUGUGUC | 2081 | CUGCCCCACUGAUUGUUUC |
| 1938 | GAUACGGAUGUCUUCGUCC | 1986 | UGGUUCGGUUGUACCUGGA | 2034 | GGAGCGCCCCCUUGUGUCA | 2082 | UGCCCCACUGAUUGUUUCC |
| 1939 | AUACGGAUGUCUUCGUCCU | 1987 | GGUUCGGUUGUACCUGGAU | 2035 | GAGCGCCCCCUUGUGUCAU | 2083 | GCCCCACUGAUUGUUUCCG |
| 1940 | UACGGAUGUCUUCGUCCUU | 1988 | GUUCGGUUGUACCUGGAUG | 2036 | AGCGCCCCCUUGUGUCAUC | 2084 | CCCCACUGAUUGUUUCCGC |
| 1941 | ACGGAUGUCUUCGUCCUUA | 1989 | UUCGGUUGUACCUGGAUGA | 2037 | GCGCCCCCUUGUGUCAUCG | 2085 | CCCACUGAUUGUUUCCGCA |
| 1942 | CGGAUGUCUUCGUCCUUAA | 1990 | UCGGUUGUACCUGGAUGAA | 2038 | CGCCCCCUUGUGUCAUCGG | 2086 | CCACUGAUUGUUUCCGCAA |
| 1943 | GGAUGUCUUCGUCCUUAAC | 1991 | CGGUUGUACCUGGAUGAAC | 2039 | GCCCCCUUGUGUCAUCGGA | 2087 | CACUGAUUGUUUCCGCAAG |
| 1944 | GAUGUCUUCGUCCUUAACA | 1992 | GGUUGUACCUGGAUGAACU | 2040 | CCCCCUUGUGUCAUCGGAG | 2088 | ACUGAUUGUUUCCGCAAGC |
| 1945 | AUGUCUUCGUCCUUAACAA | 1993 | GUUGUACCUGGAUGAACUC | 2041 | CCCCUUGUGUCAUCGGAGG | 2089 | CUGAUUGUUUCCGCAAGCA |
| 1946 | UGUCUUCGUCCUUAACAAC | 1994 | UUGUACCUGGAUGAACUCA | 2042 | CCCUUGUGUCAUCGGAGGG | 2090 | UGAUUGUUUCCGCAAGCAU |
| 1947 | GUCUUCGUCCUUAACAACA | 1995 | UGUACCUGGAUGAACUCAA | 2043 | CCUUGUGUCAUCGGAGGGG | 2091 | GAUUGUUUCCGCAAGCAUC |
| 1948 | UCUUCGUCCUUAACAACAC | 1996 | GUACCUGGAUGAACUCAAC | 2044 | CUUGUGUCAUCGGAGGGGU | 2092 | AUUGUUUCCGCAAGCAUCC |
| 1949 | CUUCGUCCUUAACAACACC | 1997 | UACCUGGAUGAACUCAACU | 2045 | UUGUGUCAUCGGAGGGGUG | 2093 | UUGUUUCCGCAAGCAUCCG |
| 1950 | UUCGUCCUUAACAACACCA | 1998 | ACCUGGAUGAACUCAACUG | 2046 | UGUGUCAUCGGAGGGGUGG | 2094 | UGUUUCCGCAAGCAUCCGG |
| 1951 | UCGUCCUUAACAACACCAG | 1999 | CCUGGAUGAACUCAACUGG | 2047 | GUGUCAUCGGAGGGGUGGG | 2095 | GUUUCCGCAAGCAUCCGGA |
| 1952 | CGUCCUUAACAACACCAGG | 2000 | CUGGAUGAACUCAACUGGA | 2048 | UGUCAUCGGAGGGGUGGGC | 2096 | UUUCCGCAAGCAUCCGGAA |
| 1953 | GUCCUUAACAACACCAGGC | 2001 | UGGAUGAACUCAACUGGAU | 2049 | GUCAUCGGAGGGGUGGGCA | 2097 | UUCCGCAAGCAUCCGGAAG |
| 1954 | UCCUUAACAACACCAGGCC | 2002 | GGAUGAACUCAACUGGAUU | 2050 | UCAUCGGAGGGGUGGGCAA | 2098 | UCCGCAAGCAUCCGGAAGC |
| 1955 | CCUUAACAACACCAGGCCA | 2003 | GAUGAACUCAACUGGAUUC | 2051 | CAUCGGAGGGGUGGGCAAC | 2099 | CCGCAAGCAUCCGGAAGCC |
| 1956 | CUUAACAACACCAGGCCAC | 2004 | AUGAACUCAACUGGAUUCA | 2052 | AUCGGAGGGGUGGGCAACA | 2100 | CGCAAGCAUCCGGAAGCCA |
| 1957 | UUAACAACACCAGGCCACC | 2005 | UGAACUCAACUGGAUUCAC | 2053 | UCGGAGGGGUGGGCAACAA | 2101 | GCAAGCAUCCGGAAGCCAC |
| 1958 | UAACAACACCAGGCCACCG | 2006 | GAACUCAACUGGAUUCACC | 2054 | CGGAGGGGUGGGCAACAAC | 2102 | CAAGCAUCCGGAAGCCACA |
| 1959 | AACAACACCAGGCCACCGC | 2007 | AACUCAACUGGAUUCACCA | 2055 | GGAGGGGUGGGCAACAACA | 2103 | AAGCAUCCGGAAGCCACAU |
| 1960 | ACAACACCAGGCCACCGCU | 2008 | ACUCAACUGGAUUCACCAA | 2056 | GAGGGGUGGGCAACAACAC | 2104 | AGCAUCCGGAAGCCACAUA |
| 1961 | CAACACCAGGCCACCGCUG | 2009 | CUCAACUGGAUUCACCAAA | 2057 | AGGGGUGGGCAACAACACC | 2105 | GCAUCCGGAAGCCACAUAC |
| 1962 | AACACCAGGCCACCGCUGG | 2010 | UCAACUGGAUUCACCAAAG | 2058 | GGGGUGGGCAACAACACCU | 2106 | CAUCCGGAAGCCACAUACU |
| 1963 | ACACCAGGCCACCGCUGGG | 2011 | CAACUGGAUUCACCAAAGU | 2059 | GGGUGGGCAACAACACCUU | 2107 | AUCCGGAAGCCACAUACUC |
| 1964 | CACCAGGCCACCGCUGGGC | 2012 | AACUGGAUUCACCAAAGUG | 2060 | GGUGGGCAACAACACCUUG | 2108 | UCCGGAAGCCACAUACUCU |
| 1965 | ACCAGGCCACCGCUGGGCA | 2013 | ACUGGAUUCACCAAAGUGU | 2061 | GUGGGCAACAACACCUUGC | 2109 | CCGGAAGCCACAUACUCUC |
| 1966 | CCAGGCCACCGCUGGGCAA | 2014 | CUGGAUUCACCAAAGUGUG | 2062 | UGGGCAACAACACCUUGCU | 2110 | CGGAAGCCACAUACUCUCG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2111 | GGAAGCCACAUACUCUCGG | 2159 | GUGCAUGGUCGACUACCCG | 2207 | CAAUUACACCAUAUUCAAA | 2255 | CAGGCUGGAAGCGGCCUGC |
| 2112 | GAAGCCACAUACUCUCGGU | 2160 | UGCAUGGUCGACUACCCGU | 2208 | AAUUACACCAUAUUCAAAG | 2256 | AGGCUGGAAGCGGCCUGCA |
| 2113 | AAGCCACAUACUCUCGGUG | 2161 | GCAUGGUCGACUACCCGUA | 2209 | AUUACACCAUAUUCAAAGU | 2257 | GGCUGGAAGCGGCCUGCAA |
| 2114 | AGCCACAUACUCUCGGUGC | 2162 | CAUGGUCGACUACCCGUAU | 2210 | UUACACCAUAUUCAAAGUC | 2258 | GCUGGAAGCGGCCUGCAAC |
| 2115 | GCCACAUACUCUCGGUGCG | 2163 | AUGGUCGACUACCCGUAUA | 2211 | UACACCAUAUUCAAAGUCA | 2259 | CUGGAAGCGGCCUGCAACU |
| 2116 | CCACAUACUCUCGGUGCGG | 2164 | UGGUCGACUACCCGUAUAG | 2212 | ACACCAUAUUCAAAGUCAG | 2260 | UGGAAGCGGCCUGCAACUG |
| 2117 | CACAUACUCUCGGUGCGGC | 2165 | GGUCGACUACCCGUAUAGG | 2213 | CACCAUAUUCAAAGUCAGG | 2261 | GGAAGCGGCCUGCAACUGG |
| 2118 | ACAUACUCUCGGUGCGGCU | 2166 | GUCGACUACCCGUAUAGGC | 2214 | ACCAUAUUCAAAGUCAGGA | 2262 | GAAGCGGCCUGCAACUGGA |
| 2119 | CAUACUCUCGGUGCGGCUC | 2167 | UCGACUACCCGUAUAGGCU | 2215 | CCAUAUUCAAAGUCAGGAU | 2263 | AAGCGGCCUGCAACUGGAC |
| 2120 | AUACUCUCGGUGCGGCUCC | 2168 | CGACUACCCGUAUAGGCUU | 2216 | CAUAUUCAAAGUCAGGAUG | 2264 | AGCGGCCUGCAACUGGACG |
| 2121 | UACUCUCGGUGCGGCUCCG | 2169 | GACUACCCGUAUAGGCUUU | 2217 | AUAUUCAAAGUCAGGAUGU | 2265 | GCGGCCUGCAACUGGACGC |
| 2122 | ACUCUCGGUGCGGCUCCGG | 2170 | ACUACCCGUAUAGGCUUUG | 2218 | UAUUCAAAGUCAGGAUGUA | 2266 | CGGCCUGCAACUGGACGCG |
| 2123 | CUCUCGGUGCGGCUCCGGU | 2171 | CUACCCGUAUAGGCUUUGG | 2219 | AUUCAAAGUCAGGAUGUAC | 2267 | GGCCUGCAACUGGACGCGG |
| 2124 | UCUCGGUGCGGCUCCGGUC | 2172 | UACCCGUAUAGGCUUUGGC | 2220 | UUCAAAGUCAGGAUGUACG | 2268 | GCCUGCAACUGGACGCGGG |
| 2125 | CUCGGUGCGGCUCCGGUCC | 2173 | ACCCGUAUAGGCUUUGGCA | 2221 | UCAAAGUCAGGAUGUACGU | 2269 | CCUGCAACUGGACGCGGGG |
| 2126 | UCGGUGCGGCUCCGGUCCC | 2174 | CCCGUAUAGGCUUUGGCAC | 2222 | CAAAGUCAGGAUGUACGUG | 2270 | CUGCAACUGGACGCGGGGC |
| 2127 | CGGUGCGGCUCCGGUCCCU | 2175 | CCGUAUAGGCUUUGGCACU | 2223 | AAAGUCAGGAUGUACGUGG | 2271 | UGCAACUGGACGCGGGGCG |
| 2128 | GGUGCGGCUCCGGUCCCUG | 2176 | CGUAUAGGCUUUGGCACUA | 2224 | AAGUCAGGAUGUACGUGGG | 2272 | GCAACUGGACGCGGGGCGA |
| 2129 | GUGCGGCUCCGGUCCCUGG | 2177 | GUAUAGGCUUUGGCACUAU | 2225 | AGUCAGGAUGUACGUGGGA | 2273 | CAACUGGACGCGGGGCGAA |
| 2130 | UGCGGCUCCGGUCCCUGGA | 2178 | UAUAGGCUUUGGCACUAUC | 2226 | GUCAGGAUGUACGUGGGAG | 2274 | AACUGGACGCGGGGCGAAC |
| 2131 | GCGGCUCCGGUCCCUGGAU | 2179 | AUAGGCUUUGGCACUAUCC | 2227 | UCAGGAUGUACGUGGGAGG | 2275 | ACUGGACGCGGGGCGAACG |
| 2132 | CGGCUCCGGUCCCUGGAUU | 2180 | UAGGCUUUGGCACUAUCCU | 2228 | CAGGAUGUACGUGGGAGGG | 2276 | CUGGACGCGGGGCGAACGC |
| 2133 | GGCUCCGGUCCCUGGAUUA | 2181 | AGGCUUUGGCACUAUCCUU | 2229 | AGGAUGUACGUGGGAGGGG | 2277 | UGGACGCGGGGCGAACGCU |
| 2134 | GCUCCGGUCCCUGGAUUAC | 2182 | GGCUUUGGCACUAUCCUUG | 2230 | GGAUGUACGUGGGAGGGGU | 2278 | GGACGCGGGGCGAACGCUG |
| 2135 | CUCCGGUCCCUGGAUUACA | 2183 | GCUUUGGCACUAUCCUUGU | 2231 | GAUGUACGUGGGAGGGGUC | 2279 | GACGCGGGGCGAACGCUGU |
| 2136 | UCCGGUCCCUGGAUUACAC | 2184 | CUUUGGCACUAUCCUUGUA | 2232 | AUGUACGUGGGAGGGGUCG | 2280 | ACGCGGGGCGAACGCUGUG |
| 2137 | CCGGUCCCUGGAUUACACC | 2185 | UUUGGCACUAUCCUUGUAC | 2233 | UGUACGUGGGAGGGGUCGA | 2281 | CGCGGGGCGAACGCUGUGA |
| 2138 | CGGUCCCUGGAUUACACCC | 2186 | UUGGCACUAUCCUUGUACC | 2234 | GUACGUGGGAGGGGUCGAG | 2282 | GCGGGGCGAACGCUGUGAU |
| 2139 | GGUCCCUGGAUUACACCCA | 2187 | UGGCACUAUCCUUGUACCA | 2235 | UACGUGGGAGGGGUCGAGC | 2283 | CGGGGCGAACGCUGUGAUC |
| 2140 | GUCCCUGGAUUACACCCAG | 2188 | GGCACUAUCCUUGUACCAU | 2236 | ACGUGGGAGGGGUCGAGCA | 2284 | GGGGCGAACGCUGUGAUCU |
| 2141 | UCCCUGGAUUACACCCAGG | 2189 | GCACUAUCCUUGUACCAUC | 2237 | CGUGGGAGGGGUCGAGCAC | 2285 | GGGCGAACGCUGUGAUCUG |
| 2142 | CCCUGGAUUACACCCAGGU | 2190 | CACUAUCCUUGUACCAUCA | 2238 | GUGGGAGGGGUCGAGCACA | 2286 | GGCGAACGCUGUGAUCUGG |
| 2143 | CCUGGAUUACACCCAGGUG | 2191 | ACUAUCCUUGUACCAUCAA | 2239 | UGGGAGGGGUCGAGCACAG | 2287 | GCGAACGCUGUGAUCUGGA |
| 2144 | CUGGAUUACACCCAGGUGC | 2192 | CUAUCCUUGUACCAUCAAU | 2240 | GGGAGGGGUCGAGCACAGG | 2288 | CGAACGCUGUGAUCUGGAA |
| 2145 | UGGAUUACACCCAGGUGCA | 2193 | UAUCCUUGUACCAUCAAUU | 2241 | GGAGGGGUCGAGCACAGGC | 2289 | GAACGCUGUGAUCUGGAAG |
| 2146 | GGAUUACACCCAGGUGCAU | 2194 | AUCCUUGUACCAUCAAUUA | 2242 | GAGGGGUCGAGCACAGGCU | 2290 | AACGCUGUGAUCUGGAAGA |
| 2147 | GAUUACACCCAGGUGCAUG | 2195 | UCCUUGUACCAUCAAUUAC | 2243 | AGGGGUCGAGCACAGGCUG | 2291 | ACGCUGUGAUCUGGAAGAC |
| 2148 | AUUACACCCAGGUGCAUGG | 2196 | CCUUGUACCAUCAAUUACA | 2244 | GGGGUCGAGCACAGGCUGG | 2292 | CGCUGUGAUCUGGAAGACA |
| 2149 | UUACACCCAGGUGCAUGGU | 2197 | CUUGUACCAUCAAUUACAC | 2245 | GGGUCGAGCACAGGCUGGA | 2293 | GCUGUGAUCUGGAAGACAG |
| 2150 | UACACCCAGGUGCAUGGUC | 2198 | UUGUACCAUCAAUUACACC | 2246 | GGUCGAGCACAGGCUGGAA | 2294 | CUGUGAUCUGGAAGACAGG |
| 2151 | ACACCCAGGUGCAUGGUCG | 2199 | UGUACCAUCAAUUACACCA | 2247 | GUCGAGCACAGGCUGGAAG | 2295 | UGUGAUCUGGAAGACAGGG |
| 2152 | CACCCAGGUGCAUGGUCGA | 2200 | GUACCAUCAAUUACACCAU | 2248 | UCGAGCACAGGCUGGAAGC | 2296 | GUGAUCUGGAAGACAGGGA |
| 2153 | ACCCAGGUGCAUGGUCGAC | 2201 | UACCAUCAAUUACACCAUA | 2249 | CGAGCACAGGCUGGAAGCG | 2297 | UGAUCUGGAAGACAGGGAC |
| 2154 | CCCAGGUGCAUGGUCGACU | 2202 | ACCAUCAAUUACACCAUAU | 2250 | GAGCACAGGCUGGAAGCGG | 2298 | GAUCUGGAAGACAGGGACA |
| 2155 | CCAGGUGCAUGGUCGACUA | 2203 | CCAUCAAUUACACCAUAUU | 2251 | AGCACAGGCUGGAAGCGGC | 2299 | AUCUGGAAGACAGGGACAG |
| 2156 | CAGGUGCAUGGUCGACUAC | 2204 | CAUCAAUUACACCAUAUUC | 2252 | GCACAGGCUGGAAGCGGCC | 2300 | UCUGGAAGACAGGGACAGG |
| 2157 | AGGUGCAUGGUCGACUACC | 2205 | AUCAAUUACACCAUAUUCA | 2253 | CACAGGCUGGAAGCGGCCU | 2301 | CUGGAAGACAGGGACAGGU |
| 2158 | GGUGCAUGGUCGACUACCC | 2206 | UCAAUUACACCAUAUUCAA | 2254 | ACAGGCUGGAAGCGGCCUG | 2302 | UGGAAGACAGGGACAGGUC |

**FIG. 1 (page 12 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2303 | GGAAGACAGGGACAGGUCC | 2351 | ACAGUGGCAGGUCCUUCCG | 2399 | CACCGGCCUCAUCCACCUC | 2447 | GUACGGGGUAGGGUCAAGC |
| 2304 | GAAGACAGGGACAGGUCCG | 2352 | CAGUGGCAGGUCCUUCCGU | 2400 | ACCGGCCUCAUCCACCUCC | 2448 | UACGGGGUAGGGUCAAGCA |
| 2305 | AAGACAGGGACAGGUCCGA | 2353 | AGUGGCAGGUCCUUCCGUG | 2401 | CCGGCCUCAUCCACCUCCA | 2449 | ACGGGGUAGGGUCAAGCAU |
| 2306 | AGACAGGGACAGGUCCGAG | 2354 | GUGGCAGGUCCUUCCGUGU | 2402 | CGGCCUCAUCCACCUCCAC | 2450 | CGGGGUAGGGUCAAGCAUC |
| 2307 | GACAGGGACAGGUCCGAGC | 2355 | UGGCAGGUCCUUCCGUGUU | 2403 | GGCCUCAUCCACCUCCACC | 2451 | GGGGUAGGGUCAAGCAUCG |
| 2308 | ACAGGGACAGGUCCGAGCU | 2356 | GGCAGGUCCUUCCGUGUUC | 2404 | GCCUCAUCCACCUCCACCA | 2452 | GGGUAGGGUCAAGCAUCGC |
| 2309 | CAGGGACAGGUCCGAGCUC | 2357 | GCAGGUCCUUCCGUGUUCU | 2405 | CCUCAUCCACCUCCACCAG | 2453 | GGUAGGGUCAAGCAUCGCG |
| 2310 | AGGGACAGGUCCGAGCUCA | 2358 | CAGGUCCUUCCGUGUUCUU | 2406 | CUCAUCCACCUCCACCAGA | 2454 | GUAGGGUCAAGCAUCGCGU |
| 2311 | GGGACAGGUCCGAGCUCAG | 2359 | AGGUCCUUCCGUGUUCUUU | 2407 | UCAUCCACCUCCACCAGAA | 2455 | UAGGGUCAAGCAUCGCGUC |
| 2312 | GGACAGGUCCGAGCUCAGC | 2360 | GGUCCUUCCGUGUUCUUUC | 2408 | CAUCCACCUCCACCAGAAC | 2456 | AGGGUCAAGCAUCGCGUCC |
| 2313 | GACAGGUCCGAGCUCAGCC | 2361 | GUCCUUCCGUGUUCUUUCA | 2409 | AUCCACCUCCACCAGAACA | 2457 | GGGUCAAGCAUCGCGUCCU |
| 2314 | ACAGGUCCGAGCUCAGCCC | 2362 | UCCUUCCGUGUUCUUUCAC | 2410 | UCCACCUCCACCAGAACAU | 2458 | GGUCAAGCAUCGCGUCCUG |
| 2315 | CAGGUCCGAGCUCAGCCCA | 2363 | CCUUCCGUGUUCUUUCACG | 2411 | CCACCUCCACCAGAACAUU | 2459 | GUCAAGCAUCGCGUCCUGG |
| 2316 | AGGUCCGAGCUCAGCCCAU | 2364 | CUUCCGUGUUCUUUCACGA | 2412 | CACCUCCACCAGAACAUUG | 2460 | UCAAGCAUCGCGUCCUGGG |
| 2317 | GGUCCGAGCUCAGCCCAUU | 2365 | UUCCGUGUUCUUUCACGAC | 2413 | ACCUCCACCAGAACAUUGU | 2461 | CAAGCAUCGCGUCCUGGGC |
| 2318 | GUCCGAGCUCAGCCCAUUG | 2366 | UCCGUGUUCUUUCACGACC | 2414 | CCUCCACCAGAACAUUGUG | 2462 | AAGCAUCGCGUCCUGGGCC |
| 2319 | UCCGAGCUCAGCCCAUUGC | 2367 | CCGUGUUCUUUCACGACCC | 2415 | CUCCACCAGAACAUUGUGG | 2463 | AGCAUCGCGUCCUGGGCCA |
| 2320 | CCGAGCUCAGCCCAUUGCU | 2368 | CGUGUUCUUUCACGACCCU | 2416 | UCCACCAGAACAUUGUGGA | 2464 | GCAUCGCGUCCUGGGCCAU |
| 2321 | CGAGCUCAGCCCAUUGCUG | 2369 | GUGUUCUUUCACGACCCUG | 2417 | CCACCAGAACAUUGUGGAC | 2465 | CAUCGCGUCCUGGGCCAUU |
| 2322 | GAGCUCAGCCCAUUGCUGC | 2370 | UGUUCUUUCACGACCCUGC | 2418 | CACCAGAACAUUGUGGACG | 2466 | AUCGCGUCCUGGGCCAUUA |
| 2323 | AGCUCAGCCCAUUGCUGCU | 2371 | GUUCUUUCACGACCCUGCC | 2419 | ACCAGAACAUUGUGGACGU | 2467 | UCGCGUCCUGGGCCAUUAA |
| 2324 | GCUCAGCCCAUUGCUGCUG | 2372 | UUCUUUCACGACCCUGCCA | 2420 | CCAGAACAUUGUGGACGUG | 2468 | CGCGUCCUGGGCCAUUAAG |
| 2325 | CUCAGCCCAUUGCUGCUGU | 2373 | UCUUUCACGACCCUGCCAG | 2421 | CAGAACAUUGUGGACGUGC | 2469 | GCGUCCUGGGCCAUUAAGU |
| 2326 | UCAGCCCAUUGCUGCUGUC | 2374 | CUUUCACGACCCUGCCAGC | 2422 | AGAACAUUGUGGACGUGCA | 2470 | CGUCCUGGGCCAUUAAGUG |
| 2327 | CAGCCCAUUGCUGCUGUCC | 2375 | UUUCACGACCCUGCCAGCC | 2423 | GAACAUUGUGGACGUGCAG | 2471 | GUCCUGGGCCAUUAAGUGG |
| 2328 | AGCCCAUUGCUGCUGUCCA | 2376 | UUCACGACCCUGCCAGCCU | 2424 | AACAUUGUGGACGUGCAGU | 2472 | UCCUGGGCCAUUAAGUGGG |
| 2329 | GCCCAUUGCUGCUGUCCAC | 2377 | UCACGACCCUGCCAGCCUU | 2425 | ACAUUGUGGACGUGCAGUA | 2473 | CCUGGGCCAUUAAGUGGGA |
| 2330 | CCCAUUGCUGCUGUCCACC | 2378 | CACGACCCUGCCAGCCUUG | 2426 | CAUUGUGGACGUGCAGUAC | 2474 | CUGGGCCAUUAAGUGGGAG |
| 2331 | CCAUUGCUGCUGUCCACCA | 2379 | ACGACCCUGCCAGCCUUGU | 2427 | AUUGUGGACGUGCAGUACU | 2475 | UGGGCCAUUAAGUGGGAGU |
| 2332 | CAUUGCUGCUGUCCACCAC | 2380 | CGACCCUGCCAGCCUUGUC | 2428 | UUGUGGACGUGCAGUACUU | 2476 | GGGCCAUUAAGUGGGAGUA |
| 2333 | AUUGCUGCUGUCCACCACA | 2381 | GACCCUGCCAGCCUUGUCC | 2429 | UGUGGACGUGCAGUACUUG | 2477 | GGCCAUUAAGUGGGAGUAC |
| 2334 | UUGCUGCUGUCCACCACAC | 2382 | ACCCUGCCAGCCUUGUCCA | 2430 | GUGGACGUGCAGUACUUGU | 2478 | GCCAUUAAGUGGGAGUACG |
| 2335 | UGCUGCUGUCCACCACACA | 2383 | CCCUGCCAGCCUUGUCCAC | 2431 | UGGACGUGCAGUACUUGUA | 2479 | CCAUUAAGUGGGAGUACGU |
| 2336 | GCUGCUGUCCACCACACAG | 2384 | CCUGCCAGCCUUGUCCACC | 2432 | GGACGUGCAGUACUUGUAC | 2480 | CAUUAAGUGGGAGUACGUC |
| 2337 | CUGCUGUCCACCACACAGU | 2385 | CUGCCAGCCUUGUCCACCG | 2433 | GACGUGCAGUACUUGUACG | 2481 | AUUAAGUGGGAGUACGUCG |
| 2338 | UGCUGUCCACCACACAGUG | 2386 | UGCCAGCCUUGUCCACCGG | 2434 | ACGUGCAGUACUUGUACGG | 2482 | UUAAGUGGGAGUACGUCGU |
| 2339 | GCUGUCCACCACACAGUGG | 2387 | GCCAGCCUUGUCCACCGGC | 2435 | CGUGCAGUACUUGUACGGG | 2483 | UAAGUGGGAGUACGUCGUU |
| 2340 | CUGUCCACCACACAGUGGC | 2388 | CCAGCCUUGUCCACCGGCC | 2436 | GUGCAGUACUUGUACGGGG | 2484 | AAGUGGGAGUACGUCGUUC |
| 2341 | UGUCCACCACACAGUGGCA | 2389 | CAGCCUUGUCCACCGGCCU | 2437 | UGCAGUACUUGUACGGGGU | 2485 | AGUGGGAGUACGUCGUUCU |
| 2342 | GUCCACCACACAGUGGCAG | 2390 | AGCCUUGUCCACCGGCCUC | 2438 | GCAGUACUUGUACGGGGUA | 2486 | GUGGGAGUACGUCGUUCUC |
| 2343 | UCCACCACACAGUGGCAGG | 2391 | GCCUUGUCCACCGGCCUCA | 2439 | CAGUACUUGUACGGGGUAG | 2487 | UGGGAGUACGUCGUUCUCC |
| 2344 | CCACCACACAGUGGCAGGU | 2392 | CCUUGUCCACCGGCCUCAU | 2440 | AGUACUUGUACGGGGUAGG | 2488 | GGGAGUACGUCGUUCUCCU |
| 2345 | CACCACACAGUGGCAGGUC | 2393 | CUUGUCCACCGGCCUCAUC | 2441 | GUACUUGUACGGGGUAGGG | 2489 | GGAGUACGUCGUUCUCCUG |
| 2346 | ACCACACAGUGGCAGGUCC | 2394 | UUGUCCACCGGCCUCAUCC | 2442 | UACUUGUACGGGGUAGGGU | 2490 | GAGUACGUCGUUCUCCUGU |
| 2347 | CCACACAGUGGCAGGUCCU | 2395 | UGUCCACCGGCCUCAUCCA | 2443 | ACUUGUACGGGGUAGGGUC | 2491 | AGUACGUCGUUCUCCUGUU |
| 2348 | CACACAGUGGCAGGUCCUU | 2396 | GUCCACCGGCCUCAUCCAC | 2444 | CUUGUACGGGGUAGGGUCA | 2492 | GUACGUCGUUCUCCUGUUC |
| 2349 | ACACAGUGGCAGGUCCUUC | 2397 | UCCACCGGCCUCAUCCACC | 2445 | UUGUACGGGGUAGGGUCAA | 2493 | UACGUCGUUCUCCUGUUCC |
| 2350 | CACAGUGGCAGGUCCUUCC | 2398 | CCACCGGCCUCAUCCACCU | 2446 | UGUACGGGGUAGGGUCAAG | 2494 | ACGUCGUUCUCCUGUUCCU |

**FIG. 1 (page 13 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2495 | CGUCGUUCUCCUGUUCCUC | 2543 | CUUGUGGAUGAUGUUACUC | 2591 | CCUCGUAAUACUCAAUGCA | 2639 | GUCCUUCCUCGUGUUCUUC |
| 2496 | GUCGUUCUCCUGUUCCUCC | 2544 | UUGUGGAUGAUGUUACUCA | 2592 | CUCGUAAUACUCAAUGCAG | 2640 | UCCUUCCUCGUGUUCUUCU |
| 2497 | UCGUUCUCCUGUUCCUCCU | 2545 | UGUGGAUGAUGUUACUCAU | 2593 | UCGUAAUACUCAAUGCAGC | 2641 | CCUUCCUCGUGUUCUUCUG |
| 2498 | CGUUCUCCUGUUCCUCCUG | 2546 | GUGGAUGAUGUUACUCAUA | 2594 | CGUAAUACUCAAUGCAGCA | 2642 | CUUCCUCGUGUUCUUCUGC |
| 2499 | GUUCUCCUGUUCCUCCUGC | 2547 | UGGAUGAUGUUACUCAUAU | 2595 | GUAAUACUCAAUGCAGCAU | 2643 | UUCCUCGUGUUCUUCUGCU |
| 2500 | UUCUCCUGUUCCUCCUGCU | 2548 | GGAUGAUGUUACUCAUAUC | 2596 | UAAUACUCAAUGCAGCAUC | 2644 | UCCUCGUGUUCUUCUGCUU |
| 2501 | UCUCCUGUUCCUCCUGCUU | 2549 | GAUGAUGUUACUCAUAUCC | 2597 | AAUACUCAAUGCAGCAUCC | 2645 | CCUCGUGUUCUUCUGCUUU |
| 2502 | CUCCUGUUCCUCCUGCUUG | 2550 | AUGAUGUUACUCAUAUCCC | 2598 | AUACUCAAUGCAGCAUCCC | 2646 | CUCGUGUUCUUCUGCUUUG |
| 2503 | UCCUGUUCCUCCUGCUUGC | 2551 | UGAUGUUACUCAUAUCCCA | 2599 | UACUCAAUGCAGCAUCCCU | 2647 | UCGUGUUCUUCUGCUUUGC |
| 2504 | CCUGUUCCUCCUGCUUGCA | 2552 | GAUGUUACUCAUAUCCCAA | 2600 | ACUCAAUGCAGCAUCCCUG | 2648 | CGUGUUCUUCUGCUUUGCG |
| 2505 | CUGUUCCUCCUGCUUGCAG | 2553 | AUGUUACUCAUAUCCCAAG | 2601 | CUCAAUGCAGCAUCCCUGG | 2649 | GUGUUCUUCUGCUUUGCGU |
| 2506 | UGUUCCUCCUGCUUGCAGA | 2554 | UGUUACUCAUAUCCCAAGC | 2602 | UCAAUGCAGCAUCCCUGGC | 2650 | UGUUCUUCUGCUUUGCGUG |
| 2507 | GUUCCUCCUGCUUGCAGAC | 2555 | GUUACUCAUAUCCCAAGCG | 2603 | CAAUGCAGCAUCCCUGGCC | 2651 | GUUCUUCUGCUUUGCGUGG |
| 2508 | UUCCUCCUGCUUGCAGACG | 2556 | UUACUCAUAUCCCAAGCGG | 2604 | AAUGCAGCAUCCCUGGCCG | 2652 | UUCUUCUGCUUUGCGUGGU |
| 2509 | UCCUCCUGCUUGCAGACGC | 2557 | UACUCAUAUCCCAAGCGGA | 2605 | AUGCAGCAUCCCUGGCCGG | 2653 | UCUUCUGCUUUGCGUGGUA |
| 2510 | CCUCCUGCUUGCAGACGCG | 2558 | ACUCAUAUCCCAAGCGGAG | 2606 | UGCAGCAUCCCUGGCCGGG | 2654 | CUUCUGCUUUGCGUGGUAU |
| 2511 | CUCCUGCUUGCAGACGCGC | 2559 | CUCAUAUCCCAAGCGGAGG | 2607 | GCAGCAUCCCUGGCCGGGA | 2655 | UUCUGCUUUGCGUGGUAUC |
| 2512 | UCCUGCUUGCAGACGCGCG | 2560 | UCAUAUCCCAAGCGGAGGC | 2608 | CAGCAUCCCUGGCCGGGAC | 2656 | UCUGCUUUGCGUGGUAUCU |
| 2513 | CCUGCUUGCAGACGCGCGC | 2561 | CAUAUCCCAAGCGGAGGCG | 2609 | AGCAUCCCUGGCCGGGACG | 2657 | CUGCUUUGCGUGGUAUCUG |
| 2514 | CUGCUUGCAGACGCGCGCG | 2562 | AUAUCCCAAGCGGAGGCGG | 2610 | GCAUCCCUGGCCGGGACGC | 2658 | UGCUUUGCGUGGUAUCUGA |
| 2515 | UGCUUGCAGACGCGCGCGU | 2563 | UAUCCCAAGCGGAGGCGGC | 2611 | CAUCCCUGGCCGGGACGCA | 2659 | GCUUUGCGUGGUAUCUGAA |
| 2516 | GCUUGCAGACGCGCGCGUC | 2564 | AUCCCAAGCGGAGGCGGCU | 2612 | AUCCCUGGCCGGGACGCAC | 2660 | CUUUGCGUGGUAUCUGAAG |
| 2517 | CUUGCAGACGCGCGCGUCU | 2565 | UCCCAAGCGGAGGCGGCUU | 2613 | UCCCUGGCCGGGACGCACG | 2661 | UUUGCGUGGUAUCUGAAGG |
| 2518 | UUGCAGACGCGCGCGUCUG | 2566 | CCCAAGCGGAGGCGGCUUU | 2614 | CCCUGGCCGGGACGCACGG | 2662 | UUGCGUGGUAUCUGAAGGG |
| 2519 | UGCAGACGCGCGCGUCUGC | 2567 | CCAAGCGGAGGCGGCUUUG | 2615 | CCUGGCCGGGACGCACGGU | 2663 | UGCGUGGUAUCUGAAGGGU |
| 2520 | GCAGACGCGCGCGUCUGCU | 2568 | CAAGCGGAGGCGGCUUUGG | 2616 | CUGGCCGGGACGCACGGUC | 2664 | GCGUGGUAUCUGAAGGGUA |
| 2521 | CAGACGCGCGCGUCUGCUC | 2569 | AAGCGGAGGCGGCUUUGGA | 2617 | UGGCCGGGACGCACGGUCU | 2665 | CGUGGUAUCUGAAGGGUAG |
| 2522 | AGACGCGCGCGUCUGCUCC | 2570 | AGCGGAGGCGGCUUUGGAG | 2618 | GGCCGGGACGCACGGUCUU | 2666 | GUGGUAUCUGAAGGGUAGG |
| 2523 | GACGCGCGCGUCUGCUCCU | 2571 | GCGGAGGCGGCUUUGGAGA | 2619 | GCCGGGACGCACGGUCUUG | 2667 | UGGUAUCUGAAGGGUAGGU |
| 2524 | ACGCGCGCGUCUGCUCCUG | 2572 | CGGAGGCGGCUUUGGAGAA | 2620 | CCGGGACGCACGGUCUUGU | 2668 | GGUAUCUGAAGGGUAGGUG |
| 2525 | CGCGCGCGUCUGCUCCUGC | 2573 | GGAGGCGGCUUUGGAGAAC | 2621 | CGGGACGCACGGUCUUGUG | 2669 | GUAUCUGAAGGGUAGGUGG |
| 2526 | GCGCGCGUCUGCUCCUGCU | 2574 | GAGGCGGCUUUGGAGAACC | 2622 | GGGACGCACGGUCUUGUGU | 2670 | UAUCUGAAGGGUAGGUGGG |
| 2527 | CGCGCGUCUGCUCCUGCUU | 2575 | AGGCGGCUUUGGAGAACCU | 2623 | GGACGCACGGUCUUGUGUC | 2671 | AUCUGAAGGGUAGGUGGGU |
| 2528 | GCGCGUCUGCUCCUGCUUG | 2576 | GGCGGCUUUGGAGAACCUC | 2624 | GACGCACGGUCUUGUGUCC | 2672 | UCUGAAGGGUAGGUGGGUG |
| 2529 | CGCGUCUGCUCCUGCUUGU | 2577 | GCGGCUUUGGAGAACCUCG | 2625 | ACGCACGGUCUUGUGUCCU | 2673 | CUGAAGGGUAGGUGGGUGC |
| 2530 | GCGUCUGCUCCUGCUUGUG | 2578 | CGGCUUUGGAGAACCUCGU | 2626 | CGCACGGUCUUGUGUCCUU | 2674 | UGAAGGGUAGGUGGGUGCC |
| 2531 | CGUCUGCUCCUGCUUGUGG | 2579 | GGCUUUGGAGAACCUCGUA | 2627 | GCACGGUCUUGUGUCCUUC | 2675 | GAAGGGUAGGUGGGUGCCC |
| 2532 | GUCUGCUCCUGCUUGUGGA | 2580 | GCUUUGGAGAACCUCGUAA | 2628 | CACGGUCUUGUGUCCUUCC | 2676 | AAGGGUAGGUGGGUGCCCG |
| 2533 | UCUGCUCCUGCUUGUGGAU | 2581 | CUUUGGAGAACCUCGUAAU | 2629 | ACGGUCUUGUGUCCUUCCU | 2677 | AGGGUAGGUGGGUGCCCGG |
| 2534 | CUGCUCCUGCUUGUGGAUG | 2582 | UUUGGAGAACCUCGUAAUA | 2630 | CGGUCUUGUGUCCUUCCUC | 2678 | GGGUAGGUGGGUGCCCGGA |
| 2535 | UGCUCCUGCUUGUGGAUGA | 2583 | UUGGAGAACCUCGUAAUAC | 2631 | GGUCUUGUGUCCUUCCUCG | 2679 | GGUAGGUGGGUGCCCGGAG |
| 2536 | GCUCCUGCUUGUGGAUGAU | 2584 | UGGAGAACCUCGUAAUACU | 2632 | GUCUUGUGUCCUUCCUCGU | 2680 | GUAGGUGGGUGCCCGGAGC |
| 2537 | CUCCUGCUUGUGGAUGAUG | 2585 | GGAGAACCUCGUAAUACUC | 2633 | UCUUGUGUCCUUCCUCGUG | 2681 | UAGGUGGGUGCCCGGAGCG |
| 2538 | UCCUGCUUGUGGAUGAUGU | 2586 | GAGAACCUCGUAAUACUCA | 2634 | CUUGUGUCCUUCCUCGUGU | 2682 | AGGUGGGUGCCCGGAGCGG |
| 2539 | CCUGCUUGUGGAUGAUGUU | 2587 | AGAACCUCGUAAUACUCAA | 2635 | UUGUGUCCUUCCUCGUGUU | 2683 | GGUGGGUGCCCGGAGCGGU |
| 2540 | CUGCUUGUGGAUGAUGUUA | 2588 | GAACCUCGUAAUACUCAAU | 2636 | UGUGUCCUUCCUCGUGUUC | 2684 | GUGGGUGCCCGGAGCGGUC |
| 2541 | UGCUUGUGGAUGAUGUUAC | 2589 | AACCUCGUAAUACUCAAUG | 2637 | GUGUCCUUCCUCGUGUUCU | 2685 | UGGGUGCCCGGAGCGGUCU |
| 2542 | GCUUGUGGAUGAUGUUACU | 2590 | ACCUCGUAAUACUCAAUGC | 2638 | UGUCCUUCCUCGUGUUCUU | 2686 | GGGUGCCCGGAGCGGUCUA |

**FIG. 1 (page 14 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2687 | GGUGCCCGGAGCGGUCUAC | 2735 | GCUCCUGCUGGCGUUGCCU | 2783 | GGCCGCGUCGUGUGGCGGC | 2831 | UCUGUCGCCAUAUUACAAG |
| 2688 | GUGCCCGGAGCGGUCUACG | 2736 | CUCCUGCUGGCGUUGCCUC | 2784 | GCCGCGUCGUGUGGCGGCG | 2832 | CUGUCGCCAUAUUACAAGC |
| 2689 | UGCCCGGAGCGGUCUACGC | 2737 | UCCUGCUGGCGUUGCCUCA | 2785 | CCGCGUCGUGUGGCGGCGU | 2833 | UGUCGCCAUAUUACAAGCG |
| 2690 | GCCCGGAGCGGUCUACGCC | 2738 | CCUGCUGGCGUUGCCUCAG | 2786 | CGCGUCGUGUGGCGGCGUU | 2834 | GUCGCCAUAUUACAAGCGC |
| 2691 | CCCGGAGCGGUCUACGCCU | 2739 | CUGCUGGCGUUGCCUCAGC | 2787 | GCGUCGUGUGGCGGCGUUG | 2835 | UCGCCAUAUUACAAGCGCU |
| 2692 | CCGGAGCGGUCUACGCCUU | 2740 | UGCUGGCGUUGCCUCAGCG | 2788 | CGUCGUGUGGCGGCGUUGU | 2836 | CGCCAUAUUACAAGCGCUA |
| 2693 | CGGAGCGGUCUACGCCUUC | 2741 | GCUGGCGUUGCCUCAGCGG | 2789 | GUCGUGUGGCGGCGUUGUU | 2837 | GCCAUAUUACAAGCGCUAC |
| 2694 | GGAGCGGUCUACGCCUUCU | 2742 | CUGGCGUUGCCUCAGCGGG | 2790 | UCGUGUGGCGGCGUUGUUC | 2838 | CCAUAUUACAAGCGCUACA |
| 2695 | GAGCGGUCUACGCCUUCUA | 2743 | UGGCGUUGCCUCAGCGGGC | 2791 | CGUGUGGCGGCGUUGUUCU | 2839 | CAUAUUACAAGCGCUACAU |
| 2696 | AGCGGUCUACGCCUUCUAC | 2744 | GGCGUUGCCUCAGCGGGCA | 2792 | GUGUGGCGGCGUUGUUCUU | 2840 | AUAUUACAAGCGCUACAUC |
| 2697 | GCGGUCUACGCCUUCUACG | 2745 | GCGUUGCCUCAGCGGGCAU | 2793 | UGUGGCGGCGUUGUUCUUG | 2841 | UAUUACAAGCGCUACAUCA |
| 2698 | CGGUCUACGCCUUCUACGG | 2746 | CGUUGCCUCAGCGGGCAUA | 2794 | GUGGCGGCGUUGUUCUUGU | 2842 | AUUACAAGCGCUACAUCAG |
| 2699 | GGUCUACGCCUUCUACGGG | 2747 | GUUGCCUCAGCGGGCAUAC | 2795 | UGGCGGCGUUGUUCUUGUC | 2843 | UUACAAGCGCUACAUCAGC |
| 2700 | GUCUACGCCUUCUACGGGA | 2748 | UUGCCUCAGCGGGCAUACG | 2796 | GGCGGCGUUGUUCUUGUCG | 2844 | UACAAGCGCUACAUCAGCU |
| 2701 | UCUACGCCUUCUACGGGAU | 2749 | UGCCUCAGCGGGCAUACGC | 2797 | GCGGCGUUGUUCUUGUCGG | 2845 | ACAAGCGCUACAUCAGCUG |
| 2702 | CUACGCCUUCUACGGGAUG | 2750 | GCCUCAGCGGGCAUACGCA | 2798 | CGGCGUUGUUCUUGUCGGG | 2846 | CAAGCGCUACAUCAGCUGG |
| 2703 | UACGCCUUCUACGGGAUGU | 2751 | CCUCAGCGGGCAUACGCAC | 2799 | GGCGUUGUUCUUGUCGGGU | 2847 | AAGCGCUACAUCAGCUGGU |
| 2704 | ACGCCUUCUACGGGAUGUG | 2752 | CUCAGCGGGCAUACGCACU | 2800 | GCGUUGUUCUUGUCGGGUU | 2848 | AGCGCUACAUCAGCUGGUG |
| 2705 | CGCCUUCUACGGGAUGUGG | 2753 | UCAGCGGGCAUACGCACUG | 2801 | CGUUGUUCUUGUCGGGUUA | 2849 | GCGCUACAUCAGCUGGUGC |
| 2706 | GCCUUCUACGGGAUGUGGC | 2754 | CAGCGGGCAUACGCACUGG | 2802 | GUUGUUCUUGUCGGGUUAA | 2850 | CGCUACAUCAGCUGGUGCA |
| 2707 | CCUUCUACGGGAUGUGGCC | 2755 | AGCGGGCAUACGCACUGGA | 2803 | UUGUUCUUGUCGGGUUAAU | 2851 | GCUACAUCAGCUGGUGCAU |
| 2708 | CUUCUACGGGAUGUGGCCU | 2756 | GCGGGCAUACGCACUGGAC | 2804 | UGUUCUUGUCGGGUUAAUG | 2852 | CUACAUCAGCUGGUGCAUG |
| 2709 | UUCUACGGGAUGUGGCCUC | 2757 | CGGGCAUACGCACUGGACA | 2805 | GUUCUUGUCGGGUUAAUGG | 2853 | UACAUCAGCUGGUGCAUGU |
| 2710 | UCUACGGGAUGUGGCCUCU | 2758 | GGGCAUACGCACUGGACAC | 2806 | UUCUUGUCGGGUUAAUGGC | 2854 | ACAUCAGCUGGUGCAUGUG |
| 2711 | CUACGGGAUGUGGCCUCUC | 2759 | GGCAUACGCACUGGACACG | 2807 | UCUUGUCGGGUUAAUGGCG | 2855 | CAUCAGCUGGUGCAUGUGG |
| 2712 | UACGGGAUGUGGCCUCUCC | 2760 | GCAUACGCACUGGACACGG | 2808 | CUUGUCGGGUUAAUGGCGC | 2856 | AUCAGCUGGUGCAUGUGGU |
| 2713 | ACGGGAUGUGGCCUCUCCU | 2761 | CAUACGCACUGGACACGGA | 2809 | UUGUCGGGUUAAUGGCGCU | 2857 | UCAGCUGGUGCAUGUGGUG |
| 2714 | CGGGAUGUGGCCUCUCCUC | 2762 | AUACGCACUGGACACGGAG | 2810 | UGUCGGGUUAAUGGCGCUG | 2858 | CAGCUGGUGCAUGUGGUGG |
| 2715 | GGGAUGUGGCCUCUCCUCC | 2763 | UACGCACUGGACACGGAGG | 2811 | GUCGGGUUAAUGGCGCUGA | 2859 | AGCUGGUGCAUGUGGUGGC |
| 2716 | GGAUGUGGCCUCUCCUCCU | 2764 | ACGCACUGGACACGGAGGU | 2812 | UCGGGUUAAUGGCGCUGAC | 2860 | GCUGGUGCAUGUGGUGGCU |
| 2717 | GAUGUGGCCUCUCCUCCUG | 2765 | CGCACUGGACACGGAGGUG | 2813 | CGGGUUAAUGGCGCUGACU | 2861 | CUGGUGCAUGUGGUGGCUU |
| 2718 | AUGUGGCCUCUCCUCCUGC | 2766 | GCACUGGACACGGAGGUGG | 2814 | GGGUUAAUGGCGCUGACUC | 2862 | UGGUGCAUGUGGUGGCUUC |
| 2719 | UGUGGCCUCUCCUCCUGCU | 2767 | CACUGGACACGGAGGUGGC | 2815 | GGUUAAUGGCGCUGACUCU | 2863 | GGUGCAUGUGGUGGCUUCA |
| 2720 | GUGGCCUCUCCUCCUGCUC | 2768 | ACUGGACACGGAGGUGGCC | 2816 | GUUAAUGGCGCUGACUCUG | 2864 | GUGCAUGUGGUGGCUUCAG |
| 2721 | UGGCCUCUCCUCCUGCUCC | 2769 | CUGGACACGGAGGUGGCCG | 2817 | UUAAUGGCGCUGACUCUGU | 2865 | UGCAUGUGGUGGCUUCAGU |
| 2722 | GGCCUCUCCUCCUGCUCCU | 2770 | UGGACACGGAGGUGGCCGC | 2818 | UAAUGGCGCUGACUCUGUC | 2866 | GCAUGUGGUGGCUUCAGUA |
| 2723 | GCCUCUCCUCCUGCUCCUG | 2771 | GGACACGGAGGUGGCCGCG | 2819 | AAUGGCGCUGACUCUGUCG | 2867 | CAUGUGGUGGCUUCAGUAU |
| 2724 | CCUCUCCUCCUGCUCCUGC | 2772 | GACACGGAGGUGGCCGCGU | 2820 | AUGGCGCUGACUCUGUCGC | 2868 | AUGUGGUGGCUUCAGUAUU |
| 2725 | CUCUCCUCCUGCUCCUGCU | 2773 | ACACGGAGGUGGCCGCGUC | 2821 | UGGCGCUGACUCUGUCGCC | 2869 | UGUGGUGGCUUCAGUAUUU |
| 2726 | UCUCCUCCUGCUCCUGCUG | 2774 | CACGGAGGUGGCCGCGUCG | 2822 | GGCGCUGACUCUGUCGCCA | 2870 | GUGGUGGCUUCAGUAUUUU |
| 2727 | CUCCUCCUGCUCCUGCUGG | 2775 | ACGGAGGUGGCCGCGUCGU | 2823 | GCGCUGACUCUGUCGCCAU | 2871 | UGGUGGCUUCAGUAUUUUC |
| 2728 | UCCUCCUGCUCCUGCUGGC | 2776 | CGGAGGUGGCCGCGUCGUG | 2824 | CGCUGACUCUGUCGCCAUA | 2872 | GGUGGCUUCAGUAUUUUCU |
| 2729 | CCUCCUGCUCCUGCUGGCG | 2777 | GGAGGUGGCCGCGUCGUGU | 2825 | GCUGACUCUGUCGCCAUAU | 2873 | GUGGCUUCAGUAUUUUCUG |
| 2730 | CUCCUGCUCCUGCUGGCGU | 2778 | GAGGUGGCCGCGUCGUGUG | 2826 | CUGACUCUGUCGCCAUAUU | 2874 | UGGCUUCAGUAUUUUCUGA |
| 2731 | UCCUGCUCCUGCUGGCGUU | 2779 | AGGUGGCCGCGUCGUGUGG | 2827 | UGACUCUGUCGCCAUAUUA | 2875 | GGCUUCAGUAUUUUCUGAC |
| 2732 | CCUGCUCCUGCUGGCGUUG | 2780 | GGUGGCCGCGUCGUGUGGC | 2828 | GACUCUGUCGCCAUAUUAC | 2876 | GCUUCAGUAUUUUCUGACC |
| 2733 | CUGCUCCUGCUGGCGUUGC | 2781 | GUGGCCGCGUCGUGUGGCG | 2829 | ACUCUGUCGCCAUAUUACA | 2877 | CUUCAGUAUUUUCUGACCA |
| 2734 | UGCUCCUGCUGGCGUUGCC | 2782 | UGGCCGCGUCGUGUGGCGG | 2830 | CUCUGUCGCCAUAUUACAA | 2878 | UUCAGUAUUUUCUGACCAG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2879 | UCAGUAUUUUCUGACCAGA | 2927 | CCCCCUCAACGUCCGGGGG | 2975 | UGUUGUACACCCGACUCUG | 3023 | CAUCUUCGGACCCCUUUGG |
| 2880 | CAGUAUUUUCUGACCAGAG | 2928 | CCCCUCAACGUCCGGGGGG | 2976 | GUUGUACACCCGACUCUGG | 3024 | AUCUUCGGACCCCUUUGGA |
| 2881 | AGUAUUUUCUGACCAGAGU | 2929 | CCCUCAACGUCCGGGGGGG | 2977 | UUGUACACCCGACUCUGGU | 3025 | UCUUCGGACCCCUUUGGAU |
| 2882 | GUAUUUUCUGACCAGAGUA | 2930 | CCUCAACGUCCGGGGGGGG | 2978 | UGUACACCCGACUCUGGUA | 3026 | CUUCGGACCCCUUUGGAUU |
| 2883 | UAUUUUCUGACCAGAGUAG | 2931 | CUCAACGUCCGGGGGGGGC | 2979 | GUACACCCGACUCUGGUAU | 3027 | UUCGGACCCCUUUGGAUUC |
| 2884 | AUUUUCUGACCAGAGUAGA | 2932 | UCAACGUCCGGGGGGGGCG | 2980 | UACACCCGACUCUGGUAUU | 3028 | UCGGACCCCUUUGGAUUCU |
| 2885 | UUUUCUGACCAGAGUAGAA | 2933 | CAACGUCCGGGGGGGGCGC | 2981 | ACACCCGACUCUGGUAUUU | 3029 | CGGACCCCUUUGGAUUCUU |
| 2886 | UUUCUGACCAGAGUAGAAG | 2934 | AACGUCCGGGGGGGGCGCG | 2982 | CACCCGACUCUGGUAUUUG | 3030 | GGACCCCUUUGGAUUCUUC |
| 2887 | UUCUGACCAGAGUAGAAGC | 2935 | ACGUCCGGGGGGGGCGCGA | 2983 | ACCCGACUCUGGUAUUUGA | 3031 | GACCCCUUUGGAUUCUUCA |
| 2888 | UCUGACCAGAGUAGAAGCG | 2936 | CGUCCGGGGGGGGCGCGAU | 2984 | CCCGACUCUGGUAUUUGAC | 3032 | ACCCCUUUGGAUUCUUCAA |
| 2889 | CUGACCAGAGUAGAAGCGC | 2937 | GUCCGGGGGGGGCGCGAUG | 2985 | CCGACUCUGGUAUUUGACA | 3033 | CCCCUUUGGAUUCUUCAAG |
| 2890 | UGACCAGAGUAGAAGCGCA | 2938 | UCCGGGGGGGGCGCGAUGC | 2986 | CGACUCUGGUAUUUGACAU | 3034 | CCCUUUGGAUUCUUCAAGC |
| 2891 | GACCAGAGUAGAAGCGCAA | 2939 | CCGGGGGGGGCGCGAUGCC | 2987 | GACUCUGGUAUUUGACAUC | 3035 | CCUUUGGAUUCUUCAAGCC |
| 2892 | ACCAGAGUAGAAGCGCAAC | 2940 | CGGGGGGGGCGCGAUGCCG | 2988 | ACUCUGGUAUUUGACAUCA | 3036 | CUUUGGAUUCUUCAAGCCA |
| 2893 | CCAGAGUAGAAGCGCAACU | 2941 | GGGGGGGGCGCGAUGCCGU | 2989 | CUCUGGUAUUUGACAUCAC | 3037 | UUUGGAUUCUUCAAGCCAG |
| 2894 | CAGAGUAGAAGCGCAACUG | 2942 | GGGGGGGCGCGAUGCCGUC | 2990 | UCUGGUAUUUGACAUCACC | 3038 | UUGGAUUCUUCAAGCCAGU |
| 2895 | AGAGUAGAAGCGCAACUGC | 2943 | GGGGGGCGCGAUGCCGUCA | 2991 | CUGGUAUUUGACAUCACCA | 3039 | UGGAUUCUUCAAGCCAGUU |
| 2896 | GAGUAGAAGCGCAACUGCA | 2944 | GGGGGCGCGAUGCCGUCAU | 2992 | UGGUAUUUGACAUCACCAA | 3040 | GGAUUCUUCAAGCCAGUUU |
| 2897 | AGUAGAAGCGCAACUGCAC | 2945 | GGGGCGCGAUGCCGUCAUC | 2993 | GGUAUUUGACAUCACCAAA | 3041 | GAUUCUUCAAGCCAGUUUG |
| 2898 | GUAGAAGCGCAACUGCACG | 2946 | GGGCGCGAUGCCGUCAUCU | 2994 | GUAUUUGACAUCACCAAAC | 3042 | AUUCUUCAAGCCAGUUUGC |
| 2899 | UAGAAGCGCAACUGCACGU | 2947 | GGCGCGAUGCCGUCAUCUU | 2995 | UAUUUGACAUCACCAAACU | 3043 | UUCUUCAAGCCAGUUUGCU |
| 2900 | AGAAGCGCAACUGCACGUG | 2948 | GCGCGAUGCCGUCAUCUUA | 2996 | AUUUGACAUCACCAAACUA | 3044 | UCUUCAAGCCAGUUUGCUU |
| 2901 | GAAGCGCAACUGCACGUGU | 2949 | CGCGAUGCCGUCAUCUUAC | 2997 | UUUGACAUCACCAAACUAC | 3045 | CUUCAAGCCAGUUUGCUUA |
| 2902 | AAGCGCAACUGCACGUGUG | 2950 | GCGAUGCCGUCAUCUUACU | 2998 | UUGACAUCACCAAACUACU | 3046 | UUCAAGCCAGUUUGCUUAA |
| 2903 | AGCGCAACUGCACGUGUGG | 2951 | CGAUGCCGUCAUCUUACUC | 2999 | UGACAUCACCAAACUACUC | 3047 | UCAAGCCAGUUUGCUUAAA |
| 2904 | GCGCAACUGCACGUGUGGG | 2952 | GAUGCCGUCAUCUUACUCA | 3000 | GACAUCACCAAACUACUCC | 3048 | CAAGCCAGUUUGCUUAAAG |
| 2905 | CGCAACUGCACGUGUGGGU | 2953 | AUGCCGUCAUCUUACUCAU | 3001 | ACAUCACCAAACUACUCCU | 3049 | AAGCCAGUUUGCUUAAAGU |
| 2906 | GCAACUGCACGUGUGGGUU | 2954 | UGCCGUCAUCUUACUCAUG | 3002 | CAUCACCAAACUACUCCUG | 3050 | AGCCAGUUUGCUUAAAGUC |
| 2907 | CAACUGCACGUGUGGGUUC | 2955 | GCCGUCAUCUUACUCAUGU | 3003 | AUCACCAAACUACUCCUGG | 3051 | GCCAGUUUGCUUAAAGUCC |
| 2908 | AACUGCACGUGUGGGUUCC | 2956 | CCGUCAUCUUACUCAUGUG | 3004 | UCACCAAACUACUCCUGGC | 3052 | CCAGUUUGCUUAAAGUCCC |
| 2909 | ACUGCACGUGUGGGUUCCC | 2957 | CGUCAUCUUACUCAUGUGU | 3005 | CACCAAACUACUCCUGGCC | 3053 | CAGUUUGCUUAAAGUCCCC |
| 2910 | CUGCACGUGUGGGUUCCCC | 2958 | GUCAUCUUACUCAUGUGUG | 3006 | ACCAAACUACUCCUGGCCA | 3054 | AGUUUGCUUAAAGUCCCCU |
| 2911 | UGCACGUGUGGGUUCCCCC | 2959 | UCAUCUUACUCAUGUGUGU | 3007 | CCAAACUACUCCUGGCCAU | 3055 | GUUUGCUUAAAGUCCCCUA |
| 2912 | GCACGUGUGGGUUCCCCCC | 2960 | CAUCUUACUCAUGUGUGUU | 3008 | CAAACUACUCCUGGCCAUC | 3056 | UUUGCUUAAAGUCCCCUAC |
| 2913 | CACGUGUGGGUUCCCCCCC | 2961 | AUCUUACUCAUGUGUGUUG | 3009 | AAACUACUCCUGGCCAUCU | 3057 | UUGCUUAAAGUCCCCUACU |
| 2914 | ACGUGUGGGUUCCCCCCCU | 2962 | UCUUACUCAUGUGUGUUGU | 3010 | AACUACUCCUGGCCAUCUU | 3058 | UGCUUAAAGUCCCCUACUU |
| 2915 | CGUGUGGGUUCCCCCCCUC | 2963 | CUUACUCAUGUGUGUUGUA | 3011 | ACUACUCCUGGCCAUCUUC | 3059 | GCUUAAAGUCCCCUACUUC |
| 2916 | GUGUGGGUUCCCCCCCUCA | 2964 | UUACUCAUGUGUGUUGUAC | 3012 | CUACUCCUGGCCAUCUUCG | 3060 | CUUAAAGUCCCCUACUUCG |
| 2917 | UGUGGGUUCCCCCCCUCAA | 2965 | UACUCAUGUGUGUUGUACA | 3013 | UACUCCUGGCCAUCUUCGG | 3061 | UUAAAGUCCCCUACUUCGU |
| 2918 | GUGGGUUCCCCCCCCUCAAC | 2966 | ACUCAUGUGUGUUGUACAC | 3014 | ACUCCUGGCCAUCUUCGGA | 3062 | UAAAGUCCCCUACUUCGUG |
| 2919 | UGGGUUCCCCCCCCUCAACG | 2967 | CUCAUGUGUGUUGUACACC | 3015 | CUCCUGGCCAUCUUCGGAC | 3063 | AAAGUCCCCUACUUCGUGC |
| 2920 | GGGUUCCCCCCCCUCAACGU | 2968 | UCAUGUGUGUUGUACACCC | 3016 | UCCUGGCCAUCUUCGGACC | 3064 | AAGUCCCCUACUUCGUGCG |
| 2921 | GGUUCCCCCCCCUCAACGUC | 2969 | CAUGUGUGUUGUACACCCG | 3017 | CCUGGCCAUCUUCGGACCC | 3065 | AGUCCCCUACUUCGUGCGC |
| 2922 | GUUCCCCCCCCUCAACGUCC | 2970 | AUGUGUGUUGUACACCCGA | 3018 | CUGGCCAUCUUCGGACCCC | 3066 | GUCCCCUACUUCGUGCGCG |
| 2923 | UUCCCCCCCCUCAACGUCCG | 2971 | UGUGUGUUGUACACCCGAC | 3019 | UGGCCAUCUUCGGACCCCU | 3067 | UCCCCUACUUCGUGCGCGU |
| 2924 | UCCCCCCCCUCAACGUCCGG | 2972 | GUGUGUUGUACACCCGACU | 3020 | GGCCAUCUUCGGACCCCUU | 3068 | CCCCUACUUCGUGCGCGUU |
| 2925 | CCCCCCCCUCAACGUCCGGG | 2973 | UGUGUUGUACACCCGACUC | 3021 | GCCAUCUUCGGACCCCUUU | 3069 | CCCUACUUCGUGCGCGUUC |
| 2926 | CCCCCCUCAACGUCCGGGG | 2974 | GUGUUGUACACCCGACUCU | 3022 | CCAUCUUCGGACCCCUUUG | 3070 | CCUACUUCGUGCGCGUUCA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3071 | CUACUUCGUGCGCGUUCAA | 3119 | GAAGAUAGCCGGAGGUCAU | 3167 | GGCGCUUACUGGCACCUAU | 3215 | CUGGGCGCACAACGGCCUG |
| 3072 | UACUUCGUGCGCGUUCAAG | 3120 | AAGAUAGCCGGAGGUCAUU | 3168 | GCGCUUACUGGCACCUAUG | 3216 | UGGGCGCACAACGGCCUGC |
| 3073 | ACUUCGUGCGCGUUCAAGG | 3121 | AGAUAGCCGGAGGUCAUUA | 3169 | CGCUUACUGGCACCUAUGU | 3217 | GGGCGCACAACGGCCUGCG |
| 3074 | CUUCGUGCGCGUUCAAGGC | 3122 | GAUAGCCGGAGGUCAUUAC | 3170 | GCUUACUGGCACCUAUGUG | 3218 | GGCGCACAACGGCCUGCGA |
| 3075 | UUCGUGCGCGUUCAAGGCC | 3123 | AUAGCCGGAGGUCAUUACG | 3171 | CUUACUGGCACCUAUGUGU | 3219 | GCGCACAACGGCCUGCGAG |
| 3076 | UCGUGCGCGUUCAAGGCCU | 3124 | UAGCCGGAGGUCAUUACGU | 3172 | UUACUGGCACCUAUGUGUA | 3220 | CGCACAACGGCCUGCGAGA |
| 3077 | CGUGCGCGUUCAAGGCCUU | 3125 | AGCCGGAGGUCAUUACGUG | 3173 | UACUGGCACCUAUGUGUAU | 3221 | GCACAACGGCCUGCGAGAU |
| 3078 | GUGCGCGUUCAAGGCCUUC | 3126 | GCCGGAGGUCAUUACGUGC | 3174 | ACUGGCACCUAUGUGUAUA | 3222 | CACAACGGCCUGCGAGAUC |
| 3079 | UGCGCGUUCAAGGCCUUCU | 3127 | CCGGAGGUCAUUACGUGCA | 3175 | CUGGCACCUAUGUGUAUAA | 3223 | ACAACGGCCUGCGAGAUCU |
| 3080 | GCGCGUUCAAGGCCUUCUC | 3128 | CGGAGGUCAUUACGUGCAA | 3176 | UGGCACCUAUGUGUAUAAC | 3224 | CAACGGCCUGCGAGAUCUG |
| 3081 | CGCGUUCAAGGCCUUCUCC | 3129 | GGAGGUCAUUACGUGCAAA | 3177 | GGCACCUAUGUGUAUAACC | 3225 | AACGGCCUGCGAGAUCUGG |
| 3082 | GCGUUCAAGGCCUUCUCCG | 3130 | GAGGUCAUUACGUGCAAAU | 3178 | GCACCUAUGUGUAUAACCA | 3226 | ACGGCCUGCGAGAUCUGGC |
| 3083 | CGUUCAAGGCCUUCUCCGG | 3131 | AGGUCAUUACGUGCAAAUG | 3179 | CACCUAUGUGUAUAACCAU | 3227 | CGGCCUGCGAGAUCUGGCC |
| 3084 | GUUCAAGGCCUUCUCCGGA | 3132 | GGUCAUUACGUGCAAAUGG | 3180 | ACCUAUGUGUAUAACCAUC | 3228 | GGCCUGCGAGAUCUGGCCG |
| 3085 | UUCAAGGCCUUCUCCGGAU | 3133 | GUCAUUACGUGCAAAUGGC | 3181 | CCUAUGUGUAUAACCAUCU | 3229 | GCCUGCGAGAUCUGGCCGU |
| 3086 | UCAAGGCCUUCUCCGGAUC | 3134 | UCAUUACGUGCAAAUGGCC | 3182 | CUAUGUGUAUAACCAUCUC | 3230 | CCUGCGAGAUCUGGCCGUG |
| 3087 | CAAGGCCUUCUCCGGAUCU | 3135 | CAUUACGUGCAAAUGGCCA | 3183 | UAUGUGUAUAACCAUCUCA | 3231 | CUGCGAGAUCUGGCCGUGG |
| 3088 | AAGGCCUUCUCCGGAUCUG | 3136 | AUUACGUGCAAAUGGCCAU | 3184 | AUGUGUAUAACCAUCUCAC | 3232 | UGCGAGAUCUGGCCGUGGC |
| 3089 | AGGCCUUCUCCGGAUCUGC | 3137 | UUACGUGCAAAUGGCCAUC | 3185 | UGUGUAUAACCAUCUCACC | 3233 | GCGAGAUCUGGCCGUGGCU |
| 3090 | GGCCUUCUCCGGAUCUGCG | 3138 | UACGUGCAAAUGGCCAUCA | 3186 | GUGUAUAACCAUCUCACCC | 3234 | CGAGAUCUGGCCGUGGCUG |
| 3091 | GCCUUCUCCGGAUCUGCGC | 3139 | ACGUGCAAAUGGCCAUCAU | 3187 | UGUAUAACCAUCUCACCCC | 3235 | GAGAUCUGGCCGUGGCUGU |
| 3092 | CCUUCUCCGGAUCUGCGCG | 3140 | CGUGCAAAUGGCCAUCAUC | 3188 | GUAUAACCAUCUCACCCCU | 3236 | AGAUCUGGCCGUGGCUGUG |
| 3093 | CUUCUCCGGAUCUGCGCGC | 3141 | GUGCAAAUGGCCAUCAUCA | 3189 | UAUAACCAUCUCACCCCUC | 3237 | GAUCUGGCCGUGGCUGUGG |
| 3094 | UUCUCCGGAUCUGCGCGCU | 3142 | UGCAAAUGGCCAUCAUCAA | 3190 | AUAACCAUCUCACCCCUCU | 3238 | AUCUGGCCGUGGCUGUGGA |
| 3095 | UCUCCGGAUCUGCGCGCUA | 3143 | GCAAAUGGCCAUCAUCAAG | 3191 | UAACCAUCUCACCCCUCUU | 3239 | UCUGGCCGUGGCUGUGGAA |
| 3096 | CUCCGGAUCUGCGCGCUAG | 3144 | CAAAUGGCCAUCAUCAAGU | 3192 | AACCAUCUCACCCCUCUUC | 3240 | CUGGCCGUGGCUGUGGAAC |
| 3097 | UCCGGAUCUGCGCGCUAGC | 3145 | AAAUGGCCAUCAUCAAGUU | 3193 | ACCAUCUCACCCCUCUUCG | 3241 | UGGCCGUGGCUGUGGAACC |
| 3098 | CCGGAUCUGCGCGCUAGCG | 3146 | AAUGGCCAUCAUCAAGUUA | 3194 | CCAUCUCACCCCUCUUCGA | 3242 | GGCCGUGGCUGUGGAACCA |
| 3099 | CGGAUCUGCGCGCUAGCGC | 3147 | AUGGCCAUCAUCAAGUUAG | 3195 | CAUCUCACCCCUCUUCGAG | 3243 | GCCGUGGCUGUGGAACCAG |
| 3100 | GGAUCUGCGCGCUAGCGCG | 3148 | UGGCCAUCAUCAAGUUAGG | 3196 | AUCUCACCCCUCUUCGAGA | 3244 | CCGUGGCUGUGGAACCAGU |
| 3101 | GAUCUGCGCGCUAGCGCGG | 3149 | GGCCAUCAUCAAGUUAGGG | 3197 | UCUCACCCCUCUUCGAGAC | 3245 | CGUGGCUGUGGAACCAGUC |
| 3102 | AUCUGCGCGCUAGCGCGGA | 3150 | GCCAUCAUCAAGUUAGGGG | 3198 | CUCACCCCUCUUCGAGACU | 3246 | GUGGCUGUGGAACCAGUCG |
| 3103 | UCUGCGCGCUAGCGCGGAA | 3151 | CCAUCAUCAAGUUAGGGGC | 3199 | UCACCCCUCUUCGAGACUG | 3247 | UGGCUGUGGAACCAGUCGU |
| 3104 | CUGCGCGCUAGCGCGGAAG | 3152 | CAUCAUCAAGUUAGGGGCG | 3200 | CACCCCUCUUCGAGACUGG | 3248 | GGCUGUGGAACCAGUCGUC |
| 3105 | UGCGCGCUAGCGCGGAAGA | 3153 | AUCAUCAAGUUAGGGGCGC | 3201 | ACCCCUCUUCGAGACUGGG | 3249 | GCUGUGGAACCAGUCGUCU |
| 3106 | GCGCGCUAGCGCGGAAGAU | 3154 | UCAUCAAGUUAGGGGCGCU | 3202 | CCCCUCUUCGAGACUGGGC | 3250 | CUGUGGAACCAGUCGUCUU |
| 3107 | CGCGCUAGCGCGGAAGAUA | 3155 | CAUCAAGUUAGGGGCGCUU | 3203 | CCCUCUUCGAGACUGGGCG | 3251 | UGUGGAACCAGUCGUCUUC |
| 3108 | GCGCUAGCGCGGAAGAUAG | 3156 | AUCAAGUUAGGGGCGCUUA | 3204 | CCUCUUCGAGACUGGGCGC | 3252 | GUGGAACCAGUCGUCUUCU |
| 3109 | CGCUAGCGCGGAAGAUAGC | 3157 | UCAAGUUAGGGGCGCUUAC | 3205 | CUCUUCGAGACUGGGCGCA | 3253 | UGGAACCAGUCGUCUUCUC |
| 3110 | GCUAGCGCGGAAGAUAGCC | 3158 | CAAGUUAGGGGCGCUUACU | 3206 | UCUUCGAGACUGGGCGCAC | 3254 | GGAACCAGUCGUCUUCUCC |
| 3111 | CUAGCGCGGAAGAUAGCCG | 3159 | AAGUUAGGGGCGCUUACUG | 3207 | CUUCGAGACUGGGCGCACA | 3255 | GAACCAGUCGUCUUCUCCC |
| 3112 | UAGCGCGGAAGAUAGCCGG | 3160 | AGUUAGGGGCGCUUACUGG | 3208 | UUCGAGACUGGGCGCACAA | 3256 | AACCAGUCGUCUUCUCCCG |
| 3113 | AGCGCGGAAGAUAGCCGGA | 3161 | GUUAGGGGCGCUUACUGGC | 3209 | UCGAGACUGGGCGCACAAC | 3257 | ACCAGUCGUCUUCUCCCGA |
| 3114 | GCGCGGAAGAUAGCCGGAG | 3162 | UUAGGGGCGCUUACUGGCA | 3210 | CGAGACUGGGCGCACAACG | 3258 | CCAGUCGUCUUCUCCCGAA |
| 3115 | CGCGGAAGAUAGCCGGAGG | 3163 | UAGGGGCGCUUACUGGCAC | 3211 | GAGACUGGGCGCACAACGG | 3259 | CAGUCGUCUUCUCCCGAAU |
| 3116 | GCGGAAGAUAGCCGGAGGU | 3164 | AGGGGCGCUUACUGGCACC | 3212 | AGACUGGGCGCACAACGGC | 3260 | AGUCGUCUUCUCCCGAAUG |
| 3117 | CGGAAGAUAGCCGGAGGUC | 3165 | GGGGCGCUUACUGGCACCU | 3213 | GACUGGGCGCACAACGGCC | 3261 | GUCGUCUUCUCCCGAAUGG |
| 3118 | GGAAGAUAGCCGGAGGUCA | 3166 | GGGCGCUUACUGGCACCUA | 3214 | ACUGGGCGCACAACGGCCU | 3262 | UCGUCUUCUCCCGAAUGGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3263 | CGUCUUCUCCCGAAUGGAG | 3311 | CGCCGCGUGCGGUGACAUC | 3359 | GGGCCAGGAGAUACUGCUU | 3407 | GUGGAGGUUGCUGGCGCCC |
| 3264 | GUCUUCUCCCGAAUGGAGA | 3312 | GCCGCGUGCGGUGACAUCA | 3360 | GGCCAGGAGAUACUGCUUG | 3408 | UGGAGGUUGCUGGCGCCCA |
| 3265 | UCUUCUCCCGAAUGGAGAC | 3313 | CCGCGUGCGGUGACAUCAU | 3361 | GCCAGGAGAUACUGCUUGG | 3409 | GGAGGUUGCUGGCGCCCAU |
| 3266 | CUUCUCCCGAAUGGAGACC | 3314 | CGCGUGCGGUGACAUCAUC | 3362 | CCAGGAGAUACUGCUUGGG | 3410 | GAGGUUGCUGGCGCCCAUC |
| 3267 | UUCUCCCGAAUGGAGACCA | 3315 | GCGUGCGGUGACAUCAUCA | 3363 | CAGGAGAUACUGCUUGGGC | 3411 | AGGUUGCUGGCGCCCAUCA |
| 3268 | UCUCCCGAAUGGAGACCAA | 3316 | CGUGCGGUGACAUCAUCAA | 3364 | AGGAGAUACUGCUUGGGCC | 3412 | GGUUGCUGGCGCCCAUCAC |
| 3269 | CUCCCGAAUGGAGACCAAG | 3317 | GUGCGGUGACAUCAUCAAC | 3365 | GGAGAUACUGCUUGGGCCA | 3413 | GUUGCUGGCGCCCAUCACG |
| 3270 | UCCCGAAUGGAGACCAAGC | 3318 | UGCGGUGACAUCAUCAACG | 3366 | GAGAUACUGCUUGGGCCAG | 3414 | UUGCUGGCGCCCAUCACGG |
| 3271 | CCCGAAUGGAGACCAAGCU | 3319 | GCGGUGACAUCAUCAACGG | 3367 | AGAUACUGCUUGGGCCAGC | 3415 | UGCUGGCGCCCAUCACGGC |
| 3272 | CCGAAUGGAGACCAAGCUC | 3320 | CGGUGACAUCAUCAACGGC | 3368 | GAUACUGCUUGGGCCAGCC | 3416 | GCUGGCGCCCAUCACGGCG |
| 3273 | CGAAUGGAGACCAAGCUCA | 3321 | GGUGACAUCAUCAACGGCU | 3369 | AUACUGCUUGGGCCAGCCG | 3417 | CUGGCGCCCAUCACGGCGU |
| 3274 | GAAUGGAGACCAAGCUCAU | 3322 | GUGACAUCAUCAACGGCUU | 3370 | UACUGCUUGGGCCAGCCGA | 3418 | UGGCGCCCAUCACGGCGUA |
| 3275 | AAUGGAGACCAAGCUCAUC | 3323 | UGACAUCAUCAACGGCUUG | 3371 | ACUGCUUGGGCCAGCCGAC | 3419 | GGCGCCCAUCACGGCGUAC |
| 3276 | AUGGAGACCAAGCUCAUCA | 3324 | GACAUCAUCAACGGCUUGC | 3372 | CUGCUUGGGCCAGCCGACG | 3420 | GCGCCCAUCACGGCGUACG |
| 3277 | UGGAGACCAAGCUCAUCAC | 3325 | ACAUCAUCAACGGCUUGCC | 3373 | UGCUUGGGCCAGCCGACGG | 3421 | CGCCCAUCACGGCGUACGC |
| 3278 | GGAGACCAAGCUCAUCACG | 3326 | CAUCAUCAACGGCUUGCCC | 3374 | GCUUGGGCCAGCCGACGGA | 3422 | GCCCAUCACGGCGUACGCC |
| 3279 | GAGACCAAGCUCAUCACGU | 3327 | AUCAUCAACGGCUUGCCCG | 3375 | CUUGGGCCAGCCGACGGAA | 3423 | CCCAUCACGGCGUACGCCC |
| 3280 | AGACCAAGCUCAUCACGUG | 3328 | UCAUCAACGGCUUGCCCGU | 3376 | UUGGGCCAGCCGACGGAAU | 3424 | CCAUCACGGCGUACGCCCA |
| 3281 | GACCAAGCUCAUCACGUGG | 3329 | CAUCAACGGCUUGCCCGUC | 3377 | UGGGCCAGCCGACGGAAUG | 3425 | CAUCACGGCGUACGCCCAG |
| 3282 | ACCAAGCUCAUCACGUGGG | 3330 | AUCAACGGCUUGCCCGUCU | 3378 | GGGCCAGCCGACGGAAUGG | 3426 | AUCACGGCGUACGCCCAGC |
| 3283 | CCAAGCUCAUCACGUGGGG | 3331 | UCAACGGCUUGCCCGUCUC | 3379 | GGCCAGCCGACGGAAUGGU | 3427 | UCACGGCGUACGCCCAGCA |
| 3284 | CAAGCUCAUCACGUGGGGG | 3332 | CAACGGCUUGCCCGUCUCU | 3380 | GCCAGCCGACGGAAUGGUC | 3428 | CACGGCGUACGCCCAGCAG |
| 3285 | AAGCUCAUCACGUGGGGGG | 3333 | AACGGCUUGCCCGUCUCUG | 3381 | CCAGCCGACGGAAUGGUCU | 3429 | ACGGCGUACGCCCAGCAGA |
| 3286 | AGCUCAUCACGUGGGGGGC | 3334 | ACGGCUUGCCCGUCUCUGC | 3382 | CAGCCGACGGAAUGGUCUC | 3430 | CGGCGUACGCCCAGCAGAC |
| 3287 | GCUCAUCACGUGGGGGGCA | 3335 | CGGCUUGCCCGUCUCUGCC | 3383 | AGCCGACGGAAUGGUCUCC | 3431 | GGCGUACGCCCAGCAGACG |
| 3288 | CUCAUCACGUGGGGGGCAG | 3336 | GGCUUGCCCGUCUCUGCCC | 3384 | GCCGACGGAAUGGUCUCCA | 3432 | GCGUACGCCCAGCAGACGA |
| 3289 | UCAUCACGUGGGGGGCAGA | 3337 | GCUUGCCCGUCUCUGCCCG | 3385 | CCGACGGAAUGGUCUCCAA | 3433 | CGUACGCCCAGCAGACGAG |
| 3290 | CAUCACGUGGGGGGCAGAU | 3338 | CUUGCCCGUCUCUGCCCGU | 3386 | CGACGGAAUGGUCUCCAAG | 3434 | GUACGCCCAGCAGACGAGA |
| 3291 | AUCACGUGGGGGGCAGAUA | 3339 | UUGCCCGUCUCUGCCCGUA | 3387 | GACGGAAUGGUCUCCAAGG | 3435 | UACGCCCAGCAGACGAGAG |
| 3292 | UCACGUGGGGGGCAGAUAC | 3340 | UGCCCGUCUCUGCCCGUAG | 3388 | ACGGAAUGGUCUCCAAGGG | 3436 | ACGCCCAGCAGACGAGAGG |
| 3293 | CACGUGGGGGGCAGAUACC | 3341 | GCCCGUCUCUGCCCGUAGG | 3389 | CGGAAUGGUCUCCAAGGGG | 3437 | CGCCCAGCAGACGAGAGGC |
| 3294 | ACGUGGGGGGCAGAUACCG | 3342 | CCCGUCUCUGCCCGUAGGG | 3390 | GGAAUGGUCUCCAAGGGGU | 3438 | GCCCAGCAGACGAGAGGCC |
| 3295 | CGUGGGGGGCAGAUACCGC | 3343 | CCGUCUCUGCCCGUAGGGG | 3391 | GAAUGGUCUCCAAGGGGUG | 3439 | CCCAGCAGACGAGAGGCCU |
| 3296 | GUGGGGGGCAGAUACCGCC | 3344 | CGUCUCUGCCCGUAGGGGC | 3392 | AAUGGUCUCCAAGGGGUGG | 3440 | CCAGCAGACGAGAGGCCUC |
| 3297 | UGGGGGGCAGAUACCGCCG | 3345 | GUCUCUGCCCGUAGGGGCC | 3393 | AUGGUCUCCAAGGGGUGGA | 3441 | CAGCAGACGAGAGGCCUCC |
| 3298 | GGGGGGCAGAUACCGCCGC | 3346 | UCUCUGCCCGUAGGGGCCA | 3394 | UGGUCUCCAAGGGGUGGAG | 3442 | AGCAGACGAGAGGCCUCCU |
| 3299 | GGGGGCAGAUACCGCCGCG | 3347 | CUCUGCCCGUAGGGGCCAG | 3395 | GGUCUCCAAGGGGUGGAGG | 3443 | GCAGACGAGAGGCCUCCUA |
| 3300 | GGGGCAGAUACCGCCGCGU | 3348 | UCUGCCCGUAGGGGCCAGG | 3396 | GUCUCCAAGGGGUGGAGGU | 3444 | CAGACGAGAGGCCUCCUAG |
| 3301 | GGGCAGAUACCGCCGCGUG | 3349 | CUGCCCGUAGGGGCCAGGA | 3397 | UCUCCAAGGGGUGGAGGUU | 3445 | AGACGAGAGGCCUCCUAGG |
| 3302 | GGCAGAUACCGCCGCGUGC | 3350 | UGCCCGUAGGGGCCAGGAG | 3398 | CUCCAAGGGGUGGAGGUUG | 3446 | GACGAGAGGCCUCCUAGGG |
| 3303 | GCAGAUACCGCCGCGUGCG | 3351 | GCCCGUAGGGGCCAGGAGA | 3399 | UCCAAGGGGUGGAGGUUGC | 3447 | ACGAGAGGCCUCCUAGGGU |
| 3304 | CAGAUACCGCCGCGUGCGG | 3352 | CCCGUAGGGGCCAGGAGAU | 3400 | CCAAGGGGUGGAGGUUGCU | 3448 | CGAGAGGCCUCCUAGGGUG |
| 3305 | AGAUACCGCCGCGUGCGGU | 3353 | CCGUAGGGGCCAGGAGAUA | 3401 | CAAGGGGUGGAGGUUGCUG | 3449 | GAGAGGCCUCCUAGGGUGU |
| 3306 | GAUACCGCCGCGUGCGGUG | 3354 | CGUAGGGGCCAGGAGAUAC | 3402 | AAGGGGUGGAGGUUGCUGG | 3450 | AGAGGCCUCCUAGGGUGUA |
| 3307 | AUACCGCCGCGUGCGGUGA | 3355 | GUAGGGGCCAGGAGAUACU | 3403 | AGGGGUGGAGGUUGCUGGC | 3451 | GAGGCCUCCUAGGGUGUAU |
| 3308 | UACCGCCGCGUGCGGUGAC | 3356 | UAGGGGCCAGGAGAUACUG | 3404 | GGGGUGGAGGUUGCUGGCG | 3452 | AGGCCUCCUAGGGUGUAUA |
| 3309 | ACCGCCGCGUGCGGUGACA | 3357 | AGGGGCCAGGAGAUACUGC | 3405 | GGGUGGAGGUUGCUGGCGC | 3453 | GGCCUCCUAGGGUGUAUAA |
| 3310 | CCGCCGCGUGCGGUGACAU | 3358 | GGGGCCAGGAGAUACUGCU | 3406 | GGUGGAGGUUGCUGGCGCC | 3454 | GCCUCCUAGGGUGUAUAAU |

**FIG. 1 (page 18 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3455 | CCUCCUAGGGUGUAUAAUC | 3503 | AGUGGAGGGUGAGGUCCAG | 3551 | GGCAACGUGCAUCAAUGGG | 3599 | AACGAGGACCAUCGCAUCA |
| 3456 | CUCCUAGGGUGUAUAAUCA | 3504 | GUGGAGGGUGAGGUCCAGA | 3552 | GCAACGUGCAUCAAUGGGG | 3600 | ACGAGGACCAUCGCAUCAC |
| 3457 | UCCUAGGGUGUAUAAUCAC | 3505 | UGGAGGGUGAGGUCCAGAU | 3553 | CAACGUGCAUCAAUGGGGU | 3601 | CGAGGACCAUCGCAUCACC |
| 3458 | CCUAGGGUGUAUAAUCACC | 3506 | GGAGGGUGAGGUCCAGAUC | 3554 | AACGUGCAUCAAUGGGGUA | 3602 | GAGGACCAUCGCAUCACCC |
| 3459 | CUAGGGUGUAUAAUCACCA | 3507 | GAGGGUGAGGUCCAGAUCG | 3555 | ACGUGCAUCAAUGGGGUAU | 3603 | AGGACCAUCGCAUCACCCA |
| 3460 | UAGGGUGUAUAAUCACCAG | 3508 | AGGGUGAGGUCCAGAUCGU | 3556 | CGUGCAUCAAUGGGGUAUG | 3604 | GGACCAUCGCAUCACCCAA |
| 3461 | AGGGUGUAUAAUCACCAGC | 3509 | GGGUGAGGUCCAGAUCGUG | 3557 | GUGCAUCAAUGGGGUAUGC | 3605 | GACCAUCGCAUCACCCAAG |
| 3462 | GGGUGUAUAAUCACCAGCC | 3510 | GGUGAGGUCCAGAUCGUGU | 3558 | UGCAUCAAUGGGGUAUGCU | 3606 | ACCAUCGCAUCACCCAAGG |
| 3463 | GGUGUAUAAUCACCAGCCU | 3511 | GUGAGGUCCAGAUCGUGUC | 3559 | GCAUCAAUGGGGUAUGCUG | 3607 | CCAUCGCAUCACCCAAGGG |
| 3464 | GUGUAUAAUCACCAGCCUG | 3512 | UGAGGUCCAGAUCGUGUCA | 3560 | CAUCAAUGGGGUAUGCUGG | 3608 | CAUCGCAUCACCCAAGGGU |
| 3465 | UGUAUAAUCACCAGCCUGA | 3513 | GAGGUCCAGAUCGUGUCAA | 3561 | AUCAAUGGGGUAUGCUGGA | 3609 | AUCGCAUCACCCAAGGGUC |
| 3466 | GUAUAAUCACCAGCCUGAC | 3514 | AGGUCCAGAUCGUGUCAAC | 3562 | UCAAUGGGGUAUGCUGGAC | 3610 | UCGCAUCACCCAAGGGUCC |
| 3467 | UAUAAUCACCAGCCUGACU | 3515 | GGUCCAGAUCGUGUCAACU | 3563 | CAAUGGGGUAUGCUGGACU | 3611 | CGCAUCACCCAAGGGUCCU |
| 3468 | AUAAUCACCAGCCUGACUG | 3516 | GUCCAGAUCGUGUCAACUG | 3564 | AAUGGGGUAUGCUGGACUG | 3612 | GCAUCACCCAAGGGUCCUG |
| 3469 | UAAUCACCAGCCUGACUGG | 3517 | UCCAGAUCGUGUCAACUGC | 3565 | AUGGGGUAUGCUGGACUGU | 3613 | CAUCACCCAAGGGUCCUGU |
| 3470 | AAUCACCAGCCUGACUGGC | 3518 | CCAGAUCGUGUCAACUGCU | 3566 | UGGGGUAUGCUGGACUGUC | 3614 | AUCACCCAAGGGUCCUGUC |
| 3471 | AUCACCAGCCUGACUGGCC | 3519 | CAGAUCGUGUCAACUGCUA | 3567 | GGGGUAUGCUGGACUGUCU | 3615 | UCACCCAAGGGUCCUGUCA |
| 3472 | UCACCAGCCUGACUGGCCG | 3520 | AGAUCGUGUCAACUGCUAC | 3568 | GGGUAUGCUGGACUGUCUA | 3616 | CACCCAAGGGUCCUGUCAU |
| 3473 | CACCAGCCUGACUGGCCGG | 3521 | GAUCGUGUCAACUGCUACC | 3569 | GGUAUGCUGGACUGUCUAC | 3617 | ACCCAAGGGUCCUGUCAUC |
| 3474 | ACCAGCCUGACUGGCCGGG | 3522 | AUCGUGUCAACUGCUACCC | 3570 | GUAUGCUGGACUGUCUACC | 3618 | CCCAAGGGUCCUGUCAUCC |
| 3475 | CCAGCCUGACUGGCCGGGA | 3523 | UCGUGUCAACUGCUACCCA | 3571 | UAUGCUGGACUGUCUACCA | 3619 | CCAAGGGUCCUGUCAUCCA |
| 3476 | CAGCCUGACUGGCCGGGAC | 3524 | CGUGUCAACUGCUACCCAA | 3572 | AUGCUGGACUGUCUACCAC | 3620 | CAAGGGUCCUGUCAUCCAG |
| 3477 | AGCCUGACUGGCCGGGACA | 3525 | GUGUCAACUGCUACCCAAA | 3573 | UGCUGGACUGUCUACCACG | 3621 | AAGGGUCCUGUCAUCCAGA |
| 3478 | GCCUGACUGGCCGGGACAA | 3526 | UGUCAACUGCUACCCAAAC | 3574 | GCUGGACUGUCUACCACGG | 3622 | AGGGUCCUGUCAUCCAGAU |
| 3479 | CCUGACUGGCCGGGACAAA | 3527 | GUCAACUGCUACCCAAACC | 3575 | CUGGACUGUCUACCACGGG | 3623 | GGGUCCUGUCAUCCAGAUG |
| 3480 | CUGACUGGCCGGGACAAAA | 3528 | UCAACUGCUACCCAAACCU | 3576 | UGGACUGUCUACCACGGGG | 3624 | GGUCCUGUCAUCCAGAUGU |
| 3481 | UGACUGGCCGGGACAAAAA | 3529 | CAACUGCUACCCAAACCUU | 3577 | GGACUGUCUACCACGGGGC | 3625 | GUCCUGUCAUCCAGAUGUA |
| 3482 | GACUGGCCGGGACAAAAAC | 3530 | AACUGCUACCCAAACCUUC | 3578 | GACUGUCUACCACGGGGCC | 3626 | UCCUGUCAUCCAGAUGUAU |
| 3483 | ACUGGCCGGGACAAAAACC | 3531 | ACUGCUACCCAAACCUUCC | 3579 | ACUGUCUACCACGGGGCCG | 3627 | CCUGUCAUCCAGAUGUAUA |
| 3484 | CUGGCCGGGACAAAAACCA | 3532 | CUGCUACCCAAACCUUCCU | 3580 | CUGUCUACCACGGGGCCGG | 3628 | CUGUCAUCCAGAUGUAUAC |
| 3485 | UGGCCGGGACAAAAACCAA | 3533 | UGCUACCCAAACCUUCCUG | 3581 | UGUCUACCACGGGGCCGGA | 3629 | UGUCAUCCAGAUGUAUACC |
| 3486 | GGCCGGGACAAAAACCAAG | 3534 | GCUACCCAAACCUUCCUGG | 3582 | GUCUACCACGGGGCCGGAA | 3630 | GUCAUCCAGAUGUAUACCA |
| 3487 | GCCGGGACAAAAACCAAGU | 3535 | CUACCCAAACCUUCCUGGC | 3583 | UCUACCACGGGGCCGGAAC | 3631 | UCAUCCAGAUGUAUACCAA |
| 3488 | CCGGGACAAAAACCAAGUG | 3536 | UACCCAAACCUUCCUGGCA | 3584 | CUACCACGGGGCCGGAACG | 3632 | CAUCCAGAUGUAUACCAAU |
| 3489 | CGGGACAAAAACCAAGUGG | 3537 | ACCCAAACCUUCCUGGCAA | 3585 | UACCACGGGGCCGGAACGA | 3633 | AUCCAGAUGUAUACCAAUG |
| 3490 | GGGACAAAAACCAAGUGGA | 3538 | CCCAAACCUUCCUGGCAAC | 3586 | ACCACGGGGCCGGAACGAG | 3634 | UCCAGAUGUAUACCAAUGU |
| 3491 | GGACAAAAACCAAGUGGAG | 3539 | CCAAACCUUCCUGGCAACG | 3587 | CCACGGGGCCGGAACGAGG | 3635 | CCAGAUGUAUACCAAUGUG |
| 3492 | GACAAAAACCAAGUGGAGG | 3540 | CAAACCUUCCUGGCAACGU | 3588 | CACGGGGCCGGAACGAGGA | 3636 | CAGAUGUAUACCAAUGUGG |
| 3493 | ACAAAAACCAAGUGGAGGG | 3541 | AAACCUUCCUGGCAACGUG | 3589 | ACGGGGCCGGAACGAGGAC | 3637 | AGAUGUAUACCAAUGUGGA |
| 3494 | CAAAAACCAAGUGGAGGGU | 3542 | AACCUUCCUGGCAACGUGC | 3590 | CGGGGCCGGAACGAGGACC | 3638 | GAUGUAUACCAAUGUGGAC |
| 3495 | AAAAACCAAGUGGAGGGUG | 3543 | ACCUUCCUGGCAACGUGCA | 3591 | GGGGCCGGAACGAGGACCA | 3639 | AUGUAUACCAAUGUGGACC |
| 3496 | AAAACCAAGUGGAGGGUGA | 3544 | CCUUCCUGGCAACGUGCAU | 3592 | GGGCCGGAACGAGGACCAU | 3640 | UGUAUACCAAUGUGGACCA |
| 3497 | AAACCAAGUGGAGGGUGAG | 3545 | CUUCCUGGCAACGUGCAUC | 3593 | GGCCGGAACGAGGACCAUC | 3641 | GUAUACCAAUGUGGACCAA |
| 3498 | AACCAAGUGGAGGGUGAGG | 3546 | UUCCUGGCAACGUGCAUCA | 3594 | GCCGGAACGAGGACCAUCG | 3642 | UAUACCAAUGUGGACCAAG |
| 3499 | ACCAAGUGGAGGGUGAGGU | 3547 | UCCUGGCAACGUGCAUCAA | 3595 | CCGGAACGAGGACCAUCGC | 3643 | AUACCAAUGUGGACCAAGA |
| 3500 | CCAAGUGGAGGGUGAGGUC | 3548 | CCUGGCAACGUGCAUCAAU | 3596 | CGGAACGAGGACCAUCGCA | 3644 | UACCAAUGUGGACCAAGAC |
| 3501 | CAAGUGGAGGGUGAGGUCC | 3549 | CUGGCAACGUGCAUCAAUG | 3597 | GGAACGAGGACCAUCGCAU | 3645 | ACCAAUGUGGACCAAGACC |
| 3502 | AAGUGGAGGGUGAGGUCCA | 3550 | UGGCAACGUGCAUCAAUGG | 3598 | GAACGAGGACCAUCGCAUC | 3646 | CCAAUGUGGACCAAGACCU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3647 | CAAUGUGGACCAAGACCUU | 3695 | CUCAUUGACACCCUGCACC | 3743 | GAGGCACGCCGAUGUCAUU | 3791 | UAGCCUGCUUUCGCCCCGG |
| 3648 | AAUGUGGACCAAGACCUUG | 3696 | UCAUUGACACCCUGCACCU | 3744 | AGGCACGCCGAUGUCAUUC | 3792 | AGCCUGCUUUCGCCCCGGC |
| 3649 | AUGUGGACCAAGACCUUGU | 3697 | CAUUGACACCCUGCACCUG | 3745 | GGCACGCCGAUGUCAUUCC | 3793 | GCCUGCUUUCGCCCCGGCC |
| 3650 | UGUGGACCAAGACCUUGUG | 3698 | AUUGACACCCUGCACCUGC | 3746 | GCACGCCGAUGUCAUUCCC | 3794 | CCUGCUUUCGCCCCGGCCC |
| 3651 | GUGGACCAAGACCUUGUGG | 3699 | UUGACACCCUGCACCUGCG | 3747 | CACGCCGAUGUCAUUCCCG | 3795 | CUGCUUUCGCCCCGGCCCA |
| 3652 | UGGACCAAGACCUUGUGGG | 3700 | UGACACCCUGCACCUGCGG | 3748 | ACGCCGAUGUCAUUCCCGU | 3796 | UGCUUUCGCCCCGGCCCAU |
| 3653 | GGACCAAGACCUUGUGGGC | 3701 | GACACCCUGCACCUGCGGC | 3749 | CGCCGAUGUCAUUCCCGUG | 3797 | GCUUUCGCCCCGGCCCAUU |
| 3654 | GACCAAGACCUUGUGGGCU | 3702 | ACACCCUGCACCUGCGGCU | 3750 | GCCGAUGUCAUUCCCGUGC | 3798 | CUUUCGCCCCGGCCCAUUU |
| 3655 | ACCAAGACCUUGUGGGCUG | 3703 | CACCCUGCACCUGCGGCUC | 3751 | CCGAUGUCAUUCCCGUGCG | 3799 | UUUCGCCCCGGCCCAUUUC |
| 3656 | CCAAGACCUUGUGGGCUGG | 3704 | ACCCUGCACCUGCGGCUCC | 3752 | CGAUGUCAUUCCCGUGCGC | 3800 | UUCGCCCCGGCCCAUUUCC |
| 3657 | CAAGACCUUGUGGGCUGGC | 3705 | CCCUGCACCUGCGGCUCCU | 3753 | GAUGUCAUUCCCGUGCGCC | 3801 | UCGCCCCGGCCCAUUUCCU |
| 3658 | AAGACCUUGUGGGCUGGCC | 3706 | CCUGCACCUGCGGCUCCUC | 3754 | AUGUCAUUCCCGUGCGCCG | 3802 | CGCCCCGGCCCAUUUCCUA |
| 3659 | AGACCUUGUGGGCUGGCCC | 3707 | CUGCACCUGCGGCUCCUCG | 3755 | UGUCAUUCCCGUGCGCCGG | 3803 | GCCCCGGCCCAUUUCCUAC |
| 3660 | GACCUUGUGGGCUGGCCCG | 3708 | UGCACCUGCGGCUCCUCGG | 3756 | GUCAUUCCCGUGCGCCGGC | 3804 | CCCCGGCCCAUUUCCUACU |
| 3661 | ACCUUGUGGGCUGGCCCGC | 3709 | GCACCUGCGGCUCCUCGGA | 3757 | UCAUUCCCGUGCGCCGGCG | 3805 | CCCGGCCCAUUUCCUACUU |
| 3662 | CCUUGUGGGCUGGCCCGCU | 3710 | CACCUGCGGCUCCUCGGAC | 3758 | CAUUCCCGUGCGCCGGCGA | 3806 | CCGGCCCAUUUCCUACUUG |
| 3663 | CUUGUGGGCUGGCCCGCUC | 3711 | ACCUGCGGCUCCUCGGACC | 3759 | AUUCCCGUGCGCCGGCGAG | 3807 | CGGCCCAUUUCCUACUUGA |
| 3664 | UUGUGGGCUGGCCCGCUCC | 3712 | CCUGCGGCUCCUCGGACCU | 3760 | UUCCCGUGCGCCGGCGAGG | 3808 | GGCCCAUUUCCUACUUGAA |
| 3665 | UGUGGGCUGGCCCGCUCCU | 3713 | CUGCGGCUCCUCGGACCUU | 3761 | UCCCGUGCGCCGGCGAGGU | 3809 | GCCCAUUUCCUACUUGAAA |
| 3666 | GUGGGCUGGCCCGCUCCUC | 3714 | UGCGGCUCCUCGGACCUUU | 3762 | CCCGUGCGCCGGCGAGGUG | 3810 | CCCAUUUCCUACUUGAAAG |
| 3667 | UGGGCUGGCCCGCUCCUCA | 3715 | GCGGCUCCUCGGACCUUUA | 3763 | CCGUGCGCCGGCGAGGUGA | 3811 | CCAUUUCCUACUUGAAAGG |
| 3668 | GGGCUGGCCCGCUCCUCAA | 3716 | CGGCUCCUCGGACCUUUAC | 3764 | CGUGCGCCGGCGAGGUGAU | 3812 | CAUUUCCUACUUGAAAGGC |
| 3669 | GGCUGGCCCGCUCCUCAAG | 3717 | GGCUCCUCGGACCUUUACC | 3765 | GUGCGCCGGCGAGGUGAUA | 3813 | AUUUCCUACUUGAAAGGCU |
| 3670 | GCUGGCCCGCUCCUCAAGG | 3718 | GCUCCUCGGACCUUUACCU | 3766 | UGCGCCGGCGAGGUGAUAG | 3814 | UUUCCUACUUGAAAGGCUC |
| 3671 | CUGGCCCGCUCCUCAAGGU | 3719 | CUCCUCGGACCUUUACCUG | 3767 | GCGCCGGCGAGGUGAUAGC | 3815 | UUCCUACUUGAAAGGCUCC |
| 3672 | UGGCCCGCUCCUCAAGGUU | 3720 | UCCUCGGACCUUUACCUGG | 3768 | CGCCGGCGAGGUGAUAGCA | 3816 | UCCUACUUGAAAGGCUCCU |
| 3673 | GGCCCGCUCCUCAAGGUUC | 3721 | CCUCGGACCUUUACCUGGU | 3769 | GCCGGCGAGGUGAUAGCAG | 3817 | CCUACUUGAAAGGCUCCUC |
| 3674 | GCCCGCUCCUCAAGGUUCC | 3722 | CUCGGACCUUUACCUGGUC | 3770 | CCGGCGAGGUGAUAGCAGG | 3818 | CUACUUGAAAGGCUCCUCG |
| 3675 | CCCGCUCCUCAAGGUUCCC | 3723 | UCGGACCUUUACCUGGUCA | 3771 | CGGCGAGGUGAUAGCAGGG | 3819 | UACUUGAAAGGCUCCUCGG |
| 3676 | CCGCUCCUCAAGGUUCCCG | 3724 | CGGACCUUUACCUGGUCAC | 3772 | GGCGAGGUGAUAGCAGGGG | 3820 | ACUUGAAAGGCUCCUCGGG |
| 3677 | CGCUCCUCAAGGUUCCCGC | 3725 | GGACCUUUACCUGGUCACG | 3773 | GCGAGGUGAUAGCAGGGGU | 3821 | CUUGAAAGGCUCCUCGGGG |
| 3678 | GCUCCUCAAGGUUCCCGCU | 3726 | GACCUUUACCUGGUCACGA | 3774 | CGAGGUGAUAGCAGGGGUA | 3822 | UUGAAAGGCUCCUCGGGGG |
| 3679 | CUCCUCAAGGUUCCCGCUC | 3727 | ACCUUUACCUGGUCACGAG | 3775 | GAGGUGAUAGCAGGGGUAG | 3823 | UGAAAGGCUCCUCGGGGGG |
| 3680 | UCCUCAAGGUUCCCGCUCA | 3728 | CCUUUACCUGGUCACGAGG | 3776 | AGGUGAUAGCAGGGGUAGC | 3824 | GAAAGGCUCCUCGGGGGGU |
| 3681 | CCUCAAGGUUCCCGCUCAU | 3729 | CUUUACCUGGUCACGAGGC | 3777 | GGUGAUAGCAGGGGUAGCC | 3825 | AAAGGCUCCUCGGGGGGUC |
| 3682 | CUCAAGGUUCCCGCUCAUU | 3730 | UUUACCUGGUCACGAGGCA | 3778 | GUGAUAGCAGGGGUAGCCU | 3826 | AAGGCUCCUCGGGGGGUCC |
| 3683 | UCAAGGUUCCCGCUCAUUG | 3731 | UUACCUGGUCACGAGGCAC | 3779 | UGAUAGCAGGGGUAGCCUG | 3827 | AGGCUCCUCGGGGGGUCCG |
| 3684 | CAAGGUUCCCGCUCAUUGA | 3732 | UACCUGGUCACGAGGCACG | 3780 | GAUAGCAGGGGUAGCCUGC | 3828 | GGCUCCUCGGGGGGUCCGC |
| 3685 | AAGGUUCCCGCUCAUUGAC | 3733 | ACCUGGUCACGAGGCACGC | 3781 | AUAGCAGGGGUAGCCUGCU | 3829 | GCUCCUCGGGGGGUCCGCU |
| 3686 | AGGUUCCCGCUCAUUGACA | 3734 | CCUGGUCACGAGGCACGCC | 3782 | UAGCAGGGGUAGCCUGCUU | 3830 | CUCCUCGGGGGGUCCGCUG |
| 3687 | GGUUCCCGCUCAUUGACAC | 3735 | CUGGUCACGAGGCACGCCG | 3783 | AGCAGGGGUAGCCUGCUUU | 3831 | UCCUCGGGGGGUCCGCUGU |
| 3688 | GUUCCCGCUCAUUGACACC | 3736 | UGGUCACGAGGCACGCCGA | 3784 | GCAGGGGUAGCCUGCUUUC | 3832 | CCUCGGGGGGUCCGCUGUU |
| 3689 | UUCCCGCUCAUUGACACCC | 3737 | GGUCACGAGGCACGCCGAU | 3785 | CAGGGGUAGCCUGCUUUCG | 3833 | CUCGGGGGGUCCGCUGUUG |
| 3690 | UCCCGCUCAUUGACACCCU | 3738 | GUCACGAGGCACGCCGAUG | 3786 | AGGGGUAGCCUGCUUUCGC | 3834 | UCGGGGGGUCCGCUGUUGU |
| 3691 | CCCGCUCAUUGACACCCUG | 3739 | UCACGAGGCACGCCGAUGU | 3787 | GGGGUAGCCUGCUUUCGCC | 3835 | CGGGGGGUCCGCUGUUGUG |
| 3692 | CCGCUCAUUGACACCCUGC | 3740 | CACGAGGCACGCCGAUGUC | 3788 | GGGUAGCCUGCUUUCGCCC | 3836 | GGGGGGUCCGCUGUUGUGC |
| 3693 | CGCUCAUUGACACCCUGCA | 3741 | ACGAGGCACGCCGAUGUCA | 3789 | GGUAGCCUGCUUUCGCCCC | 3837 | GGGGGUCCGCUGUUGUGCC |
| 3694 | GCUCAUUGACACCCUGCAC | 3742 | CGAGGCACGCCGAUGUCAU | 3790 | GUAGCCUGCUUUCGCCCCG | 3838 | GGGGUCCGCUGUUGUGCCC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3839 | GGGUCCGCUGUUGUGCCCC | 3887 | CGCGGUGUGCACCCGUGGA | 3935 | GGAGAACCUAGAGACAACC | 3983 | CUCUCCACCAGCAGUGCCC |
| 3840 | GGUCCGCUGUUGUGCCCCG | 3888 | GCGGUGUGCACCCGUGGAG | 3936 | GAGAACCUAGAGACAACCA | 3984 | UCUCCACCAGCAGUGCCCC |
| 3841 | GUCCGCUGUUGUGCCCCGC | 3889 | CGGUGUGCACCCGUGGAGU | 3937 | AGAACCUAGAGACAACCAU | 3985 | CUCCACCAGCAGUGCCCCA |
| 3842 | UCCGCUGUUGUGCCCCGCG | 3890 | GGUGUGCACCCGUGGAGUG | 3938 | GAACCUAGAGACAACCAUG | 3986 | UCCACCAGCAGUGCCCCAG |
| 3843 | CCGCUGUUGUGCCCCGCGG | 3891 | GUGUGCACCCGUGGAGUGG | 3939 | AACCUAGAGACAACCAUGA | 3987 | CCACCAGCAGUGCCCCAGA |
| 3844 | CGCUGUUGUGCCCCGCGGG | 3892 | UGUGCACCCGUGGAGUGGC | 3940 | ACCUAGAGACAACCAUGAG | 3988 | CACCAGCAGUGCCCCAGAG |
| 3845 | GCUGUUGUGCCCCGCGGGA | 3893 | GUGCACCCGUGGAGUGGCU | 3941 | CCUAGAGACAACCAUGAGA | 3989 | ACCAGCAGUGCCCCAGAGC |
| 3846 | CUGUUGUGCCCCGCGGGAC | 3894 | UGCACCCGUGGAGUGGCUA | 3942 | CUAGAGACAACCAUGAGAU | 3990 | CCAGCAGUGCCCCAGAGCU |
| 3847 | UGUUGUGCCCCGCGGGACA | 3895 | GCACCCGUGGAGUGGCUAA | 3943 | UAGAGACAACCAUGAGAUC | 3991 | CAGCAGUGCCCCAGAGCUU |
| 3848 | GUUGUGCCCCGCGGGACAC | 3896 | CACCCGUGGAGUGGCUAAG | 3944 | AGAGACAACCAUGAGAUCC | 3992 | AGCAGUGCCCCAGAGCUUC |
| 3849 | UUGUGCCCCGCGGGACACG | 3897 | ACCCGUGGAGUGGCUAAGG | 3945 | GAGACAACCAUGAGAUCCC | 3993 | GCAGUGCCCCAGAGCUUCC |
| 3850 | UGUGCCCCGCGGGACACGC | 3898 | CCCGUGGAGUGGCUAAGGC | 3946 | AGACAACCAUGAGAUCCCC | 3994 | CAGUGCCCCAGAGCUUCCA |
| 3851 | GUGCCCCGCGGGACACGCC | 3899 | CCGUGGAGUGGCUAAGGCG | 3947 | GACAACCAUGAGAUCCCCG | 3995 | AGUGCCCCAGAGCUUCCAG |
| 3852 | UGCCCCGCGGGACACGCCG | 3900 | CGUGGAGUGGCUAAGGCGG | 3948 | ACAACCAUGAGAUCCCCGG | 3996 | GUGCCCCAGAGCUUCCAGG |
| 3853 | GCCCCGCGGGACACGCCGU | 3901 | GUGGAGUGGCUAAGGCGGU | 3949 | CAACCAUGAGAUCCCCGGU | 3997 | UGCCCCAGAGCUUCCAGGU |
| 3854 | CCCCGCGGGACACGCCGUG | 3902 | UGGAGUGGCUAAGGCGGUG | 3950 | AACCAUGAGAUCCCCGGUG | 3998 | GCCCCAGAGCUUCCAGGUG |
| 3855 | CCCGCGGGACACGCCGUGG | 3903 | GGAGUGGCUAAGGCGGUGG | 3951 | ACCAUGAGAUCCCCGGUGU | 3999 | CCCCAGAGCUUCCAGGUGG |
| 3856 | CCGCGGGACACGCCGUGGG | 3904 | GAGUGGCUAAGGCGGUGGA | 3952 | CCAUGAGAUCCCCGGUGUU | 4000 | CCCAGAGCUUCCAGGUGGC |
| 3857 | CGCGGGACACGCCGUGGGC | 3905 | AGUGGCUAAGGCGGUGGAC | 3953 | CAUGAGAUCCCCGGUGUUC | 4001 | CCAGAGCUUCCAGGUGGCC |
| 3858 | GCGGGACACGCCGUGGGCC | 3906 | GUGGCUAAGGCGGUGGACU | 3954 | AUGAGAUCCCCGGUGUUCA | 4002 | CAGAGCUUCCAGGUGGCCC |
| 3859 | CGGGACACGCCGUGGGCCU | 3907 | UGGCUAAGGCGGUGGACUU | 3955 | UGAGAUCCCCGGUGUUCAC | 4003 | AGAGCUUCCAGGUGGCCCA |
| 3860 | GGGACACGCCGUGGGCCUA | 3908 | GGCUAAGGCGGUGGACUUU | 3956 | GAGAUCCCCGGUGUUCACG | 4004 | GAGCUUCCAGGUGGCCCAC |
| 3861 | GGACACGCCGUGGGCCUAU | 3909 | GCUAAGGCGGUGGACUUUA | 3957 | AGAUCCCCGGUGUUCACGG | 4005 | AGCUUCCAGGUGGCCCACC |
| 3862 | GACACGCCGUGGGCCUAUU | 3910 | CUAAGGCGGUGGACUUUAU | 3958 | GAUCCCCGGUGUUCACGGA | 4006 | GCUUCCAGGUGGCCCACCU |
| 3863 | ACACGCCGUGGGCCUAUUC | 3911 | UAAGGCGGUGGACUUUAUC | 3959 | AUCCCCGGUGUUCACGGAC | 4007 | CUUCCAGGUGGCCCACCUG |
| 3864 | CACGCCGUGGGCCUAUUCA | 3912 | AAGGCGGUGGACUUUAUCC | 3960 | UCCCCGGUGUUCACGGACA | 4008 | UUCCAGGUGGCCCACCUGC |
| 3865 | ACGCCGUGGGCCUAUUCAG | 3913 | AGGCGGUGGACUUUAUCCC | 3961 | CCCCGGUGUUCACGGACAA | 4009 | UCCAGGUGGCCCACCUGCA |
| 3866 | CGCCGUGGGCCUAUUCAGG | 3914 | GGCGGUGGACUUUAUCCCU | 3962 | CCCGGUGUUCACGGACAAC | 4010 | CCAGGUGGCCCACCUGCAU |
| 3867 | GCCGUGGGCCUAUUCAGGG | 3915 | GCGGUGGACUUUAUCCCUG | 3963 | CCGGUGUUCACGGACAACU | 4011 | CAGGUGGCCCACCUGCAUG |
| 3868 | CCGUGGGCCUAUUCAGGGC | 3916 | CGGUGGACUUUAUCCCUGU | 3964 | CGGUGUUCACGGACAACUC | 4012 | AGGUGGCCCACCUGCAUGC |
| 3869 | CGUGGGCCUAUUCAGGGCC | 3917 | GGUGGACUUUAUCCCUGUG | 3965 | GGUGUUCACGGACAACUCC | 4013 | GGUGGCCCACCUGCAUGCU |
| 3870 | GUGGGCCUAUUCAGGGCCG | 3918 | GUGGACUUUAUCCCUGUGG | 3966 | GUGUUCACGGACAACUCCU | 4014 | GUGGCCCACCUGCAUGCUC |
| 3871 | UGGGCCUAUUCAGGGCCGC | 3919 | UGGACUUUAUCCCUGUGGA | 3967 | UGUUCACGGACAACUCCUC | 4015 | UGGCCCACCUGCAUGCUCC |
| 3872 | GGGCCUAUUCAGGGCCGCG | 3920 | GGACUUUAUCCCUGUGGAG | 3968 | GUUCACGGACAACUCCUCU | 4016 | GGCCCACCUGCAUGCUCCC |
| 3873 | GGCCUAUUCAGGGCCGCGG | 3921 | GACUUUAUCCCUGUGGAGA | 3969 | UUCACGGACAACUCCUCUC | 4017 | GCCCACCUGCAUGCUCCCA |
| 3874 | GCCUAUUCAGGGCCGCGGU | 3922 | ACUUUAUCCCUGUGGAGAA | 3970 | UCACGGACAACUCCUCUCC | 4018 | CCCACCUGCAUGCUCCCAC |
| 3875 | CCUAUUCAGGGCCGCGGUG | 3923 | CUUUAUCCCUGUGGAGAAC | 3971 | CACGGACAACUCCUCUCCA | 4019 | CCACCUGCAUGCUCCCACC |
| 3876 | CUAUUCAGGGCCGCGGUGU | 3924 | UUUAUCCCUGUGGAGAACC | 3972 | ACGGACAACUCCUCUCCAC | 4020 | CACCUGCAUGCUCCCACCG |
| 3877 | UAUUCAGGGCCGCGGUGUG | 3925 | UUAUCCCUGUGGAGAACCU | 3973 | CGGACAACUCCUCUCCACC | 4021 | ACCUGCAUGCUCCCACCGG |
| 3878 | AUUCAGGGCCGCGGUGUGC | 3926 | UAUCCCUGUGGAGAACCUA | 3974 | GGACAACUCCUCUCCACCA | 4022 | CCUGCAUGCUCCCACCGGC |
| 3879 | UUCAGGGCCGCGGUGUGCA | 3927 | AUCCCUGUGGAGAACCUAG | 3975 | GACAACUCCUCUCCACCAG | 4023 | CUGCAUGCUCCCACCGGCA |
| 3880 | UCAGGGCCGCGGUGUGCAC | 3928 | UCCCUGUGGAGAACCUAGA | 3976 | ACAACUCCUCUCCACCAGC | 4024 | UGCAUGCUCCCACCGGCAG |
| 3881 | CAGGGCCGCGGUGUGCACC | 3929 | CCCUGUGGAGAACCUAGAG | 3977 | CAACUCCUCUCCACCAGCA | 4025 | GCAUGCUCCCACCGGCAGC |
| 3882 | AGGGCCGCGGUGUGCACCC | 3930 | CCUGUGGAGAACCUAGAGA | 3978 | AACUCCUCUCCACCAGCAG | 4026 | CAUGCUCCCACCGGCAGCG |
| 3883 | GGGCCGCGGUGUGCACCCG | 3931 | CUGUGGAGAACCUAGAGAC | 3979 | ACUCCUCUCCACCAGCAGU | 4027 | AUGCUCCCACCGGCAGCGG |
| 3884 | GGCCGCGGUGUGCACCCGU | 3932 | UGUGGAGAACCUAGAGACA | 3980 | CUCCUCUCCACCAGCAGUG | 4028 | UGCUCCCACCGGCAGCGGU |
| 3885 | GCCGCGGUGUGCACCCGUG | 3933 | GUGGAGAACCUAGAGACAA | 3981 | UCCUCUCCACCAGCAGUGC | 4029 | GCUCCCACCGGCAGCGGUA |
| 3886 | CCGCGGUGUGCACCCGUGG | 3934 | UGGAGAACCUAGAGACAAC | 3982 | CCUCUCCACCAGCAGUGCC | 4030 | CUCCCACCGGCAGCGGUAA |

**FIG. 1 (page 21 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4031 | UCCCACCGGCAGCGGUAAG | 4079 | CCAGGGCUACAAGGUGUUG | 4127 | GGGCUUUGGUGCUUACAUG | 4175 | CAGGACCGGGGUGAGAACA |
| 4032 | CCCACCGGCAGCGGUAAGA | 4080 | CAGGGCUACAAGGUGUUGG | 4128 | GGCUUUGGUGCUUACAUGU | 4176 | AGGACCGGGGUGAGAACAA |
| 4033 | CCACCGGCAGCGGUAAGAG | 4081 | AGGGCUACAAGGUGUUGGU | 4129 | GCUUUGGUGCUUACAUGUC | 4177 | GGACCGGGGUGAGAACAAU |
| 4034 | CACCGGCAGCGGUAAGAGC | 4082 | GGGCUACAAGGUGUUGGUG | 4130 | CUUUGGUGCUUACAUGUCC | 4178 | GACCGGGGUGAGAACAAUU |
| 4035 | ACCGGCAGCGGUAAGAGCA | 4083 | GGCUACAAGGUGUUGGUGC | 4131 | UUUGGUGCUUACAUGUCCA | 4179 | ACCGGGGUGAGAACAAUUA |
| 4036 | CCGGCAGCGGUAAGAGCAC | 4084 | GCUACAAGGUGUUGGUGCU | 4132 | UUGGUGCUUACAUGUCCAA | 4180 | CCGGGGUGAGAACAAUUAC |
| 4037 | CGGCAGCGGUAAGAGCACC | 4085 | CUACAAGGUGUUGGUGCUC | 4133 | UGGUGCUUACAUGUCCAAG | 4181 | CGGGGUGAGAACAAUUACC |
| 4038 | GGCAGCGGUAAGAGCACCA | 4086 | UACAAGGUGUUGGUGCUCA | 4134 | GGUGCUUACAUGUCCAAGG | 4182 | GGGGUGAGAACAAUUACCA |
| 4039 | GCAGCGGUAAGAGCACCAA | 4087 | ACAAGGUGUUGGUGCUCAA | 4135 | GUGCUUACAUGUCCAAGGC | 4183 | GGGUGAGAACAAUUACCAC |
| 4040 | CAGCGGUAAGAGCACCAAG | 4088 | CAAGGUGUUGGUGCUCAAC | 4136 | UGCUUACAUGUCCAAGGCC | 4184 | GGUGAGAACAAUUACCACU |
| 4041 | AGCGGUAAGAGCACCAAGG | 4089 | AAGGUGUUGGUGCUCAACC | 4137 | GCUUACAUGUCCAAGGCCC | 4185 | GUGAGAACAAUUACCACUG |
| 4042 | GCGGUAAGAGCACCAAGGU | 4090 | AGGUGUUGGUGCUCAACCC | 4138 | CUUACAUGUCCAAGGCCCA | 4186 | UGAGAACAAUUACCACUGG |
| 4043 | CGGUAAGAGCACCAAGGUC | 4091 | GGUGUUGGUGCUCAACCCC | 4139 | UUACAUGUCCAAGGCCCAU | 4187 | GAGAACAAUUACCACUGGC |
| 4044 | GGUAAGAGCACCAAGGUCC | 4092 | GUGUUGGUGCUCAACCCCU | 4140 | UACAUGUCCAAGGCCCAUG | 4188 | AGAACAAUUACCACUGGCA |
| 4045 | GUAAGAGCACCAAGGUCCC | 4093 | UGUUGGUGCUCAACCCCUC | 4141 | ACAUGUCCAAGGCCCAUGG | 4189 | GAACAAUUACCACUGGCAG |
| 4046 | UAAGAGCACCAAGGUCCCG | 4094 | GUUGGUGCUCAACCCCUCU | 4142 | CAUGUCCAAGGCCCAUGGG | 4190 | AACAAUUACCACUGGCAGC |
| 4047 | AAGAGCACCAAGGUCCCGG | 4095 | UUGGUGCUCAACCCCUCUG | 4143 | AUGUCCAAGGCCCAUGGGG | 4191 | ACAAUUACCACUGGCAGCC |
| 4048 | AGAGCACCAAGGUCCCGGC | 4096 | UGGUGCUCAACCCCUCUGU | 4144 | UGUCCAAGGCCCAUGGGGU | 4192 | CAAUUACCACUGGCAGCCC |
| 4049 | GAGCACCAAGGUCCCGGCU | 4097 | GGUGCUCAACCCCUCUGUU | 4145 | GUCCAAGGCCCAUGGGGUU | 4193 | AAUUACCACUGGCAGCCCC |
| 4050 | AGCACCAAGGUCCCGGCUG | 4098 | GUGCUCAACCCCUCUGUUG | 4146 | UCCAAGGCCCAUGGGGUUG | 4194 | AUUACCACUGGCAGCCCCA |
| 4051 | GCACCAAGGUCCCGGCUGC | 4099 | UGCUCAACCCCUCUGUUGC | 4147 | CCAAGGCCCAUGGGGUUGA | 4195 | UUACCACUGGCAGCCCCAU |
| 4052 | CACCAAGGUCCCGGCUGCG | 4100 | GCUCAACCCCUCUGUUGCU | 4148 | CAAGGCCCAUGGGGUUGAU | 4196 | UACCACUGGCAGCCCCAUC |
| 4053 | ACCAAGGUCCCGGCUGCGU | 4101 | CUCAACCCCUCUGUUGCUG | 4149 | AAGGCCCAUGGGGUUGAUC | 4197 | ACCACUGGCAGCCCCAUCA |
| 4054 | CCAAGGUCCCGGCUGCGUA | 4102 | UCAACCCCUCUGUUGCUGC | 4150 | AGGCCCAUGGGGUUGAUCC | 4198 | CCACUGGCAGCCCCAUCAC |
| 4055 | CAAGGUCCCGGCUGCGUAC | 4103 | CAACCCCUCUGUUGCUGCA | 4151 | GGCCCAUGGGGUUGAUCCU | 4199 | CACUGGCAGCCCCAUCACG |
| 4056 | AAGGUCCCGGCUGCGUACG | 4104 | AACCCCUCUGUUGCUGCAA | 4152 | GCCCAUGGGGUUGAUCCUA | 4200 | ACUGGCAGCCCCAUCACGU |
| 4057 | AGGUCCCGGCUGCGUACGC | 4105 | ACCCCUCUGUUGCUGCAAC | 4153 | CCCAUGGGGUUGAUCCUAA | 4201 | CUGGCAGCCCCAUCACGUA |
| 4058 | GGUCCCGGCUGCGUACGCA | 4106 | CCCCUCUGUUGCUGCAACG | 4154 | CCAUGGGGUUGAUCCUAAU | 4202 | UGGCAGCCCCAUCACGUAC |
| 4059 | GUCCCGGCUGCGUACGCAG | 4107 | CCCUCUGUUGCUGCAACGC | 4155 | CAUGGGGUUGAUCCUAAUA | 4203 | GGCAGCCCCAUCACGUACU |
| 4060 | UCCCGGCUGCGUACGCAGC | 4108 | CCUCUGUUGCUGCAACGCU | 4156 | AUGGGGUUGAUCCUAAUAU | 4204 | GCAGCCCCAUCACGUACUC |
| 4061 | CCCGGCUGCGUACGCAGCC | 4109 | CUCUGUUGCUGCAACGCUG | 4157 | UGGGGUUGAUCCUAAUAUC | 4205 | CAGCCCCAUCACGUACUCC |
| 4062 | CCGGCUGCGUACGCAGCCC | 4110 | UCUGUUGCUGCAACGCUGG | 4158 | GGGGUUGAUCCUAAUAUCA | 4206 | AGCCCCAUCACGUACUCCA |
| 4063 | CGGCUGCGUACGCAGCCCA | 4111 | CUGUUGCUGCAACGCUGGG | 4159 | GGGUUGAUCCUAAUAUCAG | 4207 | GCCCCAUCACGUACUCCAC |
| 4064 | GGCUGCGUACGCAGCCCAG | 4112 | UGUUGCUGCAACGCUGGGC | 4160 | GGUUGAUCCUAAUAUCAGG | 4208 | CCCCAUCACGUACUCCACC |
| 4065 | GCUGCGUACGCAGCCCAGG | 4113 | GUUGCUGCAACGCUGGGCU | 4161 | GUUGAUCCUAAUAUCAGGA | 4209 | CCCAUCACGUACUCCACCU |
| 4066 | CUGCGUACGCAGCCCAGGG | 4114 | UUGCUGCAACGCUGGGCUU | 4162 | UUGAUCCUAAUAUCAGGAC | 4210 | CCAUCACGUACUCCACCUA |
| 4067 | UGCGUACGCAGCCCAGGGC | 4115 | UGCUGCAACGCUGGGCUUU | 4163 | UGAUCCUAAUAUCAGGACC | 4211 | CAUCACGUACUCCACCUAC |
| 4068 | GCGUACGCAGCCCAGGGCU | 4116 | GCUGCAACGCUGGGCUUUG | 4164 | GAUCCUAAUAUCAGGACCG | 4212 | AUCACGUACUCCACCUACG |
| 4069 | CGUACGCAGCCCAGGGCUA | 4117 | CUGCAACGCUGGGCUUUGG | 4165 | AUCCUAAUAUCAGGACCGG | 4213 | UCACGUACUCCACCUACGG |
| 4070 | GUACGCAGCCCAGGGCUAC | 4118 | UGCAACGCUGGGCUUUGGU | 4166 | UCCUAAUAUCAGGACCGGG | 4214 | CACGUACUCCACCUACGGC |
| 4071 | UACGCAGCCCAGGGCUACA | 4119 | GCAACGCUGGGCUUUGGUG | 4167 | CCUAAUAUCAGGACCGGGG | 4215 | ACGUACUCCACCUACGGCA |
| 4072 | ACGCAGCCCAGGGCUACAA | 4120 | CAACGCUGGGCUUUGGUGC | 4168 | CUAAUAUCAGGACCGGGGU | 4216 | CGUACUCCACCUACGGCAA |
| 4073 | CGCAGCCCAGGGCUACAAG | 4121 | AACGCUGGGCUUUGGUGCU | 4169 | UAAUAUCAGGACCGGGGUG | 4217 | GUACUCCACCUACGGCAAG |
| 4074 | GCAGCCCAGGGCUACAAGG | 4122 | ACGCUGGGCUUUGGUGCUU | 4170 | AAUAUCAGGACCGGGGUGA | 4218 | UACUCCACCUACGGCAAGU |
| 4075 | CAGCCCAGGGCUACAAGGU | 4123 | CGCUGGGCUUUGGUGCUUA | 4171 | AUAUCAGGACCGGGGUGAG | 4219 | ACUCCACCUACGGCAAGUU |
| 4076 | AGCCCAGGGCUACAAGGUG | 4124 | GCUGGGCUUUGGUGCUUAC | 4172 | UAUCAGGACCGGGGUGAGA | 4220 | CUCCACCUACGGCAAGUUC |
| 4077 | GCCCAGGGCUACAAGGUGU | 4125 | CUGGGCUUUGGUGCUUACA | 4173 | AUCAGGACCGGGGUGAGAA | 4221 | UCCACCUACGGCAAGUUCC |
| 4078 | CCCAGGGCUACAAGGUGUU | 4126 | UGGGCUUUGGUGCUUACAU | 4174 | UCAGGACCGGGGUGAGAAC | 4222 | CCACCUACGGCAAGUUCCU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4223 | CACCUACGGCAAGUUCCUU | 4271 | UGACAUAAUAAUUUGUGAC | 4319 | CUUGGGCAUCGGCACUGUC | 4367 | ACUGGUUGUGCUCGCCACU |
| 4224 | ACCUACGGCAAGUUCCUUG | 4272 | GACAUAAUAAUUUGUGACG | 4320 | UUGGGCAUCGGCACUGUCC | 4368 | CUGGUUGUGCUCGCCACUG |
| 4225 | CCUACGGCAAGUUCCUUGC | 4273 | ACAUAAUAAUUUGUGACGA | 4321 | UGGGCAUCGGCACUGUCCU | 4369 | UGGUUGUGCUCGCCACUGC |
| 4226 | CUACGGCAAGUUCCUUGCC | 4274 | CAUAAUAAUUUGUGACGAG | 4322 | GGGCAUCGGCACUGUCCUU | 4370 | GGUUGUGCUCGCCACUGCU |
| 4227 | UACGGCAAGUUCCUUGCCG | 4275 | AUAAUAAUUUGUGACGAGU | 4323 | GGCAUCGGCACUGUCCUUG | 4371 | GUUGUGCUCGCCACUGCUA |
| 4228 | ACGGCAAGUUCCUUGCCGA | 4276 | UAAUAAUUUGUGACGAGUG | 4324 | GCAUCGGCACUGUCCUUGA | 4372 | UUGUGCUCGCCACUGCUAC |
| 4229 | CGGCAAGUUCCUUGCCGAC | 4277 | AAUAAUUUGUGACGAGUGC | 4325 | CAUCGGCACUGUCCUUGAC | 4373 | UGUGCUCGCCACUGCUACC |
| 4230 | GGCAAGUUCCUUGCCGACG | 4278 | AUAAUUUGUGACGAGUGCC | 4326 | AUCGGCACUGUCCUUGACC | 4374 | GUGCUCGCCACUGCUACCC |
| 4231 | GCAAGUUCCUUGCCGACGG | 4279 | UAAUUUGUGACGAGUGCCA | 4327 | UCGGCACUGUCCUUGACCA | 4375 | UGCUCGCCACUGCUACCCC |
| 4232 | CAAGUUCCUUGCCGACGGC | 4280 | AAUUUGUGACGAGUGCCAC | 4328 | CGGCACUGUCCUUGACCAA | 4376 | GCUCGCCACUGCUACCCCU |
| 4233 | AAGUUCCUUGCCGACGGCG | 4281 | AUUUGUGACGAGUGCCACU | 4329 | GGCACUGUCCUUGACCAAG | 4377 | CUCGCCACUGCUACCCCUC |
| 4234 | AGUUCCUUGCCGACGGCGG | 4282 | UUUGUGACGAGUGCCACUC | 4330 | GCACUGUCCUUGACCAAGC | 4378 | UCGCCACUGCUACCCCUCC |
| 4235 | GUUCCUUGCCGACGGCGGG | 4283 | UUGUGACGAGUGCCACUCC | 4331 | CACUGUCCUUGACCAAGCA | 4379 | CGCCACUGCUACCCCUCCG |
| 4236 | UUCCUUGCCGACGGCGGGU | 4284 | UGUGACGAGUGCCACUCCA | 4332 | ACUGUCCUUGACCAAGCAG | 4380 | GCCACUGCUACCCCUCCGG |
| 4237 | UCCUUGCCGACGGCGGGUG | 4285 | GUGACGAGUGCCACUCCAC | 4333 | CUGUCCUUGACCAAGCAGA | 4381 | CCACUGCUACCCCUCCGGG |
| 4238 | CCUUGCCGACGGCGGGUGC | 4286 | UGACGAGUGCCACUCCACG | 4334 | UGUCCUUGACCAAGCAGAG | 4382 | CACUGCUACCCCUCCGGGC |
| 4239 | CUUGCCGACGGCGGGUGCU | 4287 | GACGAGUGCCACUCCACGG | 4335 | GUCCUUGACCAAGCAGAGA | 4383 | ACUGCUACCCCUCCGGGCU |
| 4240 | UUGCCGACGGCGGGUGCUC | 4288 | ACGAGUGCCACUCCACGGA | 4336 | UCCUUGACCAAGCAGAGAC | 4384 | CUGCUACCCCUCCGGGCUC |
| 4241 | UGCCGACGGCGGGUGCUCA | 4289 | CGAGUGCCACUCCACGGAU | 4337 | CCUUGACCAAGCAGAGACU | 4385 | UGCUACCCCUCCGGGCUCC |
| 4242 | GCCGACGGCGGGUGCUCAG | 4290 | GAGUGCCACUCCACGGAUG | 4338 | CUUGACCAAGCAGAGACUG | 4386 | GCUACCCCUCCGGGCUCCG |
| 4243 | CCGACGGCGGGUGCUCAGG | 4291 | AGUGCCACUCCACGGAUGC | 4339 | UUGACCAAGCAGAGACUGC | 4387 | CUACCCCUCCGGGCUCCGU |
| 4244 | CGACGGCGGGUGCUCAGGA | 4292 | GUGCCACUCCACGGAUGCC | 4340 | UGACCAAGCAGAGACUGCG | 4388 | UACCCCUCCGGGCUCCGUC |
| 4245 | GACGGCGGGUGCUCAGGAG | 4293 | UGCCACUCCACGGAUGCCA | 4341 | GACCAAGCAGAGACUGCGG | 4389 | ACCCCUCCGGGCUCCGUCA |
| 4246 | ACGGCGGGUGCUCAGGAGG | 4294 | GCCACUCCACGGAUGCCAC | 4342 | ACCAAGCAGAGACUGCGGG | 4390 | CCCCUCCGGGCUCCGUCAC |
| 4247 | CGGCGGGUGCUCAGGAGGU | 4295 | CCACUCCACGGAUGCCACA | 4343 | CCAAGCAGAGACUGCGGGG | 4391 | CCCUCCGGGCUCCGUCACU |
| 4248 | GGCGGGUGCUCAGGAGGUG | 4296 | CACUCCACGGAUGCCACAU | 4344 | CAAGCAGAGACUGCGGGGG | 4392 | CCUCCGGGCUCCGUCACUG |
| 4249 | GCGGGUGCUCAGGAGGUGC | 4297 | ACUCCACGGAUGCCACAUC | 4345 | AAGCAGAGACUGCGGGGGC | 4393 | CUCCGGGCUCCGUCACUGU |
| 4250 | CGGGUGCUCAGGAGGUGCU | 4298 | CUCCACGGAUGCCACAUCC | 4346 | AGCAGAGACUGCGGGGGCG | 4394 | UCCGGGCUCCGUCACUGUG |
| 4251 | GGGUGCUCAGGAGGUGCUU | 4299 | UCCACGGAUGCCACAUCCA | 4347 | GCAGAGACUGCGGGGGCGA | 4395 | CCGGGCUCCGUCACUGUGU |
| 4252 | GGUGCUCAGGAGGUGCUUA | 4300 | CCACGGAUGCCACAUCCAU | 4348 | CAGAGACUGCGGGGGCGAG | 4396 | CGGGCUCCGUCACUGUGUC |
| 4253 | GUGCUCAGGAGGUGCUUAU | 4301 | CACGGAUGCCACAUCCAUC | 4349 | AGAGACUGCGGGGGCGAGA | 4397 | GGGCUCCGUCACUGUGUCC |
| 4254 | UGCUCAGGAGGUGCUUAUG | 4302 | ACGGAUGCCACAUCCAUCU | 4350 | GAGACUGCGGGGGCGAGAC | 4398 | GGCUCCGUCACUGUGUCCC |
| 4255 | GCUCAGGAGGUGCUUAUGA | 4303 | CGGAUGCCACAUCCAUCUU | 4351 | AGACUGCGGGGGCGAGACU | 4399 | GCUCCGUCACUGUGUCCCA |
| 4256 | CUCAGGAGGUGCUUAUGAC | 4304 | GGAUGCCACAUCCAUCUUG | 4352 | GACUGCGGGGGCGAGACUG | 4400 | CUCCGUCACUGUGUCCCAU |
| 4257 | UCAGGAGGUGCUUAUGACA | 4305 | GAUGCCACAUCCAUCUUGG | 4353 | ACUGCGGGGGCGAGACUGG | 4401 | UCCGUCACUGUGUCCCAUC |
| 4258 | CAGGAGGUGCUUAUGACAU | 4306 | AUGCCACAUCCAUCUUGGG | 4354 | CUGCGGGGGCGAGACUGGU | 4402 | CCGUCACUGUGUCCCAUCC |
| 4259 | AGGAGGUGCUUAUGACAUA | 4307 | UGCCACAUCCAUCUUGGGC | 4355 | UGCGGGGGCGAGACUGGUU | 4403 | CGUCACUGUGUCCCAUCCU |
| 4260 | GGAGGUGCUUAUGACAUAA | 4308 | GCCACAUCCAUCUUGGGCA | 4356 | GCGGGGGCGAGACUGGUUG | 4404 | GUCACUGUGUCCCAUCCUA |
| 4261 | GAGGUGCUUAUGACAUAAU | 4309 | CCACAUCCAUCUUGGGCAU | 4357 | CGGGGGCGAGACUGGUUGU | 4405 | UCACUGUGUCCCAUCCUAA |
| 4262 | AGGUGCUUAUGACAUAAUA | 4310 | CACAUCCAUCUUGGGCAUC | 4358 | GGGGGCGAGACUGGUUGUG | 4406 | CACUGUGUCCCAUCCUAAC |
| 4263 | GGUGCUUAUGACAUAAUAA | 4311 | ACAUCCAUCUUGGGCAUCG | 4359 | GGGGCGAGACUGGUUGUGC | 4407 | ACUGUGUCCCAUCCUAACA |
| 4264 | GUGCUUAUGACAUAAUAAU | 4312 | CAUCCAUCUUGGGCAUCGG | 4360 | GGGCGAGACUGGUUGUGCU | 4408 | CUGUGUCCCAUCCUAACAU |
| 4265 | UGCUUAUGACAUAAUAAUU | 4313 | AUCCAUCUUGGGCAUCGGC | 4361 | GGCGAGACUGGUUGUGCUC | 4409 | UGUGUCCCAUCCUAACAUC |
| 4266 | GCUUAUGACAUAAUAAUUU | 4314 | UCCAUCUUGGGCAUCGGCA | 4362 | GCGAGACUGGUUGUGCUCG | 4410 | GUGUCCCAUCCUAACAUCG |
| 4267 | CUUAUGACAUAAUAAUUUG | 4315 | CCAUCUUGGGCAUCGGCAC | 4363 | CGAGACUGGUUGUGCUCGC | 4411 | UGUCCCAUCCUAACAUCGA |
| 4268 | UUAUGACAUAAUAAUUUGU | 4316 | CAUCUUGGGCAUCGGCACU | 4364 | GAGACUGGUUGUGCUCGCC | 4412 | GUCCCAUCCUAACAUCGAG |
| 4269 | UAUGACAUAAUAAUUUGUG | 4317 | AUCUUGGGCAUCGGCACUG | 4365 | AGACUGGUUGUGCUCGCCA | 4413 | UCCCAUCCUAACAUCGAGG |
| 4270 | AUGACAUAAUAAUUUGUGA | 4318 | UCUUGGGCAUCGGCACUGU | 4366 | GACUGGUUGUGCUCGCCAC | 4414 | CCCAUCCUAACAUCGAGGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4415 | CCAUCCUAACAUCGAGGAG | 4463 | UUUUUACGGCAAGGCUAUC | 4511 | UCUCAUCUUCUGCCACUCA | 4559 | GCUGGUCGCAUUGGGCAUC |
| 4416 | CAUCCUAACAUCGAGGAGG | 4464 | UUUUACGGCAAGGCUAUCC | 4512 | CUCAUCUUCUGCCACUCAA | 4560 | CUGGUCGCAUUGGGCAUCA |
| 4417 | AUCCUAACAUCGAGGAGGU | 4465 | UUUACGGCAAGGCUAUCCC | 4513 | UCAUCUUCUGCCACUCAAA | 4561 | UGGUCGCAUUGGGCAUCAA |
| 4418 | UCCUAACAUCGAGGAGGUU | 4466 | UUACGGCAAGGCUAUCCCC | 4514 | CAUCUUCUGCCACUCAAAG | 4562 | GGUCGCAUUGGGCAUCAAU |
| 4419 | CCUAACAUCGAGGAGGUUG | 4467 | UACGGCAAGGCUAUCCCCC | 4515 | AUCUUCUGCCACUCAAAGA | 4563 | GUCGCAUUGGGCAUCAAUG |
| 4420 | CUAACAUCGAGGAGGUUGC | 4468 | ACGGCAAGGCUAUCCCCCU | 4516 | UCUUCUGCCACUCAAAGAA | 4564 | UCGCAUUGGGCAUCAAUGC |
| 4421 | UAACAUCGAGGAGGUUGCU | 4469 | CGGCAAGGCUAUCCCCCUC | 4517 | CUUCUGCCACUCAAAGAAG | 4565 | CGCAUUGGGCAUCAAUGCC |
| 4422 | AACAUCGAGGAGGUUGCUC | 4470 | GGCAAGGCUAUCCCCCUCG | 4518 | UUCUGCCACUCAAAGAAGA | 4566 | GCAUUGGGCAUCAAUGCCG |
| 4423 | ACAUCGAGGAGGUUGCUCU | 4471 | GCAAGGCUAUCCCCCUCGA | 4519 | UCUGCCACUCAAAGAAGAA | 4567 | CAUUGGGCAUCAAUGCCGU |
| 4424 | CAUCGAGGAGGUUGCUCUG | 4472 | CAAGGCUAUCCCCCUCGAG | 4520 | CUGCCACUCAAAGAAGAAG | 4568 | AUUGGGCAUCAAUGCCGUG |
| 4425 | AUCGAGGAGGUUGCUCUGU | 4473 | AAGGCUAUCCCCCUCGAGG | 4521 | UGCCACUCAAAGAAGAAGU | 4569 | UUGGGCAUCAAUGCCGUGG |
| 4426 | UCGAGGAGGUUGCUCUGUC | 4474 | AGGCUAUCCCCCUCGAGGU | 4522 | GCCACUCAAAGAAGAAGUG | 4570 | UGGGCAUCAAUGCCGUGGC |
| 4427 | CGAGGAGGUUGCUCUGUCC | 4475 | GGCUAUCCCCCUCGAGGUG | 4523 | CCACUCAAAGAAGAAGUGC | 4571 | GGGCAUCAAUGCCGUGGCC |
| 4428 | GAGGAGGUUGCUCUGUCCA | 4476 | GCUAUCCCCCUCGAGGUGA | 4524 | CACUCAAAGAAGAAGUGCG | 4572 | GGCAUCAAUGCCGUGGCCU |
| 4429 | AGGAGGUUGCUCUGUCCAC | 4477 | CUAUCCCCCUCGAGGUGAU | 4525 | ACUCAAAGAAGAAGUGCGA | 4573 | GCAUCAAUGCCGUGGCCUA |
| 4430 | GGAGGUUGCUCUGUCCACC | 4478 | UAUCCCCCUCGAGGUGAUC | 4526 | CUCAAAGAAGAAGUGCGAC | 4574 | CAUCAAUGCCGUGGCCUAC |
| 4431 | GAGGUUGCUCUGUCCACCA | 4479 | AUCCCCCUCGAGGUGAUCA | 4527 | UCAAAGAAGAAGUGCGACG | 4575 | AUCAAUGCCGUGGCCUACU |
| 4432 | AGGUUGCUCUGUCCACCAC | 4480 | UCCCCCUCGAGGUGAUCAA | 4528 | CAAAGAAGAAGUGCGACGA | 4576 | UCAAUGCCGUGGCCUACUA |
| 4433 | GGUUGCUCUGUCCACCACC | 4481 | CCCCCUCGAGGUGAUCAAG | 4529 | AAAGAAGAAGUGCGACGAG | 4577 | CAAUGCCGUGGCCUACUAC |
| 4434 | GUUGCUCUGUCCACCACCG | 4482 | CCCCUCGAGGUGAUCAAGG | 4530 | AAGAAGAAGUGCGACGAGC | 4578 | AAUGCCGUGGCCUACUACC |
| 4435 | UUGCUCUGUCCACCACCGG | 4483 | CCCUCGAGGUGAUCAAGGG | 4531 | AGAAGAAGUGCGACGAGCU | 4579 | AUGCCGUGGCCUACUACCG |
| 4436 | UGCUCUGUCCACCACCGGA | 4484 | CCUCGAGGUGAUCAAGGGG | 4532 | GAAGAAGUGCGACGAGCUC | 4580 | UGCCGUGGCCUACUACCGC |
| 4437 | GCUCUGUCCACCACCGGAG | 4485 | CUCGAGGUGAUCAAGGGGG | 4533 | AAGAAGUGCGACGAGCUCG | 4581 | GCCGUGGCCUACUACCGCG |
| 4438 | CUCUGUCCACCACCGGAGA | 4486 | UCGAGGUGAUCAAGGGGGG | 4534 | AGAAGUGCGACGAGCUCGC | 4582 | CCGUGGCCUACUACCGCGG |
| 4439 | UCUGUCCACCACCGGAGAG | 4487 | CGAGGUGAUCAAGGGGGGA | 4535 | GAAGUGCGACGAGCUCGCC | 4583 | CGUGGCCUACUACCGCGGU |
| 4440 | CUGUCCACCACCGGAGAGA | 4488 | GAGGUGAUCAAGGGGGGAA | 4536 | AAGUGCGACGAGCUCGCCG | 4584 | GUGGCCUACUACCGCGGUC |
| 4441 | UGUCCACCACCGGAGAGAU | 4489 | AGGUGAUCAAGGGGGGAAG | 4537 | AGUGCGACGAGCUCGCCGC | 4585 | UGGCCUACUACCGCGGUCU |
| 4442 | GUCCACCACCGGAGAGAUC | 4490 | GGUGAUCAAGGGGGGAAGA | 4538 | GUGCGACGAGCUCGCCGCG | 4586 | GGCCUACUACCGCGGUCUU |
| 4443 | UCCACCACCGGAGAGAUCC | 4491 | GUGAUCAAGGGGGGAAGAC | 4539 | UGCGACGAGCUCGCCGCGA | 4587 | GCCUACUACCGCGGUCUUG |
| 4444 | CCACCACCGGAGAGAUCCC | 4492 | UGAUCAAGGGGGGAAGACA | 4540 | GCGACGAGCUCGCCGCGAA | 4588 | CCUACUACCGCGGUCUUGA |
| 4445 | CACCACCGGAGAGAUCCCU | 4493 | GAUCAAGGGGGGAAGACAU | 4541 | CGACGAGCUCGCCGCGAAG | 4589 | CUACUACCGCGGUCUUGAC |
| 4446 | ACCACCGGAGAGAUCCCUU | 4494 | AUCAAGGGGGGAAGACAUC | 4542 | GACGAGCUCGCCGCGAAGC | 4590 | UACUACCGCGGUCUUGACG |
| 4447 | CCACCGGAGAGAUCCCUUU | 4495 | UCAAGGGGGGAAGACAUCU | 4543 | ACGAGCUCGCCGCGAAGCU | 4591 | ACUACCGCGGUCUUGACGU |
| 4448 | CACCGGAGAGAUCCCUUUU | 4496 | CAAGGGGGGAAGACAUCUC | 4544 | CGAGCUCGCCGCGAAGCUG | 4592 | CUACCGCGGUCUUGACGUG |
| 4449 | ACCGGAGAGAUCCCUUUUU | 4497 | AAGGGGGGAAGACAUCUCA | 4545 | GAGCUCGCCGCGAAGCUGG | 4593 | UACCGCGGUCUUGACGUGU |
| 4450 | CCGGAGAGAUCCCUUUUUA | 4498 | AGGGGGGAAGACAUCUCAU | 4546 | AGCUCGCCGCGAAGCUGGU | 4594 | ACCGCGGUCUUGACGUGUC |
| 4451 | CGGAGAGAUCCCUUUUUAC | 4499 | GGGGGGAAGACAUCUCAUC | 4547 | GCUCGCCGCGAAGCUGGUC | 4595 | CCGCGGUCUUGACGUGUCU |
| 4452 | GGAGAGAUCCCUUUUUACG | 4500 | GGGGGAAGACAUCUCAUCU | 4548 | CUCGCCGCGAAGCUGGUCG | 4596 | CGCGGUCUUGACGUGUCUG |
| 4453 | GAGAGAUCCCUUUUUACGG | 4501 | GGGGAAGACAUCUCAUCUU | 4549 | UCGCCGCGAAGCUGGUCGC | 4597 | GCGGUCUUGACGUGUCUGU |
| 4454 | AGAGAUCCCUUUUUACGGC | 4502 | GGGAAGACAUCUCAUCUUC | 4550 | CGCCGCGAAGCUGGUCGCA | 4598 | CGGUCUUGACGUGUCUGUC |
| 4455 | GAGAUCCCUUUUUACGGCA | 4503 | GGAAGACAUCUCAUCUUCU | 4551 | GCCGCGAAGCUGGUCGCAU | 4599 | GGUCUUGACGUGUCUGUCA |
| 4456 | AGAUCCCUUUUUACGGCAA | 4504 | GAAGACAUCUCAUCUUCUG | 4552 | CCGCGAAGCUGGUCGCAUU | 4600 | GUCUUGACGUGUCUGUCAU |
| 4457 | GAUCCCUUUUUACGGCAAG | 4505 | AAGACAUCUCAUCUUCUGC | 4553 | CGCGAAGCUGGUCGCAUUG | 4601 | UCUUGACGUGUCUGUCAUC |
| 4458 | AUCCCUUUUUACGGCAAGG | 4506 | AGACAUCUCAUCUUCUGCC | 4554 | GCGAAGCUGGUCGCAUUGG | 4602 | CUUGACGUGUCUGUCAUCC |
| 4459 | UCCCUUUUUACGGCAAGGC | 4507 | GACAUCUCAUCUUCUGCCA | 4555 | CGAAGCUGGUCGCAUUGGG | 4603 | UUGACGUGUCUGUCAUCCC |
| 4460 | CCCUUUUUACGGCAAGGCU | 4508 | ACAUCUCAUCUUCUGCCAC | 4556 | GAAGCUGGUCGCAUUGGGC | 4604 | UGACGUGUCUGUCAUCCCG |
| 4461 | CCUUUUUACGGCAAGGCUA | 4509 | CAUCUCAUCUUCUGCCACU | 4557 | AAGCUGGUCGCAUUGGGCA | 4605 | GACGUGUCUGUCAUCCCGA |
| 4462 | CUUUUUACGGCAAGGCUAU | 4510 | AUCUCAUCUUCUGCCACUC | 4558 | AGCUGGUCGCAUUGGGCAU | 4606 | ACGUGUCUGUCAUCCCGAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4607 | CGUGUCUGUCAUCCCGACC | 4655 | UGCUCUCAUGACUGGCUUU | 4703 | CAACACGUGUGUCACUCAG | 4751 | UACCAUUGAGACAACCACG |
| 4608 | GUGUCUGUCAUCCCGACCA | 4656 | GCUCUCAUGACUGGCUUUA | 4704 | AACACGUGUGUCACUCAGA | 4752 | ACCAUUGAGACAACCACGC |
| 4609 | UGUCUGUCAUCCCGACCAG | 4657 | CUCUCAUGACUGGCUUUAC | 4705 | ACACGUGUGUCACUCAGAC | 4753 | CCAUUGAGACAACCACGCU |
| 4610 | GUCUGUCAUCCCGACCAGC | 4658 | UCUCAUGACUGGCUUUACC | 4706 | CACGUGUGUCACUCAGACA | 4754 | CAUUGAGACAACCACGCUC |
| 4611 | UCUGUCAUCCCGACCAGCG | 4659 | CUCAUGACUGGCUUUACCG | 4707 | ACGUGUGUCACUCAGACAG | 4755 | AUUGAGACAACCACGCUCC |
| 4612 | CUGUCAUCCCGACCAGCGG | 4660 | UCAUGACUGGCUUUACCGG | 4708 | CGUGUGUCACUCAGACAGU | 4756 | UUGAGACAACCACGCUCCC |
| 4613 | UGUCAUCCCGACCAGCGGC | 4661 | CAUGACUGGCUUUACCGGC | 4709 | GUGUGUCACUCAGACAGUC | 4757 | UGAGACAACCACGCUCCCC |
| 4614 | GUCAUCCCGACCAGCGGCG | 4662 | AUGACUGGCUUUACCGGCG | 4710 | UGUGUCACUCAGACAGUCG | 4758 | GAGACAACCACGCUCCCCC |
| 4615 | UCAUCCCGACCAGCGGCGA | 4663 | UGACUGGCUUUACCGGCGA | 4711 | GUGUCACUCAGACAGUCGA | 4759 | AGACAACCACGCUCCCCCA |
| 4616 | CAUCCCGACCAGCGGCGAU | 4664 | GACUGGCUUUACCGGCGAC | 4712 | UGUCACUCAGACAGUCGAU | 4760 | GACAACCACGCUCCCCCAG |
| 4617 | AUCCCGACCAGCGGCGAUG | 4665 | ACUGGCUUUACCGGCGACU | 4713 | GUCACUCAGACAGUCGAUU | 4761 | ACAACCACGCUCCCCCAGG |
| 4618 | UCCCGACCAGCGGCGAUGU | 4666 | CUGGCUUUACCGGCGACUU | 4714 | UCACUCAGACAGUCGAUUU | 4762 | CAACCACGCUCCCCCAGGA |
| 4619 | CCCGACCAGCGGCGAUGUU | 4667 | UGGCUUUACCGGCGACUUC | 4715 | CACUCAGACAGUCGAUUUC | 4763 | AACCACGCUCCCCCAGGAU |
| 4620 | CCGACCAGCGGCGAUGUUG | 4668 | GGCUUUACCGGCGACUUCG | 4716 | ACUCAGACAGUCGAUUUCA | 4764 | ACCACGCUCCCCCAGGAUG |
| 4621 | CGACCAGCGGCGAUGUUGU | 4669 | GCUUUACCGGCGACUUCGA | 4717 | CUCAGACAGUCGAUUUCAG | 4765 | CCACGCUCCCCCAGGAUGC |
| 4622 | GACCAGCGGCGAUGUUGUC | 4670 | CUUUACCGGCGACUUCGAC | 4718 | UCAGACAGUCGAUUUCAGC | 4766 | CACGCUCCCCCAGGAUGCU |
| 4623 | ACCAGCGGCGAUGUUGUCG | 4671 | UUUACCGGCGACUUCGACU | 4719 | CAGACAGUCGAUUUCAGCC | 4767 | ACGCUCCCCCAGGAUGCUG |
| 4624 | CCAGCGGCGAUGUUGUCGU | 4672 | UUACCGGCGACUUCGACUC | 4720 | AGACAGUCGAUUUCAGCCU | 4768 | CGCUCCCCCAGGAUGCUGU |
| 4625 | CAGCGGCGAUGUUGUCGUC | 4673 | UACCGGCGACUUCGACUCU | 4721 | GACAGUCGAUUUCAGCCUU | 4769 | GCUCCCCCAGGAUGCUGUC |
| 4626 | AGCGGCGAUGUUGUCGUCG | 4674 | ACCGGCGACUUCGACUCUG | 4722 | ACAGUCGAUUUCAGCCUUG | 4770 | CUCCCCCAGGAUGCUGUCU |
| 4627 | GCGGCGAUGUUGUCGUCGU | 4675 | CCGGCGACUUCGACUCUGU | 4723 | CAGUCGAUUUCAGCCUUGA | 4771 | UCCCCCAGGAUGCUGUCUC |
| 4628 | CGGCGAUGUUGUCGUCGUG | 4676 | CGGCGACUUCGACUCUGUG | 4724 | AGUCGAUUUCAGCCUUGAC | 4772 | CCCCCAGGAUGCUGUCUCC |
| 4629 | GGCGAUGUUGUCGUCGUGU | 4677 | GGCGACUUCGACUCUGUGA | 4725 | GUCGAUUUCAGCCUUGACC | 4773 | CCCCAGGAUGCUGUCUCCA |
| 4630 | GCGAUGUUGUCGUCGUGUC | 4678 | GCGACUUCGACUCUGUGAU | 4726 | UCGAUUUCAGCCUUGACCC | 4774 | CCCAGGAUGCUGUCUCCAG |
| 4631 | CGAUGUUGUCGUCGUGUCG | 4679 | CGACUUCGACUCUGUGAUA | 4727 | CGAUUUCAGCCUUGACCCU | 4775 | CCAGGAUGCUGUCUCCAGG |
| 4632 | GAUGUUGUCGUCGUGUCGA | 4680 | GACUUCGACUCUGUGAUAG | 4728 | GAUUUCAGCCUUGACCCUA | 4776 | CAGGAUGCUGUCUCCAGGA |
| 4633 | AUGUUGUCGUCGUGUCGAC | 4681 | ACUUCGACUCUGUGAUAGA | 4729 | AUUUCAGCCUUGACCCUAC | 4777 | AGGAUGCUGUCUCCAGGAC |
| 4634 | UGUUGUCGUCGUGUCGACC | 4682 | CUUCGACUCUGUGAUAGAC | 4730 | UUUCAGCCUUGACCCUACC | 4778 | GGAUGCUGUCUCCAGGACU |
| 4635 | GUUGUCGUCGUGUCGACCG | 4683 | UUCGACUCUGUGAUAGACU | 4731 | UUCAGCCUUGACCCUACCU | 4779 | GAUGCUGUCUCCAGGACUC |
| 4636 | UUGUCGUCGUGUCGACCGA | 4684 | UCGACUCUGUGAUAGACUG | 4732 | UCAGCCUUGACCCUACCUU | 4780 | AUGCUGUCUCCAGGACUCA |
| 4637 | UGUCGUCGUGUCGACCGAU | 4685 | CGACUCUGUGAUAGACUGC | 4733 | CAGCCUUGACCCUACCUUU | 4781 | UGCUGUCUCCAGGACUCAA |
| 4638 | GUCGUCGUGUCGACCGAUG | 4686 | GACUCUGUGAUAGACUGCA | 4734 | AGCCUUGACCCUACCUUUA | 4782 | GCUGUCUCCAGGACUCAAC |
| 4639 | UCGUCGUGUCGACCGAUGC | 4687 | ACUCUGUGAUAGACUGCAA | 4735 | GCCUUGACCCUACCUUUAC | 4783 | CUGUCUCCAGGACUCAACG |
| 4640 | CGUCGUGUCGACCGAUGCU | 4688 | CUCUGUGAUAGACUGCAAC | 4736 | CCUUGACCCUACCUUUACC | 4784 | UGUCUCCAGGACUCAACGC |
| 4641 | GUCGUGUCGACCGAUGCUC | 4689 | UCUGUGAUAGACUGCAACA | 4737 | CUUGACCCUACCUUUACCA | 4785 | GUCUCCAGGACUCAACGCC |
| 4642 | UCGUGUCGACCGAUGCUCU | 4690 | CUGUGAUAGACUGCAACAC | 4738 | UUGACCCUACCUUUACCAU | 4786 | UCUCCAGGACUCAACGCCG |
| 4643 | CGUGUCGACCGAUGCUCUC | 4691 | UGUGAUAGACUGCAACACG | 4739 | UGACCCUACCUUUACCAUU | 4787 | CUCCAGGACUCAACGCCGG |
| 4644 | GUGUCGACCGAUGCUCUCA | 4692 | GUGAUAGACUGCAACACGU | 4740 | GACCCUACCUUUACCAUUG | 4788 | UCCAGGACUCAACGCCGGG |
| 4645 | UGUCGACCGAUGCUCUCAU | 4693 | UGAUAGACUGCAACACGUG | 4741 | ACCCUACCUUUACCAUUGA | 4789 | CCAGGACUCAACGCCGGGG |
| 4646 | GUCGACCGAUGCUCUCAUG | 4694 | GAUAGACUGCAACACGUGU | 4742 | CCCUACCUUUACCAUUGAG | 4790 | CAGGACUCAACGCCGGGGC |
| 4647 | UCGACCGAUGCUCUCAUGA | 4695 | AUAGACUGCAACACGUGUG | 4743 | CCUACCUUUACCAUUGAGA | 4791 | AGGACUCAACGCCGGGGCA |
| 4648 | CGACCGAUGCUCUCAUGAC | 4696 | UAGACUGCAACACGUGUGU | 4744 | CUACCUUUACCAUUGAGAC | 4792 | GGACUCAACGCCGGGGCAG |
| 4649 | GACCGAUGCUCUCAUGACU | 4697 | AGACUGCAACACGUGUGUC | 4745 | UACCUUUACCAUUGAGACA | 4793 | GACUCAACGCCGGGGCAGG |
| 4650 | ACCGAUGCUCUCAUGACUG | 4698 | GACUGCAACACGUGUGUCA | 4746 | ACCUUUACCAUUGAGACAA | 4794 | ACUCAACGCCGGGGCAGGA |
| 4651 | CCGAUGCUCUCAUGACUGG | 4699 | ACUGCAACACGUGUGUCAC | 4747 | CCUUUACCAUUGAGACAAC | 4795 | CUCAACGCCGGGGCAGGAC |
| 4652 | CGAUGCUCUCAUGACUGGC | 4700 | CUGCAACACGUGUGUCACU | 4748 | CUUUACCAUUGAGACAACC | 4796 | UCAACGCCGGGGCAGGACU |
| 4653 | GAUGCUCUCAUGACUGGCU | 4701 | UGCAACACGUGUGUCACUC | 4749 | UUUACCAUUGAGACAACCA | 4797 | CAACGCCGGGGCAGGACUG |
| 4654 | AUGCUCUCAUGACUGGCUU | 4702 | GCAACACGUGUGUCACUCA | 4750 | UUACCAUUGAGACAACCAC | 4798 | AACGCCGGGGCAGGACUGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4799 | ACGCCGGGGCAGGACUGGC | 4847 | GGCACCGGGGGAGCGCCCC | 4895 | UGAGUGCUAUGACGCGGGC | 4943 | GACUACAGUUAGGCUACGA |
| 4800 | CGCCGGGGCAGGACUGGCA | 4848 | GCACCGGGGGAGCGCCCCU | 4896 | GAGUGCUAUGACGCGGGCU | 4944 | ACUACAGUUAGGCUACGAG |
| 4801 | GCCGGGGCAGGACUGGCAG | 4849 | CACCGGGGGAGCGCCCCUC | 4897 | AGUGCUAUGACGCGGGCUG | 4945 | CUACAGUUAGGCUACGAGC |
| 4802 | CCGGGGCAGGACUGGCAGG | 4850 | ACCGGGGGAGCGCCCCUCC | 4898 | GUGCUAUGACGCGGGCUGU | 4946 | UACAGUUAGGCUACGAGCG |
| 4803 | CGGGGCAGGACUGGCAGGG | 4851 | CCGGGGGAGCGCCCCUCCG | 4899 | UGCUAUGACGCGGGCUGUG | 4947 | ACAGUUAGGCUACGAGCGU |
| 4804 | GGGGCAGGACUGGCAGGGG | 4852 | CGGGGGAGCGCCCCUCCGG | 4900 | GCUAUGACGCGGGCUGUGC | 4948 | CAGUUAGGCUACGAGCGUA |
| 4805 | GGGCAGGACUGGCAGGGGG | 4853 | GGGGGAGCGCCCCUCCGGC | 4901 | CUAUGACGCGGGCUGUGCU | 4949 | AGUUAGGCUACGAGCGUAC |
| 4806 | GGCAGGACUGGCAGGGGGA | 4854 | GGGGAGCGCCCCUCCGGCA | 4902 | UAUGACGCGGGCUGUGCUU | 4950 | GUUAGGCUACGAGCGUACA |
| 4807 | GCAGGACUGGCAGGGGGAA | 4855 | GGGAGCGCCCCUCCGGCAU | 4903 | AUGACGCGGGCUGUGCUUG | 4951 | UUAGGCUACGAGCGUACAU |
| 4808 | CAGGACUGGCAGGGGGAAG | 4856 | GGAGCGCCCCUCCGGCAUG | 4904 | UGACGCGGGCUGUGCUUGG | 4952 | UAGGCUACGAGCGUACAUG |
| 4809 | AGGACUGGCAGGGGGAAGC | 4857 | GAGCGCCCCUCCGGCAUGU | 4905 | GACGCGGGCUGUGCUUGGU | 4953 | AGGCUACGAGCGUACAUGA |
| 4810 | GGACUGGCAGGGGGAAGCC | 4858 | AGCGCCCCUCCGGCAUGUU | 4906 | ACGCGGGCUGUGCUUGGUA | 4954 | GGCUACGAGCGUACAUGAA |
| 4811 | GACUGGCAGGGGGAAGCCA | 4859 | GCGCCCCUCCGGCAUGUUC | 4907 | CGCGGGCUGUGCUUGGUAU | 4955 | GCUACGAGCGUACAUGAAC |
| 4812 | ACUGGCAGGGGGAAGCCAG | 4860 | CGCCCCUCCGGCAUGUUCG | 4908 | GCGGGCUGUGCUUGGUAUG | 4956 | CUACGAGCGUACAUGAACA |
| 4813 | CUGGCAGGGGGAAGCCAGG | 4861 | GCCCCUCCGGCAUGUUCGA | 4909 | CGGGCUGUGCUUGGUAUGA | 4957 | UACGAGCGUACAUGAACAC |
| 4814 | UGGCAGGGGGAAGCCAGGC | 4862 | CCCCUCCGGCAUGUUCGAC | 4910 | GGGCUGUGCUUGGUAUGAG | 4958 | ACGAGCGUACAUGAACACC |
| 4815 | GGCAGGGGGAAGCCAGGCA | 4863 | CCCUCCGGCAUGUUCGACU | 4911 | GGCUGUGCUUGGUAUGAGC | 4959 | CGAGCGUACAUGAACACCC |
| 4816 | GCAGGGGGAAGCCAGGCAU | 4864 | CCUCCGGCAUGUUCGACUC | 4912 | GCUGUGCUUGGUAUGAGCU | 4960 | GAGCGUACAUGAACACCCC |
| 4817 | CAGGGGGAAGCCAGGCAUC | 4865 | CUCCGGCAUGUUCGACUCG | 4913 | CUGUGCUUGGUAUGAGCUC | 4961 | AGCGUACAUGAACACCCCG |
| 4818 | AGGGGGAAGCCAGGCAUCU | 4866 | UCCGGCAUGUUCGACUCGU | 4914 | UGUGCUUGGUAUGAGCUCA | 4962 | GCGUACAUGAACACCCCGG |
| 4819 | GGGGGAAGCCAGGCAUCUA | 4867 | CCGGCAUGUUCGACUCGUC | 4915 | GUGCUUGGUAUGAGCUCAC | 4963 | CGUACAUGAACACCCCGGG |
| 4820 | GGGGAAGCCAGGCAUCUAC | 4868 | CGGCAUGUUCGACUCGUCC | 4916 | UGCUUGGUAUGAGCUCACG | 4964 | GUACAUGAACACCCCGGGG |
| 4821 | GGGAAGCCAGGCAUCUACA | 4869 | GGCAUGUUCGACUCGUCCG | 4917 | GCUUGGUAUGAGCUCACGC | 4965 | UACAUGAACACCCCGGGGC |
| 4822 | GGAAGCCAGGCAUCUACAG | 4870 | GCAUGUUCGACUCGUCCGU | 4918 | CUUGGUAUGAGCUCACGCC | 4966 | ACAUGAACACCCCGGGGCU |
| 4823 | GAAGCCAGGCAUCUACAGA | 4871 | CAUGUUCGACUCGUCCGUC | 4919 | UUGGUAUGAGCUCACGCCC | 4967 | CAUGAACACCCCGGGGCUU |
| 4824 | AAGCCAGGCAUCUACAGAU | 4872 | AUGUUCGACUCGUCCGUCC | 4920 | UGGUAUGAGCUCACGCCCG | 4968 | AUGAACACCCCGGGGCUUC |
| 4825 | AGCCAGGCAUCUACAGAUU | 4873 | UGUUCGACUCGUCCGUCCU | 4921 | GGUAUGAGCUCACGCCCGC | 4969 | UGAACACCCCGGGGCUUCC |
| 4826 | GCCAGGCAUCUACAGAUUU | 4874 | GUUCGACUCGUCCGUCCUC | 4922 | GUAUGAGCUCACGCCCGCC | 4970 | GAACACCCCGGGGCUUCCC |
| 4827 | CCAGGCAUCUACAGAUUUG | 4875 | UUCGACUCGUCCGUCCUCU | 4923 | UAUGAGCUCACGCCCGCCG | 4971 | AACACCCCGGGGCUUCCCG |
| 4828 | CAGGCAUCUACAGAUUUGU | 4876 | UCGACUCGUCCGUCCUCUG | 4924 | AUGAGCUCACGCCCGCCGA | 4972 | ACACCCCGGGGCUUCCCGU |
| 4829 | AGGCAUCUACAGAUUUGUG | 4877 | CGACUCGUCCGUCCUCUGU | 4925 | UGAGCUCACGCCCGCCGAG | 4973 | CACCCCGGGGCUUCCCGUG |
| 4830 | GGCAUCUACAGAUUUGUGG | 4878 | GACUCGUCCGUCCUCUGUG | 4926 | GAGCUCACGCCCGCCGAGA | 4974 | ACCCCGGGGCUUCCCGUGU |
| 4831 | GCAUCUACAGAUUUGUGGC | 4879 | ACUCGUCCGUCCUCUGUGA | 4927 | AGCUCACGCCCGCCGAGAC | 4975 | CCCCGGGGCUUCCCGUGUG |
| 4832 | CAUCUACAGAUUUGUGGCA | 4880 | CUCGUCCGUCCUCUGUGAG | 4928 | GCUCACGCCCGCCGAGACU | 4976 | CCCGGGGCUUCCCGUGUGC |
| 4833 | AUCUACAGAUUUGUGGCAC | 4881 | UCGUCCGUCCUCUGUGAGU | 4929 | CUCACGCCCGCCGAGACUA | 4977 | CCGGGGCUUCCCGUGUGCC |
| 4834 | UCUACAGAUUUGUGGCACC | 4882 | CGUCCGUCCUCUGUGAGUG | 4930 | UCACGCCCGCCGAGACUAC | 4978 | CGGGGCUUCCCGUGUGCCA |
| 4835 | CUACAGAUUUGUGGCACCG | 4883 | GUCCGUCCUCUGUGAGUGC | 4931 | CACGCCCGCCGAGACUACA | 4979 | GGGGCUUCCCGUGUGCCAG |
| 4836 | UACAGAUUUGUGGCACCGG | 4884 | UCCGUCCUCUGUGAGUGCU | 4932 | ACGCCCGCCGAGACUACAG | 4980 | GGGCUUCCCGUGUGCCAGG |
| 4837 | ACAGAUUUGUGGCACCGGG | 4885 | CCGUCCUCUGUGAGUGCUA | 4933 | CGCCCGCCGAGACUACAGU | 4981 | GGCUUCCCGUGUGCCAGGA |
| 4838 | CAGAUUUGUGGCACCGGGG | 4886 | CGUCCUCUGUGAGUGCUAU | 4934 | GCCCGCCGAGACUACAGUU | 4982 | GCUUCCCGUGUGCCAGGAC |
| 4839 | AGAUUUGUGGCACCGGGGG | 4887 | GUCCUCUGUGAGUGCUAUG | 4935 | CCCGCCGAGACUACAGUUA | 4983 | CUUCCCGUGUGCCAGGACC |
| 4840 | GAUUUGUGGCACCGGGGGA | 4888 | UCCUCUGUGAGUGCUAUGA | 4936 | CCGCCGAGACUACAGUUAG | 4984 | UUCCCGUGUGCCAGGACCA |
| 4841 | AUUUGUGGCACCGGGGGAG | 4889 | CCUCUGUGAGUGCUAUGAC | 4937 | CGCCGAGACUACAGUUAGG | 4985 | UCCCGUGUGCCAGGACCAU |
| 4842 | UUUGUGGCACCGGGGGAGC | 4890 | CUCUGUGAGUGCUAUGACG | 4938 | GCCGAGACUACAGUUAGGC | 4986 | CCCGUGUGCCAGGACCAUC |
| 4843 | UUGUGGCACCGGGGGAGCG | 4891 | UCUGUGAGUGCUAUGACGC | 4939 | CCGAGACUACAGUUAGGCU | 4987 | CCGUGUGCCAGGACCAUCU |
| 4844 | UGUGGCACCGGGGGAGCGC | 4892 | CUGUGAGUGCUAUGACGCG | 4940 | CGAGACUACAGUUAGGCUA | 4988 | CGUGUGCCAGGACCAUCUU |
| 4845 | GUGGCACCGGGGGAGCGCC | 4893 | UGUGAGUGCUAUGACGCGG | 4941 | GAGACUACAGUUAGGCUAC | 4989 | GUGUGCCAGGACCAUCUUG |
| 4846 | UGGCACCGGGGGAGCGCCC | 4894 | GUGAGUGCUAUGACGCGGG | 4942 | AGACUACAGUUAGGCUACG | 4990 | UGUGCCAGGACCAUCUUGA |

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| | |
|---|---|
| 4991 | GUGCCAGGACCAUCUUGAA |
| 4992 | UGCCAGGACCAUCUUGAAU |
| 4993 | GCCAGGACCAUCUUGAAUU |
| 4994 | CCAGGACCAUCUUGAAUUU |
| 4995 | CAGGACCAUCUUGAAUUUU |
| 4996 | AGGACCAUCUUGAAUUUUG |
| 4997 | GGACCAUCUUGAAUUUUGG |
| 4998 | GACCAUCUUGAAUUUUGGG |
| 4999 | ACCAUCUUGAAUUUUGGGA |
| 5000 | CCAUCUUGAAUUUUGGGAG |
| 5001 | CAUCUUGAAUUUUGGGAGG |
| 5002 | AUCUUGAAUUUUGGGAGGG |
| 5003 | UCUUGAAUUUUGGGAGGGC |
| 5004 | CUUGAAUUUUGGGAGGGCG |
| 5005 | UUGAAUUUUGGGAGGGCGU |
| 5006 | UGAAUUUUGGGAGGGCGUC |
| 5007 | GAAUUUUGGGAGGGCGUCU |
| 5008 | AAUUUUGGGAGGGCGUCUU |
| 5009 | AUUUUGGGAGGGCGUCUUU |
| 5010 | UUUUGGGAGGGCGUCUUUA |
| 5011 | UUUGGGAGGGCGUCUUUAC |
| 5012 | UUGGGAGGGCGUCUUUACG |
| 5013 | UGGGAGGGCGUCUUUACGG |
| 5014 | GGGAGGGCGUCUUUACGGG |
| 5015 | GGAGGGCGUCUUUACGGGC |
| 5016 | GAGGGCGUCUUUACGGGCC |
| 5017 | AGGGCGUCUUUACGGGCCU |
| 5018 | GGGCGUCUUUACGGGCCUC |
| 5019 | GGCGUCUUUACGGGCCUCA |
| 5020 | GCGUCUUUACGGGCCUCAC |
| 5021 | CGUCUUUACGGGCCUCACU |
| 5022 | GUCUUUACGGGCCUCACUC |
| 5023 | UCUUUACGGGCCUCACUCA |
| 5024 | CUUUACGGGCCUCACUCAU |
| 5025 | UUUACGGGCCUCACUCAUA |
| 5026 | UUACGGGCCUCACUCAUAU |
| 5027 | UACGGGCCUCACUCAUAUA |
| 5028 | ACGGGCCUCACUCAUAUAG |
| 5029 | CGGGCCUCACUCAUAUAGA |
| 5030 | GGGCCUCACUCAUAUAGAU |
| 5031 | GGCCUCACUCAUAUAGAUG |
| 5032 | GCCUCACUCAUAUAGAUGC |
| 5033 | CCUCACUCAUAUAGAUGCC |
| 5034 | CUCACUCAUAUAGAUGCCC |
| 5035 | UCACUCAUAUAGAUGCCCA |
| 5036 | CACUCAUAUAGAUGCCCAC |
| 5037 | ACUCAUAUAGAUGCCCACU |
| 5038 | CUCAUAUAGAUGCCCACUU |
| 5039 | UCAUAUAGAUGCCCACUUU |
| 5040 | CAUAUAGAUGCCCACUUUC |
| 5041 | AUAUAGAUGCCCACUUUCU |
| 5042 | UAUAGAUGCCCACUUUCUA |
| 5043 | AUAGAUGCCCACUUUCUAU |
| 5044 | UAGAUGCCCACUUUCUAUC |
| 5045 | AGAUGCCCACUUUCUAUCC |
| 5046 | GAUGCCCACUUUCUAUCCC |
| 5047 | AUGCCCACUUUCUAUCCCA |
| 5048 | UGCCCACUUUCUAUCCCAG |
| 5049 | GCCCACUUUCUAUCCCAGA |
| 5050 | CCCACUUUCUAUCCCAGAC |
| 5051 | CCACUUUCUAUCCCAGACA |
| 5052 | CACUUUCUAUCCCAGACAA |
| 5053 | ACUUUCUAUCCCAGACAAA |
| 5054 | CUUUCUAUCCCAGACAAAG |
| 5055 | UUUCUAUCCCAGACAAAGC |
| 5056 | UUCUAUCCCAGACAAAGCA |
| 5057 | UCUAUCCCAGACAAAGCAG |
| 5058 | CUAUCCCAGACAAAGCAGA |
| 5059 | UAUCCCAGACAAAGCAGAG |
| 5060 | AUCCCAGACAAAGCAGAGU |
| 5061 | UCCCAGACAAAGCAGAGUG |
| 5062 | CCCAGACAAAGCAGAGUGG |
| 5063 | CCAGACAAAGCAGAGUGGG |
| 5064 | CAGACAAAGCAGAGUGGGG |
| 5065 | AGACAAAGCAGAGUGGGGA |
| 5066 | GACAAAGCAGAGUGGGGAG |
| 5067 | ACAAAGCAGAGUGGGGAGA |
| 5068 | CAAAGCAGAGUGGGGAGAA |
| 5069 | AAAGCAGAGUGGGGAGAAC |
| 5070 | AAGCAGAGUGGGGAGAACU |
| 5071 | AGCAGAGUGGGGAGAACUU |
| 5072 | GCAGAGUGGGGAGAACUUU |
| 5073 | CAGAGUGGGGAGAACUUUC |
| 5074 | AGAGUGGGGAGAACUUUCC |
| 5075 | GAGUGGGGAGAACUUUCCU |
| 5076 | AGUGGGGAGAACUUUCCUU |
| 5077 | GUGGGGAGAACUUUCCUUA |
| 5078 | UGGGGAGAACUUUCCUUAC |
| 5079 | GGGGAGAACUUUCCUUACC |
| 5080 | GGGAGAACUUUCCUUACCU |
| 5081 | GGAGAACUUUCCUUACCUG |
| 5082 | GAGAACUUUCCUUACCUGG |
| 5083 | AGAACUUUCCUUACCUGGU |
| 5084 | GAACUUUCCUUACCUGGUA |
| 5085 | AACUUUCCUUACCUGGUAG |
| 5086 | ACUUUCCUUACCUGGUAGC |
| 5087 | CUUUCCUUACCUGGUAGCG |
| 5088 | UUUCCUUACCUGGUAGCGU |
| 5089 | UUCCUUACCUGGUAGCGUA |
| 5090 | UCCUUACCUGGUAGCGUAC |
| 5091 | CCUUACCUGGUAGCGUACC |
| 5092 | CUUACCUGGUAGCGUACCA |
| 5093 | UUACCUGGUAGCGUACCAA |
| 5094 | UACCUGGUAGCGUACCAAG |
| 5095 | ACCUGGUAGCGUACCAAGC |
| 5096 | CCUGGUAGCGUACCAAGCC |
| 5097 | CUGGUAGCGUACCAAGCCA |
| 5098 | UGGUAGCGUACCAAGCCAC |
| 5099 | GGUAGCGUACCAAGCCACC |
| 5100 | GUAGCGUACCAAGCCACCG |
| 5101 | UAGCGUACCAAGCCACCGU |
| 5102 | AGCGUACCAAGCCACCGUG |
| 5103 | GCGUACCAAGCCACCGUGU |
| 5104 | CGUACCAAGCCACCGUGUG |
| 5105 | GUACCAAGCCACCGUGUGC |
| 5106 | UACCAAGCCACCGUGUGCG |
| 5107 | ACCAAGCCACCGUGUGCGC |
| 5108 | CCAAGCCACCGUGUGCGCU |
| 5109 | CAAGCCACCGUGUGCGCUA |
| 5110 | AAGCCACCGUGUGCGCUAG |
| 5111 | AGCCACCGUGUGCGCUAGG |
| 5112 | GCCACCGUGUGCGCUAGGG |
| 5113 | CCACCGUGUGCGCUAGGGC |
| 5114 | CACCGUGUGCGCUAGGGCU |
| 5115 | ACCGUGUGCGCUAGGGCUC |
| 5116 | CCGUGUGCGCUAGGGCUCA |
| 5117 | CGUGUGCGCUAGGGCUCAA |
| 5118 | GUGUGCGCUAGGGCUCAAG |
| 5119 | UGUGCGCUAGGGCUCAAGC |
| 5120 | GUGCGCUAGGGCUCAAGCC |
| 5121 | UGCGCUAGGGCUCAAGCCC |
| 5122 | GCGCUAGGGCUCAAGCCCC |
| 5123 | CGCUAGGGCUCAAGCCCCU |
| 5124 | GCUAGGGCUCAAGCCCCUC |
| 5125 | CUAGGGCUCAAGCCCCUCC |
| 5126 | UAGGGCUCAAGCCCCUCCC |
| 5127 | AGGGCUCAAGCCCCUCCCC |
| 5128 | GGGCUCAAGCCCCUCCCCC |
| 5129 | GGCUCAAGCCCCUCCCCCA |
| 5130 | GCUCAAGCCCCUCCCCCAU |
| 5131 | CUCAAGCCCCUCCCCCAUC |
| 5132 | UCAAGCCCCUCCCCCAUCG |
| 5133 | CAAGCCCCUCCCCCAUCGU |
| 5134 | AAGCCCCUCCCCCAUCGUG |
| 5135 | AGCCCCUCCCCCAUCGUGG |
| 5136 | GCCCCUCCCCCAUCGUGGG |
| 5137 | CCCCUCCCCCAUCGUGGGA |
| 5138 | CCCUCCCCCAUCGUGGGAC |
| 5139 | CCUCCCCCAUCGUGGGACC |
| 5140 | CUCCCCCAUCGUGGGACCA |
| 5141 | UCCCCCAUCGUGGGACCAG |
| 5142 | CCCCCAUCGUGGGACCAGA |
| 5143 | CCCCAUCGUGGGACCAGAU |
| 5144 | CCCAUCGUGGGACCAGAUG |
| 5145 | CCAUCGUGGGACCAGAUGU |
| 5146 | CAUCGUGGGACCAGAUGUG |
| 5147 | AUCGUGGGACCAGAUGUGG |
| 5148 | UCGUGGGACCAGAUGUGGA |
| 5149 | CGUGGGACCAGAUGUGGAA |
| 5150 | GUGGGACCAGAUGUGGAAG |
| 5151 | UGGGACCAGAUGUGGAAGU |
| 5152 | GGGACCAGAUGUGGAAGUG |
| 5153 | GGACCAGAUGUGGAAGUGU |
| 5154 | GACCAGAUGUGGAAGUGUU |
| 5155 | ACCAGAUGUGGAAGUGUUU |
| 5156 | CCAGAUGUGGAAGUGUUUG |
| 5157 | CAGAUGUGGAAGUGUUUGA |
| 5158 | AGAUGUGGAAGUGUUUGAU |
| 5159 | GAUGUGGAAGUGUUUGAUC |
| 5160 | AUGUGGAAGUGUUUGAUCC |
| 5161 | UGUGGAAGUGUUUGAUCCG |
| 5162 | GUGGAAGUGUUUGAUCCGC |
| 5163 | UGGAAGUGUUUGAUCCGCC |
| 5164 | GGAAGUGUUUGAUCCGCCU |
| 5165 | GAAGUGUUUGAUCCGCCUU |
| 5166 | AAGUGUUUGAUCCGCCUUA |
| 5167 | AGUGUUUGAUCCGCCUUAA |
| 5168 | GUGUUUGAUCCGCCUUAAA |
| 5169 | UGUUUGAUCCGCCUUAAAC |
| 5170 | GUUUGAUCCGCCUUAAACC |
| 5171 | UUUGAUCCGCCUUAAACCC |
| 5172 | UUGAUCCGCCUUAAACCCA |
| 5173 | UGAUCCGCCUUAAACCCAC |
| 5174 | GAUCCGCCUUAAACCCACC |
| 5175 | AUCCGCCUUAAACCCACCC |
| 5176 | UCCGCCUUAAACCCACCCU |
| 5177 | CCGCCUUAAACCCACCCUC |
| 5178 | CGCCUUAAACCCACCCUCC |
| 5179 | GCCUUAAACCCACCCUCCA |
| 5180 | CCUUAAACCCACCCUCCAU |
| 5181 | CUUAAACCCACCCUCCAUG |
| 5182 | UUAAACCCACCCUCCAUGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5183 | UAAACCCACCCUCCAUGGG | 5231 | UGUUCAGAAUGAAGUCACC | 5279 | GACAUGCAUGUCGGCCGAC | 5327 | CGUUGGCGGCGUCCUGGCU |
| 5184 | AAACCCACCCUCCAUGGGC | 5232 | GUUCAGAAUGAAGUCACCC | 5280 | ACAUGCAUGUCGGCCGACC | 5328 | GUUGGCGGCGUCCUGGCUG |
| 5185 | AACCCACCCUCCAUGGGCC | 5233 | UUCAGAAUGAAGUCACCCU | 5281 | CAUGCAUGUCGGCCGACCU | 5329 | UUGGCGGCGUCCUGGCUGC |
| 5186 | ACCCACCCUCCAUGGGCCA | 5234 | UCAGAAUGAAGUCACCCUG | 5282 | AUGCAUGUCGGCCGACCUG | 5330 | UGGCGGCGUCCUGGCUGCU |
| 5187 | CCCACCCUCCAUGGGCCAA | 5235 | CAGAAUGAAGUCACCCUGA | 5283 | UGCAUGUCGGCCGACCUGG | 5331 | GGCGGCGUCCUGGCUGCUC |
| 5188 | CCACCCUCCAUGGGCCAAC | 5236 | AGAAUGAAGUCACCCUGAC | 5284 | GCAUGUCGGCCGACCUGGA | 5332 | GCGGCGUCCUGGCUGCUCU |
| 5189 | CACCCUCCAUGGGCCAACA | 5237 | GAAUGAAGUCACCCUGACG | 5285 | CAUGUCGGCCGACCUGGAG | 5333 | CGGCGUCCUGGCUGCUCUG |
| 5190 | ACCCUCCAUGGGCCAACAC | 5238 | AAUGAAGUCACCCUGACGC | 5286 | AUGUCGGCCGACCUGGAGG | 5334 | GGCGUCCUGGCUGCUCUGG |
| 5191 | CCCUCCAUGGGCCAACACC | 5239 | AUGAAGUCACCCUGACGCA | 5287 | UGUCGGCCGACCUGGAGGU | 5335 | GCGUCCUGGCUGCUCUGGC |
| 5192 | CCUCCAUGGGCCAACACCC | 5240 | UGAAGUCACCCUGACGCAC | 5288 | GUCGGCCGACCUGGAGGUC | 5336 | CGUCCUGGCUGCUCUGGCC |
| 5193 | CUCCAUGGGCCAACACCCC | 5241 | GAAGUCACCCUGACGCACC | 5289 | UCGGCCGACCUGGAGGUCG | 5337 | GUCCUGGCUGCUCUGGCCG |
| 5194 | UCCAUGGGCCAACACCCCU | 5242 | AAGUCACCCUGACGCACCC | 5290 | CGGCCGACCUGGAGGUCGU | 5338 | UCCUGGCUGCUCUGGCCGC |
| 5195 | CCAUGGGCCAACACCCCUG | 5243 | AGUCACCCUGACGCACCCA | 5291 | GGCCGACCUGGAGGUCGUC | 5339 | CCUGGCUGCUCUGGCCGCG |
| 5196 | CAUGGGCCAACACCCCUGC | 5244 | GUCACCCUGACGCACCCAA | 5292 | GCCGACCUGGAGGUCGUCA | 5340 | CUGGCUGCUCUGGCCGCGU |
| 5197 | AUGGGCCAACACCCCUGCU | 5245 | UCACCCUGACGCACCCAAU | 5293 | CCGACCUGGAGGUCGUCAC | 5341 | UGGCUGCUCUGGCCGCGUA |
| 5198 | UGGGCCAACACCCCUGCUA | 5246 | CACCCUGACGCACCCAAUC | 5294 | CGACCUGGAGGUCGUCACG | 5342 | GGCUGCUCUGGCCGCGUAU |
| 5199 | GGGCCAACACCCCUGCUAU | 5247 | ACCCUGACGCACCCAAUCA | 5295 | GACCUGGAGGUCGUCACGA | 5343 | GCUGCUCUGGCCGCGUAUU |
| 5200 | GGCCAACACCCCUGCUAUA | 5248 | CCCUGACGCACCCAAUCAC | 5296 | ACCUGGAGGUCGUCACGAG | 5344 | CUGCUCUGGCCGCGUAUUG |
| 5201 | GCCAACACCCCUGCUAUAC | 5249 | CCUGACGCACCCAAUCACC | 5297 | CCUGGAGGUCGUCACGAGC | 5345 | UGCUCUGGCCGCGUAUUGC |
| 5202 | CCAACACCCCUGCUAUACA | 5250 | CUGACGCACCCAAUCACCA | 5298 | CUGGAGGUCGUCACGAGCA | 5346 | GCUCUGGCCGCGUAUUGCC |
| 5203 | CAACACCCCUGCUAUACAG | 5251 | UGACGCACCCAAUCACCAA | 5299 | UGGAGGUCGUCACGAGCAC | 5347 | CUCUGGCCGCGUAUUGCCU |
| 5204 | AACACCCCUGCUAUACAGA | 5252 | GACGCACCCAAUCACCAAA | 5300 | GGAGGUCGUCACGAGCACC | 5348 | UCUGGCCGCGUAUUGCCUG |
| 5205 | ACACCCCUGCUAUACAGAC | 5253 | ACGCACCCAAUCACCAAAU | 5301 | GAGGUCGUCACGAGCACCU | 5349 | CUGGCCGCGUAUUGCCUGU |
| 5206 | CACCCCUGCUAUACAGACU | 5254 | CGCACCCAAUCACCAAAUA | 5302 | AGGUCGUCACGAGCACCUG | 5350 | UGGCCGCGUAUUGCCUGUC |
| 5207 | ACCCCUGCUAUACAGACUG | 5255 | GCACCCAAUCACCAAAUAC | 5303 | GGUCGUCACGAGCACCUGG | 5351 | GGCCGCGUAUUGCCUGUCA |
| 5208 | CCCCUGCUAUACAGACUGG | 5256 | CACCCAAUCACCAAAUACA | 5304 | GUCGUCACGAGCACCUGGG | 5352 | GCCGCGUAUUGCCUGUCAA |
| 5209 | CCCUGCUAUACAGACUGGG | 5257 | ACCCAAUCACCAAAUACAU | 5305 | UCGUCACGAGCACCUGGGU | 5353 | CCGCGUAUUGCCUGUCAAC |
| 5210 | CCUGCUAUACAGACUGGGC | 5258 | CCCAAUCACCAAAUACAUC | 5306 | CGUCACGAGCACCUGGGUG | 5354 | CGCGUAUUGCCUGUCAACA |
| 5211 | CUGCUAUACAGACUGGGCG | 5259 | CCAAUCACCAAAUACAUCA | 5307 | GUCACGAGCACCUGGGUGC | 5355 | GCGUAUUGCCUGUCAACAG |
| 5212 | UGCUAUACAGACUGGGCGC | 5260 | CAAUCACCAAAUACAUCAU | 5308 | UCACGAGCACCUGGGUGCU | 5356 | CGUAUUGCCUGUCAACAGG |
| 5213 | GCUAUACAGACUGGGCGCU | 5261 | AAUCACCAAAUACAUCAUG | 5309 | CACGAGCACCUGGGUGCUC | 5357 | GUAUUGCCUGUCAACAGGC |
| 5214 | CUAUACAGACUGGGCGCUG | 5262 | AUCACCAAAUACAUCAUGA | 5310 | ACGAGCACCUGGGUGCUCG | 5358 | UAUUGCCUGUCAACAGGCU |
| 5215 | UAUACAGACUGGGCGCUGU | 5263 | UCACCAAAUACAUCAUGAC | 5311 | CGAGCACCUGGGUGCUCGU | 5359 | AUUGCCUGUCAACAGGCUG |
| 5216 | AUACAGACUGGGCGCUGUU | 5264 | CACCAAAUACAUCAUGACA | 5312 | GAGCACCUGGGUGCUCGUU | 5360 | UUGCCUGUCAACAGGCUGC |
| 5217 | UACAGACUGGGCGCUGUUC | 5265 | ACCAAAUACAUCAUGACAU | 5313 | AGCACCUGGGUGCUCGUUG | 5361 | UGCCUGUCAACAGGCUGCG |
| 5218 | ACAGACUGGGCGCUGUUCA | 5266 | CCAAAUACAUCAUGACAUG | 5314 | GCACCUGGGUGCUCGUUGG | 5362 | GCCUGUCAACAGGCUGCGU |
| 5219 | CAGACUGGGCGCUGUUCAG | 5267 | CAAAUACAUCAUGACAUGC | 5315 | CACCUGGGUGCUCGUUGGC | 5363 | CCUGUCAACAGGCUGCGUG |
| 5220 | AGACUGGGCGCUGUUCAGA | 5268 | AAAUACAUCAUGACAUGCA | 5316 | ACCUGGGUGCUCGUUGGCG | 5364 | CUGUCAACAGGCUGCGUGG |
| 5221 | GACUGGGCGCUGUUCAGAA | 5269 | AAUACAUCAUGACAUGCAU | 5317 | CCUGGGUGCUCGUUGGCGG | 5365 | UGUCAACAGGCUGCGUGGU |
| 5222 | ACUGGGCGCUGUUCAGAAU | 5270 | AUACAUCAUGACAUGCAUG | 5318 | CUGGGUGCUCGUUGGCGGC | 5366 | GUCAACAGGCUGCGUGGUC |
| 5223 | CUGGGCGCUGUUCAGAAUG | 5271 | UACAUCAUGACAUGCAUGU | 5319 | UGGGUGCUCGUUGGCGGCG | 5367 | UCAACAGGCUGCGUGGUCA |
| 5224 | UGGGCGCUGUUCAGAAUGA | 5272 | ACAUCAUGACAUGCAUGUC | 5320 | GGGUGCUCGUUGGCGGCGU | 5368 | CAACAGGCUGCGUGGUCAU |
| 5225 | GGGCGCUGUUCAGAAUGAA | 5273 | CAUCAUGACAUGCAUGUCG | 5321 | GGUGCUCGUUGGCGGCGUC | 5369 | AACAGGCUGCGUGGUCAUA |
| 5226 | GGCGCUGUUCAGAAUGAAG | 5274 | AUCAUGACAUGCAUGUCGG | 5322 | GUGCUCGUUGGCGGCGUCC | 5370 | ACAGGCUGCGUGGUCAUAG |
| 5227 | GCGCUGUUCAGAAUGAAGU | 5275 | UCAUGACAUGCAUGUCGGC | 5323 | UGCUCGUUGGCGGCGUCCU | 5371 | CAGGCUGCGUGGUCAUAGU |
| 5228 | CGCUGUUCAGAAUGAAGUC | 5276 | CAUGACAUGCAUGUCGGCC | 5324 | GCUCGUUGGCGGCGUCCUG | 5372 | AGGCUGCGUGGUCAUAGUG |
| 5229 | GCUGUUCAGAAUGAAGUCA | 5277 | AUGACAUGCAUGUCGGCCG | 5325 | CUCGUUGGCGGCGUCCUGG | 5373 | GGCUGCGUGGUCAUAGUGG |
| 5230 | CUGUUCAGAAUGAAGUCAC | 5278 | UGACAUGCAUGUCGGCCGA | 5326 | UCGUUGGCGGCGUCCUGGC | 5374 | GCUGCGUGGUCAUAGUGGG |

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| | |
|---|---|
| 5375 | CUGCGUGGUCAUAGUGGGC |
| 5376 | UGCGUGGUCAUAGUGGGCA |
| 5377 | GCGUGGUCAUAGUGGGCAG |
| 5378 | CGUGGUCAUAGUGGGCAGG |
| 5379 | GUGGUCAUAGUGGGCAGGA |
| 5380 | UGGUCAUAGUGGGCAGGAU |
| 5381 | GGUCAUAGUGGGCAGGAUU |
| 5382 | GUCAUAGUGGGCAGGAUUG |
| 5383 | UCAUAGUGGGCAGGAUUGU |
| 5384 | CAUAGUGGGCAGGAUUGUC |
| 5385 | AUAGUGGGCAGGAUUGUCU |
| 5386 | UAGUGGGCAGGAUUGUCUU |
| 5387 | AGUGGGCAGGAUUGUCUUG |
| 5388 | GUGGGCAGGAUUGUCUUGU |
| 5389 | UGGGCAGGAUUGUCUUGUC |
| 5390 | GGGCAGGAUUGUCUUGUCC |
| 5391 | GGCAGGAUUGUCUUGUCCG |
| 5392 | GCAGGAUUGUCUUGUCCGG |
| 5393 | CAGGAUUGUCUUGUCCGGG |
| 5394 | AGGAUUGUCUUGUCCGGGA |
| 5395 | GGAUUGUCUUGUCCGGGAA |
| 5396 | GAUUGUCUUGUCCGGGAAG |
| 5397 | AUUGUCUUGUCCGGGAAGC |
| 5398 | UUGUCUUGUCCGGGAAGCC |
| 5399 | UGUCUUGUCCGGGAAGCCG |
| 5400 | GUCUUGUCCGGGAAGCCGG |
| 5401 | UCUUGUCCGGGAAGCCGGC |
| 5402 | CUUGUCCGGGAAGCCGGCA |
| 5403 | UUGUCCGGGAAGCCGGCAA |
| 5404 | UGUCCGGGAAGCCGGCAAU |
| 5405 | GUCCGGGAAGCCGGCAAUU |
| 5406 | UCCGGGAAGCCGGCAAUUA |
| 5407 | CCGGGAAGCCGGCAAUUAU |
| 5408 | CGGGAAGCCGGCAAUUAUA |
| 5409 | GGGAAGCCGGCAAUUAUAC |
| 5410 | GGAAGCCGGCAAUUAUACC |
| 5411 | GAAGCCGGCAAUUAUACCU |
| 5412 | AAGCCGGCAAUUAUACCUG |
| 5413 | AGCCGGCAAUUAUACCUGA |
| 5414 | GCCGGCAAUUAUACCUGAC |
| 5415 | CCGGCAAUUAUACCUGACA |
| 5416 | CGGCAAUUAUACCUGACAG |
| 5417 | GGCAAUUAUACCUGACAGG |
| 5418 | GCAAUUAUACCUGACAGGG |
| 5419 | CAAUUAUACCUGACAGGGA |
| 5420 | AAUUAUACCUGACAGGGAG |
| 5421 | AUUAUACCUGACAGGGAGG |
| 5422 | UUAUACCUGACAGGGAGGU |
| 5423 | UAUACCUGACAGGGAGGUU |
| 5424 | AUACCUGACAGGGAGGUUC |
| 5425 | UACCUGACAGGGAGGUUCU |
| 5426 | ACCUGACAGGGAGGUUCUC |
| 5427 | CCUGACAGGGAGGUUCUCU |
| 5428 | CUGACAGGGAGGUUCUCUA |
| 5429 | UGACAGGGAGGUUCUCUAC |
| 5430 | GACAGGGAGGUUCUCUACC |
| 5431 | ACAGGGAGGUUCUCUACCA |
| 5432 | CAGGGAGGUUCUCUACCAG |
| 5433 | AGGGAGGUUCUCUACCAGG |
| 5434 | GGGAGGUUCUCUACCAGGA |
| 5435 | GGAGGUUCUCUACCAGGAG |
| 5436 | GAGGUUCUCUACCAGGAGU |
| 5437 | AGGUUCUCUACCAGGAGUU |
| 5438 | GGUUCUCUACCAGGAGUUC |
| 5439 | GUUCUCUACCAGGAGUUCG |
| 5440 | UUCUCUACCAGGAGUUCGA |
| 5441 | UCUCUACCAGGAGUUCGAU |
| 5442 | CUCUACCAGGAGUUCGAUG |
| 5443 | UCUACCAGGAGUUCGAUGA |
| 5444 | CUACCAGGAGUUCGAUGAG |
| 5445 | UACCAGGAGUUCGAUGAGA |
| 5446 | ACCAGGAGUUCGAUGAGAU |
| 5447 | CCAGGAGUUCGAUGAGAUG |
| 5448 | CAGGAGUUCGAUGAGAUGG |
| 5449 | AGGAGUUCGAUGAGAUGGA |
| 5450 | GGAGUUCGAUGAGAUGGAA |
| 5451 | GAGUUCGAUGAGAUGGAAG |
| 5452 | AGUUCGAUGAGAUGGAAGA |
| 5453 | GUUCGAUGAGAUGGAAGAG |
| 5454 | UUCGAUGAGAUGGAAGAGU |
| 5455 | UCGAUGAGAUGGAAGAGUG |
| 5456 | CGAUGAGAUGGAAGAGUGC |
| 5457 | GAUGAGAUGGAAGAGUGCU |
| 5458 | AUGAGAUGGAAGAGUGCUC |
| 5459 | UGAGAUGGAAGAGUGCUCU |
| 5460 | GAGAUGGAAGAGUGCUCUC |
| 5461 | AGAUGGAAGAGUGCUCUCA |
| 5462 | GAUGGAAGAGUGCUCUCAG |
| 5463 | AUGGAAGAGUGCUCUCAGC |
| 5464 | UGGAAGAGUGCUCUCAGCA |
| 5465 | GGAAGAGUGCUCUCAGCAC |
| 5466 | GAAGAGUGCUCUCAGCACU |
| 5467 | AAGAGUGCUCUCAGCACUU |
| 5468 | AGAGUGCUCUCAGCACUUA |
| 5469 | GAGUGCUCUCAGCACUUAC |
| 5470 | AGUGCUCUCAGCACUUACC |
| 5471 | GUGCUCUCAGCACUUACCG |
| 5472 | UGCUCUCAGCACUUACCGU |
| 5473 | GCUCUCAGCACUUACCGUA |
| 5474 | CUCUCAGCACUUACCGUAC |
| 5475 | UCUCAGCACUUACCGUACA |
| 5476 | CUCAGCACUUACCGUACAU |
| 5477 | UCAGCACUUACCGUACAUC |
| 5478 | CAGCACUUACCGUACAUCG |
| 5479 | AGCACUUACCGUACAUCGA |
| 5480 | GCACUUACCGUACAUCGAG |
| 5481 | CACUUACCGUACAUCGAGC |
| 5482 | ACUUACCGUACAUCGAGCA |
| 5483 | CUUACCGUACAUCGAGCAA |
| 5484 | UUACCGUACAUCGAGCAAG |
| 5485 | UACCGUACAUCGAGCAAGG |
| 5486 | ACCGUACAUCGAGCAAGGG |
| 5487 | CCGUACAUCGAGCAAGGGA |
| 5488 | CGUACAUCGAGCAAGGGAU |
| 5489 | GUACAUCGAGCAAGGGAUG |
| 5490 | UACAUCGAGCAAGGGAUGA |
| 5491 | ACAUCGAGCAAGGGAUGAU |
| 5492 | CAUCGAGCAAGGGAUGAUG |
| 5493 | AUCGAGCAAGGGAUGAUGC |
| 5494 | UCGAGCAAGGGAUGAUGCU |
| 5495 | CGAGCAAGGGAUGAUGCUC |
| 5496 | GAGCAAGGGAUGAUGCUCG |
| 5497 | AGCAAGGGAUGAUGCUCGC |
| 5498 | GCAAGGGAUGAUGCUCGCU |
| 5499 | CAAGGGAUGAUGCUCGCUG |
| 5500 | AAGGGAUGAUGCUCGCUGA |
| 5501 | AGGGAUGAUGCUCGCUGAG |
| 5502 | GGGAUGAUGCUCGCUGAGC |
| 5503 | GGAUGAUGCUCGCUGAGCA |
| 5504 | GAUGAUGCUCGCUGAGCAG |
| 5505 | AUGAUGCUCGCUGAGCAGU |
| 5506 | UGAUGCUCGCUGAGCAGUU |
| 5507 | GAUGCUCGCUGAGCAGUUC |
| 5508 | AUGCUCGCUGAGCAGUUCA |
| 5509 | UGCUCGCUGAGCAGUUCAA |
| 5510 | GCUCGCUGAGCAGUUCAAG |
| 5511 | CUCGCUGAGCAGUUCAAGC |
| 5512 | UCGCUGAGCAGUUCAAGCA |
| 5513 | CGCUGAGCAGUUCAAGCAG |
| 5514 | GCUGAGCAGUUCAAGCAGA |
| 5515 | CUGAGCAGUUCAAGCAGAA |
| 5516 | UGAGCAGUUCAAGCAGAAG |
| 5517 | GAGCAGUUCAAGCAGAAGG |
| 5518 | AGCAGUUCAAGCAGAAGGC |
| 5519 | GCAGUUCAAGCAGAAGGCC |
| 5520 | CAGUUCAAGCAGAAGGCCC |
| 5521 | AGUUCAAGCAGAAGGCCCU |
| 5522 | GUUCAAGCAGAAGGCCCUC |
| 5523 | UUCAAGCAGAAGGCCCUCG |
| 5524 | UCAAGCAGAAGGCCCUCGG |
| 5525 | CAAGCAGAAGGCCCUCGGC |
| 5526 | AAGCAGAAGGCCCUCGGCC |
| 5527 | AGCAGAAGGCCCUCGGCCU |
| 5528 | GCAGAAGGCCCUCGGCCUC |
| 5529 | CAGAAGGCCCUCGGCCUCC |
| 5530 | AGAAGGCCCUCGGCCUCCU |
| 5531 | GAAGGCCCUCGGCCUCCUG |
| 5532 | AAGGCCCUCGGCCUCCUGC |
| 5533 | AGGCCCUCGGCCUCCUGCA |
| 5534 | GGCCCUCGGCCUCCUGCAG |
| 5535 | GCCCUCGGCCUCCUGCAGA |
| 5536 | CCCUCGGCCUCCUGCAGAC |
| 5537 | CCUCGGCCUCCUGCAGACC |
| 5538 | CUCGGCCUCCUGCAGACCG |
| 5539 | UCGGCCUCCUGCAGACCGC |
| 5540 | CGGCCUCCUGCAGACCGCG |
| 5541 | GGCCUCCUGCAGACCGCGU |
| 5542 | GCCUCCUGCAGACCGCGUC |
| 5543 | CCUCCUGCAGACCGCGUCC |
| 5544 | CUCCUGCAGACCGCGUCCC |
| 5545 | UCCUGCAGACCGCGUCCCG |
| 5546 | CCUGCAGACCGCGUCCCGC |
| 5547 | CUGCAGACCGCGUCCCGCC |
| 5548 | UGCAGACCGCGUCCCGCCA |
| 5549 | GCAGACCGCGUCCCGCCAA |
| 5550 | CAGACCGCGUCCCGCCAAG |
| 5551 | AGACCGCGUCCCGCCAAGC |
| 5552 | GACCGCGUCCCGCCAAGCA |
| 5553 | ACCGCGUCCCGCCAAGCAG |
| 5554 | CCGCGUCCCGCCAAGCAGA |
| 5555 | CGCGUCCCGCCAAGCAGAG |
| 5556 | GCGUCCCGCCAAGCAGAGG |
| 5557 | CGUCCCGCCAAGCAGAGGU |
| 5558 | GUCCCGCCAAGCAGAGGUU |
| 5559 | UCCCGCCAAGCAGAGGUUA |
| 5560 | CCCGCCAAGCAGAGGUUAU |
| 5561 | CCGCCAAGCAGAGGUUAUC |
| 5562 | CGCCAAGCAGAGGUUAUCA |
| 5563 | GCCAAGCAGAGGUUAUCAC |
| 5564 | CCAAGCAGAGGUUAUCACC |
| 5565 | CAAGCAGAGGUUAUCACCC |
| 5566 | AAGCAGAGGUUAUCACCCC |

**FIG. 1 (page 29 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5567 | AGCAGAGGUUAUCACCCCU | 5615 | GGUCUUCUGGGCGAAGCAC | 5663 | CUUGGCGGGCCUGUCAACG | 5711 | GAUGGCUUUUACAGCUGCC |
| 5568 | GCAGAGGUUAUCACCCCUG | 5616 | GUCUUCUGGGCGAAGCACA | 5664 | UUGGCGGGCCUGUCAACGC | 5712 | AUGGCUUUUACAGCUGCCG |
| 5569 | CAGAGGUUAUCACCCCUGC | 5617 | UCUUCUGGGCGAAGCACAU | 5665 | UGGCGGGCCUGUCAACGCU | 5713 | UGGCUUUUACAGCUGCCGU |
| 5570 | AGAGGUUAUCACCCCUGCU | 5618 | CUUCUGGGCGAAGCACAUG | 5666 | GGCGGGCCUGUCAACGCUG | 5714 | GGCUUUUACAGCUGCCGUC |
| 5571 | GAGGUUAUCACCCCUGCUG | 5619 | UUCUGGGCGAAGCACAUGU | 5667 | GCGGGCCUGUCAACGCUGC | 5715 | GCUUUUACAGCUGCCGUCA |
| 5572 | AGGUUAUCACCCCUGCUGU | 5620 | UCUGGGCGAAGCACAUGUG | 5668 | CGGGCCUGUCAACGCUGCC | 5716 | CUUUUACAGCUGCCGUCAC |
| 5573 | GGUUAUCACCCCUGCUGUC | 5621 | CUGGGCGAAGCACAUGUGG | 5669 | GGGCCUGUCAACGCUGCCU | 5717 | UUUUACAGCUGCCGUCACC |
| 5574 | GUUAUCACCCCUGCUGUCC | 5622 | UGGGCGAAGCACAUGUGGA | 5670 | GGCCUGUCAACGCUGCCUG | 5718 | UUUACAGCUGCCGUCACCA |
| 5575 | UUAUCACCCCUGCUGUCCA | 5623 | GGGCGAAGCACAUGUGGAA | 5671 | GCCUGUCAACGCUGCCUGG | 5719 | UUACAGCUGCCGUCACCAG |
| 5576 | UAUCACCCCUGCUGUCCAG | 5624 | GGCGAAGCACAUGUGGAAU | 5672 | CCUGUCAACGCUGCCUGGU | 5720 | UACAGCUGCCGUCACCAGC |
| 5577 | AUCACCCCUGCUGUCCAGA | 5625 | GCGAAGCACAUGUGGAAUU | 5673 | CUGUCAACGCUGCCUGGUA | 5721 | ACAGCUGCCGUCACCAGCC |
| 5578 | UCACCCCUGCUGUCCAGAC | 5626 | CGAAGCACAUGUGGAAUUU | 5674 | UGUCAACGCUGCCUGGUAA | 5722 | CAGCUGCCGUCACCAGCCC |
| 5579 | CACCCCUGCUGUCCAGACC | 5627 | GAAGCACAUGUGGAAUUUC | 5675 | GUCAACGCUGCCUGGUAAC | 5723 | AGCUGCCGUCACCAGCCCA |
| 5580 | ACCCCUGCUGUCCAGACCA | 5628 | AAGCACAUGUGGAAUUUCA | 5676 | UCAACGCUGCCUGGUAACC | 5724 | GCUGCCGUCACCAGCCCAC |
| 5581 | CCCCUGCUGUCCAGACCAA | 5629 | AGCACAUGUGGAAUUUCAU | 5677 | CAACGCUGCCUGGUAACCC | 5725 | CUGCCGUCACCAGCCCACU |
| 5582 | CCCUGCUGUCCAGACCAAC | 5630 | GCACAUGUGGAAUUUCAUC | 5678 | AACGCUGCCUGGUAACCCC | 5726 | UGCCGUCACCAGCCCACUA |
| 5583 | CCUGCUGUCCAGACCAACU | 5631 | CACAUGUGGAAUUUCAUCA | 5679 | ACGCUGCCUGGUAACCCCG | 5727 | GCCGUCACCAGCCCACUAA |
| 5584 | CUGCUGUCCAGACCAACUG | 5632 | ACAUGUGGAAUUUCAUCAG | 5680 | CGCUGCCUGGUAACCCCGC | 5728 | CCGUCACCAGCCCACUAAC |
| 5585 | UGCUGUCCAGACCAACUGG | 5633 | CAUGUGGAAUUUCAUCAGU | 5681 | GCUGCCUGGUAACCCCGCC | 5729 | CGUCACCAGCCCACUAACC |
| 5586 | GCUGUCCAGACCAACUGGC | 5634 | AUGUGGAAUUUCAUCAGUG | 5682 | CUGCCUGGUAACCCCGCCA | 5730 | GUCACCAGCCCACUAACCA |
| 5587 | CUGUCCAGACCAACUGGCA | 5635 | UGUGGAAUUUCAUCAGUGG | 5683 | UGCCUGGUAACCCCGCCAU | 5731 | UCACCAGCCCACUAACCAC |
| 5588 | UGUCCAGACCAACUGGCAG | 5636 | GUGGAAUUUCAUCAGUGGG | 5684 | GCCUGGUAACCCCGCCAUU | 5732 | CACCAGCCCACUAACCACU |
| 5589 | GUCCAGACCAACUGGCAGA | 5637 | UGGAAUUUCAUCAGUGGGA | 5685 | CCUGGUAACCCCGCCAUUG | 5733 | ACCAGCCCACUAACCACUG |
| 5590 | UCCAGACCAACUGGCAGAA | 5638 | GGAAUUUCAUCAGUGGGAU | 5686 | CUGGUAACCCCGCCAUUGC | 5734 | CCAGCCCACUAACCACUGG |
| 5591 | CCAGACCAACUGGCAGAAA | 5639 | GAAUUUCAUCAGUGGGAUA | 5687 | UGGUAACCCCGCCAUUGCU | 5735 | CAGCCCACUAACCACUGGC |
| 5592 | CAGACCAACUGGCAGAAAC | 5640 | AAUUUCAUCAGUGGGAUAC | 5688 | GGUAACCCCGCCAUUGCUU | 5736 | AGCCCACUAACCACUGGCC |
| 5593 | AGACCAACUGGCAGAAACU | 5641 | AUUUCAUCAGUGGGAUACA | 5689 | GUAACCCCGCCAUUGCUUC | 5737 | GCCCACUAACCACUGGCCA |
| 5594 | GACCAACUGGCAGAAACUC | 5642 | UUUCAUCAGUGGGAUACAA | 5690 | UAACCCCGCCAUUGCUUCA | 5738 | CCCACUAACCACUGGCCAA |
| 5595 | ACCAACUGGCAGAAACUCG | 5643 | UUCAUCAGUGGGAUACAAU | 5691 | AACCCCGCCAUUGCUUCAU | 5739 | CCACUAACCACUGGCCAAA |
| 5596 | CCAACUGGCAGAAACUCGA | 5644 | UCAUCAGUGGGAUACAAUA | 5692 | ACCCCGCCAUUGCUUCAUU | 5740 | CACUAACCACUGGCCAAAC |
| 5597 | CAACUGGCAGAAACUCGAG | 5645 | CAUCAGUGGGAUACAAUAC | 5693 | CCCCGCCAUUGCUUCAUUG | 5741 | ACUAACCACUGGCCAAACC |
| 5598 | AACUGGCAGAAACUCGAGG | 5646 | AUCAGUGGGAUACAAUACU | 5694 | CCCGCCAUUGCUUCAUUGA | 5742 | CUAACCACUGGCCAAACCC |
| 5599 | ACUGGCAGAAACUCGAGGU | 5647 | UCAGUGGGAUACAAUACUU | 5695 | CCGCCAUUGCUUCAUUGAU | 5743 | UAACCACUGGCCAAACCCU |
| 5600 | CUGGCAGAAACUCGAGGUC | 5648 | CAGUGGGAUACAAUACUUG | 5696 | CGCCAUUGCUUCAUUGAUG | 5744 | AACCACUGGCCAAACCCUC |
| 5601 | UGGCAGAAACUCGAGGUCU | 5649 | AGUGGGAUACAAUACUUGG | 5697 | GCCAUUGCUUCAUUGAUGG | 5745 | ACCACUGGCCAAACCCUCC |
| 5602 | GGCAGAAACUCGAGGUCUU | 5650 | GUGGGAUACAAUACUUGGC | 5698 | CCAUUGCUUCAUUGAUGGC | 5746 | CCACUGGCCAAACCCUCCU |
| 5603 | GCAGAAACUCGAGGUCUUC | 5651 | UGGGAUACAAUACUUGGCG | 5699 | CAUUGCUUCAUUGAUGGCU | 5747 | CACUGGCCAAACCCUCCUC |
| 5604 | CAGAAACUCGAGGUCUUCU | 5652 | GGGAUACAAUACUUGGCGG | 5700 | AUUGCUUCAUUGAUGGCUU | 5748 | ACUGGCCAAACCCUCCUCU |
| 5605 | AGAAACUCGAGGUCUUCUG | 5653 | GGAUACAAUACUUGGCGGG | 5701 | UUGCUUCAUUGAUGGCUUU | 5749 | CUGGCCAAACCCUCCUCUU |
| 5606 | GAAACUCGAGGUCUUCUGG | 5654 | GAUACAAUACUUGGCGGGC | 5702 | UGCUUCAUUGAUGGCUUUU | 5750 | UGGCCAAACCCUCCUCUUC |
| 5607 | AAACUCGAGGUCUUCUGGG | 5655 | AUACAAUACUUGGCGGGCC | 5703 | GCUUCAUUGAUGGCUUUUA | 5751 | GGCCAAACCCUCCUCUUCA |
| 5608 | AACUCGAGGUCUUCUGGGC | 5656 | UACAAUACUUGGCGGGCCU | 5704 | CUUCAUUGAUGGCUUUUAC | 5752 | GCCAAACCCUCCUCUUCAA |
| 5609 | ACUCGAGGUCUUCUGGGCG | 5657 | ACAAUACUUGGCGGGCCUG | 5705 | UUCAUUGAUGGCUUUUACA | 5753 | CCAAACCCUCCUCUUCAAC |
| 5610 | CUCGAGGUCUUCUGGGCGA | 5658 | CAAUACUUGGCGGGCCUGU | 5706 | UCAUUGAUGGCUUUUACAG | 5754 | CAAACCCUCCUCUUCAACA |
| 5611 | UCGAGGUCUUCUGGGCGAA | 5659 | AAUACUUGGCGGGCCUGUC | 5707 | CAUUGAUGGCUUUUACAGC | 5755 | AAACCCUCCUCUUCAACAU |
| 5612 | CGAGGUCUUCUGGGCGAAG | 5660 | AUACUUGGCGGGCCUGUCA | 5708 | AUUGAUGGCUUUUACAGCU | 5756 | AACCCUCCUCUUCAACAUA |
| 5613 | GAGGUCUUCUGGGCGAAGC | 5661 | UACUUGGCGGGCCUGUCAA | 5709 | UUGAUGGCUUUUACAGCUG | 5757 | ACCCUCCUCUUCAACAUAU |
| 5614 | AGGUCUUCUGGGCGAAGCA | 5662 | ACUUGGCGGGCCUGUCAAC | 5710 | UGAUGGCUUUUACAGCUGC | 5758 | CCCUCCUCUUCAACAUAUU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5759 | CCUCCUCUUCAACAUAUUG | 5807 | CCCCGGUGCCGCUACCGCC | 5855 | CAUCGGCAGCGUUGGACUG | 5903 | GUAUGGCGCGGGCGUGGCG |
| 5760 | CUCCUCUUCAACAUAUUGG | 5808 | CCCGGUGCCGCUACCGCCU | 5856 | AUCGGCAGCGUUGGACUGG | 5904 | UAUGGCGCGGGCGUGGCGG |
| 5761 | UCCUCUUCAACAUAUUGGG | 5809 | CCGGUGCCGCUACCGCCUU | 5857 | UCGGCAGCGUUGGACUGGG | 5905 | AUGGCGCGGGCGUGGCGGG |
| 5762 | CCUCUUCAACAUAUUGGGG | 5810 | CGGUGCCGCUACCGCCUUU | 5858 | CGGCAGCGUUGGACUGGGG | 5906 | UGGCGCGGGCGUGGCGGGA |
| 5763 | CUCUUCAACAUAUUGGGGG | 5811 | GGUGCCGCUACCGCCUUUG | 5859 | GGCAGCGUUGGACUGGGGA | 5907 | GGCGCGGGCGUGGCGGGAG |
| 5764 | UCUUCAACAUAUUGGGGGG | 5812 | GUGCCGCUACCGCCUUUGU | 5860 | GCAGCGUUGGACUGGGGAA | 5908 | GCGCGGGCGUGGCGGGAGC |
| 5765 | CUUCAACAUAUUGGGGGGG | 5813 | UGCCGCUACCGCCUUUGUG | 5861 | CAGCGUUGGACUGGGGAAG | 5909 | CGCGGGCGUGGCGGGAGCU |
| 5766 | UUCAACAUAUUGGGGGGGU | 5814 | GCCGCUACCGCCUUUGUGG | 5862 | AGCGUUGGACUGGGGAAGG | 5910 | GCGGGCGUGGCGGGAGCUC |
| 5767 | UCAACAUAUUGGGGGGGUG | 5815 | CCGCUACCGCCUUUGUGGG | 5863 | GCGUUGGACUGGGGAAGGU | 5911 | CGGGCGUGGCGGGAGCUCU |
| 5768 | CAACAUAUUGGGGGGGUGG | 5816 | CGCUACCGCCUUUGUGGGC | 5864 | CGUUGGACUGGGGAAGGUC | 5912 | GGGCGUGGCGGGAGCUCUU |
| 5769 | AACAUAUUGGGGGGGUGGG | 5817 | GCUACCGCCUUUGUGGGCG | 5865 | GUUGGACUGGGGAAGGUCC | 5913 | GGCGUGGCGGGAGCUCUUG |
| 5770 | ACAUAUUGGGGGGGUGGGU | 5818 | CUACCGCCUUUGUGGGCGC | 5866 | UUGGACUGGGGAAGGUCCU | 5914 | GCGUGGCGGGAGCUCUUGU |
| 5771 | CAUAUUGGGGGGGUGGGUG | 5819 | UACCGCCUUUGUGGGCGCU | 5867 | UGGACUGGGGAAGGUCCUC | 5915 | CGUGGCGGGAGCUCUUGUA |
| 5772 | AUAUUGGGGGGGUGGGUGG | 5820 | ACCGCCUUUGUGGGCGCUG | 5868 | GGACUGGGGAAGGUCCUCG | 5916 | GUGGCGGGAGCUCUUGUAG |
| 5773 | UAUUGGGGGGGUGGGUGGC | 5821 | CCGCCUUUGUGGGCGCUGG | 5869 | GACUGGGGAAGGUCCUCGU | 5917 | UGGCGGGAGCUCUUGUAGC |
| 5774 | AUUGGGGGGGUGGGUGGCU | 5822 | CGCCUUUGUGGGCGCUGGC | 5870 | ACUGGGGAAGGUCCUCGUG | 5918 | GGCGGGAGCUCUUGUAGCA |
| 5775 | UUGGGGGGGUGGGUGGCUG | 5823 | GCCUUUGUGGGCGCUGGCU | 5871 | CUGGGGAAGGUCCUCGUGG | 5919 | GCGGGAGCUCUUGUAGCAU |
| 5776 | UGGGGGGGUGGGUGGCUGC | 5824 | CCUUUGUGGGCGCUGGCUU | 5872 | UGGGGAAGGUCCUCGUGGA | 5920 | CGGGAGCUCUUGUAGCAUU |
| 5777 | GGGGGGGUGGGUGGCUGCC | 5825 | CUUUGUGGGCGCUGGCUUA | 5873 | GGGGAAGGUCCUCGUGGAC | 5921 | GGGAGCUCUUGUAGCAUUC |
| 5778 | GGGGGGUGGGUGGCUGCCC | 5826 | UUUGUGGGCGCUGGCUUAG | 5874 | GGGAAGGUCCUCGUGGACA | 5922 | GGAGCUCUUGUAGCAUUCA |
| 5779 | GGGGGUGGGUGGCUGCCCA | 5827 | UUGUGGGCGCUGGCUUAGC | 5875 | GGAAGGUCCUCGUGGACAU | 5923 | GAGCUCUUGUAGCAUUCAA |
| 5780 | GGGGUGGGUGGCUGCCCAG | 5828 | UGUGGGCGCUGGCUUAGCU | 5876 | GAAGGUCCUCGUGGACAUU | 5924 | AGCUCUUGUAGCAUUCAAG |
| 5781 | GGGUGGGUGGCUGCCCAGC | 5829 | GUGGGCGCUGGCUUAGCUG | 5877 | AAGGUCCUCGUGGACAUUC | 5925 | GCUCUUGUAGCAUUCAAGA |
| 5782 | GGUGGGUGGCUGCCCAGCU | 5830 | UGGGCGCUGGCUUAGCUGG | 5878 | AGGUCCUCGUGGACAUUCU | 5926 | CUCUUGUAGCAUUCAAGAU |
| 5783 | GUGGGUGGCUGCCCAGCUC | 5831 | GGGCGCUGGCUUAGCUGGC | 5879 | GGUCCUCGUGGACAUUCUU | 5927 | UCUUGUAGCAUUCAAGAUC |
| 5784 | UGGGUGGCUGCCCAGCUCG | 5832 | GGCGCUGGCUUAGCUGGCG | 5880 | GUCCUCGUGGACAUUCUUG | 5928 | CUUGUAGCAUUCAAGAUCA |
| 5785 | GGGUGGCUGCCCAGCUCGC | 5833 | GCGCUGGCUUAGCUGGCGC | 5881 | UCCUCGUGGACAUUCUUGC | 5929 | UUGUAGCAUUCAAGAUCAU |
| 5786 | GGUGGCUGCCCAGCUCGCC | 5834 | CGCUGGCUUAGCUGGCGCC | 5882 | CCUCGUGGACAUUCUUGCA | 5930 | UGUAGCAUUCAAGAUCAUG |
| 5787 | GUGGCUGCCCAGCUCGCCG | 5835 | GCUGGCUUAGCUGGCGCCG | 5883 | CUCGUGGACAUUCUUGCAG | 5931 | GUAGCAUUCAAGAUCAUGA |
| 5788 | UGGCUGCCCAGCUCGCCGC | 5836 | CUGGCUUAGCUGGCGCCGC | 5884 | UCGUGGACAUUCUUGCAGG | 5932 | UAGCAUUCAAGAUCAUGAG |
| 5789 | GGCUGCCCAGCUCGCCGCC | 5837 | UGGCUUAGCUGGCGCCGCC | 5885 | CGUGGACAUUCUUGCAGGG | 5933 | AGCAUUCAAGAUCAUGAGC |
| 5790 | GCUGCCCAGCUCGCCGCCC | 5838 | GGCUUAGCUGGCGCCGCCA | 5886 | GUGGACAUUCUUGCAGGGU | 5934 | GCAUUCAAGAUCAUGAGCG |
| 5791 | CUGCCCAGCUCGCCGCCCC | 5839 | GCUUAGCUGGCGCCGCCAU | 5887 | UGGACAUUCUUGCAGGGUA | 5935 | CAUUCAAGAUCAUGAGCGG |
| 5792 | UGCCCAGCUCGCCGCCCCC | 5840 | CUUAGCUGGCGCCGCCAUC | 5888 | GGACAUUCUUGCAGGGUAU | 5936 | AUUCAAGAUCAUGAGCGGU |
| 5793 | GCCCAGCUCGCCGCCCCCG | 5841 | UUAGCUGGCGCCGCCAUCG | 5889 | GACAUUCUUGCAGGGUAUG | 5937 | UUCAAGAUCAUGAGCGGUG |
| 5794 | CCCAGCUCGCCGCCCCCGG | 5842 | UAGCUGGCGCCGCCAUCGG | 5890 | ACAUUCUUGCAGGGUAUGG | 5938 | UCAAGAUCAUGAGCGGUGA |
| 5795 | CCAGCUCGCCGCCCCCGGU | 5843 | AGCUGGCGCCGCCAUCGGC | 5891 | CAUUCUUGCAGGGUAUGGC | 5939 | CAAGAUCAUGAGCGGUGAG |
| 5796 | CAGCUCGCCGCCCCCGGUG | 5844 | GCUGGCGCCGCCAUCGGCA | 5892 | AUUCUUGCAGGGUAUGGCG | 5940 | AAGAUCAUGAGCGGUGAGG |
| 5797 | AGCUCGCCGCCCCCGGUGC | 5845 | CUGGCGCCGCCAUCGGCAG | 5893 | UUCUUGCAGGGUAUGGCGC | 5941 | AGAUCAUGAGCGGUGAGGU |
| 5798 | GCUCGCCGCCCCCGGUGCC | 5846 | UGGCGCCGCCAUCGGCAGC | 5894 | UCUUGCAGGGUAUGGCGCG | 5942 | GAUCAUGAGCGGUGAGGUC |
| 5799 | CUCGCCGCCCCCGGUGCCG | 5847 | GGCGCCGCCAUCGGCAGCG | 5895 | CUUGCAGGGUAUGGCGCGG | 5943 | AUCAUGAGCGGUGAGGUCC |
| 5800 | UCGCCGCCCCCGGUGCCGC | 5848 | GCGCCGCCAUCGGCAGCGU | 5896 | UUGCAGGGUAUGGCGCGGG | 5944 | UCAUGAGCGGUGAGGUCCC |
| 5801 | CGCCGCCCCCGGUGCCGCU | 5849 | CGCCGCCAUCGGCAGCGUU | 5897 | UGCAGGGUAUGGCGCGGGC | 5945 | CAUGAGCGGUGAGGUCCCC |
| 5802 | GCCGCCCCCGGUGCCGCUA | 5850 | GCCGCCAUCGGCAGCGUUG | 5898 | GCAGGGUAUGGCGCGGGCG | 5946 | AUGAGCGGUGAGGUCCCCU |
| 5803 | CCGCCCCCGGUGCCGCUAC | 5851 | CCGCCAUCGGCAGCGUUGG | 5899 | CAGGGUAUGGCGCGGGCGU | 5947 | UGAGCGGUGAGGUCCCCUC |
| 5804 | CGCCCCCGGUGCCGCUACC | 5852 | CGCCAUCGGCAGCGUUGGA | 5900 | AGGGUAUGGCGCGGGCGUG | 5948 | GAGCGGUGAGGUCCCCUCC |
| 5805 | GCCCCCGGUGCCGCUACCG | 5853 | GCCAUCGGCAGCGUUGGAC | 5901 | GGGUAUGGCGCGGGCGUGG | 5949 | AGCGGUGAGGUCCCCUCCA |
| 5806 | CCCCCGGUGCCGCUACCGC | 5854 | CCAUCGGCAGCGUUGGACU | 5902 | GGUAUGGCGCGGGCGUGGC | 5950 | GCGGUGAGGUCCCCUCCAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5951 | CGGUGAGGUCCCCUCCACG | 5999 | CCUCUCGCCUGGAGCCCUU | 6047 | GCGCCGGCACGUUGGCCCG | 6095 | GCUAAUAGCCUUCGCCUCC |
| 5952 | GGUGAGGUCCCCUCCACGG | 6000 | CUCUCGCCUGGAGCCCUUG | 6048 | CGCCGGCACGUUGGCCCGG | 6096 | CUAAUAGCCUUCGCCUCCC |
| 5953 | GUGAGGUCCCCUCCACGGA | 6001 | UCUCGCCUGGAGCCCUUGU | 6049 | GCCGGCACGUUGGCCCGGG | 6097 | UAAUAGCCUUCGCCUCCCG |
| 5954 | UGAGGUCCCCUCCACGGAG | 6002 | CUCGCCUGGAGCCCUUGUA | 6050 | CCGGCACGUUGGCCCGGGC | 6098 | AAUAGCCUUCGCCUCCCGG |
| 5955 | GAGGUCCCCUCCACGGAGG | 6003 | UCGCCUGGAGCCCUUGUAG | 6051 | CGGCACGUUGGCCCGGGCG | 6099 | AUAGCCUUCGCCUCCCGGG |
| 5956 | AGGUCCCCUCCACGGAGGA | 6004 | CGCCUGGAGCCCUUGUAGU | 6052 | GGCACGUUGGCCCGGGCGA | 6100 | UAGCCUUCGCCUCCCGGGG |
| 5957 | GGUCCCCUCCACGGAGGAC | 6005 | GCCUGGAGCCCUUGUAGUC | 6053 | GCACGUUGGCCCGGGCGAG | 6101 | AGCCUUCGCCUCCCGGGGG |
| 5958 | GUCCCCUCCACGGAGGACC | 6006 | CCUGGAGCCCUUGUAGUCG | 6054 | CACGUUGGCCCGGGCGAGG | 6102 | GCCUUCGCCUCCCGGGGGA |
| 5959 | UCCCCUCCACGGAGGACCU | 6007 | CUGGAGCCCUUGUAGUCGG | 6055 | ACGUUGGCCCGGGCGAGGG | 6103 | CCUUCGCCUCCCGGGGGAA |
| 5960 | CCCCUCCACGGAGGACCUG | 6008 | UGGAGCCCUUGUAGUCGGU | 6056 | CGUUGGCCCGGGCGAGGGG | 6104 | CUUCGCCUCCCGGGGGAAC |
| 5961 | CCCUCCACGGAGGACCUGG | 6009 | GGAGCCCUUGUAGUCGGUG | 6057 | GUUGGCCCGGGCGAGGGGG | 6105 | UUCGCCUCCCGGGGGAACC |
| 5962 | CCUCCACGGAGGACCUGGU | 6010 | GAGCCCUUGUAGUCGGUGU | 6058 | UUGGCCCGGGCGAGGGGGC | 6106 | UCGCCUCCCGGGGGAACCA |
| 5963 | CUCCACGGAGGACCUGGUC | 6011 | AGCCCUUGUAGUCGGUGUG | 6059 | UGGCCCGGGCGAGGGGGCA | 6107 | CGCCUCCCGGGGGAACCAU |
| 5964 | UCCACGGAGGACCUGGUCA | 6012 | GCCCUUGUAGUCGGUGUGG | 6060 | GGCCCGGGCGAGGGGGCAG | 6108 | GCCUCCCGGGGGAACCAUG |
| 5965 | CCACGGAGGACCUGGUCAA | 6013 | CCCUUGUAGUCGGUGUGGU | 6061 | GCCCGGGCGAGGGGGCAGU | 6109 | CCUCCCGGGGGAACCAUGU |
| 5966 | CACGGAGGACCUGGUCAAU | 6014 | CCUUGUAGUCGGUGUGGUC | 6062 | CCCGGGCGAGGGGGCAGUG | 6110 | CUCCCGGGGGAACCAUGUU |
| 5967 | ACGGAGGACCUGGUCAAUC | 6015 | CUUGUAGUCGGUGUGGUCU | 6063 | CCGGGCGAGGGGGCAGUGC | 6111 | UCCCGGGGGAACCAUGUUU |
| 5968 | CGGAGGACCUGGUCAAUCU | 6016 | UUGUAGUCGGUGUGGUCUG | 6064 | CGGGCGAGGGGGCAGUGCA | 6112 | CCCGGGGGAACCAUGUUUC |
| 5969 | GGAGGACCUGGUCAAUCUG | 6017 | UGUAGUCGGUGUGGUCUGC | 6065 | GGGCGAGGGGGCAGUGCAA | 6113 | CCGGGGGAACCAUGUUUCC |
| 5970 | GAGGACCUGGUCAAUCUGC | 6018 | GUAGUCGGUGUGGUCUGCG | 6066 | GGCGAGGGGGCAGUGCAAU | 6114 | CGGGGGAACCAUGUUUCCC |
| 5971 | AGGACCUGGUCAAUCUGCU | 6019 | UAGUCGGUGUGGUCUGCGC | 6067 | GCGAGGGGGCAGUGCAAUG | 6115 | GGGGGAACCAUGUUUCCCC |
| 5972 | GGACCUGGUCAAUCUGCUG | 6020 | AGUCGGUGUGGUCUGCGCA | 6068 | CGAGGGGGCAGUGCAAUGG | 6116 | GGGGAACCAUGUUUCCCCC |
| 5973 | GACCUGGUCAAUCUGCUGC | 6021 | GUCGGUGUGGUCUGCGCAG | 6069 | GAGGGGGCAGUGCAAUGGA | 6117 | GGGAACCAUGUUUCCCCCA |
| 5974 | ACCUGGUCAAUCUGCUGCC | 6022 | UCGGUGUGGUCUGCGCAGC | 6070 | AGGGGGCAGUGCAAUGGAU | 6118 | GGAACCAUGUUUCCCCCAC |
| 5975 | CCUGGUCAAUCUGCUGCCC | 6023 | CGGUGUGGUCUGCGCAGCA | 6071 | GGGGGCAGUGCAAUGGAUG | 6119 | GAACCAUGUUUCCCCCACG |
| 5976 | CUGGUCAAUCUGCUGCCCG | 6024 | GGUGUGGUCUGCGCAGCAA | 6072 | GGGGCAGUGCAAUGGAUGA | 6120 | AACCAUGUUUCCCCCACGC |
| 5977 | UGGUCAAUCUGCUGCCCGC | 6025 | GUGUGGUCUGCGCAGCAAU | 6073 | GGGCAGUGCAAUGGAUGAA | 6121 | ACCAUGUUUCCCCCACGCA |
| 5978 | GGUCAAUCUGCUGCCCGCC | 6026 | UGUGGUCUGCGCAGCAAUA | 6074 | GGCAGUGCAAUGGAUGAAC | 6122 | CCAUGUUUCCCCCACGCAC |
| 5979 | GUCAAUCUGCUGCCCGCCA | 6027 | GUGGUCUGCGCAGCAAUAC | 6075 | GCAGUGCAAUGGAUGAACC | 6123 | CAUGUUUCCCCCACGCACU |
| 5980 | UCAAUCUGCUGCCCGCCAU | 6028 | UGGUCUGCGCAGCAAUACU | 6076 | CAGUGCAAUGGAUGAACCG | 6124 | AUGUUUCCCCCACGCACUA |
| 5981 | CAAUCUGCUGCCCGCCAUC | 6029 | GGUCUGCGCAGCAAUACUG | 6077 | AGUGCAAUGGAUGAACCGG | 6125 | UGUUUCCCCCACGCACUAC |
| 5982 | AAUCUGCUGCCCGCCAUCC | 6030 | GUCUGCGCAGCAAUACUGC | 6078 | GUGCAAUGGAUGAACCGGC | 6126 | GUUUCCCCCACGCACUACG |
| 5983 | AUCUGCUGCCCGCCAUCCU | 6031 | UCUGCGCAGCAAUACUGCG | 6079 | UGCAAUGGAUGAACCGGCU | 6127 | UUUCCCCCACGCACUACGU |
| 5984 | UCUGCUGCCCGCCAUCCUC | 6032 | CUGCGCAGCAAUACUGCGC | 6080 | GCAAUGGAUGAACCGGCUA | 6128 | UUCCCCCACGCACUACGUG |
| 5985 | CUGCUGCCCGCCAUCCUCU | 6033 | UGCGCAGCAAUACUGCGCC | 6081 | CAAUGGAUGAACCGGCUAA | 6129 | UCCCCCACGCACUACGUGC |
| 5986 | UGCUGCCCGCCAUCCUCUC | 6034 | GCGCAGCAAUACUGCGCCG | 6082 | AAUGGAUGAACCGGCUAAU | 6130 | CCCCCACGCACUACGUGCC |
| 5987 | GCUGCCCGCCAUCCUCUCG | 6035 | CGCAGCAAUACUGCGCCGG | 6083 | AUGGAUGAACCGGCUAAUA | 6131 | CCCCACGCACUACGUGCCG |
| 5988 | CUGCCCGCCAUCCUCUCGC | 6036 | GCAGCAAUACUGCGCCGGC | 6084 | UGGAUGAACCGGCUAAUAG | 6132 | CCCACGCACUACGUGCCGG |
| 5989 | UGCCCGCCAUCCUCUCGCC | 6037 | CAGCAAUACUGCGCCGGCA | 6085 | GGAUGAACCGGCUAAUAGC | 6133 | CCACGCACUACGUGCCGGA |
| 5990 | GCCCGCCAUCCUCUCGCCU | 6038 | AGCAAUACUGCGCCGGCAC | 6086 | GAUGAACCGGCUAAUAGCC | 6134 | CACGCACUACGUGCCGGAG |
| 5991 | CCCGCCAUCCUCUCGCCUG | 6039 | GCAAUACUGCGCCGGCACG | 6087 | AUGAACCGGCUAAUAGCCU | 6135 | ACGCACUACGUGCCGGAGA |
| 5992 | CCGCCAUCCUCUCGCCUGG | 6040 | CAAUACUGCGCCGGCACGU | 6088 | UGAACCGGCUAAUAGCCUU | 6136 | CGCACUACGUGCCGGAGAG |
| 5993 | CGCCAUCCUCUCGCCUGGA | 6041 | AAUACUGCGCCGGCACGUU | 6089 | GAACCGGCUAAUAGCCUUC | 6137 | GCACUACGUGCCGGAGAGC |
| 5994 | GCCAUCCUCUCGCCUGGAG | 6042 | AUACUGCGCCGGCACGUUG | 6090 | AACCGGCUAAUAGCCUUCG | 6138 | CACUACGUGCCGGAGAGCG |
| 5995 | CCAUCCUCUCGCCUGGAGC | 6043 | UACUGCGCCGGCACGUUGG | 6091 | ACCGGCUAAUAGCCUUCGC | 6139 | ACUACGUGCCGGAGAGCGA |
| 5996 | CAUCCUCUCGCCUGGAGCC | 6044 | ACUGCGCCGGCACGUUGGC | 6092 | CCGGCUAAUAGCCUUCGCC | 6140 | CUACGUGCCGGAGAGCGAU |
| 5997 | AUCCUCUCGCCUGGAGCCC | 6045 | CUGCGCCGGCACGUUGGCC | 6093 | CGGCUAAUAGCCUUCGCCU | 6141 | UACGUGCCGGAGAGCGAUG |
| 5998 | UCCUCUCGCCUGGAGCCCU | 6046 | UGCGCCGGCACGUUGGCCC | 6094 | GGCUAAUAGCCUUCGCCUC | 6142 | ACGUGCCGGAGAGCGAUGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6143 | CGUGCCGGAGAGCGAUGCA | 6191 | CCUCACUGUAACCCAGCUC | 6239 | GGAGUGUACCACUCCAUGC | 6287 | CUGGAUAUGCGAGGUGCUG |
| 6144 | GUGCCGGAGAGCGAUGCAG | 6192 | CUCACUGUAACCCAGCUCC | 6240 | GAGUGUACCACUCCAUGCU | 6288 | UGGAUAUGCGAGGUGCUGA |
| 6145 | UGCCGGAGAGCGAUGCAGC | 6193 | UCACUGUAACCCAGCUCCU | 6241 | AGUGUACCACUCCAUGCUC | 6289 | GGAUAUGCGAGGUGCUGAG |
| 6146 | GCCGGAGAGCGAUGCAGCC | 6194 | CACUGUAACCCAGCUCCUG | 6242 | GUGUACCACUCCAUGCUCC | 6290 | GAUAUGCGAGGUGCUGAGC |
| 6147 | CCGGAGAGCGAUGCAGCCG | 6195 | ACUGUAACCCAGCUCCUGA | 6243 | UGUACCACUCCAUGCUCCG | 6291 | AUAUGCGAGGUGCUGAGCG |
| 6148 | CGGAGAGCGAUGCAGCCGC | 6196 | CUGUAACCCAGCUCCUGAG | 6244 | GUACCACUCCAUGCUCCGG | 6292 | UAUGCGAGGUGCUGAGCGA |
| 6149 | GGAGAGCGAUGCAGCCGCC | 6197 | UGUAACCCAGCUCCUGAGG | 6245 | UACCACUCCAUGCUCCGGU | 6293 | AUGCGAGGUGCUGAGCGAC |
| 6150 | GAGAGCGAUGCAGCCGCCC | 6198 | GUAACCCAGCUCCUGAGGC | 6246 | ACCACUCCAUGCUCCGGUU | 6294 | UGCGAGGUGCUGAGCGACU |
| 6151 | AGAGCGAUGCAGCCGCCCG | 6199 | UAACCCAGCUCCUGAGGCG | 6247 | CCACUCCAUGCUCCGGUUC | 6295 | GCGAGGUGCUGAGCGACUU |
| 6152 | GAGCGAUGCAGCCGCCCGC | 6200 | AACCCAGCUCCUGAGGCGA | 6248 | CACUCCAUGCUCCGGUUCC | 6296 | CGAGGUGCUGAGCGACUUU |
| 6153 | AGCGAUGCAGCCGCCCGCG | 6201 | ACCCAGCUCCUGAGGCGAC | 6249 | ACUCCAUGCUCCGGUUCCU | 6297 | GAGGUGCUGAGCGACUUUA |
| 6154 | GCGAUGCAGCCGCCCGCGU | 6202 | CCCAGCUCCUGAGGCGACU | 6250 | CUCCAUGCUCCGGUUCCUG | 6298 | AGGUGCUGAGCGACUUUAA |
| 6155 | CGAUGCAGCCGCCCGCGUC | 6203 | CCAGCUCCUGAGGCGACUG | 6251 | UCCAUGCUCCGGUUCCUGG | 6299 | GGUGCUGAGCGACUUUAAG |
| 6156 | GAUGCAGCCGCCCGCGUCA | 6204 | CAGCUCCUGAGGCGACUGC | 6252 | CCAUGCUCCGGUUCCUGGC | 6300 | GUGCUGAGCGACUUUAAGA |
| 6157 | AUGCAGCCGCCCGCGUCAC | 6205 | AGCUCCUGAGGCGACUGCA | 6253 | CAUGCUCCGGUUCCUGGCU | 6301 | UGCUGAGCGACUUUAAGAC |
| 6158 | UGCAGCCGCCCGCGUCACU | 6206 | GCUCCUGAGGCGACUGCAU | 6254 | AUGCUCCGGUUCCUGGCUA | 6302 | GCUGAGCGACUUUAAGACC |
| 6159 | GCAGCCGCCCGCGUCACUG | 6207 | CUCCUGAGGCGACUGCAUC | 6255 | UGCUCCGGUUCCUGGCUAA | 6303 | CUGAGCGACUUUAAGACCU |
| 6160 | CAGCCGCCCGCGUCACUGC | 6208 | UCCUGAGGCGACUGCAUCA | 6256 | GCUCCGGUUCCUGGCUAAG | 6304 | UGAGCGACUUUAAGACCUG |
| 6161 | AGCCGCCCGCGUCACUGCC | 6209 | CCUGAGGCGACUGCAUCAG | 6257 | CUCCGGUUCCUGGCUAAGG | 6305 | GAGCGACUUUAAGACCUGG |
| 6162 | GCCGCCCGCGUCACUGCCA | 6210 | CUGAGGCGACUGCAUCAGU | 6258 | UCCGGUUCCUGGCUAAGGG | 6306 | AGCGACUUUAAGACCUGGC |
| 6163 | CCGCCCGCGUCACUGCCAU | 6211 | UGAGGCGACUGCAUCAGUG | 6259 | CCGGUUCCUGGCUAAGGGA | 6307 | GCGACUUUAAGACCUGGCU |
| 6164 | CGCCCGCGUCACUGCCAUA | 6212 | GAGGCGACUGCAUCAGUGG | 6260 | CGGUUCCUGGCUAAGGGAC | 6308 | CGACUUUAAGACCUGGCUG |
| 6165 | GCCCGCGUCACUGCCAUAC | 6213 | AGGCGACUGCAUCAGUGGA | 6261 | GGUUCCUGGCUAAGGGACA | 6309 | GACUUUAAGACCUGGCUGA |
| 6166 | CCCGCGUCACUGCCAUACU | 6214 | GGCGACUGCAUCAGUGGAU | 6262 | GUUCCUGGCUAAGGGACAU | 6310 | ACUUUAAGACCUGGCUGAA |
| 6167 | CCGCGUCACUGCCAUACUC | 6215 | GCGACUGCAUCAGUGGAUA | 6263 | UUCCUGGCUAAGGGACAUC | 6311 | CUUUAAGACCUGGCUGAAA |
| 6168 | CGCGUCACUGCCAUACUCA | 6216 | CGACUGCAUCAGUGGAUAA | 6264 | UCCUGGCUAAGGGACAUCU | 6312 | UUUAAGACCUGGCUGAAAG |
| 6169 | GCGUCACUGCCAUACUCAG | 6217 | GACUGCAUCAGUGGAUAAG | 6265 | CCUGGCUAAGGGACAUCUG | 6313 | UUAAGACCUGGCUGAAAGC |
| 6170 | CGUCACUGCCAUACUCAGC | 6218 | ACUGCAUCAGUGGAUAAGC | 6266 | CUGGCUAAGGGACAUCUGG | 6314 | UAAGACCUGGCUGAAAGCC |
| 6171 | GUCACUGCCAUACUCAGCA | 6219 | CUGCAUCAGUGGAUAAGCU | 6267 | UGGCUAAGGGACAUCUGGG | 6315 | AAGACCUGGCUGAAAGCCA |
| 6172 | UCACUGCCAUACUCAGCAG | 6220 | UGCAUCAGUGGAUAAGCUC | 6268 | GGCUAAGGGACAUCUGGGA | 6316 | AGACCUGGCUGAAAGCCAA |
| 6173 | CACUGCCAUACUCAGCAGC | 6221 | GCAUCAGUGGAUAAGCUCG | 6269 | GCUAAGGGACAUCUGGGAC | 6317 | GACCUGGCUGAAAGCCAAG |
| 6174 | ACUGCCAUACUCAGCAGCC | 6222 | CAUCAGUGGAUAAGCUCGG | 6270 | CUAAGGGACAUCUGGGACU | 6318 | ACCUGGCUGAAAGCCAAGC |
| 6175 | CUGCCAUACUCAGCAGCCU | 6223 | AUCAGUGGAUAAGCUCGGA | 6271 | UAAGGGACAUCUGGGACUG | 6319 | CCUGGCUGAAAGCCAAGCU |
| 6176 | UGCCAUACUCAGCAGCCUC | 6224 | UCAGUGGAUAAGCUCGGAG | 6272 | AAGGGACAUCUGGGACUGG | 6320 | CUGGCUGAAAGCCAAGCUC |
| 6177 | GCCAUACUCAGCAGCCUCA | 6225 | CAGUGGAUAAGCUCGGAGU | 6273 | AGGGACAUCUGGGACUGGA | 6321 | UGGCUGAAAGCCAAGCUCA |
| 6178 | CCAUACUCAGCAGCCUCAC | 6226 | AGUGGAUAAGCUCGGAGUG | 6274 | GGGACAUCUGGGACUGGAU | 6322 | GGCUGAAAGCCAAGCUCAU |
| 6179 | CAUACUCAGCAGCCUCACU | 6227 | GUGGAUAAGCUCGGAGUGU | 6275 | GGACAUCUGGGACUGGAUA | 6323 | GCUGAAAGCCAAGCUCAUG |
| 6180 | AUACUCAGCAGCCUCACUG | 6228 | UGGAUAAGCUCGGAGUGUA | 6276 | GACAUCUGGGACUGGAUAU | 6324 | CUGAAAGCCAAGCUCAUGC |
| 6181 | UACUCAGCAGCCUCACUGU | 6229 | GGAUAAGCUCGGAGUGUAC | 6277 | ACAUCUGGGACUGGAUAUG | 6325 | UGAAAGCCAAGCUCAUGCC |
| 6182 | ACUCAGCAGCCUCACUGUA | 6230 | GAUAAGCUCGGAGUGUACC | 6278 | CAUCUGGGACUGGAUAUGC | 6326 | GAAAGCCAAGCUCAUGCCA |
| 6183 | CUCAGCAGCCUCACUGUAA | 6231 | AUAAGCUCGGAGUGUACCA | 6279 | AUCUGGGACUGGAUAUGCG | 6327 | AAAGCCAAGCUCAUGCCAC |
| 6184 | UCAGCAGCCUCACUGUAAC | 6232 | UAAGCUCGGAGUGUACCAC | 6280 | UCUGGGACUGGAUAUGCGA | 6328 | AAGCCAAGCUCAUGCCACA |
| 6185 | CAGCAGCCUCACUGUAACC | 6233 | AAGCUCGGAGUGUACCACU | 6281 | CUGGGACUGGAUAUGCGAG | 6329 | AGCCAAGCUCAUGCCACAA |
| 6186 | AGCAGCCUCACUGUAACCC | 6234 | AGCUCGGAGUGUACCACUC | 6282 | UGGGACUGGAUAUGCGAGG | 6330 | GCCAAGCUCAUGCCACAAC |
| 6187 | GCAGCCUCACUGUAACCCA | 6235 | GCUCGGAGUGUACCACUCC | 6283 | GGGACUGGAUAUGCGAGGU | 6331 | CCAAGCUCAUGCCACAACU |
| 6188 | CAGCCUCACUGUAACCCAG | 6236 | CUCGGAGUGUACCACUCCA | 6284 | GGACUGGAUAUGCGAGGUG | 6332 | CAAGCUCAUGCCACAACUG |
| 6189 | AGCCUCACUGUAACCCAGC | 6237 | UCGGAGUGUACCACUCCAU | 6285 | GACUGGAUAUGCGAGGUGC | 6333 | AAGCUCAUGCCACAACUGC |
| 6190 | GCCUCACUGUAACCCAGCU | 6238 | CGGAGUGUACCACUCCAUG | 6286 | ACUGGAUAUGCGAGGUGCU | 6334 | AGCUCAUGCCACAACUGCC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6335 | GCUCAUGCCACAACUGCCU | 6383 | GUAUAGGGGGGUCUGGCGA | 6431 | CUGUGGAGCUGAGAUCACU | 6479 | CGUCGGUCCUAGGACCUGC |
| 6336 | CUCAUGCCACAACUGCCUG | 6384 | UAUAGGGGGGUCUGGCGAG | 6432 | UGUGGAGCUGAGAUCACUG | 6480 | GUCGGUCCUAGGACCUGCA |
| 6337 | UCAUGCCACAACUGCCUGG | 6385 | AUAGGGGGGUCUGGCGAGG | 6433 | GUGGAGCUGAGAUCACUGG | 6481 | UCGGUCCUAGGACCUGCAG |
| 6338 | CAUGCCACAACUGCCUGGG | 6386 | UAGGGGGGUCUGGCGAGGA | 6434 | UGGAGCUGAGAUCACUGGA | 6482 | CGGUCCUAGGACCUGCAGG |
| 6339 | AUGCCACAACUGCCUGGGA | 6387 | AGGGGGGUCUGGCGAGGAG | 6435 | GGAGCUGAGAUCACUGGAC | 6483 | GGUCCUAGGACCUGCAGGA |
| 6340 | UGCCACAACUGCCUGGGAU | 6388 | GGGGGGUCUGGCGAGGAGA | 6436 | GAGCUGAGAUCACUGGACA | 6484 | GUCCUAGGACCUGCAGGAA |
| 6341 | GCCACAACUGCCUGGGAUU | 6389 | GGGGGUCUGGCGAGGAGAC | 6437 | AGCUGAGAUCACUGGACAU | 6485 | UCCUAGGACCUGCAGGAAC |
| 6342 | CCACAACUGCCUGGGAUUC | 6390 | GGGGUCUGGCGAGGAGACG | 6438 | GCUGAGAUCACUGGACAUG | 6486 | CCUAGGACCUGCAGGAACA |
| 6343 | CACAACUGCCUGGGAUUCC | 6391 | GGGUCUGGCGAGGAGACGG | 6439 | CUGAGAUCACUGGACAUGU | 6487 | CUAGGACCUGCAGGAACAU |
| 6344 | ACAACUGCCUGGGAUUCCC | 6392 | GGUCUGGCGAGGAGACGGC | 6440 | UGAGAUCACUGGACAUGUC | 6488 | UAGGACCUGCAGGAACAUG |
| 6345 | CAACUGCCUGGGAUUCCCU | 6393 | GUCUGGCGAGGAGACGGCA | 6441 | GAGAUCACUGGACAUGUCA | 6489 | AGGACCUGCAGGAACAUGU |
| 6346 | AACUGCCUGGGAUUCCCUU | 6394 | UCUGGCGAGGAGACGGCAU | 6442 | AGAUCACUGGACAUGUCAA | 6490 | GGACCUGCAGGAACAUGUG |
| 6347 | ACUGCCUGGGAUUCCCUUU | 6395 | CUGGCGAGGAGACGGCAUU | 6443 | GAUCACUGGACAUGUCAAA | 6491 | GACCUGCAGGAACAUGUGG |
| 6348 | CUGCCUGGGAUUCCCUUUG | 6396 | UGGCGAGGAGACGGCAUUA | 6444 | AUCACUGGACAUGUCAAAA | 6492 | ACCUGCAGGAACAUGUGGA |
| 6349 | UGCCUGGGAUUCCCUUUGU | 6397 | GGCGAGGAGACGGCAUUAU | 6445 | UCACUGGACAUGUCAAAAA | 6493 | CCUGCAGGAACAUGUGGAG |
| 6350 | GCCUGGGAUUCCCUUUGUG | 6398 | GCGAGGAGACGGCAUUAUG | 6446 | CACUGGACAUGUCAAAAAC | 6494 | CUGCAGGAACAUGUGGAGU |
| 6351 | CCUGGGAUUCCCUUUGUGU | 6399 | CGAGGAGACGGCAUUAUGC | 6447 | ACUGGACAUGUCAAAAACG | 6495 | UGCAGGAACAUGUGGAGUG |
| 6352 | CUGGGAUUCCCUUUGUGUC | 6400 | GAGGAGACGGCAUUAUGCA | 6448 | CUGGACAUGUCAAAAACGG | 6496 | GCAGGAACAUGUGGAGUGG |
| 6353 | UGGGAUUCCCUUUGUGUCC | 6401 | AGGAGACGGCAUUAUGCAC | 6449 | UGGACAUGUCAAAAACGGG | 6497 | CAGGAACAUGUGGAGUGGG |
| 6354 | GGGAUUCCCUUUGUGUCCU | 6402 | GGAGACGGCAUUAUGCACA | 6450 | GGACAUGUCAAAAACGGGA | 6498 | AGGAACAUGUGGAGUGGGA |
| 6355 | GGAUUCCCUUUGUGUCCUG | 6403 | GAGACGGCAUUAUGCACAC | 6451 | GACAUGUCAAAAACGGGAC | 6499 | GGAACAUGUGGAGUGGGAC |
| 6356 | GAUUCCCUUUGUGUCCUGC | 6404 | AGACGGCAUUAUGCACACU | 6452 | ACAUGUCAAAAACGGGACG | 6500 | GAACAUGUGGAGUGGGACG |
| 6357 | AUUCCCUUUGUGUCCUGCC | 6405 | GACGGCAUUAUGCACACUC | 6453 | CAUGUCAAAAACGGGACGA | 6501 | AACAUGUGGAGUGGGACGU |
| 6358 | UUCCCUUUGUGUCCUGCCA | 6406 | ACGGCAUUAUGCACACUCG | 6454 | AUGUCAAAAACGGGACGAU | 6502 | ACAUGUGGAGUGGGACGUU |
| 6359 | UCCCUUUGUGUCCUGCCAG | 6407 | CGGCAUUAUGCACACUCGC | 6455 | UGUCAAAAACGGGACGAUG | 6503 | CAUGUGGAGUGGGACGUUC |
| 6360 | CCCUUUGUGUCCUGCCAGC | 6408 | GGCAUUAUGCACACUCGCU | 6456 | GUCAAAAACGGGACGAUGA | 6504 | AUGUGGAGUGGGACGUUCC |
| 6361 | CCUUUGUGUCCUGCCAGCG | 6409 | GCAUUAUGCACACUCGCUG | 6457 | UCAAAAACGGGACGAUGAG | 6505 | UGUGGAGUGGGACGUUCCC |
| 6362 | CUUUGUGUCCUGCCAGCGC | 6410 | CAUUAUGCACACUCGCUGC | 6458 | CAAAAACGGGACGAUGAGG | 6506 | GUGGAGUGGGACGUUCCCC |
| 6363 | UUUGUGUCCUGCCAGCGCG | 6411 | AUUAUGCACACUCGCUGCC | 6459 | AAAAACGGGACGAUGAGGA | 6507 | UGGAGUGGGACGUUCCCCA |
| 6364 | UUGUGUCCUGCCAGCGCGG | 6412 | UUAUGCACACUCGCUGCCA | 6460 | AAAACGGGACGAUGAGGAU | 6508 | GGAGUGGGACGUUCCCCAU |
| 6365 | UGUGUCCUGCCAGCGCGGG | 6413 | UAUGCACACUCGCUGCCAC | 6461 | AAACGGGACGAUGAGGAUC | 6509 | GAGUGGGACGUUCCCCAUU |
| 6366 | GUGUCCUGCCAGCGCGGGU | 6414 | AUGCACACUCGCUGCCACU | 6462 | AACGGGACGAUGAGGAUCG | 6510 | AGUGGGACGUUCCCCAUUA |
| 6367 | UGUCCUGCCAGCGCGGGUA | 6415 | UGCACACUCGCUGCCACUG | 6463 | ACGGGACGAUGAGGAUCGU | 6511 | GUGGGACGUUCCCCAUUAA |
| 6368 | GUCCUGCCAGCGCGGGUAU | 6416 | GCACACUCGCUGCCACUGU | 6464 | CGGGACGAUGAGGAUCGUC | 6512 | UGGGACGUUCCCCAUUAAC |
| 6369 | UCCUGCCAGCGCGGGUAUA | 6417 | CACACUCGCUGCCACUGUG | 6465 | GGGACGAUGAGGAUCGUCG | 6513 | GGGACGUUCCCCAUUAACG |
| 6370 | CCUGCCAGCGCGGGUAUAG | 6418 | ACACUCGCUGCCACUGUGG | 6466 | GGACGAUGAGGAUCGUCGG | 6514 | GGACGUUCCCCAUUAACGC |
| 6371 | CUGCCAGCGCGGGUAUAGG | 6419 | CACUCGCUGCCACUGUGGA | 6467 | GACGAUGAGGAUCGUCGGU | 6515 | GACGUUCCCCAUUAACGCC |
| 6372 | UGCCAGCGCGGGUAUAGGG | 6420 | ACUCGCUGCCACUGUGGAG | 6468 | ACGAUGAGGAUCGUCGGUC | 6516 | ACGUUCCCCAUUAACGCCU |
| 6373 | GCCAGCGCGGGUAUAGGGG | 6421 | CUCGCUGCCACUGUGGAGC | 6469 | CGAUGAGGAUCGUCGGUCC | 6517 | CGUUCCCCAUUAACGCCUA |
| 6374 | CCAGCGCGGGUAUAGGGGG | 6422 | UCGCUGCCACUGUGGAGCU | 6470 | GAUGAGGAUCGUCGGUCCU | 6518 | GUUCCCCAUUAACGCCUAC |
| 6375 | CAGCGCGGGUAUAGGGGGG | 6423 | CGCUGCCACUGUGGAGCUG | 6471 | AUGAGGAUCGUCGGUCCUA | 6519 | UUCCCCAUUAACGCCUACA |
| 6376 | AGCGCGGGUAUAGGGGGGU | 6424 | GCUGCCACUGUGGAGCUGA | 6472 | UGAGGAUCGUCGGUCCUAG | 6520 | UCCCCAUUAACGCCUACAC |
| 6377 | GCGCGGGUAUAGGGGGGUC | 6425 | CUGCCACUGUGGAGCUGAG | 6473 | GAGGAUCGUCGGUCCUAGG | 6521 | CCCCAUUAACGCCUACACC |
| 6378 | CGCGGGUAUAGGGGGGUCU | 6426 | UGCCACUGUGGAGCUGAGA | 6474 | AGGAUCGUCGGUCCUAGGA | 6522 | CCCAUUAACGCCUACACCA |
| 6379 | GCGGGUAUAGGGGGGUCUG | 6427 | GCCACUGUGGAGCUGAGAU | 6475 | GGAUCGUCGGUCCUAGGAC | 6523 | CCAUUAACGCCUACACCAC |
| 6380 | CGGGUAUAGGGGGGUCUGG | 6428 | CCACUGUGGAGCUGAGAUC | 6476 | GAUCGUCGGUCCUAGGACC | 6524 | CAUUAACGCCUACACCACG |
| 6381 | GGGUAUAGGGGGGUCUGGC | 6429 | CACUGUGGAGCUGAGAUCA | 6477 | AUCGUCGGUCCUAGGACCU | 6525 | AUUAACGCCUACACCACGG |
| 6382 | GGUAUAGGGGGGUCUGGCG | 6430 | ACUGUGGAGCUGAGAUCAC | 6478 | UCGUCGGUCCUAGGACCUG | 6526 | UUAACGCCUACACCACGGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6527 | UAACGCCUACACCACGGGC | 6575 | UAAGUUCGCGCUGUGGAGG | 6623 | GCGGGUGGGGGACUUCCAC | 6671 | UAAAUGCCCGUGCCAGAUC |
| 6528 | AACGCCUACACCACGGGCC | 6576 | AAGUUCGCGCUGUGGAGGG | 6624 | CGGGUGGGGGACUUCCACU | 6672 | AAAUGCCCGUGCCAGAUCC |
| 6529 | ACGCCUACACCACGGGCCC | 6577 | AGUUCGCGCUGUGGAGGGU | 6625 | GGGUGGGGGACUUCCACUA | 6673 | AAUGCCCGUGCCAGAUCCC |
| 6530 | CGCCUACACCACGGGCCCC | 6578 | GUUCGCGCUGUGGAGGGUG | 6626 | GGUGGGGGACUUCCACUAC | 6674 | AUGCCCGUGCCAGAUCCCA |
| 6531 | GCCUACACCACGGGCCCCU | 6579 | UUCGCGCUGUGGAGGGUGU | 6627 | GUGGGGGACUUCCACUACG | 6675 | UGCCCGUGCCAGAUCCCAU |
| 6532 | CCUACACCACGGGCCCCUG | 6580 | UCGCGCUGUGGAGGGUGUC | 6628 | UGGGGGACUUCCACUACGU | 6676 | GCCCGUGCCAGAUCCCAUC |
| 6533 | CUACACCACGGGCCCCUGU | 6581 | CGCGCUGUGGAGGGUGUCU | 6629 | GGGGGACUUCCACUACGUA | 6677 | CCCGUGCCAGAUCCCAUCG |
| 6534 | UACACCACGGGCCCCUGUA | 6582 | GCGCUGUGGAGGGUGUCUG | 6630 | GGGGACUUCCACUACGUAU | 6678 | CCGUGCCAGAUCCCAUCGC |
| 6535 | ACACCACGGGCCCCUGUAC | 6583 | CGCUGUGGAGGGUGUCUGC | 6631 | GGGACUUCCACUACGUAUC | 6679 | CGUGCCAGAUCCCAUCGCC |
| 6536 | CACCACGGGCCCCUGUACU | 6584 | GCUGUGGAGGGUGUCUGCA | 6632 | GGACUUCCACUACGUAUCG | 6680 | GUGCCAGAUCCCAUCGCCC |
| 6537 | ACCACGGGCCCCUGUACUC | 6585 | CUGUGGAGGGUGUCUGCAG | 6633 | GACUUCCACUACGUAUCGG | 6681 | UGCCAGAUCCCAUCGCCCG |
| 6538 | CCACGGGCCCCUGUACUCC | 6586 | UGUGGAGGGUGUCUGCAGA | 6634 | ACUUCCACUACGUAUCGGG | 6682 | GCCAGAUCCCAUCGCCCGA |
| 6539 | CACGGGCCCCUGUACUCCC | 6587 | GUGGAGGGUGUCUGCAGAG | 6635 | CUUCCACUACGUAUCGGGU | 6683 | CCAGAUCCCAUCGCCCGAA |
| 6540 | ACGGGCCCCUGUACUCCCC | 6588 | UGGAGGGUGUCUGCAGAGG | 6636 | UUCCACUACGUAUCGGGUA | 6684 | CAGAUCCCAUCGCCCGAAU |
| 6541 | CGGGCCCCUGUACUCCCCU | 6589 | GGAGGGUGUCUGCAGAGGA | 6637 | UCCACUACGUAUCGGGUAU | 6685 | AGAUCCCAUCGCCCGAAUU |
| 6542 | GGGCCCCUGUACUCCCCUU | 6590 | GAGGGUGUCUGCAGAGGAA | 6638 | CCACUACGUAUCGGGUAUG | 6686 | GAUCCCAUCGCCCGAAUUU |
| 6543 | GGCCCCUGUACUCCCCUUC | 6591 | AGGGUGUCUGCAGAGGAAU | 6639 | CACUACGUAUCGGGUAUGA | 6687 | AUCCCAUCGCCCGAAUUUU |
| 6544 | GCCCCUGUACUCCCCUUCC | 6592 | GGGUGUCUGCAGAGGAAUA | 6640 | ACUACGUAUCGGGUAUGAC | 6688 | UCCCAUCGCCCGAAUUUUU |
| 6545 | CCCCUGUACUCCCCUUCCU | 6593 | GGUGUCUGCAGAGGAAUAC | 6641 | CUACGUAUCGGGUAUGACU | 6689 | CCCAUCGCCCGAAUUUUUC |
| 6546 | CCCUGUACUCCCCUUCCUG | 6594 | GUGUCUGCAGAGGAAUACG | 6642 | UACGUAUCGGGUAUGACUA | 6690 | CCAUCGCCCGAAUUUUUCA |
| 6547 | CCUGUACUCCCCUUCCUGC | 6595 | UGUCUGCAGAGGAAUACGU | 6643 | ACGUAUCGGGUAUGACUAC | 6691 | CAUCGCCCGAAUUUUUCAC |
| 6548 | CUGUACUCCCCUUCCUGCG | 6596 | GUCUGCAGAGGAAUACGUG | 6644 | CGUAUCGGGUAUGACUACU | 6692 | AUCGCCCGAAUUUUUCACA |
| 6549 | UGUACUCCCCUUCCUGCGC | 6597 | UCUGCAGAGGAAUACGUGG | 6645 | GUAUCGGGUAUGACUACUG | 6693 | UCGCCCGAAUUUUUCACAG |
| 6550 | GUACUCCCCUUCCUGCGCC | 6598 | CUGCAGAGGAAUACGUGGA | 6646 | UAUCGGGUAUGACUACUGA | 6694 | CGCCCGAAUUUUUCACAGA |
| 6551 | UACUCCCCUUCCUGCGCCG | 6599 | UGCAGAGGAAUACGUGGAG | 6647 | AUCGGGUAUGACUACUGAC | 6695 | GCCCGAAUUUUUCACAGAA |
| 6552 | ACUCCCCUUCCUGCGCCGA | 6600 | GCAGAGGAAUACGUGGAGA | 6648 | UCGGGUAUGACUACUGACA | 6696 | CCCGAAUUUUUCACAGAAU |
| 6553 | CUCCCCUUCCUGCGCCGAA | 6601 | CAGAGGAAUACGUGGAGAU | 6649 | CGGGUAUGACUACUGACAA | 6697 | CCGAAUUUUUCACAGAAUU |
| 6554 | UCCCCUUCCUGCGCCGAAC | 6602 | AGAGGAAUACGUGGAGAUA | 6650 | GGGUAUGACUACUGACAAU | 6698 | CGAAUUUUUCACAGAAUUG |
| 6555 | CCCCUUCCUGCGCCGAACU | 6603 | GAGGAAUACGUGGAGAUAA | 6651 | GGUAUGACUACUGACAAUC | 6699 | GAAUUUUUCACAGAAUUGG |
| 6556 | CCCUUCCUGCGCCGAACUA | 6604 | AGGAAUACGUGGAGAUAAG | 6652 | GUAUGACUACUGACAAUCU | 6700 | AAUUUUUCACAGAAUUGGA |
| 6557 | CCUUCCUGCGCCGAACUAU | 6605 | GGAAUACGUGGAGAUAAGG | 6653 | UAUGACUACUGACAAUCUU | 6701 | AUUUUUCACAGAAUUGGAC |
| 6558 | CUUCCUGCGCCGAACUAUA | 6606 | GAAUACGUGGAGAUAAGGC | 6654 | AUGACUACUGACAAUCUUA | 6702 | UUUUUCACAGAAUUGGACG |
| 6559 | UUCCUGCGCCGAACUAUAA | 6607 | AAUACGUGGAGAUAAGGCG | 6655 | UGACUACUGACAAUCUUAA | 6703 | UUUUCACAGAAUUGGACGG |
| 6560 | UCCUGCGCCGAACUAUAAG | 6608 | AUACGUGGAGAUAAGGCGG | 6656 | GACUACUGACAAUCUUAAA | 6704 | UUUCACAGAAUUGGACGGG |
| 6561 | CCUGCGCCGAACUAUAAGU | 6609 | UACGUGGAGAUAAGGCGGG | 6657 | ACUACUGACAAUCUUAAAU | 6705 | UUCACAGAAUUGGACGGGG |
| 6562 | CUGCGCCGAACUAUAAGUU | 6610 | ACGUGGAGAUAAGGCGGGU | 6658 | CUACUGACAAUCUUAAAUG | 6706 | UCACAGAAUUGGACGGGGU |
| 6563 | UGCGCCGAACUAUAAGUUC | 6611 | CGUGGAGAUAAGGCGGGUG | 6659 | UACUGACAAUCUUAAAUGC | 6707 | CACAGAAUUGGACGGGGUG |
| 6564 | GCGCCGAACUAUAAGUUCG | 6612 | GUGGAGAUAAGGCGGGUGG | 6660 | ACUGACAAUCUUAAAUGCC | 6708 | ACAGAAUUGGACGGGGUGC |
| 6565 | CGCCGAACUAUAAGUUCGC | 6613 | UGGAGAUAAGGCGGGUGGG | 6661 | CUGACAAUCUUAAAUGCCC | 6709 | CAGAAUUGGACGGGGUGCG |
| 6566 | GCCGAACUAUAAGUUCGCG | 6614 | GGAGAUAAGGCGGGUGGGG | 6662 | UGACAAUCUUAAAUGCCCG | 6710 | AGAAUUGGACGGGGUGCGC |
| 6567 | CCGAACUAUAAGUUCGCGC | 6615 | GAGAUAAGGCGGGUGGGGG | 6663 | GACAAUCUUAAAUGCCCGU | 6711 | GAAUUGGACGGGGUGCGCC |
| 6568 | CGAACUAUAAGUUCGCGCU | 6616 | AGAUAAGGCGGGUGGGGGA | 6664 | ACAAUCUUAAAUGCCCGUG | 6712 | AAUUGGACGGGGUGCGCCU |
| 6569 | GAACUAUAAGUUCGCGCUG | 6617 | GAUAAGGCGGGUGGGGGAC | 6665 | CAAUCUUAAAUGCCCGUGC | 6713 | AUUGGACGGGGUGCGCCUA |
| 6570 | AACUAUAAGUUCGCGCUGU | 6618 | AUAAGGCGGGUGGGGGACU | 6666 | AAUCUUAAAUGCCCGUGCC | 6714 | UUGGACGGGGUGCGCCUAC |
| 6571 | ACUAUAAGUUCGCGCUGUG | 6619 | UAAGGCGGGUGGGGGACUU | 6667 | AUCUUAAAUGCCCGUGCCA | 6715 | UGGACGGGGUGCGCCUACA |
| 6572 | CUAUAAGUUCGCGCUGUGG | 6620 | AAGGCGGGUGGGGGACUUC | 6668 | UCUUAAAUGCCCGUGCCAG | 6716 | GGACGGGGUGCGCCUACAU |
| 6573 | UAUAAGUUCGCGCUGUGGA | 6621 | AGGCGGGUGGGGGACUUCC | 6669 | CUUAAAUGCCCGUGCCAGA | 6717 | GACGGGGUGCGCCUACAUA |
| 6574 | AUAAGUUCGCGCUGUGGAG | 6622 | GGCGGGUGGGGGACUUCCA | 6670 | UUAAAUGCCCGUGCCAGAU | 6718 | ACGGGGUGCGCCUACAUAG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6719 | CGGGGUGCGCCUACAUAGG | 6767 | GGAGGAGGUAUCAUUCAGA | 6815 | GCAAUUACCUUGCGAGCCC | 6863 | GCUCACUGAUCCCUCCCAU |
| 6720 | GGGGUGCGCCUACAUAGGU | 6768 | GAGGAGGUAUCAUUCAGAG | 6816 | CAAUUACCUUGCGAGCCCG | 6864 | CUCACUGAUCCCUCCCAUA |
| 6721 | GGGUGCGCCUACAUAGGUU | 6769 | AGGAGGUAUCAUUCAGAGU | 6817 | AAUUACCUUGCGAGCCCGA | 6865 | UCACUGAUCCCUCCCAUAU |
| 6722 | GGUGCGCCUACAUAGGUUU | 6770 | GGAGGUAUCAUUCAGAGUA | 6818 | AUUACCUUGCGAGCCCGAA | 6866 | CACUGAUCCCUCCCAUAUA |
| 6723 | GUGCGCCUACAUAGGUUUG | 6771 | GAGGUAUCAUUCAGAGUAG | 6819 | UUACCUUGCGAGCCCGAAC | 6867 | ACUGAUCCCUCCCAUAUAA |
| 6724 | UGCGCCUACAUAGGUUUGC | 6772 | AGGUAUCAUUCAGAGUAGG | 6820 | UACCUUGCGAGCCCGAACC | 6868 | CUGAUCCCUCCCAUAUAAC |
| 6725 | GCGCCUACAUAGGUUUGCG | 6773 | GGUAUCAUUCAGAGUAGGA | 6821 | ACCUUGCGAGCCCGAACCG | 6869 | UGAUCCCUCCCAUAUAACA |
| 6726 | CGCCUACAUAGGUUUGCGC | 6774 | GUAUCAUUCAGAGUAGGAC | 6822 | CCUUGCGAGCCCGAACCGG | 6870 | GAUCCCUCCCAUAUAACAG |
| 6727 | GCCUACAUAGGUUUGCGCC | 6775 | UAUCAUUCAGAGUAGGACU | 6823 | CUUGCGAGCCCGAACCGGA | 6871 | AUCCCUCCCAUAUAACAGC |
| 6728 | CCUACAUAGGUUUGCGCCC | 6776 | AUCAUUCAGAGUAGGACUC | 6824 | UUGCGAGCCCGAACCGGAC | 6872 | UCCCUCCCAUAUAACAGCA |
| 6729 | CUACAUAGGUUUGCGCCCC | 6777 | UCAUUCAGAGUAGGACUCC | 6825 | UGCGAGCCCGAACCGGACG | 6873 | CCCUCCCAUAUAACAGCAG |
| 6730 | UACAUAGGUUUGCGCCCCC | 6778 | CAUUCAGAGUAGGACUCCA | 6826 | GCGAGCCCGAACCGGACGU | 6874 | CCUCCCAUAUAACAGCAGA |
| 6731 | ACAUAGGUUUGCGCCCCCU | 6779 | AUUCAGAGUAGGACUCCAC | 6827 | CGAGCCCGAACCGGACGUA | 6875 | CUCCCAUAUAACAGCAGAG |
| 6732 | CAUAGGUUUGCGCCCCCUU | 6780 | UUCAGAGUAGGACUCCACG | 6828 | GAGCCCGAACCGGACGUAG | 6876 | UCCCAUAUAACAGCAGAGG |
| 6733 | AUAGGUUUGCGCCCCCUUG | 6781 | UCAGAGUAGGACUCCACGA | 6829 | AGCCCGAACCGGACGUAGC | 6877 | CCCAUAUAACAGCAGAGGC |
| 6734 | UAGGUUUGCGCCCCCUUGC | 6782 | CAGAGUAGGACUCCACGAG | 6830 | GCCCGAACCGGACGUAGCC | 6878 | CCAUAUAACAGCAGAGGCG |
| 6735 | AGGUUUGCGCCCCCUUGCA | 6783 | AGAGUAGGACUCCACGAGU | 6831 | CCCGAACCGGACGUAGCCG | 6879 | CAUAUAACAGCAGAGGCGG |
| 6736 | GGUUUGCGCCCCCUUGCAA | 6784 | GAGUAGGACUCCACGAGUA | 6832 | CCGAACCGGACGUAGCCGU | 6880 | AUAUAACAGCAGAGGCGGC |
| 6737 | GUUUGCGCCCCCUUGCAAG | 6785 | AGUAGGACUCCACGAGUAC | 6833 | CGAACCGGACGUAGCCGUG | 6881 | UAUAACAGCAGAGGCGGCC |
| 6738 | UUUGCGCCCCCUUGCAAGC | 6786 | GUAGGACUCCACGAGUACC | 6834 | GAACCGGACGUAGCCGUGU | 6882 | AUAACAGCAGAGGCGGCCG |
| 6739 | UUGCGCCCCCUUGCAAGCC | 6787 | UAGGACUCCACGAGUACCC | 6835 | AACCGGACGUAGCCGUGUU | 6883 | UAACAGCAGAGGCGGCCGG |
| 6740 | UGCGCCCCCUUGCAAGCCC | 6788 | AGGACUCCACGAGUACCCG | 6836 | ACCGGACGUAGCCGUGUUG | 6884 | AACAGCAGAGGCGGCCGGG |
| 6741 | GCGCCCCCUUGCAAGCCCU | 6789 | GGACUCCACGAGUACCCGG | 6837 | CCGGACGUAGCCGUGUUGA | 6885 | ACAGCAGAGGCGGCCGGGA |
| 6742 | CGCCCCCUUGCAAGCCCUU | 6790 | GACUCCACGAGUACCCGGU | 6838 | CGGACGUAGCCGUGUUGAC | 6886 | CAGCAGAGGCGGCCGGGAG |
| 6743 | GCCCCCUUGCAAGCCCUUG | 6791 | ACUCCACGAGUACCCGGUG | 6839 | GGACGUAGCCGUGUUGACG | 6887 | AGCAGAGGCGGCCGGGAGA |
| 6744 | CCCCCUUGCAAGCCCUUGC | 6792 | CUCCACGAGUACCCGGUGG | 6840 | GACGUAGCCGUGUUGACGU | 6888 | GCAGAGGCGGCCGGGAGAA |
| 6745 | CCCCUUGCAAGCCCUUGCU | 6793 | UCCACGAGUACCCGGUGGG | 6841 | ACGUAGCCGUGUUGACGUC | 6889 | CAGAGGCGGCCGGGAGAAG |
| 6746 | CCCUUGCAAGCCCUUGCUG | 6794 | CCACGAGUACCCGGUGGGG | 6842 | CGUAGCCGUGUUGACGUCC | 6890 | AGAGGCGGCCGGGAGAAGG |
| 6747 | CCUUGCAAGCCCUUGCUGC | 6795 | CACGAGUACCCGGUGGGGU | 6843 | GUAGCCGUGUUGACGUCCA | 6891 | GAGGCGGCCGGGAGAAGGU |
| 6748 | CUUGCAAGCCCUUGCUGCG | 6796 | ACGAGUACCCGGUGGGGUC | 6844 | UAGCCGUGUUGACGUCCAU | 6892 | AGGCGGCCGGGAGAAGGUU |
| 6749 | UUGCAAGCCCUUGCUGCGG | 6797 | CGAGUACCCGGUGGGGUCG | 6845 | AGCCGUGUUGACGUCCAUG | 6893 | GGCGGCCGGGAGAAGGUUG |
| 6750 | UGCAAGCCCUUGCUGCGGG | 6798 | GAGUACCCGGUGGGGUCGC | 6846 | GCCGUGUUGACGUCCAUGC | 6894 | GCGGCCGGGAGAAGGUUGG |
| 6751 | GCAAGCCCUUGCUGCGGGA | 6799 | AGUACCCGGUGGGGUCGCA | 6847 | CCGUGUUGACGUCCAUGCU | 6895 | CGGCCGGGAGAAGGUUGGC |
| 6752 | CAAGCCCUUGCUGCGGGAG | 6800 | GUACCCGGUGGGGUCGCAA | 6848 | CGUGUUGACGUCCAUGCUC | 6896 | GGCCGGGAGAAGGUUGGCG |
| 6753 | AAGCCCUUGCUGCGGGAGG | 6801 | UACCCGGUGGGGUCGCAAU | 6849 | GUGUUGACGUCCAUGCUCA | 6897 | GCCGGGAGAAGGUUGGCGA |
| 6754 | AGCCCUUGCUGCGGGAGGA | 6802 | ACCCGGUGGGGUCGCAAUU | 6850 | UGUUGACGUCCAUGCUCAC | 6898 | CCGGGAGAAGGUUGGCGAG |
| 6755 | GCCCUUGCUGCGGGAGGAG | 6803 | CCCGGUGGGGUCGCAAUUA | 6851 | GUUGACGUCCAUGCUCACU | 6899 | CGGGAGAAGGUUGGCGAGA |
| 6756 | CCCUUGCUGCGGGAGGAGG | 6804 | CCGGUGGGGUCGCAAUUAC | 6852 | UUGACGUCCAUGCUCACUG | 6900 | GGGAGAAGGUUGGCGAGAG |
| 6757 | CCUUGCUGCGGGAGGAGGU | 6805 | CGGUGGGGUCGCAAUUACC | 6853 | UGACGUCCAUGCUCACUGA | 6901 | GGAGAAGGUUGGCGAGAGG |
| 6758 | CUUGCUGCGGGAGGAGGUA | 6806 | GGUGGGGUCGCAAUUACCU | 6854 | GACGUCCAUGCUCACUGAU | 6902 | GAGAAGGUUGGCGAGAGGG |
| 6759 | UUGCUGCGGGAGGAGGUAU | 6807 | GUGGGGUCGCAAUUACCUU | 6855 | ACGUCCAUGCUCACUGAUC | 6903 | AGAAGGUUGGCGAGAGGGU |
| 6760 | UGCUGCGGGAGGAGGUAUC | 6808 | UGGGGUCGCAAUUACCUUG | 6856 | CGUCCAUGCUCACUGAUCC | 6904 | GAAGGUUGGCGAGAGGGUC |
| 6761 | GCUGCGGGAGGAGGUAUCA | 6809 | GGGGUCGCAAUUACCUUGC | 6857 | GUCCAUGCUCACUGAUCCC | 6905 | AAGGUUGGCGAGAGGGUCA |
| 6762 | CUGCGGGAGGAGGUAUCAU | 6810 | GGGUCGCAAUUACCUUGCG | 6858 | UCCAUGCUCACUGAUCCCU | 6906 | AGGUUGGCGAGAGGGUCAC |
| 6763 | UGCGGGAGGAGGUAUCAUU | 6811 | GGUCGCAAUUACCUUGCGA | 6859 | CCAUGCUCACUGAUCCCUC | 6907 | GGUUGGCGAGAGGGUCACC |
| 6764 | GCGGGAGGAGGUAUCAUUC | 6812 | GUCGCAAUUACCUUGCGAG | 6860 | CAUGCUCACUGAUCCCUCC | 6908 | GUUGGCGAGAGGGUCACCC |
| 6765 | CGGGAGGAGGUAUCAUUCA | 6813 | UCGCAAUUACCUUGCGAGC | 6861 | AUGCUCACUGAUCCCUCCC | 6909 | UUGGCGAGAGGGUCACCCC |
| 6766 | GGGAGGAGGUAUCAUUCAG | 6814 | CGCAAUUACCUUGCGAGCC | 6862 | UGCUCACUGAUCCCUCCCA | 6910 | UGGCGAGAGGGUCACCCCC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6911 | GGCGAGAGGGUCACCCCCU | 6959 | GUCCGCUCCAUCUCUCAAG | 7007 | UGACGCCGAGCUCAUAGAG | 7055 | CGGCAACAUCACCAGGGUU |
| 6912 | GCGAGAGGGUCACCCCCUU | 6960 | UCCGCUCCAUCUCUCAAGG | 7008 | GACGCCGAGCUCAUAGAGG | 7056 | GGCAACAUCACCAGGGUUG |
| 6913 | CGAGAGGGUCACCCCCUUC | 6961 | CCGCUCCAUCUCUCAAGGC | 7009 | ACGCCGAGCUCAUAGAGGC | 7057 | GCAACAUCACCAGGGUUGA |
| 6914 | GAGAGGGUCACCCCCUUCU | 6962 | CGCUCCAUCUCUCAAGGCA | 7010 | CGCCGAGCUCAUAGAGGCU | 7058 | CAACAUCACCAGGGUUGAG |
| 6915 | AGAGGGUCACCCCCUUCUA | 6963 | GCUCCAUCUCUCAAGGCAA | 7011 | GCCGAGCUCAUAGAGGCUA | 7059 | AACAUCACCAGGGUUGAGU |
| 6916 | GAGGGUCACCCCCUUCUAU | 6964 | CUCCAUCUCUCAAGGCAAC | 7012 | CCGAGCUCAUAGAGGCUAA | 7060 | ACAUCACCAGGGUUGAGUC |
| 6917 | AGGGUCACCCCCUUCUAUG | 6965 | UCCAUCUCUCAAGGCAACU | 7013 | CGAGCUCAUAGAGGCUAAC | 7061 | CAUCACCAGGGUUGAGUCA |
| 6918 | GGGUCACCCCCUUCUAUGG | 6966 | CCAUCUCUCAAGGCAACUU | 7014 | GAGCUCAUAGAGGCUAACC | 7062 | AUCACCAGGGUUGAGUCAG |
| 6919 | GGUCACCCCCUUCUAUGGC | 6967 | CAUCUCUCAAGGCAACUUG | 7015 | AGCUCAUAGAGGCUAACCU | 7063 | UCACCAGGGUUGAGUCAGA |
| 6920 | GUCACCCCCUUCUAUGGCC | 6968 | AUCUCUCAAGGCAACUUGC | 7016 | GCUCAUAGAGGCUAACCUC | 7064 | CACCAGGGUUGAGUCAGAG |
| 6921 | UCACCCCCUUCUAUGGCCA | 6969 | UCUCUCAAGGCAACUUGCA | 7017 | CUCAUAGAGGCUAACCUCC | 7065 | ACCAGGGUUGAGUCAGAGA |
| 6922 | CACCCCCUUCUAUGGCCAG | 6970 | CUCUCAAGGCAACUUGCAC | 7018 | UCAUAGAGGCUAACCUCCU | 7066 | CCAGGGUUGAGUCAGAGAA |
| 6923 | ACCCCCUUCUAUGGCCAGC | 6971 | UCUCAAGGCAACUUGCACC | 7019 | CAUAGAGGCUAACCUCCUG | 7067 | CAGGGUUGAGUCAGAGAAC |
| 6924 | CCCCCUUCUAUGGCCAGCU | 6972 | CUCAAGGCAACUUGCACCG | 7020 | AUAGAGGCUAACCUCCUGU | 7068 | AGGGUUGAGUCAGAGAACA |
| 6925 | CCCCUUCUAUGGCCAGCUC | 6973 | UCAAGGCAACUUGCACCGC | 7021 | UAGAGGCUAACCUCCUGUG | 7069 | GGGUUGAGUCAGAGAACAA |
| 6926 | CCCUUCUAUGGCCAGCUCC | 6974 | CAAGGCAACUUGCACCGCC | 7022 | AGAGGCUAACCUCCUGUGG | 7070 | GGUUGAGUCAGAGAACAAA |
| 6927 | CCUUCUAUGGCCAGCUCCU | 6975 | AAGGCAACUUGCACCGCCA | 7023 | GAGGCUAACCUCCUGUGGA | 7071 | GUUGAGUCAGAGAACAAAG |
| 6928 | CUUCUAUGGCCAGCUCCUC | 6976 | AGGCAACUUGCACCGCCAA | 7024 | AGGCUAACCUCCUGUGGAG | 7072 | UUGAGUCAGAGAACAAAGU |
| 6929 | UUCUAUGGCCAGCUCCUCG | 6977 | GGCAACUUGCACCGCCAAC | 7025 | GGCUAACCUCCUGUGGAGG | 7073 | UGAGUCAGAGAACAAAGUG |
| 6930 | UCUAUGGCCAGCUCCUCGG | 6978 | GCAACUUGCACCGCCAACC | 7026 | GCUAACCUCCUGUGGAGGC | 7074 | GAGUCAGAGAACAAAGUGG |
| 6931 | CUAUGGCCAGCUCCUCGGC | 6979 | CAACUUGCACCGCCAACCA | 7027 | CUAACCUCCUGUGGAGGCA | 7075 | AGUCAGAGAACAAAGUGGU |
| 6932 | UAUGGCCAGCUCCUCGGCC | 6980 | AACUUGCACCGCCAACCAU | 7028 | UAACCUCCUGUGGAGGCAG | 7076 | GUCAGAGAACAAAGUGGUG |
| 6933 | AUGGCCAGCUCCUCGGCCA | 6981 | ACUUGCACCGCCAACCAUG | 7029 | AACCUCCUGUGGAGGCAGG | 7077 | UCAGAGAACAAAGUGGUGA |
| 6934 | UGGCCAGCUCCUCGGCCAG | 6982 | CUUGCACCGCCAACCAUGA | 7030 | ACCUCCUGUGGAGGCAGGA | 7078 | CAGAGAACAAAGUGGUGAU |
| 6935 | GGCCAGCUCCUCGGCCAGC | 6983 | UUGCACCGCCAACCAUGAC | 7031 | CCUCCUGUGGAGGCAGGAG | 7079 | AGAGAACAAAGUGGUGAUU |
| 6936 | GCCAGCUCCUCGGCCAGCC | 6984 | UGCACCGCCAACCAUGACU | 7032 | CUCCUGUGGAGGCAGGAGA | 7080 | GAGAACAAAGUGGUGAUUC |
| 6937 | CCAGCUCCUCGGCCAGCCA | 6985 | GCACCGCCAACCAUGACUC | 7033 | UCCUGUGGAGGCAGGAGAU | 7081 | AGAACAAAGUGGUGAUUCU |
| 6938 | CAGCUCCUCGGCCAGCCAG | 6986 | CACCGCCAACCAUGACUCC | 7034 | CCUGUGGAGGCAGGAGAUG | 7082 | GAACAAAGUGGUGAUUCUG |
| 6939 | AGCUCCUCGGCCAGCCAGC | 6987 | ACCGCCAACCAUGACUCCC | 7035 | CUGUGGAGGCAGGAGAUGG | 7083 | AACAAAGUGGUGAUUCUGG |
| 6940 | GCUCCUCGGCCAGCCAGCU | 6988 | CCGCCAACCAUGACUCCCC | 7036 | UGUGGAGGCAGGAGAUGGG | 7084 | ACAAAGUGGUGAUUCUGGA |
| 6941 | CUCCUCGGCCAGCCAGCUG | 6989 | CGCCAACCAUGACUCCCCU | 7037 | GUGGAGGCAGGAGAUGGGC | 7085 | CAAAGUGGUGAUUCUGGAC |
| 6942 | UCCUCGGCCAGCCAGCUGU | 6990 | GCCAACCAUGACUCCCCUG | 7038 | UGGAGGCAGGAGAUGGGCG | 7086 | AAAGUGGUGAUUCUGGACU |
| 6943 | CCUCGGCCAGCCAGCUGUC | 6991 | CCAACCAUGACUCCCCUGA | 7039 | GGAGGCAGGAGAUGGGCGG | 7087 | AAGUGGUGAUUCUGGACUC |
| 6944 | CUCGGCCAGCCAGCUGUCC | 6992 | CAACCAUGACUCCCCUGAC | 7040 | GAGGCAGGAGAUGGGCGGC | 7088 | AGUGGUGAUUCUGGACUCC |
| 6945 | UCGGCCAGCCAGCUGUCCG | 6993 | AACCAUGACUCCCCUGACG | 7041 | AGGCAGGAGAUGGGCGGCA | 7089 | GUGGUGAUUCUGGACUCCU |
| 6946 | CGGCCAGCCAGCUGUCCGC | 6994 | ACCAUGACUCCCCUGACGC | 7042 | GGCAGGAGAUGGGCGGCAA | 7090 | UGGUGAUUCUGGACUCCUU |
| 6947 | GGCCAGCCAGCUGUCCGCU | 6995 | CCAUGACUCCCCUGACGCC | 7043 | GCAGGAGAUGGGCGGCAAC | 7091 | GGUGAUUCUGGACUCCUUC |
| 6948 | GCCAGCCAGCUGUCCGCUC | 6996 | CAUGACUCCCCUGACGCCG | 7044 | CAGGAGAUGGGCGGCAACA | 7092 | GUGAUUCUGGACUCCUUCG |
| 6949 | CCAGCCAGCUGUCCGCUCC | 6997 | AUGACUCCCCUGACGCCGA | 7045 | AGGAGAUGGGCGGCAACAU | 7093 | UGAUUCUGGACUCCUUCGA |
| 6950 | CAGCCAGCUGUCCGCUCCA | 6998 | UGACUCCCCUGACGCCGAG | 7046 | GGAGAUGGGCGGCAACAUC | 7094 | GAUUCUGGACUCCUUCGAU |
| 6951 | AGCCAGCUGUCCGCUCCAU | 6999 | GACUCCCCUGACGCCGAGC | 7047 | GAGAUGGGCGGCAACAUCA | 7095 | AUUCUGGACUCCUUCGAUC |
| 6952 | GCCAGCUGUCCGCUCCAUC | 7000 | ACUCCCCUGACGCCGAGCU | 7048 | AGAUGGGCGGCAACAUCAC | 7096 | UUCUGGACUCCUUCGAUCC |
| 6953 | CCAGCUGUCCGCUCCAUCU | 7001 | CUCCCCUGACGCCGAGCUC | 7049 | GAUGGGCGGCAACAUCACC | 7097 | UCUGGACUCCUUCGAUCCG |
| 6954 | CAGCUGUCCGCUCCAUCUC | 7002 | UCCCCUGACGCCGAGCUCA | 7050 | AUGGGCGGCAACAUCACCA | 7098 | CUGGACUCCUUCGAUCCGC |
| 6955 | AGCUGUCCGCUCCAUCUCU | 7003 | CCCCUGACGCCGAGCUCAU | 7051 | UGGGCGGCAACAUCACCAG | 7099 | UGGACUCCUUCGAUCCGCU |
| 6956 | GCUGUCCGCUCCAUCUCUC | 7004 | CCCUGACGCCGAGCUCAUA | 7052 | GGGCGGCAACAUCACCAGG | 7100 | GGACUCCUUCGAUCCGCUU |
| 6957 | CUGUCCGCUCCAUCUCUCA | 7005 | CCUGACGCCGAGCUCAUAG | 7053 | GGCGGCAACAUCACCAGGG | 7101 | GACUCCUUCGAUCCGCUUG |
| 6958 | UGUCCGCUCCAUCUCUCAA | 7006 | CUGACGCCGAGCUCAUAGA | 7054 | GCGGCAACAUCACCAGGGU | 7102 | ACUCCUUCGAUCCGCUUGU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7103 | CUCCUUCGAUCCGCUUGUG | 7151 | ACCCGCAGAAAUUCUGCGG | 7199 | CGUUUGGGCGCGGCCGGAC | 7247 | AAAGCCUGACUACGAACCA |
| 7104 | UCCUUCGAUCCGCUUGUGG | 7152 | CCCGCAGAAAUUCUGCGGA | 7200 | GUUUGGGCGCGGCCGGACU | 7248 | AAGCCUGACUACGAACCAC |
| 7105 | CCUUCGAUCCGCUUGUGGC | 7153 | CCGCAGAAAUUCUGCGGAA | 7201 | UUUGGGCGCGGCCGGACUA | 7249 | AGCCUGACUACGAACCACC |
| 7106 | CUUCGAUCCGCUUGUGGCA | 7154 | CGCAGAAAUUCUGCGGAAG | 7202 | UUGGGCGCGGCCGGACUAC | 7250 | GCCUGACUACGAACCACCU |
| 7107 | UUCGAUCCGCUUGUGGCAG | 7155 | GCAGAAAUUCUGCGGAAGU | 7203 | UGGGCGCGGCCGGACUACA | 7251 | CCUGACUACGAACCACCUG |
| 7108 | UCGAUCCGCUUGUGGCAGA | 7156 | CAGAAAUUCUGCGGAAGUC | 7204 | GGGCGCGGCCGGACUACAA | 7252 | CUGACUACGAACCACCUGU |
| 7109 | CGAUCCGCUUGUGGCAGAG | 7157 | AGAAAUUCUGCGGAAGUCU | 7205 | GGCGCGGCCGGACUACAAC | 7253 | UGACUACGAACCACCUGUG |
| 7110 | GAUCCGCUUGUGGCAGAGG | 7158 | GAAAUUCUGCGGAAGUCUC | 7206 | GCGCGGCCGGACUACAACC | 7254 | GACUACGAACCACCUGUGG |
| 7111 | AUCCGCUUGUGGCAGAGGA | 7159 | AAAUUCUGCGGAAGUCUCG | 7207 | CGCGGCCGGACUACAACCC | 7255 | ACUACGAACCACCUGUGGU |
| 7112 | UCCGCUUGUGGCAGAGGAG | 7160 | AAUUCUGCGGAAGUCUCGG | 7208 | GCGGCCGGACUACAACCCC | 7256 | CUACGAACCACCUGUGGUC |
| 7113 | CCGCUUGUGGCAGAGGAGG | 7161 | AUUCUGCGGAAGUCUCGGA | 7209 | CGGCCGGACUACAACCCCC | 7257 | UACGAACCACCUGUGGUCC |
| 7114 | CGCUUGUGGCAGAGGAGGA | 7162 | UUCUGCGGAAGUCUCGGAG | 7210 | GGCCGGACUACAACCCCCC | 7258 | ACGAACCACCUGUGGUCCA |
| 7115 | GCUUGUGGCAGAGGAGGAU | 7163 | UCUGCGGAAGUCUCGGAGA | 7211 | GCCGGACUACAACCCCCCG | 7259 | CGAACCACCUGUGGUCCAU |
| 7116 | CUUGUGGCAGAGGAGGAUG | 7164 | CUGCGGAAGUCUCGGAGAU | 7212 | CCGGACUACAACCCCCCGC | 7260 | GAACCACCUGUGGUCCAUG |
| 7117 | UUGUGGCAGAGGAGGAUGA | 7165 | UGCGGAAGUCUCGGAGAUU | 7213 | CGGACUACAACCCCCCGCU | 7261 | AACCACCUGUGGUCCAUGG |
| 7118 | UGUGGCAGAGGAGGAUGAG | 7166 | GCGGAAGUCUCGGAGAUUC | 7214 | GGACUACAACCCCCCGCUA | 7262 | ACCACCUGUGGUCCAUGGC |
| 7119 | GUGGCAGAGGAGGAUGAGC | 7167 | CGGAAGUCUCGGAGAUUCG | 7215 | GACUACAACCCCCCGCUAG | 7263 | CCACCUGUGGUCCAUGGCU |
| 7120 | UGGCAGAGGAGGAUGAGCG | 7168 | GGAAGUCUCGGAGAUUCGC | 7216 | ACUACAACCCCCCGCUAGU | 7264 | CACCUGUGGUCCAUGGCUG |
| 7121 | GGCAGAGGAGGAUGAGCGG | 7169 | GAAGUCUCGGAGAUUCGCC | 7217 | CUACAACCCCCCGCUAGUA | 7265 | ACCUGUGGUCCAUGGCUGC |
| 7122 | GCAGAGGAGGAUGAGCGGG | 7170 | AAGUCUCGGAGAUUCGCCC | 7218 | UACAACCCCCCGCUAGUAG | 7266 | CCUGUGGUCCAUGGCUGCC |
| 7123 | CAGAGGAGGAUGAGCGGGA | 7171 | AGUCUCGGAGAUUCGCCCG | 7219 | ACAACCCCCCGCUAGUAGA | 7267 | CUGUGGUCCAUGGCUGCCC |
| 7124 | AGAGGAGGAUGAGCGGGAG | 7172 | GUCUCGGAGAUUCGCCCGG | 7220 | CAACCCCCCGCUAGUAGAG | 7268 | UGUGGUCCAUGGCUGCCCG |
| 7125 | GAGGAGGAUGAGCGGGAGG | 7173 | UCUCGGAGAUUCGCCCGGG | 7221 | AACCCCCCGCUAGUAGAGA | 7269 | GUGGUCCAUGGCUGCCCGC |
| 7126 | AGGAGGAUGAGCGGGAGGU | 7174 | CUCGGAGAUUCGCCCGGGC | 7222 | ACCCCCCGCUAGUAGAGAC | 7270 | UGGUCCAUGGCUGCCCGCU |
| 7127 | GGAGGAUGAGCGGGAGGUC | 7175 | UCGGAGAUUCGCCCGGGCC | 7223 | CCCCCCGCUAGUAGAGACG | 7271 | GGUCCAUGGCUGCCCGCUA |
| 7128 | GAGGAUGAGCGGGAGGUCU | 7176 | CGGAGAUUCGCCCGGGCCC | 7224 | CCCCCGCUAGUAGAGACGU | 7272 | GUCCAUGGCUGCCCGCUAC |
| 7129 | AGGAUGAGCGGGAGGUCUC | 7177 | GGAGAUUCGCCCGGGCCCU | 7225 | CCCCGCUAGUAGAGACGUG | 7273 | UCCAUGGCUGCCCGCUACC |
| 7130 | GGAUGAGCGGGAGGUCUCC | 7178 | GAGAUUCGCCCGGGCCCUG | 7226 | CCCGCUAGUAGAGACGUGG | 7274 | CCAUGGCUGCCCGCUACCA |
| 7131 | GAUGAGCGGGAGGUCUCCG | 7179 | AGAUUCGCCCGGGCCCUGC | 7227 | CCGCUAGUAGAGACGUGGA | 7275 | CAUGGCUGCCCGCUACCAC |
| 7132 | AUGAGCGGGAGGUCUCCGU | 7180 | GAUUCGCCCGGGCCCUGCC | 7228 | CGCUAGUAGAGACGUGGAA | 7276 | AUGGCUGCCCGCUACCACC |
| 7133 | UGAGCGGGAGGUCUCCGUA | 7181 | AUUCGCCCGGGCCCUGCCC | 7229 | GCUAGUAGAGACGUGGAAA | 7277 | UGGCUGCCCGCUACCACCU |
| 7134 | GAGCGGGAGGUCUCCGUAC | 7182 | UUCGCCCGGGCCCUGCCCG | 7230 | CUAGUAGAGACGUGGAAAA | 7278 | GGCUGCCCGCUACCACCUC |
| 7135 | AGCGGGAGGUCUCCGUACC | 7183 | UCGCCCGGGCCCUGCCCGU | 7231 | UAGUAGAGACGUGGAAAAA | 7279 | GCUGCCCGCUACCACCUCC |
| 7136 | GCGGGAGGUCUCCGUACCC | 7184 | CGCCCGGGCCCUGCCCGUU | 7232 | AGUAGAGACGUGGAAAAAG | 7280 | CUGCCCGCUACCACCUCCA |
| 7137 | CGGGAGGUCUCCGUACCCG | 7185 | GCCCGGGCCCUGCCCGUUU | 7233 | GUAGAGACGUGGAAAAAGC | 7281 | UGCCCGCUACCACCUCCAC |
| 7138 | GGGAGGUCUCCGUACCCGC | 7186 | CCCGGGCCCUGCCCGUUUG | 7234 | UAGAGACGUGGAAAAAGCC | 7282 | GCCCGCUACCACCUCCACG |
| 7139 | GGAGGUCUCCGUACCCGCA | 7187 | CCGGGCCCUGCCCGUUUGG | 7235 | AGAGACGUGGAAAAAGCCU | 7283 | CCCGCUACCACCUCCACGG |
| 7140 | GAGGUCUCCGUACCCGCAG | 7188 | CGGGCCCUGCCCGUUUGGG | 7236 | GAGACGUGGAAAAAGCCUG | 7284 | CCGCUACCACCUCCACGGU |
| 7141 | AGGUCUCCGUACCCGCAGA | 7189 | GGGCCCUGCCCGUUUGGGC | 7237 | AGACGUGGAAAAAGCCUGA | 7285 | CGCUACCACCUCCACGGUC |
| 7142 | GGUCUCCGUACCCGCAGAA | 7190 | GGCCCUGCCCGUUUGGGCG | 7238 | GACGUGGAAAAAGCCUGAC | 7286 | GCUACCACCUCCACGGUCC |
| 7143 | GUCUCCGUACCCGCAGAAA | 7191 | GCCCUGCCCGUUUGGGCGC | 7239 | ACGUGGAAAAAGCCUGACU | 7287 | CUACCACCUCCACGGUCCC |
| 7144 | UCUCCGUACCCGCAGAAAU | 7192 | CCCUGCCCGUUUGGGCGCG | 7240 | CGUGGAAAAAGCCUGACUA | 7288 | UACCACCUCCACGGUCCCC |
| 7145 | CUCCGUACCCGCAGAAAUU | 7193 | CCUGCCCGUUUGGGCGCGG | 7241 | GUGGAAAAAGCCUGACUAC | 7289 | ACCACCUCCACGGUCCCCU |
| 7146 | UCCGUACCCGCAGAAAUUC | 7194 | CUGCCCGUUUGGGCGCGGC | 7242 | UGGAAAAAGCCUGACUACG | 7290 | CCACCUCCACGGUCCCCUC |
| 7147 | CCGUACCCGCAGAAAUUCU | 7195 | UGCCCGUUUGGGCGCGGCC | 7243 | GGAAAAAGCCUGACUACGA | 7291 | CACCUCCACGGUCCCCUCC |
| 7148 | CGUACCCGCAGAAAUUCUG | 7196 | GCCCGUUUGGGCGCGGCCG | 7244 | GAAAAAGCCUGACUACGAA | 7292 | ACCUCCACGGUCCCCUCCU |
| 7149 | GUACCCGCAGAAAUUCUGC | 7197 | CCCGUUUGGGCGCGGCCGG | 7245 | AAAAAGCCUGACUACGAAC | 7293 | CCUCCACGGUCCCCUCCUG |
| 7150 | UACCCGCAGAAAUUCUGCG | 7198 | CCGUUUGGGCGCGGCCGGA | 7246 | AAAAGCCUGACUACGAACC | 7294 | CUCCACGGUCCCCUCCUGU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7295 | UCCACGGUCCCCUCCUGUG | 7343 | CCUCACCGAAUCAACCCUA | 7391 | AAGUUUUGGCAGCUCCUCA | 7439 | AACAUCCUCUGAGCCCGCC |
| 7296 | CCACGGUCCCCUCCUGUGC | 7344 | CUCACCGAAUCAACCCUAU | 7392 | AGUUUUGGCAGCUCCUCAA | 7440 | ACAUCCUCUGAGCCCGCCC |
| 7297 | CACGGUCCCCUCCUGUGCC | 7345 | UCACCGAAUCAACCCUAUC | 7393 | GUUUUGGCAGCUCCUCAAC | 7441 | CAUCCUCUGAGCCCGCCCC |
| 7298 | ACGGUCCCCUCCUGUGCCU | 7346 | CACCGAAUCAACCCUAUCU | 7394 | UUUUGGCAGCUCCUCAACU | 7442 | AUCCUCUGAGCCCGCCCCU |
| 7299 | CGGUCCCCUCCUGUGCCUC | 7347 | ACCGAAUCAACCCUAUCUA | 7395 | UUUGGCAGCUCCUCAACUU | 7443 | UCCUCUGAGCCCGCCCCUU |
| 7300 | GGUCCCCUCCUGUGCCUCC | 7348 | CCGAAUCAACCCUAUCUAC | 7396 | UUGGCAGCUCCUCAACUUC | 7444 | CCUCUGAGCCCGCCCCUUC |
| 7301 | GUCCCCUCCUGUGCCUCCG | 7349 | CGAAUCAACCCUAUCUACU | 7397 | UGGCAGCUCCUCAACUUCC | 7445 | CUCUGAGCCCGCCCCUUCU |
| 7302 | UCCCCUCCUGUGCCUCCGC | 7350 | GAAUCAACCCUAUCUACUG | 7398 | GGCAGCUCCUCAACUUCCG | 7446 | UCUGAGCCCGCCCCUUCUG |
| 7303 | CCCCUCCUGUGCCUCCGCC | 7351 | AAUCAACCCUAUCUACUGC | 7399 | GCAGCUCCUCAACUUCCGG | 7447 | CUGAGCCCGCCCCUUCUGG |
| 7304 | CCCUCCUGUGCCUCCGCCU | 7352 | AUCAACCCUAUCUACUGCC | 7400 | CAGCUCCUCAACUUCCGGC | 7448 | UGAGCCCGCCCCUUCUGGC |
| 7305 | CCUCCUGUGCCUCCGCCUC | 7353 | UCAACCCUAUCUACUGCCU | 7401 | AGCUCCUCAACUUCCGGCA | 7449 | GAGCCCGCCCCUUCUGGCU |
| 7306 | CUCCUGUGCCUCCGCCUCG | 7354 | CAACCCUAUCUACUGCCUU | 7402 | GCUCCUCAACUUCCGGCAU | 7450 | AGCCCGCCCCUUCUGGCUG |
| 7307 | UCCUGUGCCUCCGCCUCGG | 7355 | AACCCUAUCUACUGCCUUG | 7403 | CUCCUCAACUUCCGGCAUU | 7451 | GCCCGCCCCUUCUGGCUGC |
| 7308 | CCUGUGCCUCCGCCUCGGA | 7356 | ACCCUAUCUACUGCCUUGG | 7404 | UCCUCAACUUCCGGCAUUA | 7452 | CCCGCCCCUUCUGGCUGCC |
| 7309 | CUGUGCCUCCGCCUCGGAA | 7357 | CCCUAUCUACUGCCUUGGC | 7405 | CCUCAACUUCCGGCAUUAC | 7453 | CCGCCCCUUCUGGCUGCCC |
| 7310 | UGUGCCUCCGCCUCGGAAA | 7358 | CCUAUCUACUGCCUUGGCC | 7406 | CUCAACUUCCGGCAUUACG | 7454 | CGCCCCUUCUGGCUGCCCC |
| 7311 | GUGCCUCCGCCUCGGAAAA | 7359 | CUAUCUACUGCCUUGGCCG | 7407 | UCAACUUCCGGCAUUACGG | 7455 | GCCCCUUCUGGCUGCCCCC |
| 7312 | UGCCUCCGCCUCGGAAAAA | 7360 | UAUCUACUGCCUUGGCCGA | 7408 | CAACUUCCGGCAUUACGGG | 7456 | CCCCUUCUGGCUGCCCCCC |
| 7313 | GCCUCCGCCUCGGAAAAAG | 7361 | AUCUACUGCCUUGGCCGAG | 7409 | AACUUCCGGCAUUACGGGC | 7457 | CCCUUCUGGCUGCCCCCCC |
| 7314 | CCUCCGCCUCGGAAAAAGC | 7362 | UCUACUGCCUUGGCCGAGC | 7410 | ACUUCCGGCAUUACGGGCG | 7458 | CCUUCUGGCUGCCCCCCCG |
| 7315 | CUCCGCCUCGGAAAAAGCG | 7363 | CUACUGCCUUGGCCGAGCU | 7411 | CUUCCGGCAUUACGGGCGA | 7459 | CUUCUGGCUGCCCCCCCGA |
| 7316 | UCCGCCUCGGAAAAAGCGU | 7364 | UACUGCCUUGGCCGAGCUU | 7412 | UUCCGGCAUUACGGGCGAC | 7460 | UUCUGGCUGCCCCCCCGAC |
| 7317 | CCGCCUCGGAAAAAGCGUA | 7365 | ACUGCCUUGGCCGAGCUUG | 7413 | UCCGGCAUUACGGGCGACA | 7461 | UCUGGCUGCCCCCCCGACU |
| 7318 | CGCCUCGGAAAAAGCGUAC | 7366 | CUGCCUUGGCCGAGCUUGC | 7414 | CCGGCAUUACGGGCGACAA | 7462 | CUGGCUGCCCCCCCGACUC |
| 7319 | GCCUCGGAAAAAGCGUACG | 7367 | UGCCUUGGCCGAGCUUGCC | 7415 | CGGCAUUACGGGCGACAAU | 7463 | UGGCUGCCCCCCCGACUCC |
| 7320 | CCUCGGAAAAAGCGUACGG | 7368 | GCCUUGGCCGAGCUUGCCA | 7416 | GGCAUUACGGGCGACAAUA | 7464 | GGCUGCCCCCCCGACUCCG |
| 7321 | CUCGGAAAAAGCGUACGGU | 7369 | CCUUGGCCGAGCUUGCCAC | 7417 | GCAUUACGGGCGACAAUAC | 7465 | GCUGCCCCCCCGACUCCGA |
| 7322 | UCGGAAAAAGCGUACGGUG | 7370 | CUUGGCCGAGCUUGCCACC | 7418 | CAUUACGGGCGACAAUACG | 7466 | CUGCCCCCCCGACUCCGAC |
| 7323 | CGGAAAAAGCGUACGGUGG | 7371 | UUGGCCGAGCUUGCCACCA | 7419 | AUUACGGGCGACAAUACGA | 7467 | UGCCCCCCCGACUCCGACG |
| 7324 | GGAAAAAGCGUACGGUGGU | 7372 | UGGCCGAGCUUGCCACCAA | 7420 | UUACGGGCGACAAUACGAC | 7468 | GCCCCCCCGACUCCGACGU |
| 7325 | GAAAAAGCGUACGGUGGUC | 7373 | GGCCGAGCUUGCCACCAAA | 7421 | UACGGGCGACAAUACGACA | 7469 | CCCCCCCGACUCCGACGUU |
| 7326 | AAAAAGCGUACGGUGGUCC | 7374 | GCCGAGCUUGCCACCAAAA | 7422 | ACGGGCGACAAUACGACAA | 7470 | CCCCCCGACUCCGACGUUG |
| 7327 | AAAAGCGUACGGUGGUCCU | 7375 | CCGAGCUUGCCACCAAAAG | 7423 | CGGGCGACAAUACGACAAC | 7471 | CCCCCGACUCCGACGUUGA |
| 7328 | AAAGCGUACGGUGGUCCUC | 7376 | CGAGCUUGCCACCAAAAGU | 7424 | GGGCGACAAUACGACAACA | 7472 | CCCCGACUCCGACGUUGAG |
| 7329 | AAGCGUACGGUGGUCCUCA | 7377 | GAGCUUGCCACCAAAAGUU | 7425 | GGCGACAAUACGACAACAU | 7473 | CCCGACUCCGACGUUGAGU |
| 7330 | AGCGUACGGUGGUCCUCAC | 7378 | AGCUUGCCACCAAAAGUUU | 7426 | GCGACAAUACGACAACAUC | 7474 | CCGACUCCGACGUUGAGUC |
| 7331 | GCGUACGGUGGUCCUCACC | 7379 | GCUUGCCACCAAAAGUUUU | 7427 | CGACAAUACGACAACAUCC | 7475 | CGACUCCGACGUUGAGUCC |
| 7332 | CGUACGGUGGUCCUCACCG | 7380 | CUUGCCACCAAAAGUUUUG | 7428 | GACAAUACGACAACAUCCU | 7476 | GACUCCGACGUUGAGUCCU |
| 7333 | GUACGGUGGUCCUCACCGA | 7381 | UUGCCACCAAAAGUUUUGG | 7429 | ACAAUACGACAACAUCCUC | 7477 | ACUCCGACGUUGAGUCCUA |
| 7334 | UACGGUGGUCCUCACCGAA | 7382 | UGCCACCAAAAGUUUUGGC | 7430 | CAAUACGACAACAUCCUCU | 7478 | CUCCGACGUUGAGUCCUAU |
| 7335 | ACGGUGGUCCUCACCGAAU | 7383 | GCCACCAAAAGUUUUGGCA | 7431 | AAUACGACAACAUCCUCUG | 7479 | UCCGACGUUGAGUCCUAUU |
| 7336 | CGGUGGUCCUCACCGAAUC | 7384 | CCACCAAAAGUUUUGGCAG | 7432 | AUACGACAACAUCCUCUGA | 7480 | CCGACGUUGAGUCCUAUUC |
| 7337 | GGUGGUCCUCACCGAAUCA | 7385 | CACCAAAAGUUUUGGCAGC | 7433 | UACGACAACAUCCUCUGAG | 7481 | CGACGUUGAGUCCUAUUCU |
| 7338 | GUGGUCCUCACCGAAUCAA | 7386 | ACCAAAAGUUUUGGCAGCU | 7434 | ACGACAACAUCCUCUGAGC | 7482 | GACGUUGAGUCCUAUUCUU |
| 7339 | UGGUCCUCACCGAAUCAAC | 7387 | CCAAAAGUUUUGGCAGCUC | 7435 | CGACAACAUCCUCUGAGCC | 7483 | ACGUUGAGUCCUAUUCUUC |
| 7340 | GGUCCUCACCGAAUCAACC | 7388 | CAAAAGUUUUGGCAGCUCC | 7436 | GACAACAUCCUCUGAGCCC | 7484 | CGUUGAGUCCUAUUCUUCC |
| 7341 | GUCCUCACCGAAUCAACCC | 7389 | AAAAGUUUUGGCAGCUCCU | 7437 | ACAACAUCCUCUGAGCCCG | 7485 | GUUGAGUCCUAUUCUUCCA |
| 7342 | UCCUCACCGAAUCAACCCU | 7390 | AAAGUUUUGGCAGCUCCUC | 7438 | CAACAUCCUCUGAGCCCGC | 7486 | UUGAGUCCUAUUCUUCCAU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7487 | UGAGUCCUAUUCUUCCAUG | 7535 | GGAUCUCAGCGACGGGUCA | 7583 | GGAAGAUGUCGUGUGCUGC | 7631 | CGUCACCCCGUGCGCUGCG |
| 7488 | GAGUCCUAUUCUUCCAUGC | 7536 | GAUCUCAGCGACGGGUCAU | 7584 | GAAGAUGUCGUGUGCUGCU | 7632 | GUCACCCCGUGCGCUGCGG |
| 7489 | AGUCCUAUUCUUCCAUGCC | 7537 | AUCUCAGCGACGGGUCAUG | 7585 | AAGAUGUCGUGUGCUGCUC | 7633 | UCACCCCGUGCGCUGCGGA |
| 7490 | GUCCUAUUCUUCCAUGCCC | 7538 | UCUCAGCGACGGGUCAUGG | 7586 | AGAUGUCGUGUGCUGCUCA | 7634 | CACCCCGUGCGCUGCGGAA |
| 7491 | UCCUAUUCUUCCAUGCCCC | 7539 | CUCAGCGACGGGUCAUGGU | 7587 | GAUGUCGUGUGCUGCUCAA | 7635 | ACCCCGUGCGCUGCGGAAG |
| 7492 | CCUAUUCUUCCAUGCCCCC | 7540 | UCAGCGACGGGUCAUGGUC | 7588 | AUGUCGUGUGCUGCUCAAU | 7636 | CCCCGUGCGCUGCGGAAGA |
| 7493 | CUAUUCUUCCAUGCCCCCC | 7541 | CAGCGACGGGUCAUGGUCG | 7589 | UGUCGUGUGCUGCUCAAUG | 7637 | CCCGUGCGCUGCGGAAGAA |
| 7494 | UAUUCUUCCAUGCCCCCCC | 7542 | AGCGACGGGUCAUGGUCGA | 7590 | GUCGUGUGCUGCUCAAUGU | 7638 | CCGUGCGCUGCGGAAGAAC |
| 7495 | AUUCUUCCAUGCCCCCCCU | 7543 | GCGACGGGUCAUGGUCGAC | 7591 | UCGUGUGCUGCUCAAUGUC | 7639 | CGUGCGCUGCGGAAGAACA |
| 7496 | UUCUUCCAUGCCCCCCCUG | 7544 | CGACGGGUCAUGGUCGACG | 7592 | CGUGUGCUGCUCAAUGUCU | 7640 | GUGCGCUGCGGAAGAACAA |
| 7497 | UCUUCCAUGCCCCCCCUGG | 7545 | GACGGGUCAUGGUCGACGG | 7593 | GUGUGCUGCUCAAUGUCUU | 7641 | UGCGCUGCGGAAGAACAAA |
| 7498 | CUUCCAUGCCCCCCCUGGA | 7546 | ACGGGUCAUGGUCGACGGU | 7594 | UGUGCUGCUCAAUGUCUUA | 7642 | GCGCUGCGGAAGAACAAAA |
| 7499 | UUCCAUGCCCCCCCUGGAG | 7547 | CGGGUCAUGGUCGACGGUC | 7595 | GUGCUGCUCAAUGUCUUAU | 7643 | CGCUGCGGAAGAACAAAAA |
| 7500 | UCCAUGCCCCCCCUGGAGG | 7548 | GGGUCAUGGUCGACGGUCA | 7596 | UGCUGCUCAAUGUCUUAUU | 7644 | GCUGCGGAAGAACAAAAAC |
| 7501 | CCAUGCCCCCCCUGGAGGG | 7549 | GGUCAUGGUCGACGGUCAG | 7597 | GCUGCUCAAUGUCUUAUUC | 7645 | CUGCGGAAGAACAAAAACU |
| 7502 | CAUGCCCCCCCUGGAGGGG | 7550 | GUCAUGGUCGACGGUCAGU | 7598 | CUGCUCAAUGUCUUAUUCC | 7646 | UGCGGAAGAACAAAAACUG |
| 7503 | AUGCCCCCCCUGGAGGGGG | 7551 | UCAUGGUCGACGGUCAGUA | 7599 | UGCUCAAUGUCUUAUUCCU | 7647 | GCGGAAGAACAAAAACUGC |
| 7504 | UGCCCCCCCUGGAGGGGGA | 7552 | CAUGGUCGACGGUCAGUAG | 7600 | GCUCAAUGUCUUAUUCCUG | 7648 | CGGAAGAACAAAAACUGCC |
| 7505 | GCCCCCCCUGGAGGGGGAG | 7553 | AUGGUCGACGGUCAGUAGU | 7601 | CUCAAUGUCUUAUUCCUGG | 7649 | GGAAGAACAAAAACUGCCC |
| 7506 | CCCCCCCUGGAGGGGGAGC | 7554 | UGGUCGACGGUCAGUAGUG | 7602 | UCAAUGUCUUAUUCCUGGA | 7650 | GAAGAACAAAAACUGCCCA |
| 7507 | CCCCCCUGGAGGGGGAGCC | 7555 | GGUCGACGGUCAGUAGUGG | 7603 | CAAUGUCUUAUUCCUGGAC | 7651 | AAGAACAAAAACUGCCCAU |
| 7508 | CCCCCUGGAGGGGGAGCCU | 7556 | GUCGACGGUCAGUAGUGGG | 7604 | AAUGUCUUAUUCCUGGACA | 7652 | AGAACAAAAACUGCCCAUC |
| 7509 | CCCCUGGAGGGGGAGCCUG | 7557 | UCGACGGUCAGUAGUGGGG | 7605 | AUGUCUUAUUCCUGGACAG | 7653 | GAACAAAAACUGCCCAUCA |
| 7510 | CCCUGGAGGGGGAGCCUGG | 7558 | CGACGGUCAGUAGUGGGGC | 7606 | UGUCUUAUUCCUGGACAGG | 7654 | AACAAAAACUGCCCAUCAA |
| 7511 | CCUGGAGGGGGAGCCUGGG | 7559 | GACGGUCAGUAGUGGGGCC | 7607 | GUCUUAUUCCUGGACAGGC | 7655 | ACAAAAACUGCCCAUCAAC |
| 7512 | CUGGAGGGGGAGCCUGGGG | 7560 | ACGGUCAGUAGUGGGGCCG | 7608 | UCUUAUUCCUGGACAGGCG | 7656 | CAAAAACUGCCCAUCAACG |
| 7513 | UGGAGGGGGAGCCUGGGGA | 7561 | CGGUCAGUAGUGGGGCCGA | 7609 | CUUAUUCCUGGACAGGCGC | 7657 | AAAAACUGCCCAUCAACGC |
| 7514 | GGAGGGGGAGCCUGGGGAU | 7562 | GGUCAGUAGUGGGGCCGAC | 7610 | UUAUUCCUGGACAGGCGCA | 7658 | AAAACUGCCCAUCAACGCA |
| 7515 | GAGGGGGAGCCUGGGGAUC | 7563 | GUCAGUAGUGGGGCCGACA | 7611 | UAUUCCUGGACAGGCGCAC | 7659 | AAACUGCCCAUCAACGCAC |
| 7516 | AGGGGGAGCCUGGGGAUCC | 7564 | UCAGUAGUGGGGCCGACAC | 7612 | AUUCCUGGACAGGCGCACU | 7660 | AACUGCCCAUCAACGCACU |
| 7517 | GGGGGAGCCUGGGGAUCCG | 7565 | CAGUAGUGGGGCCGACACG | 7613 | UUCCUGGACAGGCGCACUC | 7661 | ACUGCCCAUCAACGCACUG |
| 7518 | GGGGAGCCUGGGGAUCCGG | 7566 | AGUAGUGGGGCCGACACGG | 7614 | UCCUGGACAGGCGCACUCG | 7662 | CUGCCCAUCAACGCACUGA |
| 7519 | GGGAGCCUGGGGAUCCGGA | 7567 | GUAGUGGGGCCGACACGGA | 7615 | CCUGGACAGGCGCACUCGU | 7663 | UGCCCAUCAACGCACUGAG |
| 7520 | GGAGCCUGGGGAUCCGGAU | 7568 | UAGUGGGGCCGACACGGAA | 7616 | CUGGACAGGCGCACUCGUC | 7664 | GCCCAUCAACGCACUGAGC |
| 7521 | GAGCCUGGGGAUCCGGAUC | 7569 | AGUGGGGCCGACACGGAAG | 7617 | UGGACAGGCGCACUCGUCA | 7665 | CCCAUCAACGCACUGAGCA |
| 7522 | AGCCUGGGGAUCCGGAUCU | 7570 | GUGGGGCCGACACGGAAGA | 7618 | GGACAGGCGCACUCGUCAC | 7666 | CCAUCAACGCACUGAGCAA |
| 7523 | GCCUGGGGAUCCGGAUCUC | 7571 | UGGGGCCGACACGGAAGAU | 7619 | GACAGGCGCACUCGUCACC | 7667 | CAUCAACGCACUGAGCAAC |
| 7524 | CCUGGGGAUCCGGAUCUCA | 7572 | GGGGCCGACACGGAAGAUG | 7620 | ACAGGCGCACUCGUCACCC | 7668 | AUCAACGCACUGAGCAACU |
| 7525 | CUGGGGAUCCGGAUCUCAG | 7573 | GGGCCGACACGGAAGAUGU | 7621 | CAGGCGCACUCGUCACCCC | 7669 | UCAACGCACUGAGCAACUC |
| 7526 | UGGGGAUCCGGAUCUCAGC | 7574 | GGCCGACACGGAAGAUGUC | 7622 | AGGCGCACUCGUCACCCCG | 7670 | CAACGCACUGAGCAACUCG |
| 7527 | GGGGAUCCGGAUCUCAGCG | 7575 | GCCGACACGGAAGAUGUCG | 7623 | GGCGCACUCGUCACCCCGU | 7671 | AACGCACUGAGCAACUCGU |
| 7528 | GGGAUCCGGAUCUCAGCGA | 7576 | CCGACACGGAAGAUGUCGU | 7624 | GCGCACUCGUCACCCCGUG | 7672 | ACGCACUGAGCAACUCGUU |
| 7529 | GGAUCCGGAUCUCAGCGAC | 7577 | CGACACGGAAGAUGUCGUG | 7625 | CGCACUCGUCACCCCGUGC | 7673 | CGCACUGAGCAACUCGUUG |
| 7530 | GAUCCGGAUCUCAGCGACG | 7578 | GACACGGAAGAUGUCGUGU | 7626 | GCACUCGUCACCCCGUGCG | 7674 | GCACUGAGCAACUCGUUGC |
| 7531 | AUCCGGAUCUCAGCGACGG | 7579 | ACACGGAAGAUGUCGUGUG | 7627 | CACUCGUCACCCCGUGCGC | 7675 | CACUGAGCAACUCGUUGCU |
| 7532 | UCCGGAUCUCAGCGACGGG | 7580 | CACGGAAGAUGUCGUGUGC | 7628 | ACUCGUCACCCCGUGCGCU | 7676 | ACUGAGCAACUCGUUGCUA |
| 7533 | CCGGAUCUCAGCGACGGGU | 7581 | ACGGAAGAUGUCGUGUGCU | 7629 | CUCGUCACCCCGUGCGCUG | 7677 | CUGAGCAACUCGUUGCUAC |
| 7534 | CGGAUCUCAGCGACGGGUC | 7582 | CGGAAGAUGUCGUGUGCUG | 7630 | UCGUCACCCCGUGCGCUGC | 7678 | UGAGCAACUCGUUGCUACG |

**FIG. 1 (page 40 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7679 | GAGCAACUCGUUGCUACGC | 7727 | ACGCAGUGCUUGCCAAAGG | 7775 | AGUUCUGGACAGCCAUUAC | 7823 | GGCGUCAAAAGUGAAGGCU |
| 7680 | AGCAACUCGUUGCUACGCC | 7728 | CGCAGUGCUUGCCAAAGGC | 7776 | GUUCUGGACAGCCAUUACC | 7824 | GCGUCAAAAGUGAAGGCUA |
| 7681 | GCAACUCGUUGCUACGCCA | 7729 | GCAGUGCUUGCCAAAGGCA | 7777 | UUCUGGACAGCCAUUACCA | 7825 | CGUCAAAAGUGAAGGCUAA |
| 7682 | CAACUCGUUGCUACGCCAU | 7730 | CAGUGCUUGCCAAAGGCAG | 7778 | UCUGGACAGCCAUUACCAG | 7826 | GUCAAAAGUGAAGGCUAAC |
| 7683 | AACUCGUUGCUACGCCAUC | 7731 | AGUGCUUGCCAAAGGCAGA | 7779 | CUGGACAGCCAUUACCAGG | 7827 | UCAAAAGUGAAGGCUAACU |
| 7684 | ACUCGUUGCUACGCCAUCA | 7732 | GUGCUUGCCAAAGGCAGAA | 7780 | UGGACAGCCAUUACCAGGA | 7828 | CAAAAGUGAAGGCUAACUU |
| 7685 | CUCGUUGCUACGCCAUCAC | 7733 | UGCUUGCCAAAGGCAGAAG | 7781 | GGACAGCCAUUACCAGGAC | 7829 | AAAAGUGAAGGCUAACUUG |
| 7686 | UCGUUGCUACGCCAUCACA | 7734 | GCUUGCCAAAGGCAGAAGA | 7782 | GACAGCCAUUACCAGGACG | 7830 | AAAGUGAAGGCUAACUUGC |
| 7687 | CGUUGCUACGCCAUCACAA | 7735 | CUUGCCAAAGGCAGAAGAA | 7783 | ACAGCCAUUACCAGGACGU | 7831 | AAGUGAAGGCUAACUUGCU |
| 7688 | GUUGCUACGCCAUCACAAU | 7736 | UUGCCAAAGGCAGAAGAAA | 7784 | CAGCCAUUACCAGGACGUG | 7832 | AGUGAAGGCUAACUUGCUA |
| 7689 | UUGCUACGCCAUCACAAUC | 7737 | UGCCAAAGGCAGAAGAAAG | 7785 | AGCCAUUACCAGGACGUGC | 7833 | GUGAAGGCUAACUUGCUAU |
| 7690 | UGCUACGCCAUCACAAUCU | 7738 | GCCAAAGGCAGAAGAAAGU | 7786 | GCCAUUACCAGGACGUGCU | 7834 | UGAAGGCUAACUUGCUAUC |
| 7691 | GCUACGCCAUCACAAUCUG | 7739 | CCAAAGGCAGAAGAAAGUC | 7787 | CCAUUACCAGGACGUGCUC | 7835 | GAAGGCUAACUUGCUAUCC |
| 7692 | CUACGCCAUCACAAUCUGG | 7740 | CAAAGGCAGAAGAAAGUCA | 7788 | CAUUACCAGGACGUGCUCA | 7836 | AAGGCUAACUUGCUAUCCG |
| 7693 | UACGCCAUCACAAUCUGGU | 7741 | AAAGGCAGAAGAAAGUCAC | 7789 | AUUACCAGGACGUGCUCAA | 7837 | AGGCUAACUUGCUAUCCGU |
| 7694 | ACGCCAUCACAAUCUGGUG | 7742 | AAGGCAGAAGAAAGUCACA | 7790 | UUACCAGGACGUGCUCAAG | 7838 | GGCUAACUUGCUAUCCGUA |
| 7695 | CGCCAUCACAAUCUGGUGU | 7743 | AGGCAGAAGAAAGUCACAU | 7791 | UACCAGGACGUGCUCAAGG | 7839 | GCUAACUUGCUAUCCGUAG |
| 7696 | GCCAUCACAAUCUGGUGUA | 7744 | GGCAGAAGAAAGUCACAUU | 7792 | ACCAGGACGUGCUCAAGGA | 7840 | CUAACUUGCUAUCCGUAGA |
| 7697 | CCAUCACAAUCUGGUGUAU | 7745 | GCAGAAGAAAGUCACAUUU | 7793 | CCAGGACGUGCUCAAGGAG | 7841 | UAACUUGCUAUCCGUAGAG |
| 7698 | CAUCACAAUCUGGUGUAUU | 7746 | CAGAAGAAAGUCACAUUUG | 7794 | CAGGACGUGCUCAAGGAGG | 7842 | AACUUGCUAUCCGUAGAGG |
| 7699 | AUCACAAUCUGGUGUAUUC | 7747 | AGAAGAAAGUCACAUUUGA | 7795 | AGGACGUGCUCAAGGAGGU | 7843 | ACUUGCUAUCCGUAGAGGA |
| 7700 | UCACAAUCUGGUGUAUUCC | 7748 | GAAGAAAGUCACAUUUGAC | 7796 | GGACGUGCUCAAGGAGGUC | 7844 | CUUGCUAUCCGUAGAGGAA |
| 7701 | CACAAUCUGGUGUAUUCCA | 7749 | AAGAAAGUCACAUUUGACA | 7797 | GACGUGCUCAAGGAGGUCA | 7845 | UUGCUAUCCGUAGAGGAAG |
| 7702 | ACAAUCUGGUGUAUUCCAC | 7750 | AGAAAGUCACAUUUGACAG | 7798 | ACGUGCUCAAGGAGGUCAA | 7846 | UGCUAUCCGUAGAGGAAGC |
| 7703 | CAAUCUGGUGUAUUCCACC | 7751 | GAAAGUCACAUUUGACAGA | 7799 | CGUGCUCAAGGAGGUCAAA | 7847 | GCUAUCCGUAGAGGAAGCU |
| 7704 | AAUCUGGUGUAUUCCACCA | 7752 | AAAGUCACAUUUGACAGAC | 7800 | GUGCUCAAGGAGGUCAAAG | 7848 | CUAUCCGUAGAGGAAGCUU |
| 7705 | AUCUGGUGUAUUCCACCAC | 7753 | AAGUCACAUUUGACAGACU | 7801 | UGCUCAAGGAGGUCAAAGC | 7849 | UAUCCGUAGAGGAAGCUUG |
| 7706 | UCUGGUGUAUUCCACCACU | 7754 | AGUCACAUUUGACAGACUG | 7802 | GCUCAAGGAGGUCAAAGCA | 7850 | AUCCGUAGAGGAAGCUUGC |
| 7707 | CUGGUGUAUUCCACCACUU | 7755 | GUCACAUUUGACAGACUGC | 7803 | CUCAAGGAGGUCAAAGCAG | 7851 | UCCGUAGAGGAAGCUUGCA |
| 7708 | UGGUGUAUUCCACCACUUC | 7756 | UCACAUUUGACAGACUGCA | 7804 | UCAAGGAGGUCAAAGCAGC | 7852 | CCGUAGAGGAAGCUUGCAG |
| 7709 | GGUGUAUUCCACCACUUCA | 7757 | CACAUUUGACAGACUGCAA | 7805 | CAAGGAGGUCAAAGCAGCG | 7853 | CGUAGAGGAAGCUUGCAGC |
| 7710 | GUGUAUUCCACCACUUCAC | 7758 | ACAUUUGACAGACUGCAAG | 7806 | AAGGAGGUCAAAGCAGCGG | 7854 | GUAGAGGAAGCUUGCAGCC |
| 7711 | UGUAUUCCACCACUUCACG | 7759 | CAUUUGACAGACUGCAAGU | 7807 | AGGAGGUCAAAGCAGCGGC | 7855 | UAGAGGAAGCUUGCAGCCU |
| 7712 | GUAUUCCACCACUUCACGC | 7760 | AUUUGACAGACUGCAAGUU | 7808 | GGAGGUCAAAGCAGCGGCG | 7856 | AGAGGAAGCUUGCAGCCUG |
| 7713 | UAUUCCACCACUUCACGCA | 7761 | UUUGACAGACUGCAAGUUC | 7809 | GAGGUCAAAGCAGCGGCGU | 7857 | GAGGAAGCUUGCAGCCUGA |
| 7714 | AUUCCACCACUUCACGCAG | 7762 | UUGACAGACUGCAAGUUCU | 7810 | AGGUCAAAGCAGCGGCGUC | 7858 | AGGAAGCUUGCAGCCUGAC |
| 7715 | UUCCACCACUUCACGCAGU | 7763 | UGACAGACUGCAAGUUCUG | 7811 | GGUCAAAGCAGCGGCGUCA | 7859 | GGAAGCUUGCAGCCUGACG |
| 7716 | UCCACCACUUCACGCAGUG | 7764 | GACAGACUGCAAGUUCUGG | 7812 | GUCAAAGCAGCGGCGUCAA | 7860 | GAAGCUUGCAGCCUGACGC |
| 7717 | CCACCACUUCACGCAGUGC | 7765 | ACAGACUGCAAGUUCUGGA | 7813 | UCAAAGCAGCGGCGUCAAA | 7861 | AAGCUUGCAGCCUGACGCC |
| 7718 | CACCACUUCACGCAGUGCU | 7766 | CAGACUGCAAGUUCUGGAC | 7814 | CAAAGCAGCGGCGUCAAAA | 7862 | AGCUUGCAGCCUGACGCCC |
| 7719 | ACCACUUCACGCAGUGCUU | 7767 | AGACUGCAAGUUCUGGACA | 7815 | AAAGCAGCGGCGUCAAAAG | 7863 | GCUUGCAGCCUGACGCCCC |
| 7720 | CCACUUCACGCAGUGCUUG | 7768 | GACUGCAAGUUCUGGACAG | 7816 | AAGCAGCGGCGUCAAAAGU | 7864 | CUUGCAGCCUGACGCCCCC |
| 7721 | CACUUCACGCAGUGCUUGC | 7769 | ACUGCAAGUUCUGGACAGC | 7817 | AGCAGCGGCGUCAAAAGUG | 7865 | UUGCAGCCUGACGCCCCCA |
| 7722 | ACUUCACGCAGUGCUUGCC | 7770 | CUGCAAGUUCUGGACAGCC | 7818 | GCAGCGGCGUCAAAAGUGA | 7866 | UGCAGCCUGACGCCCCCAC |
| 7723 | CUUCACGCAGUGCUUGCCA | 7771 | UGCAAGUUCUGGACAGCCA | 7819 | CAGCGGCGUCAAAAGUGAA | 7867 | GCAGCCUGACGCCCCCACA |
| 7724 | UUCACGCAGUGCUUGCCAA | 7772 | GCAAGUUCUGGACAGCCAU | 7820 | AGCGGCGUCAAAAGUGAAG | 7868 | CAGCCUGACGCCCCCACAU |
| 7725 | UCACGCAGUGCUUGCCAAA | 7773 | CAAGUUCUGGACAGCCAUU | 7821 | GCGGCGUCAAAAGUGAAGG | 7869 | AGCCUGACGCCCCCACAUU |
| 7726 | CACGCAGUGCUUGCCAAAG | 7774 | AAGUUCUGGACAGCCAUUA | 7822 | CGGCGUCAAAAGUGAAGGC | 7870 | GCCUGACGCCCCCACAUUC |

**FIG. 1 (page 41 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7871 | CCUGACGCCCCCACAUUCA | 7919 | AGACGUCCGUUGCCAUGCC | 7967 | GUGGAAAGACCUUCUGGAA | 8015 | CAUGGCCAAGAACGAGGUU |
| 7872 | CUGACGCCCCCACAUUCAG | 7920 | GACGUCCGUUGCCAUGCCA | 7968 | UGGAAAGACCUUCUGGAAG | 8016 | AUGGCCAAGAACGAGGUUU |
| 7873 | UGACGCCCCCACAUUCAGC | 7921 | ACGUCCGUUGCCAUGCCAG | 7969 | GGAAAGACCUUCUGGAAGA | 8017 | UGGCCAAGAACGAGGUUUU |
| 7874 | GACGCCCCCACAUUCAGCC | 7922 | CGUCCGUUGCCAUGCCAGA | 7970 | GAAAGACCUUCUGGAAGAC | 8018 | GGCCAAGAACGAGGUUUUC |
| 7875 | ACGCCCCCACAUUCAGCCA | 7923 | GUCCGUUGCCAUGCCAGAA | 7971 | AAAGACCUUCUGGAAGACA | 8019 | GCCAAGAACGAGGUUUUCU |
| 7876 | CGCCCCCACAUUCAGCCAA | 7924 | UCCGUUGCCAUGCCAGAAA | 7972 | AAGACCUUCUGGAAGACAG | 8020 | CCAAGAACGAGGUUUUCUG |
| 7877 | GCCCCCACAUUCAGCCAAA | 7925 | CCGUUGCCAUGCCAGAAAG | 7973 | AGACCUUCUGGAAGACAGU | 8021 | CAAGAACGAGGUUUUCUGC |
| 7878 | CCCCCACAUUCAGCCAAAU | 7926 | CGUUGCCAUGCCAGAAAGG | 7974 | GACCUUCUGGAAGACAGUG | 8022 | AAGAACGAGGUUUUCUGCG |
| 7879 | CCCCACAUUCAGCCAAAUC | 7927 | GUUGCCAUGCCAGAAAGGC | 7975 | ACCUUCUGGAAGACAGUGU | 8023 | AGAACGAGGUUUUCUGCGU |
| 7880 | CCCACAUUCAGCCAAAUCC | 7928 | UUGCCAUGCCAGAAAGGCC | 7976 | CCUUCUGGAAGACAGUGUA | 8024 | GAACGAGGUUUUCUGCGUU |
| 7881 | CCACAUUCAGCCAAAUCCA | 7929 | UGCCAUGCCAGAAAGGCCG | 7977 | CUUCUGGAAGACAGUGUAA | 8025 | AACGAGGUUUUCUGCGUUC |
| 7882 | CACAUUCAGCCAAAUCCAA | 7930 | GCCAUGCCAGAAAGGCCGU | 7978 | UUCUGGAAGACAGUGUAAC | 8026 | ACGAGGUUUUCUGCGUUCA |
| 7883 | ACAUUCAGCCAAAUCCAAG | 7931 | CCAUGCCAGAAAGGCCGUA | 7979 | UCUGGAAGACAGUGUAACA | 8027 | CGAGGUUUUCUGCGUUCAG |
| 7884 | CAUUCAGCCAAAUCCAAGU | 7932 | CAUGCCAGAAAGGCCGUAG | 7980 | CUGGAAGACAGUGUAACAC | 8028 | GAGGUUUUCUGCGUUCAGC |
| 7885 | AUUCAGCCAAAUCCAAGUU | 7933 | AUGCCAGAAAGGCCGUAGC | 7981 | UGGAAGACAGUGUAACACC | 8029 | AGGUUUUCUGCGUUCAGCC |
| 7886 | UUCAGCCAAAUCCAAGUUU | 7934 | UGCCAGAAAGGCCGUAGCC | 7982 | GGAAGACAGUGUAACACCA | 8030 | GGUUUUCUGCGUUCAGCCU |
| 7887 | UCAGCCAAAUCCAAGUUUG | 7935 | GCCAGAAAGGCCGUAGCCC | 7983 | GAAGACAGUGUAACACCAA | 8031 | GUUUUCUGCGUUCAGCCUG |
| 7888 | CAGCCAAAUCCAAGUUUGG | 7936 | CCAGAAAGGCCGUAGCCCA | 7984 | AAGACAGUGUAACACCAAU | 8032 | UUUUCUGCGUUCAGCCUGA |
| 7889 | AGCCAAAUCCAAGUUUGGC | 7937 | CAGAAAGGCCGUAGCCCAC | 7985 | AGACAGUGUAACACCAAUA | 8033 | UUUCUGCGUUCAGCCUGAG |
| 7890 | GCCAAAUCCAAGUUUGGCU | 7938 | AGAAAGGCCGUAGCCCACA | 7986 | GACAGUGUAACACCAAUAG | 8034 | UUCUGCGUUCAGCCUGAGA |
| 7891 | CCAAAUCCAAGUUUGGCUA | 7939 | GAAAGGCCGUAGCCCACAU | 7987 | ACAGUGUAACACCAAUAGA | 8035 | UCUGCGUUCAGCCUGAGAA |
| 7892 | CAAAUCCAAGUUUGGCUAU | 7940 | AAAGGCCGUAGCCCACAUC | 7988 | CAGUGUAACACCAAUAGAC | 8036 | CUGCGUUCAGCCUGAGAAG |
| 7893 | AAAUCCAAGUUUGGCUAUG | 7941 | AAGGCCGUAGCCCACAUCA | 7989 | AGUGUAACACCAAUAGACA | 8037 | UGCGUUCAGCCUGAGAAGG |
| 7894 | AAUCCAAGUUUGGCUAUGG | 7942 | AGGCCGUAGCCCACAUCAA | 7990 | GUGUAACACCAAUAGACAC | 8038 | GCGUUCAGCCUGAGAAGGG |
| 7895 | AUCCAAGUUUGGCUAUGGG | 7943 | GGCCGUAGCCCACAUCAAC | 7991 | UGUAACACCAAUAGACACU | 8039 | CGUUCAGCCUGAGAAGGGG |
| 7896 | UCCAAGUUUGGCUAUGGGG | 7944 | GCCGUAGCCCACAUCAACU | 7992 | GUAACACCAAUAGACACUA | 8040 | GUUCAGCCUGAGAAGGGGG |
| 7897 | CCAAGUUUGGCUAUGGGGC | 7945 | CCGUAGCCCACAUCAACUC | 7993 | UAACACCAAUAGACACUAC | 8041 | UUCAGCCUGAGAAGGGGGG |
| 7898 | CAAGUUUGGCUAUGGGGCA | 7946 | CGUAGCCCACAUCAACUCC | 7994 | AACACCAAUAGACACUACC | 8042 | UCAGCCUGAGAAGGGGGGU |
| 7899 | AAGUUUGGCUAUGGGGCAA | 7947 | GUAGCCCACAUCAACUCCG | 7995 | ACACCAAUAGACACUACCA | 8043 | CAGCCUGAGAAGGGGGGUC |
| 7900 | AGUUUGGCUAUGGGGCAAA | 7948 | UAGCCCACAUCAACUCCGU | 7996 | CACCAAUAGACACUACCAU | 8044 | AGCCUGAGAAGGGGGGUCG |
| 7901 | GUUUGGCUAUGGGGCAAAA | 7949 | AGCCCACAUCAACUCCGUG | 7997 | ACCAAUAGACACUACCAUC | 8045 | GCCUGAGAAGGGGGGUCGU |
| 7902 | UUUGGCUAUGGGGCAAAAG | 7950 | GCCCACAUCAACUCCGUGU | 7998 | CCAAUAGACACUACCAUCA | 8046 | CCUGAGAAGGGGGGUCGUA |
| 7903 | UUGGCUAUGGGGCAAAAGA | 7951 | CCCACAUCAACUCCGUGUG | 7999 | CAAUAGACACUACCAUCAU | 8047 | CUGAGAAGGGGGGUCGUAA |
| 7904 | UGGCUAUGGGGCAAAAGAC | 7952 | CCACAUCAACUCCGUGUGG | 8000 | AAUAGACACUACCAUCAUG | 8048 | UGAGAAGGGGGGUCGUAAG |
| 7905 | GGCUAUGGGGCAAAAGACG | 7953 | CACAUCAACUCCGUGUGGA | 8001 | AUAGACACUACCAUCAUGG | 8049 | GAGAAGGGGGGUCGUAAGC |
| 7906 | GCUAUGGGGCAAAAGACGU | 7954 | ACAUCAACUCCGUGUGGAA | 8002 | UAGACACUACCAUCAUGGC | 8050 | AGAAGGGGGGUCGUAAGCC |
| 7907 | CUAUGGGGCAAAAGACGUC | 7955 | CAUCAACUCCGUGUGGAAA | 8003 | AGACACUACCAUCAUGGCC | 8051 | GAAGGGGGGUCGUAAGCCA |
| 7908 | UAUGGGGCAAAAGACGUCC | 7956 | AUCAACUCCGUGUGGAAAG | 8004 | GACACUACCAUCAUGGCCA | 8052 | AAGGGGGGUCGUAAGCCAG |
| 7909 | AUGGGGCAAAAGACGUCCG | 7957 | UCAACUCCGUGUGGAAAGA | 8005 | ACACUACCAUCAUGGCCAA | 8053 | AGGGGGGUCGUAAGCCAGC |
| 7910 | UGGGGCAAAAGACGUCCGU | 7958 | CAACUCCGUGUGGAAAGAC | 8006 | CACUACCAUCAUGGCCAAG | 8054 | GGGGGGUCGUAAGCCAGCU |
| 7911 | GGGGCAAAAGACGUCCGUU | 7959 | AACUCCGUGUGGAAAGACC | 8007 | ACUACCAUCAUGGCCAAGA | 8055 | GGGGGUCGUAAGCCAGCUC |
| 7912 | GGGCAAAAGACGUCCGUUG | 7960 | ACUCCGUGUGGAAAGACCU | 8008 | CUACCAUCAUGGCCAAGAA | 8056 | GGGGUCGUAAGCCAGCUCG |
| 7913 | GGCAAAAGACGUCCGUUGC | 7961 | CUCCGUGUGGAAAGACCUU | 8009 | UACCAUCAUGGCCAAGAAC | 8057 | GGGUCGUAAGCCAGCUCGU |
| 7914 | GCAAAAGACGUCCGUUGCC | 7962 | UCCGUGUGGAAAGACCUUC | 8010 | ACCAUCAUGGCCAAGAACG | 8058 | GGUCGUAAGCCAGCUCGUC |
| 7915 | CAAAAGACGUCCGUUGCCA | 7963 | CCGUGUGGAAAGACCUUCU | 8011 | CCAUCAUGGCCAAGAACGA | 8059 | GUCGUAAGCCAGCUCGUCU |
| 7916 | AAAAGACGUCCGUUGCCAU | 7964 | CGUGUGGAAAGACCUUCUG | 8012 | CAUCAUGGCCAAGAACGAG | 8060 | UCGUAAGCCAGCUCGUCUC |
| 7917 | AAAGACGUCCGUUGCCAUG | 7965 | GUGUGGAAAGACCUUCUGG | 8013 | AUCAUGGCCAAGAACGAGG | 8061 | CGUAAGCCAGCUCGUCUCA |
| 7918 | AAGACGUCCGUUGCCAUGC | 7966 | UGUGGAAAGACCUUCUGGA | 8014 | UCAUGGCCAAGAACGAGGU | 8062 | GUAAGCCAGCUCGUCUCAU |

**FIG. 1 (page 42 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8063 | UAAGCCAGCUCGUCUCAUC | 8111 | CGAGAAGAUGGCCCUGUAC | 8159 | GAUGGGAAGCUCCUACGGA | 8207 | AUUCCUCGUGCAAGCGUGG |
| 8064 | AAGCCAGCUCGUCUCAUCG | 8112 | GAGAAGAUGGCCCUGUACG | 8160 | AUGGGAAGCUCCUACGGAU | 8208 | UUCCUCGUGCAAGCGUGGA |
| 8065 | AGCCAGCUCGUCUCAUCGU | 8113 | AGAAGAUGGCCCUGUACGA | 8161 | UGGGAAGCUCCUACGGAUU | 8209 | UCCUCGUGCAAGCGUGGAA |
| 8066 | GCCAGCUCGUCUCAUCGUG | 8114 | GAAGAUGGCCCUGUACGAC | 8162 | GGGAAGCUCCUACGGAUUC | 8210 | CCUCGUGCAAGCGUGGAAG |
| 8067 | CCAGCUCGUCUCAUCGUGU | 8115 | AAGAUGGCCCUGUACGACG | 8163 | GGAAGCUCCUACGGAUUCC | 8211 | CUCGUGCAAGCGUGGAAGU |
| 8068 | CAGCUCGUCUCAUCGUGUU | 8116 | AGAUGGCCCUGUACGACGU | 8164 | GAAGCUCCUACGGAUUCCA | 8212 | UCGUGCAAGCGUGGAAGUC |
| 8069 | AGCUCGUCUCAUCGUGUUC | 8117 | GAUGGCCCUGUACGACGUG | 8165 | AAGCUCCUACGGAUUCCAA | 8213 | CGUGCAAGCGUGGAAGUCC |
| 8070 | GCUCGUCUCAUCGUGUUCC | 8118 | AUGGCCCUGUACGACGUGG | 8166 | AGCUCCUACGGAUUCCAAU | 8214 | GUGCAAGCGUGGAAGUCCA |
| 8071 | CUCGUCUCAUCGUGUUCCC | 8119 | UGGCCCUGUACGACGUGGU | 8167 | GCUCCUACGGAUUCCAAUA | 8215 | UGCAAGCGUGGAAGUCCAA |
| 8072 | UCGUCUCAUCGUGUUCCCC | 8120 | GGCCCUGUACGACGUGGUU | 8168 | CUCCUACGGAUUCCAAUAC | 8216 | GCAAGCGUGGAAGUCCAAG |
| 8073 | CGUCUCAUCGUGUUCCCCG | 8121 | GCCCUGUACGACGUGGUUA | 8169 | UCCUACGGAUUCCAAUACU | 8217 | CAAGCGUGGAAGUCCAAGA |
| 8074 | GUCUCAUCGUGUUCCCCGA | 8122 | CCCUGUACGACGUGGUUAG | 8170 | CCUACGGAUUCCAAUACUC | 8218 | AAGCGUGGAAGUCCAAGAA |
| 8075 | UCUCAUCGUGUUCCCCGAC | 8123 | CCUGUACGACGUGGUUAGC | 8171 | CUACGGAUUCCAAUACUCA | 8219 | AGCGUGGAAGUCCAAGAAG |
| 8076 | CUCAUCGUGUUCCCCGACC | 8124 | CUGUACGACGUGGUUAGCA | 8172 | UACGGAUUCCAAUACUCAC | 8220 | GCGUGGAAGUCCAAGAAGA |
| 8077 | UCAUCGUGUUCCCCGACCU | 8125 | UGUACGACGUGGUUAGCAA | 8173 | ACGGAUUCCAAUACUCACC | 8221 | CGUGGAAGUCCAAGAAGAC |
| 8078 | CAUCGUGUUCCCCGACCUG | 8126 | GUACGACGUGGUUAGCAAG | 8174 | CGGAUUCCAAUACUCACCA | 8222 | GUGGAAGUCCAAGAAGACC |
| 8079 | AUCGUGUUCCCCGACCUGG | 8127 | UACGACGUGGUUAGCAAGC | 8175 | GGAUUCCAAUACUCACCAG | 8223 | UGGAAGUCCAAGAAGACCC |
| 8080 | UCGUGUUCCCCGACCUGGG | 8128 | ACGACGUGGUUAGCAAGCU | 8176 | GAUUCCAAUACUCACCAGG | 8224 | GGAAGUCCAAGAAGACCCC |
| 8081 | CGUGUUCCCCGACCUGGGC | 8129 | CGACGUGGUUAGCAAGCUC | 8177 | AUUCCAAUACUCACCAGGA | 8225 | GAAGUCCAAGAAGACCCCG |
| 8082 | GUGUUCCCCGACCUGGGCG | 8130 | GACGUGGUUAGCAAGCUCC | 8178 | UUCCAAUACUCACCAGGAC | 8226 | AAGUCCAAGAAGACCCCGA |
| 8083 | UGUUCCCCGACCUGGGCGU | 8131 | ACGUGGUUAGCAAGCUCCC | 8179 | UCCAAUACUCACCAGGACA | 8227 | AGUCCAAGAAGACCCCGAU |
| 8084 | GUUCCCCGACCUGGGCGUG | 8132 | CGUGGUUAGCAAGCUCCCC | 8180 | CCAAUACUCACCAGGACAG | 8228 | GUCCAAGAAGACCCCGAUG |
| 8085 | UUCCCCGACCUGGGCGUGC | 8133 | GUGGUUAGCAAGCUCCCCC | 8181 | CAAUACUCACCAGGACAGC | 8229 | UCCAAGAAGACCCCGAUGG |
| 8086 | UCCCCGACCUGGGCGUGCG | 8134 | UGGUUAGCAAGCUCCCCCU | 8182 | AAUACUCACCAGGACAGCG | 8230 | CCAAGAAGACCCCGAUGGG |
| 8087 | CCCCGACCUGGGCGUGCGC | 8135 | GGUUAGCAAGCUCCCCCUG | 8183 | AUACUCACCAGGACAGCGG | 8231 | CAAGAAGACCCCGAUGGGG |
| 8088 | CCCGACCUGGGCGUGCGCG | 8136 | GUUAGCAAGCUCCCCCUGG | 8184 | UACUCACCAGGACAGCGGG | 8232 | AAGAAGACCCCGAUGGGGU |
| 8089 | CCGACCUGGGCGUGCGCGU | 8137 | UUAGCAAGCUCCCCCUGGC | 8185 | ACUCACCAGGACAGCGGGU | 8233 | AGAAGACCCCGAUGGGGUU |
| 8090 | CGACCUGGGCGUGCGCGUG | 8138 | UAGCAAGCUCCCCCUGGCC | 8186 | CUCACCAGGACAGCGGGUU | 8234 | GAAGACCCCGAUGGGGUUC |
| 8091 | GACCUGGGCGUGCGCGUGU | 8139 | AGCAAGCUCCCCCUGGCCG | 8187 | UCACCAGGACAGCGGGUUG | 8235 | AAGACCCCGAUGGGGUUCU |
| 8092 | ACCUGGGCGUGCGCGUGUG | 8140 | GCAAGCUCCCCCUGGCCGU | 8188 | CACCAGGACAGCGGGUUGA | 8236 | AGACCCCGAUGGGGUUCUC |
| 8093 | CCUGGGCGUGCGCGUGUGC | 8141 | CAAGCUCCCCCUGGCCGUG | 8189 | ACCAGGACAGCGGGUUGAA | 8237 | GACCCCGAUGGGGUUCUCG |
| 8094 | CUGGGCGUGCGCGUGUGCG | 8142 | AAGCUCCCCCUGGCCGUGA | 8190 | CCAGGACAGCGGGUUGAAU | 8238 | ACCCCGAUGGGGUUCUCGU |
| 8095 | UGGGCGUGCGCGUGUGCGA | 8143 | AGCUCCCCCUGGCCGUGAU | 8191 | CAGGACAGCGGGUUGAAUU | 8239 | CCCCGAUGGGGUUCUCGUA |
| 8096 | GGGCGUGCGCGUGUGCGAG | 8144 | GCUCCCCCUGGCCGUGAUG | 8192 | AGGACAGCGGGUUGAAUUC | 8240 | CCCGAUGGGGUUCUCGUAU |
| 8097 | GGCGUGCGCGUGUGCGAGA | 8145 | CUCCCCCUGGCCGUGAUGG | 8193 | GGACAGCGGGUUGAAUUCC | 8241 | CCGAUGGGGUUCUCGUAUG |
| 8098 | GCGUGCGCGUGUGCGAGAA | 8146 | UCCCCCUGGCCGUGAUGGG | 8194 | GACAGCGGGUUGAAUUCCU | 8242 | CGAUGGGGUUCUCGUAUGA |
| 8099 | CGUGCGCGUGUGCGAGAAG | 8147 | CCCCCUGGCCGUGAUGGGA | 8195 | ACAGCGGGUUGAAUUCCUC | 8243 | GAUGGGGUUCUCGUAUGAU |
| 8100 | GUGCGCGUGUGCGAGAAGA | 8148 | CCCCUGGCCGUGAUGGGAA | 8196 | CAGCGGGUUGAAUUCCUCG | 8244 | AUGGGGUUCUCGUAUGAUA |
| 8101 | UGCGCGUGUGCGAGAAGAU | 8149 | CCCUGGCCGUGAUGGGAAG | 8197 | AGCGGGUUGAAUUCCUCGU | 8245 | UGGGGUUCUCGUAUGAUAC |
| 8102 | GCGCGUGUGCGAGAAGAUG | 8150 | CCUGGCCGUGAUGGGAAGC | 8198 | GCGGGUUGAAUUCCUCGUG | 8246 | GGGGUUCUCGUAUGAUACC |
| 8103 | CGCGUGUGCGAGAAGAUGG | 8151 | CUGGCCGUGAUGGGAAGCU | 8199 | CGGGUUGAAUUCCUCGUGC | 8247 | GGGUUCUCGUAUGAUACCC |
| 8104 | GCGUGUGCGAGAAGAUGGC | 8152 | UGGCCGUGAUGGGAAGCUC | 8200 | GGGUUGAAUUCCUCGUGCA | 8248 | GGUUCUCGUAUGAUACCCG |
| 8105 | CGUGUGCGAGAAGAUGGCC | 8153 | GGCCGUGAUGGGAAGCUCC | 8201 | GGUUGAAUUCCUCGUGCAA | 8249 | GUUCUCGUAUGAUACCCGC |
| 8106 | GUGUGCGAGAAGAUGGCCC | 8154 | GCCGUGAUGGGAAGCUCCU | 8202 | GUUGAAUUCCUCGUGCAAG | 8250 | UUCUCGUAUGAUACCCGCU |
| 8107 | UGUGCGAGAAGAUGGCCCU | 8155 | CCGUGAUGGGAAGCUCCUA | 8203 | UUGAAUUCCUCGUGCAAGC | 8251 | UCUCGUAUGAUACCCGCUG |
| 8108 | GUGCGAGAAGAUGGCCCUG | 8156 | CGUGAUGGGAAGCUCCUAC | 8204 | UGAAUUCCUCGUGCAAGCG | 8252 | CUCGUAUGAUACCCGCUGU |
| 8109 | UGCGAGAAGAUGGCCCUGU | 8157 | GUGAUGGGAAGCUCCUACG | 8205 | GAAUUCCUCGUGCAAGCGU | 8253 | UCGUAUGAUACCCGCUGUU |
| 8110 | GCGAGAAGAUGGCCCUGUA | 8158 | UGAUGGGAAGCUCCUACGG | 8206 | AAUUCCUCGUGCAAGCGUG | 8254 | CGUAUGAUACCCGCUGUUU |

**FIG. 1 (page 43 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8255 | GUAUGAUACCCGCUGUUUU | 8303 | UACGGAGGAGGCAAUUUAC | 8351 | CGUGGCCAUCAAGUCCCUC | 8399 | UACCAAUUCAAGGGGGGAA |
| 8256 | UAUGAUACCCGCUGUUUUG | 8304 | ACGGAGGAGGCAAUUUACC | 8352 | GUGGCCAUCAAGUCCCUCA | 8400 | ACCAAUUCAAGGGGGGAAA |
| 8257 | AUGAUACCCGCUGUUUUGA | 8305 | CGGAGGAGGCAAUUUACCA | 8353 | UGGCCAUCAAGUCCCUCAC | 8401 | CCAAUUCAAGGGGGGAAAA |
| 8258 | UGAUACCCGCUGUUUUGAC | 8306 | GGAGGAGGCAAUUUACCAA | 8354 | GGCCAUCAAGUCCCUCACU | 8402 | CAAUUCAAGGGGGGAAAAC |
| 8259 | GAUACCCGCUGUUUUGACU | 8307 | GAGGAGGCAAUUUACCAAU | 8355 | GCCAUCAAGUCCCUCACUG | 8403 | AAUUCAAGGGGGGAAAACU |
| 8260 | AUACCCGCUGUUUUGACUC | 8308 | AGGAGGCAAUUUACCAAUG | 8356 | CCAUCAAGUCCCUCACUGA | 8404 | AUUCAAGGGGGGAAAACUG |
| 8261 | UACCCGCUGUUUUGACUCC | 8309 | GGAGGCAAUUUACCAAUGU | 8357 | CAUCAAGUCCCUCACUGAG | 8405 | UUCAAGGGGGGAAAACUGC |
| 8262 | ACCCGCUGUUUUGACUCCA | 8310 | GAGGCAAUUUACCAAUGUU | 8358 | AUCAAGUCCCUCACUGAGA | 8406 | UCAAGGGGGGAAAACUGCG |
| 8263 | CCCGCUGUUUUGACUCCAC | 8311 | AGGCAAUUUACCAAUGUUG | 8359 | UCAAGUCCCUCACUGAGAG | 8407 | CAAGGGGGGAAAACUGCGG |
| 8264 | CCGCUGUUUUGACUCCACA | 8312 | GGCAAUUUACCAAUGUUGU | 8360 | CAAGUCCCUCACUGAGAGG | 8408 | AAGGGGGGAAAACUGCGGC |
| 8265 | CGCUGUUUUGACUCCACAG | 8313 | GCAAUUUACCAAUGUUGUG | 8361 | AAGUCCCUCACUGAGAGGC | 8409 | AGGGGGGAAAACUGCGGCU |
| 8266 | GCUGUUUUGACUCCACAGU | 8314 | CAAUUUACCAAUGUUGUGA | 8362 | AGUCCCUCACUGAGAGGCU | 8410 | GGGGGGAAAACUGCGGCUA |
| 8267 | CUGUUUUGACUCCACAGUC | 8315 | AAUUUACCAAUGUUGUGAC | 8363 | GUCCCUCACUGAGAGGCUU | 8411 | GGGGGAAAACUGCGGCUAC |
| 8268 | UGUUUUGACUCCACAGUCA | 8316 | AUUUACCAAUGUUGUGACC | 8364 | UCCCUCACUGAGAGGCUUU | 8412 | GGGGAAAACUGCGGCUACC |
| 8269 | GUUUUGACUCCACAGUCAC | 8317 | UUUACCAAUGUUGUGACCU | 8365 | CCCUCACUGAGAGGCUUUA | 8413 | GGGAAAACUGCGGCUACCG |
| 8270 | UUUUGACUCCACAGUCACU | 8318 | UUACCAAUGUUGUGACCUG | 8366 | CCUCACUGAGAGGCUUUAU | 8414 | GGAAAACUGCGGCUACCGC |
| 8271 | UUUGACUCCACAGUCACUG | 8319 | UACCAAUGUUGUGACCUGG | 8367 | CUCACUGAGAGGCUUUAUG | 8415 | GAAAACUGCGGCUACCGCA |
| 8272 | UUGACUCCACAGUCACUGA | 8320 | ACCAAUGUUGUGACCUGGA | 8368 | UCACUGAGAGGCUUUAUGU | 8416 | AAAACUGCGGCUACCGCAG |
| 8273 | UGACUCCACAGUCACUGAG | 8321 | CCAAUGUUGUGACCUGGAC | 8369 | CACUGAGAGGCUUUAUGUU | 8417 | AAACUGCGGCUACCGCAGG |
| 8274 | GACUCCACAGUCACUGAGA | 8322 | CAAUGUUGUGACCUGGACC | 8370 | ACUGAGAGGCUUUAUGUUG | 8418 | AACUGCGGCUACCGCAGGU |
| 8275 | ACUCCACAGUCACUGAGAG | 8323 | AAUGUUGUGACCUGGACCC | 8371 | CUGAGAGGCUUUAUGUUGG | 8419 | ACUGCGGCUACCGCAGGUG |
| 8276 | CUCCACAGUCACUGAGAGC | 8324 | AUGUUGUGACCUGGACCCC | 8372 | UGAGAGGCUUUAUGUUGGG | 8420 | CUGCGGCUACCGCAGGUGC |
| 8277 | UCCACAGUCACUGAGAGCG | 8325 | UGUUGUGACCUGGACCCCC | 8373 | GAGAGGCUUUAUGUUGGGG | 8421 | UGCGGCUACCGCAGGUGCC |
| 8278 | CCACAGUCACUGAGAGCGA | 8326 | GUUGUGACCUGGACCCCCA | 8374 | AGAGGCUUUAUGUUGGGGG | 8422 | GCGGCUACCGCAGGUGCCG |
| 8279 | CACAGUCACUGAGAGCGAC | 8327 | UUGUGACCUGGACCCCCAA | 8375 | GAGGCUUUAUGUUGGGGGC | 8423 | CGGCUACCGCAGGUGCCGC |
| 8280 | ACAGUCACUGAGAGCGACA | 8328 | UGUGACCUGGACCCCCAAG | 8376 | AGGCUUUAUGUUGGGGGCC | 8424 | GGCUACCGCAGGUGCCGCG |
| 8281 | CAGUCACUGAGAGCGACAU | 8329 | GUGACCUGGACCCCCAAGC | 8377 | GGCUUUAUGUUGGGGGCCC | 8425 | GCUACCGCAGGUGCCGCGC |
| 8282 | AGUCACUGAGAGCGACAUC | 8330 | UGACCUGGACCCCCAAGCC | 8378 | GCUUUAUGUUGGGGGCCCU | 8426 | CUACCGCAGGUGCCGCGCG |
| 8283 | GUCACUGAGAGCGACAUCC | 8331 | GACCUGGACCCCCAAGCCC | 8379 | CUUUAUGUUGGGGGCCCUC | 8427 | UACCGCAGGUGCCGCGCGA |
| 8284 | UCACUGAGAGCGACAUCCG | 8332 | ACCUGGACCCCCAAGCCCG | 8380 | UUUAUGUUGGGGGCCCUCU | 8428 | ACCGCAGGUGCCGCGCGAG |
| 8285 | CACUGAGAGCGACAUCCGU | 8333 | CCUGGACCCCCAAGCCCGC | 8381 | UUAUGUUGGGGGCCCUCUU | 8429 | CCGCAGGUGCCGCGCGAGC |
| 8286 | ACUGAGAGCGACAUCCGUA | 8334 | CUGGACCCCCAAGCCCGCG | 8382 | UAUGUUGGGGGCCCUCUUA | 8430 | CGCAGGUGCCGCGCGAGCG |
| 8287 | CUGAGAGCGACAUCCGUAC | 8335 | UGGACCCCCAAGCCCGCGU | 8383 | AUGUUGGGGGCCCUCUUAC | 8431 | GCAGGUGCCGCGCGAGCGG |
| 8288 | UGAGAGCGACAUCCGUACG | 8336 | GGACCCCCAAGCCCGCGUG | 8384 | UGUUGGGGGCCCUCUUACC | 8432 | CAGGUGCCGCGCGAGCGGC |
| 8289 | GAGAGCGACAUCCGUACGG | 8337 | GACCCCCAAGCCCGCGUGG | 8385 | GUUGGGGGCCCUCUUACCA | 8433 | AGGUGCCGCGCGAGCGGCG |
| 8290 | AGAGCGACAUCCGUACGGA | 8338 | ACCCCCAAGCCCGCGUGGC | 8386 | UUGGGGGCCCUCUUACCAA | 8434 | GGUGCCGCGCGAGCGGCGU |
| 8291 | GAGCGACAUCCGUACGGAG | 8339 | CCCCCAAGCCCGCGUGGCC | 8387 | UGGGGGCCCUCUUACCAAU | 8435 | GUGCCGCGCGAGCGGCGUA |
| 8292 | AGCGACAUCCGUACGGAGG | 8340 | CCCCAAGCCCGCGUGGCCA | 8388 | GGGGGCCCUCUUACCAAUU | 8436 | UGCCGCGCGAGCGGCGUAC |
| 8293 | GCGACAUCCGUACGGAGGA | 8341 | CCCAAGCCCGCGUGGCCAU | 8389 | GGGGCCCUCUUACCAAUUC | 8437 | GCCGCGCGAGCGGCGUACU |
| 8294 | CGACAUCCGUACGGAGGAG | 8342 | CCAAGCCCGCGUGGCCAUC | 8390 | GGGCCCUCUUACCAAUUCA | 8438 | CCGCGCGAGCGGCGUACUG |
| 8295 | GACAUCCGUACGGAGGAGG | 8343 | CAAGCCCGCGUGGCCAUCA | 8391 | GGCCCUCUUACCAAUUCAA | 8439 | CGCGCGAGCGGCGUACUGA |
| 8296 | ACAUCCGUACGGAGGAGGC | 8344 | AAGCCCGCGUGGCCAUCAA | 8392 | GCCCUCUUACCAAUUCAAG | 8440 | GCGCGAGCGGCGUACUGAC |
| 8297 | CAUCCGUACGGAGGAGGCA | 8345 | AGCCCGCGUGGCCAUCAAG | 8393 | CCCUCUUACCAAUUCAAGG | 8441 | CGCGAGCGGCGUACUGACA |
| 8298 | AUCCGUACGGAGGAGGCAA | 8346 | GCCCGCGUGGCCAUCAAGU | 8394 | CCUCUUACCAAUUCAAGGG | 8442 | GCGAGCGGCGUACUGACAA |
| 8299 | UCCGUACGGAGGAGGCAAU | 8347 | CCCGCGUGGCCAUCAAGUC | 8395 | CUCUUACCAAUUCAAGGGG | 8443 | CGAGCGGCGUACUGACAAC |
| 8300 | CCGUACGGAGGAGGCAAUU | 8348 | CCGCGUGGCCAUCAAGUCC | 8396 | UCUUACCAAUUCAAGGGGG | 8444 | GAGCGGCGUACUGACAACU |
| 8301 | CGUACGGAGGAGGCAAUUU | 8349 | CGCGUGGCCAUCAAGUCCC | 8397 | CUUACCAAUUCAAGGGGGG | 8445 | AGCGGCGUACUGACAACUA |
| 8302 | GUACGGAGGAGGCAAUUUA | 8350 | GCGUGGCCAUCAAGUCCCU | 8398 | UUACCAAUUCAAGGGGGGA | 8446 | GCGGCGUACUGACAACUAG |

**FIG. 1 (page 44 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8447 | CGGCGUACUGACAACUAGC | 8495 | GGCCCGGGCAGCCUGUCGA | 8543 | CGUGUGUGGCGACGACUUA | 8591 | GGAGGACGCGGCGAGCCUG |
| 8448 | GGCGUACUGACAACUAGCU | 8496 | GCCCGGGCAGCCUGUCGAG | 8544 | GUGUGUGGCGACGACUUAG | 8592 | GAGGACGCGGCGAGCCUGA |
| 8449 | GCGUACUGACAACUAGCUG | 8497 | CCCGGGCAGCCUGUCGAGC | 8545 | UGUGUGGCGACGACUUAGU | 8593 | AGGACGCGGCGAGCCUGAG |
| 8450 | CGUACUGACAACUAGCUGU | 8498 | CCGGGCAGCCUGUCGAGCC | 8546 | GUGUGGCGACGACUUAGUC | 8594 | GGACGCGGCGAGCCUGAGA |
| 8451 | GUACUGACAACUAGCUGUG | 8499 | CGGGCAGCCUGUCGAGCCG | 8547 | UGUGGCGACGACUUAGUCG | 8595 | GACGCGGCGAGCCUGAGAG |
| 8452 | UACUGACAACUAGCUGUGG | 8500 | GGGCAGCCUGUCGAGCCGC | 8548 | GUGGCGACGACUUAGUCGU | 8596 | ACGCGGCGAGCCUGAGAGC |
| 8453 | ACUGACAACUAGCUGUGGU | 8501 | GGCAGCCUGUCGAGCCGCA | 8549 | UGGCGACGACUUAGUCGUU | 8597 | CGCGGCGAGCCUGAGAGCC |
| 8454 | CUGACAACUAGCUGUGGUA | 8502 | GCAGCCUGUCGAGCCGCAG | 8550 | GGCGACGACUUAGUCGUUA | 8598 | GCGGCGAGCCUGAGAGCCU |
| 8455 | UGACAACUAGCUGUGGUAA | 8503 | CAGCCUGUCGAGCCGCAGG | 8551 | GCGACGACUUAGUCGUUAU | 8599 | CGGCGAGCCUGAGAGCCUU |
| 8456 | GACAACUAGCUGUGGUAAC | 8504 | AGCCUGUCGAGCCGCAGGG | 8552 | CGACGACUUAGUCGUUAUC | 8600 | GGCGAGCCUGAGAGCCUUC |
| 8457 | ACAACUAGCUGUGGUAACA | 8505 | GCCUGUCGAGCCGCAGGGC | 8553 | GACGACUUAGUCGUUAUCU | 8601 | GCGAGCCUGAGAGCCUUCA |
| 8458 | CAACUAGCUGUGGUAACAC | 8506 | CCUGUCGAGCCGCAGGGCU | 8554 | ACGACUUAGUCGUUAUCUG | 8602 | CGAGCCUGAGAGCCUUCAC |
| 8459 | AACUAGCUGUGGUAACACC | 8507 | CUGUCGAGCCGCAGGGCUC | 8555 | CGACUUAGUCGUUAUCUGU | 8603 | GAGCCUGAGAGCCUUCACG |
| 8460 | ACUAGCUGUGGUAACACCC | 8508 | UGUCGAGCCGCAGGGCUCC | 8556 | GACUUAGUCGUUAUCUGUG | 8604 | AGCCUGAGAGCCUUCACGG |
| 8461 | CUAGCUGUGGUAACACCCU | 8509 | GUCGAGCCGCAGGGCUCCA | 8557 | ACUUAGUCGUUAUCUGUGA | 8605 | GCCUGAGAGCCUUCACGGA |
| 8462 | UAGCUGUGGUAACACCCUC | 8510 | UCGAGCCGCAGGGCUCCAG | 8558 | CUUAGUCGUUAUCUGUGAA | 8606 | CCUGAGAGCCUUCACGGAG |
| 8463 | AGCUGUGGUAACACCCUCA | 8511 | CGAGCCGCAGGGCUCCAGG | 8559 | UUAGUCGUUAUCUGUGAAA | 8607 | CUGAGAGCCUUCACGGAGG |
| 8464 | GCUGUGGUAACACCCUCAC | 8512 | GAGCCGCAGGGCUCCAGGA | 8560 | UAGUCGUUAUCUGUGAAAG | 8608 | UGAGAGCCUUCACGGAGGC |
| 8465 | CUGUGGUAACACCCUCACU | 8513 | AGCCGCAGGGCUCCAGGAC | 8561 | AGUCGUUAUCUGUGAAAGU | 8609 | GAGAGCCUUCACGGAGGCU |
| 8466 | UGUGGUAACACCCUCACUU | 8514 | GCCGCAGGGCUCCAGGACU | 8562 | GUCGUUAUCUGUGAAAGUG | 8610 | AGAGCCUUCACGGAGGCUA |
| 8467 | GUGGUAACACCCUCACUUG | 8515 | CCGCAGGGCUCCAGGACUG | 8563 | UCGUUAUCUGUGAAAGUGC | 8611 | GAGCCUUCACGGAGGCUAU |
| 8468 | UGGUAACACCCUCACUUGC | 8516 | CGCAGGGCUCCAGGACUGC | 8564 | CGUUAUCUGUGAAAGUGCG | 8612 | AGCCUUCACGGAGGCUAUG |
| 8469 | GGUAACACCCUCACUUGCU | 8517 | GCAGGGCUCCAGGACUGCA | 8565 | GUUAUCUGUGAAAGUGCGG | 8613 | GCCUUCACGGAGGCUAUGA |
| 8470 | GUAACACCCUCACUUGCUA | 8518 | CAGGGCUCCAGGACUGCAC | 8566 | UUAUCUGUGAAAGUGCGGG | 8614 | CCUUCACGGAGGCUAUGAC |
| 8471 | UAACACCCUCACUUGCUAC | 8519 | AGGGCUCCAGGACUGCACC | 8567 | UAUCUGUGAAAGUGCGGGG | 8615 | CUUCACGGAGGCUAUGACC |
| 8472 | AACACCCUCACUUGCUACA | 8520 | GGGCUCCAGGACUGCACCA | 8568 | AUCUGUGAAAGUGCGGGGG | 8616 | UUCACGGAGGCUAUGACCA |
| 8473 | ACACCCUCACUUGCUACAU | 8521 | GGCUCCAGGACUGCACCAU | 8569 | UCUGUGAAAGUGCGGGGGU | 8617 | UCACGGAGGCUAUGACCAG |
| 8474 | CACCCUCACUUGCUACAUC | 8522 | GCUCCAGGACUGCACCAUG | 8570 | CUGUGAAAGUGCGGGGGUC | 8618 | CACGGAGGCUAUGACCAGG |
| 8475 | ACCCUCACUUGCUACAUCA | 8523 | CUCCAGGACUGCACCAUGC | 8571 | UGUGAAAGUGCGGGGGUCC | 8619 | ACGGAGGCUAUGACCAGGU |
| 8476 | CCCUCACUUGCUACAUCAA | 8524 | UCCAGGACUGCACCAUGCU | 8572 | GUGAAAGUGCGGGGGUCCA | 8620 | CGGAGGCUAUGACCAGGUA |
| 8477 | CCUCACUUGCUACAUCAAG | 8525 | CCAGGACUGCACCAUGCUC | 8573 | UGAAAGUGCGGGGGUCCAG | 8621 | GGAGGCUAUGACCAGGUAC |
| 8478 | CUCACUUGCUACAUCAAGG | 8526 | CAGGACUGCACCAUGCUCG | 8574 | GAAAGUGCGGGGGUCCAGG | 8622 | GAGGCUAUGACCAGGUACU |
| 8479 | UCACUUGCUACAUCAAGGC | 8527 | AGGACUGCACCAUGCUCGU | 8575 | AAAGUGCGGGGGUCCAGGA | 8623 | AGGCUAUGACCAGGUACUC |
| 8480 | CACUUGCUACAUCAAGGCC | 8528 | GGACUGCACCAUGCUCGUG | 8576 | AAGUGCGGGGGUCCAGGAG | 8624 | GGCUAUGACCAGGUACUCC |
| 8481 | ACUUGCUACAUCAAGGCCC | 8529 | GACUGCACCAUGCUCGUGU | 8577 | AGUGCGGGGGUCCAGGAGG | 8625 | GCUAUGACCAGGUACUCCG |
| 8482 | CUUGCUACAUCAAGGCCCG | 8530 | ACUGCACCAUGCUCGUGUG | 8578 | GUGCGGGGGUCCAGGAGGA | 8626 | CUAUGACCAGGUACUCCGC |
| 8483 | UUGCUACAUCAAGGCCCGG | 8531 | CUGCACCAUGCUCGUGUGU | 8579 | UGCGGGGGUCCAGGAGGAC | 8627 | UAUGACCAGGUACUCCGCC |
| 8484 | UGCUACAUCAAGGCCCGGG | 8532 | UGCACCAUGCUCGUGUGUG | 8580 | GCGGGGGUCCAGGAGGACG | 8628 | AUGACCAGGUACUCCGCCC |
| 8485 | GCUACAUCAAGGCCCGGGC | 8533 | GCACCAUGCUCGUGUGUGG | 8581 | CGGGGGUCCAGGAGGACGC | 8629 | UGACCAGGUACUCCGCCCC |
| 8486 | CUACAUCAAGGCCCGGGCA | 8534 | CACCAUGCUCGUGUGUGGC | 8582 | GGGGGUCCAGGAGGACGCG | 8630 | GACCAGGUACUCCGCCCCC |
| 8487 | UACAUCAAGGCCCGGGCAG | 8535 | ACCAUGCUCGUGUGUGGCG | 8583 | GGGGUCCAGGAGGACGCGG | 8631 | ACCAGGUACUCCGCCCCCC |
| 8488 | ACAUCAAGGCCCGGGCAGC | 8536 | CCAUGCUCGUGUGUGGCGA | 8584 | GGGUCCAGGAGGACGCGGC | 8632 | CCAGGUACUCCGCCCCCCC |
| 8489 | CAUCAAGGCCCGGGCAGCC | 8537 | CAUGCUCGUGUGUGGCGAC | 8585 | GGUCCAGGAGGACGCGGCG | 8633 | CAGGUACUCCGCCCCCCCC |
| 8490 | AUCAAGGCCCGGGCAGCCU | 8538 | AUGCUCGUGUGUGGCGACG | 8586 | GUCCAGGAGGACGCGGCGA | 8634 | AGGUACUCCGCCCCCCCCG |
| 8491 | UCAAGGCCCGGGCAGCCUG | 8539 | UGCUCGUGUGUGGCGACGA | 8587 | UCCAGGAGGACGCGGCGAG | 8635 | GGUACUCCGCCCCCCCCGG |
| 8492 | CAAGGCCCGGGCAGCCUGU | 8540 | GCUCGUGUGUGGCGACGAC | 8588 | CCAGGAGGACGCGGCGAGC | 8636 | GUACUCCGCCCCCCCCGGG |
| 8493 | AAGGCCCGGGCAGCCUGUC | 8541 | CUCGUGUGUGGCGACGACU | 8589 | CAGGAGGACGCGGCGAGCC | 8637 | UACUCCGCCCCCCCCGGGG |
| 8494 | AGGCCCGGGCAGCCUGUCG | 8542 | UCGUGUGUGGCGACGACUU | 8590 | AGGAGGACGCGGCGAGCCU | 8638 | ACUCCGCCCCCCCCGGGGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8639 | CUCCGCCCCCCCCGGGGAC | 8687 | UAUAACAUCAUGCUCCUCC | 8735 | AAAGAGGGUCUACUACCUU | 8783 | AGCCGCGUGGGAGACAGCA |
| 8640 | UCCGCCCCCCCCGGGGACC | 8688 | AUAACAUCAUGCUCCUCCA | 8736 | AAGAGGGUCUACUACCUUA | 8784 | GCCGCGUGGGAGACAGCAA |
| 8641 | CCGCCCCCCCCGGGGACCC | 8689 | UAACAUCAUGCUCCUCCAA | 8737 | AGAGGGUCUACUACCUUAC | 8785 | CCGCGUGGGAGACAGCAAG |
| 8642 | CGCCCCCCCCGGGGACCCC | 8690 | AACAUCAUGCUCCUCCAAC | 8738 | GAGGGUCUACUACCUUACC | 8786 | CGCGUGGGAGACAGCAAGA |
| 8643 | GCCCCCCCCGGGGACCCCC | 8691 | ACAUCAUGCUCCUCCAACG | 8739 | AGGGUCUACUACCUUACCC | 8787 | GCGUGGGAGACAGCAAGAC |
| 8644 | CCCCCCCCGGGGACCCCCC | 8692 | CAUCAUGCUCCUCCAACGU | 8740 | GGGUCUACUACCUUACCCG | 8788 | CGUGGGAGACAGCAAGACA |
| 8645 | CCCCCCCGGGGACCCCCCA | 8693 | AUCAUGCUCCUCCAACGUG | 8741 | GGUCUACUACCUUACCCGU | 8789 | GUGGGAGACAGCAAGACAC |
| 8646 | CCCCCCGGGGACCCCCCAC | 8694 | UCAUGCUCCUCCAACGUGU | 8742 | GUCUACUACCUUACCCGUG | 8790 | UGGGAGACAGCAAGACACA |
| 8647 | CCCCCGGGGACCCCCCACA | 8695 | CAUGCUCCUCCAACGUGUC | 8743 | UCUACUACCUUACCCGUGA | 8791 | GGGAGACAGCAAGACACAC |
| 8648 | CCCCGGGGACCCCCCACAA | 8696 | AUGCUCCUCCAACGUGUCA | 8744 | CUACUACCUUACCCGUGAC | 8792 | GGAGACAGCAAGACACACU |
| 8649 | CCCGGGGACCCCCCACAAC | 8697 | UGCUCCUCCAACGUGUCAG | 8745 | UACUACCUUACCCGUGACC | 8793 | GAGACAGCAAGACACACUC |
| 8650 | CCGGGGACCCCCCACAACC | 8698 | GCUCCUCCAACGUGUCAGU | 8746 | ACUACCUUACCCGUGACCC | 8794 | AGACAGCAAGACACACUCC |
| 8651 | CGGGGACCCCCCACAACCA | 8699 | CUCCUCCAACGUGUCAGUC | 8747 | CUACCUUACCCGUGACCCU | 8795 | GACAGCAAGACACACUCCA |
| 8652 | GGGGACCCCCCACAACCAG | 8700 | UCCUCCAACGUGUCAGUCG | 8748 | UACCUUACCCGUGACCCUA | 8796 | ACAGCAAGACACACUCCAG |
| 8653 | GGGACCCCCCACAACCAGA | 8701 | CCUCCAACGUGUCAGUCGC | 8749 | ACCUUACCCGUGACCCUAC | 8797 | CAGCAAGACACACUCCAGU |
| 8654 | GGACCCCCCACAACCAGAA | 8702 | CUCCAACGUGUCAGUCGCC | 8750 | CCUUACCCGUGACCCUACA | 8798 | AGCAAGACACACUCCAGUC |
| 8655 | GACCCCCCACAACCAGAAU | 8703 | UCCAACGUGUCAGUCGCCC | 8751 | CUUACCCGUGACCCUACAA | 8799 | GCAAGACACACUCCAGUCA |
| 8656 | ACCCCCCACAACCAGAAUA | 8704 | CCAACGUGUCAGUCGCCCA | 8752 | UUACCCGUGACCCUACAAC | 8800 | CAAGACACACUCCAGUCAA |
| 8657 | CCCCCCACAACCAGAAUAC | 8705 | CAACGUGUCAGUCGCCCAC | 8753 | UACCCGUGACCCUACAACC | 8801 | AAGACACACUCCAGUCAAU |
| 8658 | CCCCCACAACCAGAAUACG | 8706 | AACGUGUCAGUCGCCCACG | 8754 | ACCCGUGACCCUACAACCC | 8802 | AGACACACUCCAGUCAAUU |
| 8659 | CCCCACAACCAGAAUACGA | 8707 | ACGUGUCAGUCGCCCACGA | 8755 | CCCGUGACCCUACAACCCC | 8803 | GACACACUCCAGUCAAUUC |
| 8660 | CCCACAACCAGAAUACGAC | 8708 | CGUGUCAGUCGCCCACGAC | 8756 | CCGUGACCCUACAACCCCC | 8804 | ACACACUCCAGUCAAUUCC |
| 8661 | CCACAACCAGAAUACGACU | 8709 | GUGUCAGUCGCCCACGACG | 8757 | CGUGACCCUACAACCCCCC | 8805 | CACACUCCAGUCAAUUCCU |
| 8662 | CACAACCAGAAUACGACUU | 8710 | UGUCAGUCGCCCACGACGG | 8758 | GUGACCCUACAACCCCCCU | 8806 | ACACUCCAGUCAAUUCCUG |
| 8663 | ACAACCAGAAUACGACUUG | 8711 | GUCAGUCGCCCACGACGGC | 8759 | UGACCCUACAACCCCCCUC | 8807 | CACUCCAGUCAAUUCCUGG |
| 8664 | CAACCAGAAUACGACUUGG | 8712 | UCAGUCGCCCACGACGGCG | 8760 | GACCCUACAACCCCCCUCG | 8808 | ACUCCAGUCAAUUCCUGGC |
| 8665 | AACCAGAAUACGACUUGGA | 8713 | CAGUCGCCCACGACGGCGC | 8761 | ACCCUACAACCCCCCUCGC | 8809 | CUCCAGUCAAUUCCUGGCU |
| 8666 | ACCAGAAUACGACUUGGAG | 8714 | AGUCGCCCACGACGGCGCU | 8762 | CCCUACAACCCCCCUCGCG | 8810 | UCCAGUCAAUUCCUGGCUA |
| 8667 | CCAGAAUACGACUUGGAGC | 8715 | GUCGCCCACGACGGCGCUG | 8763 | CCUACAACCCCCCUCGCGA | 8811 | CCAGUCAAUUCCUGGCUAG |
| 8668 | CAGAAUACGACUUGGAGCU | 8716 | UCGCCCACGACGGCGCUGG | 8764 | CUACAACCCCCCUCGCGAG | 8812 | CAGUCAAUUCCUGGCUAGG |
| 8669 | AGAAUACGACUUGGAGCUU | 8717 | CGCCCACGACGGCGCUGGA | 8765 | UACAACCCCCCUCGCGAGA | 8813 | AGUCAAUUCCUGGCUAGGC |
| 8670 | GAAUACGACUUGGAGCUUA | 8718 | GCCCACGACGGCGCUGGAA | 8766 | ACAACCCCCCUCGCGAGAG | 8814 | GUCAAUUCCUGGCUAGGCA |
| 8671 | AAUACGACUUGGAGCUUAU | 8719 | CCCACGACGGCGCUGGAAA | 8767 | CAACCCCCCUCGCGAGAGC | 8815 | UCAAUUCCUGGCUAGGCAA |
| 8672 | AUACGACUUGGAGCUUAUA | 8720 | CCACGACGGCGCUGGAAAG | 8768 | AACCCCCCUCGCGAGAGCC | 8816 | CAAUUCCUGGCUAGGCAAC |
| 8673 | UACGACUUGGAGCUUAUAA | 8721 | CACGACGGCGCUGGAAAGA | 8769 | ACCCCCCUCGCGAGAGCCG | 8817 | AAUUCCUGGCUAGGCAACA |
| 8674 | ACGACUUGGAGCUUAUAAC | 8722 | ACGACGGCGCUGGAAAGAG | 8770 | CCCCCCUCGCGAGAGCCGC | 8818 | AUUCCUGGCUAGGCAACAU |
| 8675 | CGACUUGGAGCUUAUAACA | 8723 | CGACGGCGCUGGAAAGAGG | 8771 | CCCCCUCGCGAGAGCCGCG | 8819 | UUCCUGGCUAGGCAACAUA |
| 8676 | GACUUGGAGCUUAUAACAU | 8724 | GACGGCGCUGGAAAGAGGG | 8772 | CCCCUCGCGAGAGCCGCGU | 8820 | UCCUGGCUAGGCAACAUAA |
| 8677 | ACUUGGAGCUUAUAACAUC | 8725 | ACGGCGCUGGAAAGAGGGU | 8773 | CCCUCGCGAGAGCCGCGUG | 8821 | CCUGGCUAGGCAACAUAAU |
| 8678 | CUUGGAGCUUAUAACAUCA | 8726 | CGGCGCUGGAAAGAGGGUC | 8774 | CCUCGCGAGAGCCGCGUGG | 8822 | CUGGCUAGGCAACAUAAUC |
| 8679 | UUGGAGCUUAUAACAUCAU | 8727 | GGCGCUGGAAAGAGGGUCU | 8775 | CUCGCGAGAGCCGCGUGGG | 8823 | UGGCUAGGCAACAUAAUCA |
| 8680 | UGGAGCUUAUAACAUCAUG | 8728 | GCGCUGGAAAGAGGGUCUA | 8776 | UCGCGAGAGCCGCGUGGGA | 8824 | GGCUAGGCAACAUAAUCAU |
| 8681 | GGAGCUUAUAACAUCAUGC | 8729 | CGCUGGAAAGAGGGUCUAC | 8777 | CGCGAGAGCCGCGUGGGAG | 8825 | GCUAGGCAACAUAAUCAUG |
| 8682 | GAGCUUAUAACAUCAUGCU | 8730 | GCUGGAAAGAGGGUCUACU | 8778 | GCGAGAGCCGCGUGGGAGA | 8826 | CUAGGCAACAUAAUCAUGU |
| 8683 | AGCUUAUAACAUCAUGCUC | 8731 | CUGGAAAGAGGGUCUACUA | 8779 | CGAGAGCCGCGUGGGAGAC | 8827 | UAGGCAACAUAAUCAUGUU |
| 8684 | GCUUAUAACAUCAUGCUCC | 8732 | UGGAAAGAGGGUCUACUAC | 8780 | GAGAGCCGCGUGGGAGACA | 8828 | AGGCAACAUAAUCAUGUUU |
| 8685 | CUUAUAACAUCAUGCUCCU | 8733 | GGAAAGAGGGUCUACUACC | 8781 | AGAGCCGCGUGGGAGACAG | 8829 | GGCAACAUAAUCAUGUUUG |
| 8686 | UUAUAACAUCAUGCUCCUC | 8734 | GAAAGAGGGUCUACUACCU | 8782 | GAGCCGCGUGGGAGACAGC | 8830 | GCAACAUAAUCAUGUUUGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8831 | CAACAUAAUCAUGUUUGCC | 8879 | GACCCAUUUCUUUAGCGUC | 8927 | UCUUAACUGUGAGAUCUAC | 8975 | UCUACCUCCAAUCAUUCAA |
| 8832 | AACAUAAUCAUGUUUGCCC | 8880 | ACCCAUUUCUUUAGCGUCC | 8928 | CUUAACUGUGAGAUCUACG | 8976 | CUACCUCCAAUCAUUCAAA |
| 8833 | ACAUAAUCAUGUUUGCCCC | 8881 | CCCAUUUCUUUAGCGUCCU | 8929 | UUAACUGUGAGAUCUACGG | 8977 | UACCUCCAAUCAUUCAAAG |
| 8834 | CAUAAUCAUGUUUGCCCCC | 8882 | CCAUUUCUUUAGCGUCCUC | 8930 | UAACUGUGAGAUCUACGGA | 8978 | ACCUCCAAUCAUUCAAAGA |
| 8835 | AUAAUCAUGUUUGCCCCCA | 8883 | CAUUUCUUUAGCGUCCUCA | 8931 | AACUGUGAGAUCUACGGAG | 8979 | CCUCCAAUCAUUCAAAGAC |
| 8836 | UAAUCAUGUUUGCCCCCAC | 8884 | AUUUCUUUAGCGUCCUCAU | 8932 | ACUGUGAGAUCUACGGAGC | 8980 | CUCCAAUCAUUCAAAGACU |
| 8837 | AAUCAUGUUUGCCCCCACA | 8885 | UUUCUUUAGCGUCCUCAUA | 8933 | CUGUGAGAUCUACGGAGCC | 8981 | UCCAAUCAUUCAAAGACUC |
| 8838 | AUCAUGUUUGCCCCCACAC | 8886 | UUCUUUAGCGUCCUCAUAG | 8934 | UGUGAGAUCUACGGAGCCU | 8982 | CCAAUCAUUCAAAGACUCC |
| 8839 | UCAUGUUUGCCCCCACACU | 8887 | UCUUUAGCGUCCUCAUAGC | 8935 | GUGAGAUCUACGGAGCCUG | 8983 | CAAUCAUUCAAAGACUCCA |
| 8840 | CAUGUUUGCCCCCACACUG | 8888 | CUUUAGCGUCCUCAUAGCC | 8936 | UGAGAUCUACGGAGCCUGC | 8984 | AAUCAUUCAAAGACUCCAU |
| 8841 | AUGUUUGCCCCCACACUGU | 8889 | UUUAGCGUCCUCAUAGCCA | 8937 | GAGAUCUACGGAGCCUGCU | 8985 | AUCAUUCAAAGACUCCAUG |
| 8842 | UGUUUGCCCCCACACUGUG | 8890 | UUAGCGUCCUCAUAGCCAG | 8938 | AGAUCUACGGAGCCUGCUA | 8986 | UCAUUCAAAGACUCCAUGG |
| 8843 | GUUUGCCCCCACACUGUGG | 8891 | UAGCGUCCUCAUAGCCAGG | 8939 | GAUCUACGGAGCCUGCUAC | 8987 | CAUUCAAAGACUCCAUGGC |
| 8844 | UUUGCCCCCACACUGUGGG | 8892 | AGCGUCCUCAUAGCCAGGG | 8940 | AUCUACGGAGCCUGCUACU | 8988 | AUUCAAAGACUCCAUGGCC |
| 8845 | UUGCCCCCACACUGUGGGC | 8893 | GCGUCCUCAUAGCCAGGGA | 8941 | UCUACGGAGCCUGCUACUC | 8989 | UUCAAAGACUCCAUGGCCU |
| 8846 | UGCCCCCACACUGUGGGCG | 8894 | CGUCCUCAUAGCCAGGGAU | 8942 | CUACGGAGCCUGCUACUCC | 8990 | UCAAAGACUCCAUGGCCUC |
| 8847 | GCCCCCACACUGUGGGCGA | 8895 | GUCCUCAUAGCCAGGGAUC | 8943 | UACGGAGCCUGCUACUCCA | 8991 | CAAAGACUCCAUGGCCUCA |
| 8848 | CCCCCACACUGUGGGCGAG | 8896 | UCCUCAUAGCCAGGGAUCA | 8944 | ACGGAGCCUGCUACUCCAU | 8992 | AAAGACUCCAUGGCCUCAG |
| 8849 | CCCCACACUGUGGGCGAGG | 8897 | CCUCAUAGCCAGGGAUCAG | 8945 | CGGAGCCUGCUACUCCAUA | 8993 | AAGACUCCAUGGCCUCAGC |
| 8850 | CCCACACUGUGGGCGAGGA | 8898 | CUCAUAGCCAGGGAUCAGC | 8946 | GGAGCCUGCUACUCCAUAG | 8994 | AGACUCCAUGGCCUCAGCG |
| 8851 | CCACACUGUGGGCGAGGAU | 8899 | UCAUAGCCAGGGAUCAGCU | 8947 | GAGCCUGCUACUCCAUAGA | 8995 | GACUCCAUGGCCUCAGCGC |
| 8852 | CACACUGUGGGCGAGGAUG | 8900 | CAUAGCCAGGGAUCAGCUU | 8948 | AGCCUGCUACUCCAUAGAA | 8996 | ACUCCAUGGCCUCAGCGCA |
| 8853 | ACACUGUGGGCGAGGAUGA | 8901 | AUAGCCAGGGAUCAGCUUG | 8949 | GCCUGCUACUCCAUAGAAC | 8997 | CUCCAUGGCCUCAGCGCAU |
| 8854 | CACUGUGGGCGAGGAUGAU | 8902 | UAGCCAGGGAUCAGCUUGA | 8950 | CCUGCUACUCCAUAGAACC | 8998 | UCCAUGGCCUCAGCGCAUU |
| 8855 | ACUGUGGGCGAGGAUGAUA | 8903 | AGCCAGGGAUCAGCUUGAA | 8951 | CUGCUACUCCAUAGAACCA | 8999 | CCAUGGCCUCAGCGCAUUU |
| 8856 | CUGUGGGCGAGGAUGAUAC | 8904 | GCCAGGGAUCAGCUUGAAC | 8952 | UGCUACUCCAUAGAACCAC | 9000 | CAUGGCCUCAGCGCAUUUU |
| 8857 | UGUGGGCGAGGAUGAUACU | 8905 | CCAGGGAUCAGCUUGAACA | 8953 | GCUACUCCAUAGAACCACU | 9001 | AUGGCCUCAGCGCAUUUUC |
| 8858 | GUGGGCGAGGAUGAUACUG | 8906 | CAGGGAUCAGCUUGAACAG | 8954 | CUACUCCAUAGAACCACUG | 9002 | UGGCCUCAGCGCAUUUUCA |
| 8859 | UGGGCGAGGAUGAUACUGA | 8907 | AGGGAUCAGCUUGAACAGG | 8955 | UACUCCAUAGAACCACUGG | 9003 | GGCCUCAGCGCAUUUUCAC |
| 8860 | GGGCGAGGAUGAUACUGAU | 8908 | GGGAUCAGCUUGAACAGGC | 8956 | ACUCCAUAGAACCACUGGA | 9004 | GCCUCAGCGCAUUUUCACU |
| 8861 | GGCGAGGAUGAUACUGAUG | 8909 | GGAUCAGCUUGAACAGGCU | 8957 | CUCCAUAGAACCACUGGAU | 9005 | CCUCAGCGCAUUUUCACUC |
| 8862 | GCGAGGAUGAUACUGAUGA | 8910 | GAUCAGCUUGAACAGGCUC | 8958 | UCCAUAGAACCACUGGAUC | 9006 | CUCAGCGCAUUUUCACUCC |
| 8863 | CGAGGAUGAUACUGAUGAC | 8911 | AUCAGCUUGAACAGGCUCU | 8959 | CCAUAGAACCACUGGAUCU | 9007 | UCAGCGCAUUUUCACUCCA |
| 8864 | GAGGAUGAUACUGAUGACC | 8912 | UCAGCUUGAACAGGCUCUU | 8960 | CAUAGAACCACUGGAUCUA | 9008 | CAGCGCAUUUUCACUCCAC |
| 8865 | AGGAUGAUACUGAUGACCC | 8913 | CAGCUUGAACAGGCUCUUA | 8961 | AUAGAACCACUGGAUCUAC | 9009 | AGCGCAUUUUCACUCCACA |
| 8866 | GGAUGAUACUGAUGACCCA | 8914 | AGCUUGAACAGGCUCUUAA | 8962 | UAGAACCACUGGAUCUACC | 9010 | GCGCAUUUUCACUCCACAG |
| 8867 | GAUGAUACUGAUGACCCAU | 8915 | GCUUGAACAGGCUCUUAAC | 8963 | AGAACCACUGGAUCUACCU | 9011 | CGCAUUUUCACUCCACAGU |
| 8868 | AUGAUACUGAUGACCCAUU | 8916 | CUUGAACAGGCUCUUAACU | 8964 | GAACCACUGGAUCUACCUC | 9012 | GCAUUUUCACUCCACAGUU |
| 8869 | UGAUACUGAUGACCCAUUU | 8917 | UUGAACAGGCUCUUAACUG | 8965 | AACCACUGGAUCUACCUCC | 9013 | CAUUUUCACUCCACAGUUA |
| 8870 | GAUACUGAUGACCCAUUUC | 8918 | UGAACAGGCUCUUAACUGU | 8966 | ACCACUGGAUCUACCUCCA | 9014 | AUUUUCACUCCACAGUUAC |
| 8871 | AUACUGAUGACCCAUUUCU | 8919 | GAACAGGCUCUUAACUGUG | 8967 | CCACUGGAUCUACCUCCAA | 9015 | UUUUCACUCCACAGUUACU |
| 8872 | UACUGAUGACCCAUUUCUU | 8920 | AACAGGCUCUUAACUGUGA | 8968 | CACUGGAUCUACCUCCAAU | 9016 | UUUCACUCCACAGUUACUC |
| 8873 | ACUGAUGACCCAUUUCUUU | 8921 | ACAGGCUCUUAACUGUGAG | 8969 | ACUGGAUCUACCUCCAAUC | 9017 | UUCACUCCACAGUUACUCU |
| 8874 | CUGAUGACCCAUUUCUUUA | 8922 | CAGGCUCUUAACUGUGAGA | 8970 | CUGGAUCUACCUCCAAUCA | 9018 | UCACUCCACAGUUACUCUC |
| 8875 | UGAUGACCCAUUUCUUUAG | 8923 | AGGCUCUUAACUGUGAGAU | 8971 | UGGAUCUACCUCCAAUCAU | 9019 | CACUCCACAGUUACUCUCC |
| 8876 | GAUGACCCAUUUCUUUAGC | 8924 | GGCUCUUAACUGUGAGAUC | 8972 | GGAUCUACCUCCAAUCAUU | 9020 | ACUCCACAGUUACUCUCCA |
| 8877 | AUGACCCAUUUCUUUAGCG | 8925 | GCUCUUAACUGUGAGAUCU | 8973 | GAUCUACCUCCAAUCAUUC | 9021 | CUCCACAGUUACUCUCCAG |
| 8878 | UGACCCAUUUCUUUAGCGU | 8926 | CUCUUAACUGUGAGAUCUA | 8974 | AUCUACCUCCAAUCAUUCA | 9022 | UCCACAGUUACUCUCCAGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9023 | CCACAGUUACUCUCCAGGU | 9071 | AAAACUUGGGGUCCCGCCC | 9119 | CGUCCGCGCUAGGCUUCUG | 9167 | CAAGUACCUCUUCAACUGG |
| 9024 | CACAGUUACUCUCCAGGUG | 9072 | AAACUUGGGGUCCCGCCCU | 9120 | GUCCGCGCUAGGCUUCUGU | 9168 | AAGUACCUCUUCAACUGGG |
| 9025 | ACAGUUACUCUCCAGGUGA | 9073 | AACUUGGGGUCCCGCCCUU | 9121 | UCCGCGCUAGGCUUCUGUC | 9169 | AGUACCUCUUCAACUGGGC |
| 9026 | CAGUUACUCUCCAGGUGAA | 9074 | ACUUGGGGUCCCGCCCUUG | 9122 | CCGCGCUAGGCUUCUGUCC | 9170 | GUACCUCUUCAACUGGGCA |
| 9027 | AGUUACUCUCCAGGUGAAA | 9075 | CUUGGGGUCCCGCCCUUGC | 9123 | CGCGCUAGGCUUCUGUCCA | 9171 | UACCUCUUCAACUGGGCAG |
| 9028 | GUUACUCUCCAGGUGAAAU | 9076 | UUGGGGUCCCGCCCUUGCG | 9124 | GCGCUAGGCUUCUGUCCAG | 9172 | ACCUCUUCAACUGGGCAGU |
| 9029 | UUACUCUCCAGGUGAAAUC | 9077 | UGGGGUCCCGCCCUUGCGA | 9125 | CGCUAGGCUUCUGUCCAGA | 9173 | CCUCUUCAACUGGGCAGUA |
| 9030 | UACUCUCCAGGUGAAAUCA | 9078 | GGGGUCCCGCCCUUGCGAG | 9126 | GCUAGGCUUCUGUCCAGAG | 9174 | CUCUUCAACUGGGCAGUAA |
| 9031 | ACUCUCCAGGUGAAAUCAA | 9079 | GGGUCCCGCCCUUGCGAGC | 9127 | CUAGGCUUCUGUCCAGAGG | 9175 | UCUUCAACUGGGCAGUAAG |
| 9032 | CUCUCCAGGUGAAAUCAAU | 9080 | GGUCCCGCCCUUGCGAGCU | 9128 | UAGGCUUCUGUCCAGAGGA | 9176 | CUUCAACUGGGCAGUAAGA |
| 9033 | UCUCCAGGUGAAAUCAAUA | 9081 | GUCCCGCCCUUGCGAGCUU | 9129 | AGGCUUCUGUCCAGAGGAG | 9177 | UUCAACUGGGCAGUAAGAA |
| 9034 | CUCCAGGUGAAAUCAAUAG | 9082 | UCCCGCCCUUGCGAGCUUG | 9130 | GGCUUCUGUCCAGAGGAGG | 9178 | UCAACUGGGCAGUAAGAAC |
| 9035 | UCCAGGUGAAAUCAAUAGG | 9083 | CCCGCCCUUGCGAGCUUGG | 9131 | GCUUCUGUCCAGAGGAGGC | 9179 | CAACUGGGCAGUAAGAACA |
| 9036 | CCAGGUGAAAUCAAUAGGG | 9084 | CCGCCCUUGCGAGCUUGGA | 9132 | CUUCUGUCCAGAGGAGGCA | 9180 | AACUGGGCAGUAAGAACAA |
| 9037 | CAGGUGAAAUCAAUAGGGU | 9085 | CGCCCUUGCGAGCUUGGAG | 9133 | UUCUGUCCAGAGGAGGCAG | 9181 | ACUGGGCAGUAAGAACAAA |
| 9038 | AGGUGAAAUCAAUAGGGUG | 9086 | GCCCUUGCGAGCUUGGAGA | 9134 | UCUGUCCAGAGGAGGCAGG | 9182 | CUGGGCAGUAAGAACAAAG |
| 9039 | GGUGAAAUCAAUAGGGUGG | 9087 | CCCUUGCGAGCUUGGAGAC | 9135 | CUGUCCAGAGGAGGCAGGG | 9183 | UGGGCAGUAAGAACAAAGC |
| 9040 | GUGAAAUCAAUAGGGUGGC | 9088 | CCUUGCGAGCUUGGAGACA | 9136 | UGUCCAGAGGAGGCAGGGC | 9184 | GGGCAGUAAGAACAAAGCU |
| 9041 | UGAAAUCAAUAGGGUGGCC | 9089 | CUUGCGAGCUUGGAGACAC | 9137 | GUCCAGAGGAGGCAGGGCU | 9185 | GGCAGUAAGAACAAAGCUC |
| 9042 | GAAAUCAAUAGGGUGGCCG | 9090 | UUGCGAGCUUGGAGACACC | 9138 | UCCAGAGGAGGCAGGGCUG | 9186 | GCAGUAAGAACAAAGCUCA |
| 9043 | AAAUCAAUAGGGUGGCCGC | 9091 | UGCGAGCUUGGAGACACCG | 9139 | CCAGAGGAGGCAGGGCUGC | 9187 | CAGUAAGAACAAAGCUCAA |
| 9044 | AAUCAAUAGGGUGGCCGCA | 9092 | GCGAGCUUGGAGACACCGG | 9140 | CAGAGGAGGCAGGGCUGCC | 9188 | AGUAAGAACAAAGCUCAAA |
| 9045 | AUCAAUAGGGUGGCCGCAU | 9093 | CGAGCUUGGAGACACCGGG | 9141 | AGAGGAGGCAGGGCUGCCA | 9189 | GUAAGAACAAAGCUCAAAC |
| 9046 | UCAAUAGGGUGGCCGCAUG | 9094 | GAGCUUGGAGACACCGGGC | 9142 | GAGGAGGCAGGGCUGCCAU | 9190 | UAAGAACAAAGCUCAAACU |
| 9047 | CAAUAGGGUGGCCGCAUGC | 9095 | AGCUUGGAGACACCGGGCC | 9143 | AGGAGGCAGGGCUGCCAUA | 9191 | AAGAACAAAGCUCAAACUC |
| 9048 | AAUAGGGUGGCCGCAUGCC | 9096 | GCUUGGAGACACCGGGCCC | 9144 | GGAGGCAGGGCUGCCAUAU | 9192 | AGAACAAAGCUCAAACUCA |
| 9049 | AUAGGGUGGCCGCAUGCCU | 9097 | CUUGGAGACACCGGGCCCG | 9145 | GAGGCAGGGCUGCCAUAUG | 9193 | GAACAAAGCUCAAACUCAC |
| 9050 | UAGGGUGGCCGCAUGCCUC | 9098 | UUGGAGACACCGGGCCCGG | 9146 | AGGCAGGGCUGCCAUAUGU | 9194 | AACAAAGCUCAAACUCACU |
| 9051 | AGGGUGGCCGCAUGCCUCA | 9099 | UGGAGACACCGGGCCCGGA | 9147 | GGCAGGGCUGCCAUAUGUG | 9195 | ACAAAGCUCAAACUCACUC |
| 9052 | GGGUGGCCGCAUGCCUCAG | 9100 | GGAGACACCGGGCCCGGAG | 9148 | GCAGGGCUGCCAUAUGUGG | 9196 | CAAAGCUCAAACUCACUCC |
| 9053 | GGUGGCCGCAUGCCUCAGA | 9101 | GAGACACCGGGCCCGGAGC | 9149 | CAGGGCUGCCAUAUGUGGC | 9197 | AAAGCUCAAACUCACUCCA |
| 9054 | GUGGCCGCAUGCCUCAGAA | 9102 | AGACACCGGGCCCGGAGCG | 9150 | AGGGCUGCCAUAUGUGGCA | 9198 | AAGCUCAAACUCACUCCAA |
| 9055 | UGGCCGCAUGCCUCAGAAA | 9103 | GACACCGGGCCCGGAGCGU | 9151 | GGGCUGCCAUAUGUGGCAA | 9199 | AGCUCAAACUCACUCCAAU |
| 9056 | GGCCGCAUGCCUCAGAAAA | 9104 | ACACCGGGCCCGGAGCGUC | 9152 | GGCUGCCAUAUGUGGCAAG | 9200 | GCUCAAACUCACUCCAAUA |
| 9057 | GCCGCAUGCCUCAGAAAAC | 9105 | CACCGGGCCCGGAGCGUCC | 9153 | GCUGCCAUAUGUGGCAAGU | 9201 | CUCAAACUCACUCCAAUAG |
| 9058 | CCGCAUGCCUCAGAAAACU | 9106 | ACCGGGCCCGGAGCGUCCG | 9154 | CUGCCAUAUGUGGCAAGUA | 9202 | UCAAACUCACUCCAAUAGC |
| 9059 | CGCAUGCCUCAGAAAACUU | 9107 | CCGGGCCCGGAGCGUCCGC | 9155 | UGCCAUAUGUGGCAAGUAC | 9203 | CAAACUCACUCCAAUAGCG |
| 9060 | GCAUGCCUCAGAAAACUUG | 9108 | CGGGCCCGGAGCGUCCGCG | 9156 | GCCAUAUGUGGCAAGUACC | 9204 | AAACUCACUCCAAUAGCGG |
| 9061 | CAUGCCUCAGAAAACUUGG | 9109 | GGGCCCGGAGCGUCCGCGC | 9157 | CCAUAUGUGGCAAGUACCU | 9205 | AACUCACUCCAAUAGCGGC |
| 9062 | AUGCCUCAGAAAACUUGGG | 9110 | GGCCCGGAGCGUCCGCGCU | 9158 | CAUAUGUGGCAAGUACCUC | 9206 | ACUCACUCCAAUAGCGGCC |
| 9063 | UGCCUCAGAAAACUUGGGG | 9111 | GCCCGGAGCGUCCGCGCUA | 9159 | AUAUGUGGCAAGUACCUCU | 9207 | CUCACUCCAAUAGCGGCCG |
| 9064 | GCCUCAGAAAACUUGGGGU | 9112 | CCCGGAGCGUCCGCGCUAG | 9160 | UAUGUGGCAAGUACCUCUU | 9208 | UCACUCCAAUAGCGGCCGC |
| 9065 | CCUCAGAAAACUUGGGGUC | 9113 | CCGGAGCGUCCGCGCUAGG | 9161 | AUGUGGCAAGUACCUCUUC | 9209 | CACUCCAAUAGCGGCCGCU |
| 9066 | CUCAGAAAACUUGGGGUCC | 9114 | CGGAGCGUCCGCGCUAGGC | 9162 | UGUGGCAAGUACCUCUUCA | 9210 | ACUCCAAUAGCGGCCGCUG |
| 9067 | UCAGAAAACUUGGGGUCCC | 9115 | GGAGCGUCCGCGCUAGGCU | 9163 | GUGGCAAGUACCUCUUCAA | 9211 | CUCCAAUAGCGGCCGCUGG |
| 9068 | CAGAAAACUUGGGGUCCCG | 9116 | GAGCGUCCGCGCUAGGCUU | 9164 | UGGCAAGUACCUCUUCAAC | 9212 | UCCAAUAGCGGCCGCUGGC |
| 9069 | AGAAAACUUGGGGUCCCGC | 9117 | AGCGUCCGCGCUAGGCUUC | 9165 | GGCAAGUACCUCUUCAACU | 9213 | CCAAUAGCGGCCGCUGGCC |
| 9070 | GAAAACUUGGGGUCCCGCC | 9118 | GCGUCCGCGCUAGGCUUCU | 9166 | GCAAGUACCUCUUCAACUG | 9214 | CAAUAGCGGCCGCUGGCCG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9215 | AAUAGCGGCCGCUGGCCGG | 9263 | CUACAGCGGGGGAGACAUU | 9311 | CUGGUUCUGGUUUUGCCUA | 9359 | CCUCCUCCCCAACCGAUGA |
| 9216 | AUAGCGGCCGCUGGCCGGC | 9264 | UACAGCGGGGGAGACAUUU | 9312 | UGGUUCUGGUUUUGCCUAC | 9360 | CUCCUCCCCAACCGAUGAA |
| 9217 | UAGCGGCCGCUGGCCGGCU | 9265 | ACAGCGGGGGAGACAUUUA | 9313 | GGUUCUGGUUUUGCCUACU | 9361 | UCCUCCCCAACCGAUGAAG |
| 9218 | AGCGGCCGCUGGCCGGCUG | 9266 | CAGCGGGGGAGACAUUUAU | 9314 | GUUCUGGUUUUGCCUACUC | 9362 | CCUCCCCAACCGAUGAAGG |
| 9219 | GCGGCCGCUGGCCGGCUGG | 9267 | AGCGGGGGAGACAUUUAUC | 9315 | UUCUGGUUUUGCCUACUCC | 9363 | CUCCCCAACCGAUGAAGGU |
| 9220 | CGGCCGCUGGCCGGCUGGA | 9268 | GCGGGGGAGACAUUUAUCA | 9316 | UCUGGUUUUGCCUACUCCU | 9364 | UCCCCAACCGAUGAAGGUU |
| 9221 | GGCCGCUGGCCGGCUGGAC | 9269 | CGGGGGAGACAUUUAUCAC | 9317 | CUGGUUUUGCCUACUCCUG | 9365 | CCCCAACCGAUGAAGGUUG |
| 9222 | GCCGCUGGCCGGCUGGACU | 9270 | GGGGGAGACAUUUAUCACA | 9318 | UGGUUUUGCCUACUCCUGC | 9366 | CCCAACCGAUGAAGGUUGG |
| 9223 | CCGCUGGCCGGCUGGACUU | 9271 | GGGGAGACAUUUAUCACAG | 9319 | GGUUUUGCCUACUCCUGCU | 9367 | CCAACCGAUGAAGGUUGGG |
| 9224 | CGCUGGCCGGCUGGACUUG | 9272 | GGGAGACAUUUAUCACAGC | 9320 | GUUUUGCCUACUCCUGCUC | 9368 | CAACCGAUGAAGGUUGGGG |
| 9225 | GCUGGCCGGCUGGACUUGU | 9273 | GGAGACAUUUAUCACAGCG | 9321 | UUUUGCCUACUCCUGCUCG | 9369 | AACCGAUGAAGGUUGGGGU |
| 9226 | CUGGCCGGCUGGACUUGUC | 9274 | GAGACAUUUAUCACAGCGU | 9322 | UUUGCCUACUCCUGCUCGC | 9370 | ACCGAUGAAGGUUGGGGUA |
| 9227 | UGGCCGGCUGGACUUGUCC | 9275 | AGACAUUUAUCACAGCGUG | 9323 | UUGCCUACUCCUGCUCGCU | 9371 | CCGAUGAAGGUUGGGGUAA |
| 9228 | GGCCGGCUGGACUUGUCCG | 9276 | GACAUUUAUCACAGCGUGU | 9324 | UGCCUACUCCUGCUCGCUG | 9372 | CGAUGAAGGUUGGGGUAAA |
| 9229 | GCCGGCUGGACUUGUCCGG | 9277 | ACAUUUAUCACAGCGUGUC | 9325 | GCCUACUCCUGCUCGCUGC | 9373 | GAUGAAGGUUGGGGUAAAC |
| 9230 | CCGGCUGGACUUGUCCGGU | 9278 | CAUUUAUCACAGCGUGUCU | 9326 | CCUACUCCUGCUCGCUGCA | 9374 | AUGAAGGUUGGGGUAAACA |
| 9231 | CGGCUGGACUUGUCCGGUU | 9279 | AUUUAUCACAGCGUGUCUC | 9327 | CUACUCCUGCUCGCUGCAG | 9375 | UGAAGGUUGGGGUAAACAC |
| 9232 | GGCUGGACUUGUCCGGUUG | 9280 | UUUAUCACAGCGUGUCUCA | 9328 | UACUCCUGCUCGCUGCAGG | 9376 | GAAGGUUGGGGUAAACACU |
| 9233 | GCUGGACUUGUCCGGUUGG | 9281 | UUAUCACAGCGUGUCUCAU | 9329 | ACUCCUGCUCGCUGCAGGG | 9377 | AAGGUUGGGGUAAACACUC |
| 9234 | CUGGACUUGUCCGGUUGGU | 9282 | UAUCACAGCGUGUCUCAUG | 9330 | CUCCUGCUCGCUGCAGGGG | 9378 | AGGUUGGGGUAAACACUCC |
| 9235 | UGGACUUGUCCGGUUGGUU | 9283 | AUCACAGCGUGUCUCAUGC | 9331 | UCCUGCUCGCUGCAGGGGU | 9379 | GGUUGGGGUAAACACUCCG |
| 9236 | GGACUUGUCCGGUUGGUUC | 9284 | UCACAGCGUGUCUCAUGCC | 9332 | CCUGCUCGCUGCAGGGGUA | 9380 | GUUGGGGUAAACACUCCGG |
| 9237 | GACUUGUCCGGUUGGUUCA | 9285 | CACAGCGUGUCUCAUGCCC | 9333 | CUGCUCGCUGCAGGGGUAG | 9381 | UUGGGGUAAACACUCCGGC |
| 9238 | ACUUGUCCGGUUGGUUCAC | 9286 | ACAGCGUGUCUCAUGCCCG | 9334 | UGCUCGCUGCAGGGGUAGG | 9382 | UGGGGUAAACACUCCGGCC |
| 9239 | CUUGUCCGGUUGGUUCACG | 9287 | CAGCGUGUCUCAUGCCCGG | 9335 | GCUCGCUGCAGGGGUAGGC | 9383 | GGGGUAAACACUCCGGCCU |
| 9240 | UUGUCCGGUUGGUUCACGG | 9288 | AGCGUGUCUCAUGCCCGGC | 9336 | CUCGCUGCAGGGGUAGGCA | 9384 | GGGUAAACACUCCGGCCUC |
| 9241 | UGUCCGGUUGGUUCACGGC | 9289 | GCGUGUCUCAUGCCCGGCC | 9337 | UCGCUGCAGGGGUAGGCAU | 9385 | GGUAAACACUCCGGCCUCU |
| 9242 | GUCCGGUUGGUUCACGGCU | 9290 | CGUGUCUCAUGCCCGGCCC | 9338 | CGCUGCAGGGGUAGGCAUC | 9386 | GUAAACACUCCGGCCUCUU |
| 9243 | UCCGGUUGGUUCACGGCUG | 9291 | GUGUCUCAUGCCCGGCCCC | 9339 | GCUGCAGGGGUAGGCAUCU | 9387 | UAAACACUCCGGCCUCUUA |
| 9244 | CCGGUUGGUUCACGGCUGG | 9292 | UGUCUCAUGCCCGGCCCCG | 9340 | CUGCAGGGGUAGGCAUCUA | 9388 | AAACACUCCGGCCUCUUAG |
| 9245 | CGGUUGGUUCACGGCUGGC | 9293 | GUCUCAUGCCCGGCCCCGC | 9341 | UGCAGGGGUAGGCAUCUAC | 9389 | AACACUCCGGCCUCUUAGG |
| 9246 | GGUUGGUUCACGGCUGGCU | 9294 | UCUCAUGCCCGGCCCCGCU | 9342 | GCAGGGGUAGGCAUCUACC | 9390 | ACACUCCGGCCUCUUAGGC |
| 9247 | GUUGGUUCACGGCUGGCUA | 9295 | CUCAUGCCCGGCCCCGCUG | 9343 | CAGGGGUAGGCAUCUACCU | 9391 | CACUCCGGCCUCUUAGGCC |
| 9248 | UUGGUUCACGGCUGGCUAC | 9296 | UCAUGCCCGGCCCCGCUGG | 9344 | AGGGGUAGGCAUCUACCUC | 9392 | ACUCCGGCCUCUUAGGCCA |
| 9249 | UGGUUCACGGCUGGCUACA | 9297 | CAUGCCCGGCCCCGCUGGU | 9345 | GGGGUAGGCAUCUACCUCC | 9393 | CUCCGGCCUCUUAGGCCAU |
| 9250 | GGUUCACGGCUGGCUACAG | 9298 | AUGCCCGGCCCCGCUGGUU | 9346 | GGGUAGGCAUCUACCUCCU | 9394 | UCCGGCCUCUUAGGCCAUU |
| 9251 | GUUCACGGCUGGCUACAGC | 9299 | UGCCCGGCCCCGCUGGUUC | 9347 | GGUAGGCAUCUACCUCCUC | 9395 | CCGGCCUCUUAGGCCAUUU |
| 9252 | UUCACGGCUGGCUACAGCG | 9300 | GCCCGGCCCCGCUGGUUCU | 9348 | GUAGGCAUCUACCUCCUCC | 9396 | CGGCCUCUUAGGCCAUUUC |
| 9253 | UCACGGCUGGCUACAGCGG | 9301 | CCCGGCCCCGCUGGUUCUG | 9349 | UAGGCAUCUACCUCCUCCC | 9397 | GGCCUCUUAGGCCAUUUCC |
| 9254 | CACGGCUGGCUACAGCGGG | 9302 | CCGGCCCCGCUGGUUCUGG | 9350 | AGGCAUCUACCUCCUCCCC | 9398 | GCCUCUUAGGCCAUUUCCU |
| 9255 | ACGGCUGGCUACAGCGGGG | 9303 | CGGCCCCGCUGGUUCUGGU | 9351 | GGCAUCUACCUCCUCCCCA | 9399 | CCUCUUAGGCCAUUUCCUG |
| 9256 | CGGCUGGCUACAGCGGGGG | 9304 | GGCCCCGCUGGUUCUGGUU | 9352 | GCAUCUACCUCCUCCCCAA | 9400 | CUCUUAGGCCAUUUCCUGU |
| 9257 | GGCUGGCUACAGCGGGGGA | 9305 | GCCCCGCUGGUUCUGGUUU | 9353 | CAUCUACCUCCUCCCCAAC | 9401 | UCUUAGGCCAUUUCCUGUU |
| 9258 | GCUGGCUACAGCGGGGGAG | 9306 | CCCCGCUGGUUCUGGUUUU | 9354 | AUCUACCUCCUCCCCAACC | 9402 | CUUAGGCCAUUUCCUGUUU |
| 9259 | CUGGCUACAGCGGGGGAGA | 9307 | CCCGCUGGUUCUGGUUUUG | 9355 | UCUACCUCCUCCCCAACCG | 9403 | UUAGGCCAUUUCCUGUUUU |
| 9260 | UGGCUACAGCGGGGGAGAC | 9308 | CCGCUGGUUCUGGUUUUGC | 9356 | CUACCUCCUCCCCAACCGA | 9404 | UAGGCCAUUUCCUGUUUUU |
| 9261 | GGCUACAGCGGGGGAGACA | 9309 | CGCUGGUUCUGGUUUUGCC | 9357 | UACCUCCUCCCCAACCGAU | 9405 | AGGCCAUUUCCUGUUUUUU |
| 9262 | GCUACAGCGGGGGAGACAU | 9310 | GCUGGUUCUGGUUUUGCCU | 9358 | ACCUCCUCCCCAACCGAUG | 9406 | GGCCAUUUCCUGUUUUUUU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9407 | GCCAUUUCCUGUUUUUUUU | 9455 | UUUUUUUUUUUUUUCUUUU | 9503 | UUUUUUCUUUCCUUCUUUU | 9551 | UGGCUCCAUCUUAGCCCUA |
| 9408 | CCAUUUCCUGUUUUUUUUU | 9456 | UUUUUUUUUUUUUCUUUUU | 9504 | UUUUUCUUUCCUUCUUUUU | 9552 | GGCUCCAUCUUAGCCCUAG |
| 9409 | CAUUUCCUGUUUUUUUUUU | 9457 | UUUUUUUUUUUUCUUUUUU | 9505 | UUUUCUUUCCUUCUUUUUU | 9553 | GCUCCAUCUUAGCCCUAGU |
| 9410 | AUUUCCUGUUUUUUUUUUU | 9458 | UUUUUUUUUUUCUUUUUUU | 9506 | UUUCUUUCCUUCUUUUUUC | 9554 | CUCCAUCUUAGCCCUAGUC |
| 9411 | UUUCCUGUUUUUUUUUUUU | 9459 | UUUUUUUUUUCUUUUUUUU | 9507 | UUCUUUCCUUCUUUUUUCC | 9555 | UCCAUCUUAGCCCUAGUCA |
| 9412 | UUCCUGUUUUUUUUUUUUU | 9460 | UUUUUUUUUCUUUUUUUUU | 9508 | UCUUUCCUUCUUUUUUCCU | 9556 | CCAUCUUAGCCCUAGUCAC |
| 9413 | UCCUGUUUUUUUUUUUUUU | 9461 | UUUUUUUUCUUUUUUUUUU | 9509 | CUUUCCUUCUUUUUUCCUU | 9557 | CAUCUUAGCCCUAGUCACG |
| 9414 | CCUGUUUUUUUUUUUUUUU | 9462 | UUUUUUUCUUUUUUUUUUU | 9510 | UUUCCUUCUUUUUUCCUUU | 9558 | AUCUUAGCCCUAGUCACGG |
| 9415 | CUGUUUUUUUUUUUUUUUU | 9463 | UUUUUUCUUUUUUUUUUUU | 9511 | UUCCUUCUUUUUUCCUUUC | 9559 | UCUUAGCCCUAGUCACGGC |
| 9416 | UGUUUUUUUUUUUUUUUUU | 9464 | UUUUUCUUUUUUUUUUUUU | 9512 | UCCUUCUUUUUUCCUUUCU | 9560 | CUUAGCCCUAGUCACGGCU |
| 9417 | GUUUUUUUUUUUUUUUUUU | 9465 | UUUUCUUUUUUUUUUUUUU | 9513 | CCUUCUUUUUUCCUUUCUU | 9561 | UUAGCCCUAGUCACGGCUA |
| 9418 | UUUUUUUUUUUUUUUUUUU | 9466 | UUUCUUUUUUUUUUUUUUU | 9514 | CUUCUUUUUUCCUUUCUUU | 9562 | UAGCCCUAGUCACGGCUAG |
| 9419 | UUUUUUUUUUUUUUUUUUU | 9467 | UUCUUUUUUUUUUUUUUUU | 9515 | UUCUUUUUUCCUUUCUUUU | 9563 | AGCCCUAGUCACGGCUAGC |
| 9420 | UUUUUUUUUUUUUUUUUUU | 9468 | UCUUUUUUUUUUUUUUUUU | 9516 | UCUUUUUUCCUUUCUUUUC | 9564 | GCCCUAGUCACGGCUAGCU |
| 9421 | UUUUUUUUUUUUUUUUUUU | 9469 | CUUUUUUUUUUUUUUUUUC | 9517 | CUUUUUUCCUUUCUUUUCC | 9565 | CCCUAGUCACGGCUAGCUG |
| 9422 | UUUUUUUUUUUUUUUUUUU | 9470 | UUUUUUUUUUUUUUUUUCC | 9518 | UUUUUUCCUUUCUUUUCCU | 9566 | CCUAGUCACGGCUAGCUGU |
| 9423 | UUUUUUUUUUUUUUUUUUU | 9471 | UUUUUUUUUUUUUUUUCCU | 9519 | UUUUUCCUUUCUUUUCCUU | 9567 | CUAGUCACGGCUAGCUGUG |
| 9424 | UUUUUUUUUUUUUUUUUUU | 9472 | UUUUUUUUUUUUUUUCCUU | 9520 | UUUUCCUUUCUUUUCCUUC | 9568 | UAGUCACGGCUAGCUGUGA |
| 9425 | UUUUUUUUUUUUUUUUUUU | 9473 | UUUUUUUUUUUUUUCCUUU | 9521 | UUUCCUUUCUUUUCCUUCC | 9569 | AGUCACGGCUAGCUGUGAA |
| 9426 | UUUUUUUUUUUUUUUUUUU | 9474 | UUUUUUUUUUUUUCCUUUU | 9522 | UUCCUUUCUUUUCCUUCCU | 9570 | GUCACGGCUAGCUGUGAAA |
| 9427 | UUUUUUUUUUUUUUUUUUU | 9475 | UUUUUUUUUUUUCCUUUUU | 9523 | UCCUUUCUUUUCCUUCCUU | 9571 | UCACGGCUAGCUGUGAAAG |
| 9428 | UUUUUUUUUUUUUUUUUUU | 9476 | UUUUUUUUUUUCCUUUUUU | 9524 | CCUUUCUUUUCCUUCCUUC | 9572 | CACGGCUAGCUGUGAAAGG |
| 9429 | UUUUUUUUUUUUUUUUUUU | 9477 | UUUUUUUUUUCCUUUUUUU | 9525 | CUUUCUUUUCCUUCCUUCU | 9573 | ACGGCUAGCUGUGAAAGGU |
| 9430 | UUUUUUUUUUUUUUUUUUU | 9478 | UUUUUUUUUCCUUUUUUUU | 9526 | UUUCUUUUCCUUCCUUCUU | 9574 | CGGCUAGCUGUGAAAGGUC |
| 9431 | UUUUUUUUUUUUUUUUUUU | 9479 | UUUUUUUUCCUUUUUUUUU | 9527 | UUCUUUUCCUUCCUUCUUU | 9575 | GGCUAGCUGUGAAAGGUCC |
| 9432 | UUUUUUUUUUUUUUUUUUU | 9480 | UUUUUUUCCUUUUUUUUUU | 9528 | UCUUUUCCUUCCUUCUUUA | 9576 | GCUAGCUGUGAAAGGUCCG |
| 9433 | UUUUUUUUUUUUUUUUUUU | 9481 | UUUUUUCCUUUUUUUUUUU | 9529 | CUUUUCCUUCCUUCUUUAA | 9577 | CUAGCUGUGAAAGGUCCGU |
| 9434 | UUUUUUUUUUUUUUUUUUU | 9482 | UUUUUCCUUUUUUUUUUUU | 9530 | UUUUCCUUCCUUCUUUAAU | 9578 | UAGCUGUGAAAGGUCCGUG |
| 9435 | UUUUUUUUUUUUUUUUUUU | 9483 | UUUUCCUUUUUUUUUUUUU | 9531 | UUUCCUUCCUUCUUUAAUG | 9579 | AGCUGUGAAAGGUCCGUGA |
| 9436 | UUUUUUUUUUUUUUUUUUU | 9484 | UUUCCUUUUUUUUUUUUUU | 9532 | UUCCUUCCUUCUUUAAUGG | 9580 | GCUGUGAAAGGUCCGUGAG |
| 9437 | UUUUUUUUUUUUUUUUUUU | 9485 | UUCCUUUUUUUUUUUUUUU | 9533 | UCCUUCCUUCUUUAAUGGU | 9581 | CUGUGAAAGGUCCGUGAGC |
| 9438 | UUUUUUUUUUUUUUUUUUU | 9486 | UCCUUUUUUUUUUUUUUUU | 9534 | CCUUCCUUCUUUAAUGGUG | 9582 | UGUGAAAGGUCCGUGAGCC |
| 9439 | UUUUUUUUUUUUUUUUUUU | 9487 | CCUUUUUUUUUUUUUUUUU | 9535 | CUUCCUUCUUUAAUGGUGG | 9583 | GUGAAAGGUCCGUGAGCCG |
| 9440 | UUUUUUUUUUUUUUUUUUU | 9488 | CUUUUUUUUUUUUUUUUUU | 9536 | UUCCUUCUUUAAUGGUGGC | 9584 | UGAAAGGUCCGUGAGCCGC |
| 9441 | UUUUUUUUUUUUUUUUUUU | 9489 | UUUUUUUUUUUUUUUUUUU | 9537 | UCCUUCUUUAAUGGUGGCU | 9585 | GAAAGGUCCGUGAGCCGCA |
| 9442 | UUUUUUUUUUUUUUUUUUU | 9490 | UUUUUUUUUUUUUUUUUUU | 9538 | CCUUCUUUAAUGGUGGCUC | 9586 | AAAGGUCCGUGAGCCGCAU |
| 9443 | UUUUUUUUUUUUUUUUUUU | 9491 | UUUUUUUUUUUUUUUUUUC | 9539 | CUUCUUUAAUGGUGGCUCC | 9587 | AAGGUCCGUGAGCCGCAUG |
| 9444 | UUUUUUUUUUUUUUUUUUU | 9492 | UUUUUUUUUUUUUUUUUCU | 9540 | UUCUUUAAUGGUGGCUCCA | 9588 | AGGUCCGUGAGCCGCAUGA |
| 9445 | UUUUUUUUUUUUUUUUUUU | 9493 | UUUUUUUUUUUUUUUUCUU | 9541 | UCUUUAAUGGUGGCUCCAU | 9589 | GGUCCGUGAGCCGCAUGAC |
| 9446 | UUUUUUUUUUUUUUUUUUU | 9494 | UUUUUUUUUUUUUUUCUUU | 9542 | CUUUAAUGGUGGCUCCAUC | 9590 | GUCCGUGAGCCGCAUGACU |
| 9447 | UUUUUUUUUUUUUUUUUUU | 9495 | UUUUUUUUUUUUUUCUUUC | 9543 | UUUAAUGGUGGCUCCAUCU | 9591 | UCCGUGAGCCGCAUGACUG |
| 9448 | UUUUUUUUUUUUUUUUUUU | 9496 | UUUUUUUUUUUUUCUUUCC | 9544 | UUAAUGGUGGCUCCAUCUU | 9592 | CCGUGAGCCGCAUGACUGC |
| 9449 | UUUUUUUUUUUUUUUUUUU | 9497 | UUUUUUUUUUUUCUUUCCU | 9545 | UAAUGGUGGCUCCAUCUUA | 9593 | CGUGAGCCGCAUGACUGCA |
| 9450 | UUUUUUUUUUUUUUUUUUU | 9498 | UUUUUUUUUUUCUUUCCUU | 9546 | AAUGGUGGCUCCAUCUUAG | 9594 | GUGAGCCGCAUGACUGCAG |
| 9451 | UUUUUUUUUUUUUUUUUUC | 9499 | UUUUUUUUUUCUUUCCUUC | 9547 | AUGGUGGCUCCAUCUUAGC | 9595 | UGAGCCGCAUGACUGCAGA |
| 9452 | UUUUUUUUUUUUUUUUUCU | 9500 | UUUUUUUUUCUUUCCUUCU | 9548 | UGGUGGCUCCAUCUUAGCC | 9596 | GAGCCGCAUGACUGCAGAG |
| 9453 | UUUUUUUUUUUUUUUUCUU | 9501 | UUUUUUUUCUUUCCUUCUU | 9549 | GGUGGCUCCAUCUUAGCCC | 9597 | AGCCGCAUGACUGCAGAGA |
| 9454 | UUUUUUUUUUUUUUUCUUU | 9502 | UUUUUUUCUUUCCUUCUUU | 9550 | GUGGCUCCAUCUUAGCCCU | 9598 | GCCGCAUGACUGCAGAGAG |

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| | |
|---|---|
| 9599 | CCGCAUGACUGCAGAGAGU |
| 9600 | CGCAUGACUGCAGAGAGUG |
| 9601 | GCAUGACUGCAGAGAGUGC |
| 9602 | CAUGACUGCAGAGAGUGCU |
| 9603 | AUGACUGCAGAGAGUGCUG |
| 9604 | UGACUGCAGAGAGUGCUGA |
| 9605 | GACUGCAGAGAGUGCUGAU |
| 9606 | ACUGCAGAGAGUGCUGAUA |
| 9607 | CUGCAGAGAGUGCUGAUAC |
| 9608 | UGCAGAGAGUGCUGAUACU |
| 9609 | GCAGAGAGUGCUGAUACUG |
| 9610 | CAGAGAGUGCUGAUACUGG |
| 9611 | AGAGAGUGCUGAUACUGGC |
| 9612 | GAGAGUGCUGAUACUGGCC |
| 9613 | AGAGUGCUGAUACUGGCCU |
| 9614 | GAGUGCUGAUACUGGCCUC |
| 9615 | AGUGCUGAUACUGGCCUCU |
| 9616 | GUGCUGAUACUGGCCUCUC |
| 9617 | UGCUGAUACUGGCCUCUCU |
| 9618 | GCUGAUACUGGCCUCUCUG |
| 9619 | CUGAUACUGGCCUCUCUGC |
| 9620 | UGAUACUGGCCUCUCUGCA |
| 9621 | GAUACUGGCCUCUCUGCAG |
| 9622 | AUACUGGCCUCUCUGCAGA |
| 9623 | UACUGGCCUCUCUGCAGAU |
| 9624 | ACUGGCCUCUCUGCAGAUC |
| 9625 | CUGGCCUCUCUGCAGAUCA |
| 9626 | UGGCCUCUCUGCAGAUCAU |
| 9627 | GGCCUCUCUGCAGAUCAUG |
| 9628 | GCCUCUCUGCAGAUCAUGU |

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| | |
|---|---|
| 1 | GCCAGCCCCCGAUUGGGGG |
| 2 | CCAGCCCCCGAUUGGGGGC |
| 3 | CAGCCCCCGAUUGGGGGCG |
| 4 | AGCCCCCGAUUGGGGGCGA |
| 5 | GCCCCCGAUUGGGGGCGAC |
| 6 | CCCCCGAUUGGGGGCGACA |
| 7 | CCCCGAUUGGGGGCGACAC |
| 8 | CCCGAUUGGGGGCGACACU |
| 9 | CCGAUUGGGGGCGACACUC |
| 10 | CGAUUGGGGGCGACACUCC |
| 11 | GAUUGGGGGCGACACUCCA |
| 12 | AUUGGGGGCGACACUCCAC |
| 13 | UUGGGGGCGACACUCCACC |
| 14 | UGGGGGCGACACUCCACCA |
| 15 | GGGGGCGACACUCCACCAU |
| 16 | GGGGCGACACUCCACCAUA |
| 17 | GGGCGACACUCCACCAUAG |
| 18 | GGCGACACUCCACCAUAGA |
| 19 | GCGACACUCCACCAUAGAU |
| 20 | CGACACUCCACCAUAGAUC |
| 21 | GACACUCCACCAUAGAUCA |
| 22 | ACACUCCACCAUAGAUCAC |
| 23 | CACUCCACCAUAGAUCACU |
| 24 | ACUCCACCAUAGAUCACUC |
| 25 | CUCCACCAUAGAUCACUCC |
| 26 | UCCACCAUAGAUCACUCCC |
| 27 | CCACCAUAGAUCACUCCCC |
| 28 | CACCAUAGAUCACUCCCCU |
| 29 | ACCAUAGAUCACUCCCCUG |
| 30 | CCAUAGAUCACUCCCCUGU |
| 31 | CAUAGAUCACUCCCCUGUG |
| 32 | AUAGAUCACUCCCCUGUGA |
| 33 | UAGAUCACUCCCCUGUGAG |
| 34 | AGAUCACUCCCCUGUGAGG |
| 35 | GAUCACUCCCCUGUGAGGA |
| 36 | AUCACUCCCCUGUGAGGAA |
| 37 | UCACUCCCCUGUGAGGAAC |
| 38 | CACUCCCCUGUGAGGAACU |
| 39 | ACUCCCCUGUGAGGAACUA |
| 40 | CUCCCCUGUGAGGAACUAC |
| 41 | UCCCCUGUGAGGAACUACU |
| 42 | CCCCUGUGAGGAACUACUG |
| 43 | CCCUGUGAGGAACUACUGU |
| 44 | CCUGUGAGGAACUACUGUC |
| 45 | CUGUGAGGAACUACUGUCU |
| 46 | UGUGAGGAACUACUGUCUU |
| 47 | GUGAGGAACUACUGUCUUC |
| 48 | UGAGGAACUACUGUCUUCA |
| 49 | GAGGAACUACUGUCUUCAC |
| 50 | AGGAACUACUGUCUUCACG |
| 51 | GGAACUACUGUCUUCACGC |
| 52 | GAACUACUGUCUUCACGCA |
| 53 | AACUACUGUCUUCACGCAG |
| 54 | ACUACUGUCUUCACGCAGA |
| 55 | CUACUGUCUUCACGCAGAA |
| 56 | UACUGUCUUCACGCAGAAA |
| 57 | ACUGUCUUCACGCAGAAAG |
| 58 | CUGUCUUCACGCAGAAAGC |
| 59 | UGUCUUCACGCAGAAAGCG |
| 60 | GUCUUCACGCAGAAAGCGU |
| 61 | UCUUCACGCAGAAAGCGUC |
| 62 | CUUCACGCAGAAAGCGUCU |
| 63 | UUCACGCAGAAAGCGUCUA |
| 64 | UCACGCAGAAAGCGUCUAG |
| 65 | CACGCAGAAAGCGUCUAGC |
| 66 | ACGCAGAAAGCGUCUAGCC |
| 67 | CGCAGAAAGCGUCUAGCCA |
| 68 | GCAGAAAGCGUCUAGCCAU |
| 69 | CAGAAAGCGUCUAGCCAUG |
| 70 | AGAAAGCGUCUAGCCAUGG |
| 71 | GAAAGCGUCUAGCCAUGGC |
| 72 | AAAGCGUCUAGCCAUGGCG |
| 73 | AAGCGUCUAGCCAUGGCGU |
| 74 | AGCGUCUAGCCAUGGCGUU |
| 75 | GCGUCUAGCCAUGGCGUUA |
| 76 | CGUCUAGCCAUGGCGUUAG |
| 77 | GUCUAGCCAUGGCGUUAGU |
| 78 | UCUAGCCAUGGCGUUAGUA |
| 79 | CUAGCCAUGGCGUUAGUAU |
| 80 | UAGCCAUGGCGUUAGUAUG |
| 81 | AGCCAUGGCGUUAGUAUGA |
| 82 | GCCAUGGCGUUAGUAUGAG |
| 83 | CCAUGGCGUUAGUAUGAGU |
| 84 | CAUGGCGUUAGUAUGAGUG |
| 85 | AUGGCGUUAGUAUGAGUGU |
| 86 | UGGCGUUAGUAUGAGUGUC |
| 87 | GGCGUUAGUAUGAGUGUCG |
| 88 | GCGUUAGUAUGAGUGUCGU |
| 89 | CGUUAGUAUGAGUGUCGUG |
| 90 | GUUAGUAUGAGUGUCGUGC |
| 91 | UUAGUAUGAGUGUCGUGCA |
| 92 | UAGUAUGAGUGUCGUGCAG |
| 93 | AGUAUGAGUGUCGUGCAGC |
| 94 | GUAUGAGUGUCGUGCAGCC |
| 95 | UAUGAGUGUCGUGCAGCCU |
| 96 | AUGAGUGUCGUGCAGCCUC |
| 97 | UGAGUGUCGUGCAGCCUCC |
| 98 | GAGUGUCGUGCAGCCUCCA |
| 99 | AGUGUCGUGCAGCCUCCAG |
| 100 | GUGUCGUGCAGCCUCCAGG |
| 101 | UGUCGUGCAGCCUCCAGGA |
| 102 | GUCGUGCAGCCUCCAGGAC |
| 103 | UCGUGCAGCCUCCAGGACC |
| 104 | CGUGCAGCCUCCAGGACCC |
| 105 | GUGCAGCCUCCAGGACCCC |
| 106 | UGCAGCCUCCAGGACCCCC |
| 107 | GCAGCCUCCAGGACCCCCC |
| 108 | CAGCCUCCAGGACCCCCCC |
| 109 | AGCCUCCAGGACCCCCCCU |
| 110 | GCCUCCAGGACCCCCCCUC |
| 111 | CCUCCAGGACCCCCCCUCC |
| 112 | CUCCAGGACCCCCCCUCCC |
| 113 | UCCAGGACCCCCCCUCCCG |
| 114 | CCAGGACCCCCCCUCCCGG |
| 115 | CAGGACCCCCCCUCCCGGG |
| 116 | AGGACCCCCCCUCCCGGGA |
| 117 | GGACCCCCCCUCCCGGGAG |
| 118 | GACCCCCCCUCCCGGGAGA |
| 119 | ACCCCCCCUCCCGGGAGAG |
| 120 | CCCCCCCUCCCGGGAGAGC |
| 121 | CCCCCCUCCCGGGAGAGCC |
| 122 | CCCCCUCCCGGGAGAGCCA |
| 123 | CCCCUCCCGGGAGAGCCAU |
| 124 | CCCUCCCGGGAGAGCCAUA |
| 125 | CCUCCCGGGAGAGCCAUAG |
| 126 | CUCCCGGGAGAGCCAUAGU |
| 127 | UCCCGGGAGAGCCAUAGUG |
| 128 | CCCGGGAGAGCCAUAGUGG |
| 129 | CCGGGAGAGCCAUAGUGGU |
| 130 | CGGGAGAGCCAUAGUGGUC |
| 131 | GGGAGAGCCAUAGUGGUCU |
| 132 | GGAGAGCCAUAGUGGUCUG |
| 133 | GAGAGCCAUAGUGGUCUGC |
| 134 | AGAGCCAUAGUGGUCUGCG |
| 135 | GAGCCAUAGUGGUCUGCGG |
| 136 | AGCCAUAGUGGUCUGCGGA |
| 137 | GCCAUAGUGGUCUGCGGAA |
| 138 | CCAUAGUGGUCUGCGGAAC |
| 139 | CAUAGUGGUCUGCGGAACC |

**FIG. 2 (page 52 of 479)**

| | |
|---|---|
| 140 | AUAGUGGUCUGCGGAACCG |
| 141 | UAGUGGUCUGCGGAACCGG |
| 142 | AGUGGUCUGCGGAACCGGU |
| 143 | GUGGUCUGCGGAACCGGUG |
| 144 | UGGUCUGCGGAACCGGUGA |
| 145 | GGUCUGCGGAACCGGUGAG |
| 146 | GUCUGCGGAACCGGUGAGU |
| 147 | UCUGCGGAACCGGUGAGUA |
| 148 | CUGCGGAACCGGUGAGUAC |
| 149 | UGCGGAACCGGUGAGUACA |
| 150 | GCGGAACCGGUGAGUACAC |
| 151 | CGGAACCGGUGAGUACACC |
| 152 | GGAACCGGUGAGUACACCG |
| 153 | GAACCGGUGAGUACACCGG |
| 154 | AACCGGUGAGUACACCGGA |
| 155 | ACCGGUGAGUACACCGGAA |
| 156 | CCGGUGAGUACACCGGAAU |
| 157 | CGGUGAGUACACCGGAAUU |
| 158 | GGUGAGUACACCGGAAUUG |
| 159 | GUGAGUACACCGGAAUUGC |
| 160 | UGAGUACACCGGAAUUGCC |
| 161 | GAGUACACCGGAAUUGCCA |
| 162 | AGUACACCGGAAUUGCCAG |
| 163 | GUACACCGGAAUUGCCAGG |
| 164 | UACACCGGAAUUGCCAGGA |
| 165 | ACACCGGAAUUGCCAGGAC |
| 166 | CACCGGAAUUGCCAGGACG |
| 167 | ACCGGAAUUGCCAGGACGA |
| 168 | CCGGAAUUGCCAGGACGAC |
| 169 | CGGAAUUGCCAGGACGACC |
| 170 | GGAAUUGCCAGGACGACCG |
| 171 | GAAUUGCCAGGACGACCGG |
| 172 | AAUUGCCAGGACGACCGGG |
| 173 | AUUGCCAGGACGACCGGGU |
| 174 | UUGCCAGGACGACCGGGUC |
| 175 | UGCCAGGACGACCGGGUCC |
| 176 | GCCAGGACGACCGGGUCCU |
| 177 | CCAGGACGACCGGGUCCUU |
| 178 | CAGGACGACCGGGUCCUUU |
| 179 | AGGACGACCGGGUCCUUUC |
| 180 | GGACGACCGGGUCCUUUCU |
| 181 | GACGACCGGGUCCUUUCUU |
| 182 | ACGACCGGGUCCUUUCUUG |
| 183 | CGACCGGGUCCUUUCUUGG |
| 184 | GACCGGGUCCUUUCUUGGA |
| 185 | ACCGGGUCCUUUCUUGGAU |
| 186 | CCGGGUCCUUUCUUGGAUC |
| 187 | CGGGUCCUUUCUUGGAUCA |
| 188 | GGGUCCUUUCUUGGAUCAA |
| 189 | GGUCCUUUCUUGGAUCAAC |
| 190 | GUCCUUUCUUGGAUCAACC |
| 191 | UCCUUUCUUGGAUCAACCC |
| 192 | CCUUUCUUGGAUCAACCCG |
| 193 | CUUUCUUGGAUCAACCCGC |
| 194 | UUUCUUGGAUCAACCCGCU |
| 195 | UUCUUGGAUCAACCCGCUC |
| 196 | UCUUGGAUCAACCCGCUCA |
| 197 | CUUGGAUCAACCCGCUCAA |
| 198 | UUGGAUCAACCCGCUCAAU |
| 199 | UGGAUCAACCCGCUCAAUG |
| 200 | GGAUCAACCCGCUCAAUGC |
| 201 | GAUCAACCCGCUCAAUGCC |
| 202 | AUCAACCCGCUCAAUGCCU |
| 203 | UCAACCCGCUCAAUGCCUG |
| 204 | CAACCCGCUCAAUGCCUGG |
| 205 | AACCCGCUCAAUGCCUGGA |
| 206 | ACCCGCUCAAUGCCUGGAG |
| 207 | CCCGCUCAAUGCCUGGAGA |
| 208 | CCGCUCAAUGCCUGGAGAU |
| 209 | CGCUCAAUGCCUGGAGAUU |
| 210 | GCUCAAUGCCUGGAGAUUU |
| 211 | CUCAAUGCCUGGAGAUUUG |
| 212 | UCAAUGCCUGGAGAUUUGG |
| 213 | CAAUGCCUGGAGAUUUGGG |
| 214 | AAUGCCUGGAGAUUUGGGC |
| 215 | AUGCCUGGAGAUUUGGGCG |
| 216 | UGCCUGGAGAUUUGGGCGU |
| 217 | GCCUGGAGAUUUGGGCGUG |
| 218 | CCUGGAGAUUUGGGCGUGC |
| 219 | CUGGAGAUUUGGGCGUGCC |
| 220 | UGGAGAUUUGGGCGUGCCC |
| 221 | GGAGAUUUGGGCGUGCCCC |
| 222 | GAGAUUUGGGCGUGCCCCC |
| 223 | AGAUUUGGGCGUGCCCCCG |
| 224 | GAUUUGGGCGUGCCCCCGC |
| 225 | AUUUGGGCGUGCCCCCGCG |
| 226 | UUUGGGCGUGCCCCCGCGA |
| 227 | UUGGGCGUGCCCCCGCGAG |
| 228 | UGGGCGUGCCCCCGCGAGA |
| 229 | GGGCGUGCCCCCGCGAGAC |
| 230 | GGCGUGCCCCCGCGAGACU |
| 231 | GCGUGCCCCCGCGAGACUG |
| 232 | CGUGCCCCCGCGAGACUGC |
| 233 | GUGCCCCCGCGAGACUGCU |
| 234 | UGCCCCCGCGAGACUGCUA |
| 235 | GCCCCCGCGAGACUGCUAG |
| 236 | CCCCCGCGAGACUGCUAGC |
| 237 | CCCCGCGAGACUGCUAGCC |
| 238 | CCCGCGAGACUGCUAGCCG |
| 239 | CCGCGAGACUGCUAGCCGA |
| 240 | CGCGAGACUGCUAGCCGAG |
| 241 | GCGAGACUGCUAGCCGAGU |
| 242 | CGAGACUGCUAGCCGAGUA |
| 243 | GAGACUGCUAGCCGAGUAG |
| 244 | AGACUGCUAGCCGAGUAGU |
| 245 | GACUGCUAGCCGAGUAGUG |
| 246 | ACUGCUAGCCGAGUAGUGU |
| 247 | CUGCUAGCCGAGUAGUGUU |
| 248 | UGCUAGCCGAGUAGUGUUG |
| 249 | GCUAGCCGAGUAGUGUUGG |
| 250 | CUAGCCGAGUAGUGUUGGG |
| 251 | UAGCCGAGUAGUGUUGGGU |
| 252 | AGCCGAGUAGUGUUGGGUC |
| 253 | GCCGAGUAGUGUUGGGUCG |
| 254 | CCGAGUAGUGUUGGGUCGC |
| 255 | CGAGUAGUGUUGGGUCGCG |
| 256 | GAGUAGUGUUGGGUCGCGA |
| 257 | AGUAGUGUUGGGUCGCGAA |
| 258 | GUAGUGUUGGGUCGCGAAA |
| 259 | UAGUGUUGGGUCGCGAAAG |
| 260 | AGUGUUGGGUCGCGAAAGG |
| 261 | GUGUUGGGUCGCGAAAGGC |
| 262 | UGUUGGGUCGCGAAAGGCC |
| 263 | GUUGGGUCGCGAAAGGCCU |
| 264 | UUGGGUCGCGAAAGGCCUU |
| 265 | UGGGUCGCGAAAGGCCUUG |
| 266 | GGGUCGCGAAAGGCCUUGU |
| 267 | GGUCGCGAAAGGCCUUGUG |
| 268 | GUCGCGAAAGGCCUUGUGG |
| 269 | UCGCGAAAGGCCUUGUGGU |
| 270 | CGCGAAAGGCCUUGUGGUA |
| 271 | GCGAAAGGCCUUGUGGUAC |
| 272 | CGAAAGGCCUUGUGGUACU |
| 273 | GAAAGGCCUUGUGGUACUG |
| 274 | AAAGGCCUUGUGGUACUGC |
| 275 | AAGGCCUUGUGGUACUGCC |
| 276 | AGGCCUUGUGGUACUGCCU |
| 277 | GGCCUUGUGGUACUGCCUG |
| 278 | GCCUUGUGGUACUGCCUGA |
| 279 | CCUUGUGGUACUGCCUGAU |

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| | |
|---|---|
| 280 | CUUGUGGUACUGCCUGAUA |
| 281 | UUGUGGUACUGCCUGAUAG |
| 282 | UGUGGUACUGCCUGAUAGG |
| 283 | GUGGUACUGCCUGAUAGGG |
| 284 | UGGUACUGCCUGAUAGGGU |
| 285 | GGUACUGCCUGAUAGGGUG |
| 286 | GUACUGCCUGAUAGGGUGC |
| 287 | UACUGCCUGAUAGGGUGCU |
| 288 | ACUGCCUGAUAGGGUGCUU |
| 289 | CUGCCUGAUAGGGUGCUUG |
| 290 | UGCCUGAUAGGGUGCUUGC |
| 291 | GCCUGAUAGGGUGCUUGCG |
| 292 | CCUGAUAGGGUGCUUGCGA |
| 293 | CUGAUAGGGUGCUUGCGAG |
| 294 | UGAUAGGGUGCUUGCGAGU |
| 295 | GAUAGGGUGCUUGCGAGUG |
| 296 | AUAGGGUGCUUGCGAGUGC |
| 297 | UAGGGUGCUUGCGAGUGCC |
| 298 | AGGGUGCUUGCGAGUGCCC |
| 299 | GGGUGCUUGCGAGUGCCCC |
| 300 | GGUGCUUGCGAGUGCCCCG |
| 301 | GUGCUUGCGAGUGCCCCGG |
| 302 | UGCUUGCGAGUGCCCCGGG |
| 303 | GCUUGCGAGUGCCCCGGGA |
| 304 | CUUGCGAGUGCCCCGGGAG |
| 305 | UUGCGAGUGCCCCGGGAGG |
| 306 | UGCGAGUGCCCCGGGAGGU |
| 307 | GCGAGUGCCCCGGGAGGUC |
| 308 | CGAGUGCCCCGGGAGGUCU |
| 309 | GAGUGCCCCGGGAGGUCUC |
| 310 | AGUGCCCCGGGAGGUCUCG |
| 311 | GUGCCCCGGGAGGUCUCGU |
| 312 | UGCCCCGGGAGGUCUCGUA |
| 313 | GCCCCGGGAGGUCUCGUAG |
| 314 | CCCCGGGAGGUCUCGUAGA |
| 315 | CCCGGGAGGUCUCGUAGAC |
| 316 | CCGGGAGGUCUCGUAGACC |
| 317 | CGGGAGGUCUCGUAGACCG |
| 318 | GGGAGGUCUCGUAGACCGU |
| 319 | GGAGGUCUCGUAGACCGUG |
| 320 | GAGGUCUCGUAGACCGUGC |
| 321 | AGGUCUCGUAGACCGUGCA |
| 322 | GGUCUCGUAGACCGUGCAC |
| 323 | GUCUCGUAGACCGUGCACC |
| 324 | UCUCGUAGACCGUGCACCA |
| 325 | CUCGUAGACCGUGCACCAU |
| 326 | UCGUAGACCGUGCACCAUG |
| 327 | CGUAGACCGUGCACCAUGA |
| 328 | GUAGACCGUGCACCAUGAG |
| 329 | UAGACCGUGCACCAUGAGC |
| 330 | AGACCGUGCACCAUGAGCA |
| 331 | GACCGUGCACCAUGAGCAC |
| 332 | ACCGUGCACCAUGAGCACG |
| 333 | CCGUGCACCAUGAGCACGA |
| 334 | CGUGCACCAUGAGCACGAA |
| 335 | GUGCACCAUGAGCACGAAU |
| 336 | UGCACCAUGAGCACGAAUC |
| 337 | GCACCAUGAGCACGAAUCC |
| 338 | CACCAUGAGCACGAAUCCU |
| 339 | ACCAUGAGCACGAAUCCUA |
| 340 | CCAUGAGCACGAAUCCUAA |
| 341 | CAUGAGCACGAAUCCUAAA |
| 342 | AUGAGCACGAAUCCUAAAC |
| 343 | UGAGCACGAAUCCUAAACC |
| 344 | GAGCACGAAUCCUAAACCU |
| 345 | AGCACGAAUCCUAAACCUC |
| 346 | GCACGAAUCCUAAACCUCA |
| 347 | CACGAAUCCUAAACCUCAA |
| 348 | ACGAAUCCUAAACCUCAAA |
| 349 | CGAAUCCUAAACCUCAAAG |
| 350 | GAAUCCUAAACCUCAAAGA |
| 351 | AAUCCUAAACCUCAAAGAA |
| 352 | AUCCUAAACCUCAAAGAAA |
| 353 | UCCUAAACCUCAAAGAAAA |
| 354 | CCUAAACCUCAAAGAAAAA |
| 355 | CUAAACCUCAAAGAAAAAC |
| 356 | UAAACCUCAAAGAAAAACC |
| 357 | AAACCUCAAAGAAAAACCA |
| 358 | AACCUCAAAGAAAAACCAA |
| 359 | ACCUCAAAGAAAAACCAAA |
| 360 | CCUCAAAGAAAAACCAAAC |
| 361 | CUCAAAGAAAAACCAAACG |
| 362 | UCAAAGAAAAACCAAACGU |
| 363 | CAAAGAAAAACCAAACGUA |
| 364 | AAAGAAAAACCAAACGUAA |
| 365 | AAGAAAAACCAAACGUAAC |
| 366 | AGAAAAACCAAACGUAACA |
| 367 | GAAAAACCAAACGUAACAC |
| 368 | AAAAACCAAACGUAACACC |
| 369 | AAAACCAAACGUAACACCA |
| 370 | AAACCAAACGUAACACCAA |
| 371 | AACCAAACGUAACACCAAC |
| 372 | ACCAAACGUAACACCAACC |
| 373 | CCAAACGUAACACCAACCG |
| 374 | CAAACGUAACACCAACCGC |
| 375 | AAACGUAACACCAACCGCC |
| 376 | AACGUAACACCAACCGCCG |
| 377 | ACGUAACACCAACCGCCGC |
| 378 | CGUAACACCAACCGCCGCC |
| 379 | GUAACACCAACCGCCGCCC |
| 380 | UAACACCAACCGCCGCCCA |
| 381 | AACACCAACCGCCGCCCAC |
| 382 | ACACCAACCGCCGCCCACA |
| 383 | CACCAACCGCCGCCCACAG |
| 384 | ACCAACCGCCGCCCACAGG |
| 385 | CCAACCGCCGCCCACAGGA |
| 386 | CAACCGCCGCCCACAGGAC |
| 387 | AACCGCCGCCCACAGGACG |
| 388 | ACCGCCGCCCACAGGACGU |
| 389 | CCGCCGCCCACAGGACGUC |
| 390 | CGCCGCCCACAGGACGUCA |
| 391 | GCCGCCCACAGGACGUCAA |
| 392 | CCGCCCACAGGACGUCAAG |
| 393 | CGCCCACAGGACGUCAAGU |
| 394 | GCCCACAGGACGUCAAGUU |
| 395 | CCCACAGGACGUCAAGUUC |
| 396 | CCACAGGACGUCAAGUUCC |
| 397 | CACAGGACGUCAAGUUCCC |
| 398 | ACAGGACGUCAAGUUCCCG |
| 399 | CAGGACGUCAAGUUCCCGG |
| 400 | AGGACGUCAAGUUCCCGGG |
| 401 | GGACGUCAAGUUCCCGGGC |
| 402 | GACGUCAAGUUCCCGGGCG |
| 403 | ACGUCAAGUUCCCGGGCGG |
| 404 | CGUCAAGUUCCCGGGCGGU |
| 405 | GUCAAGUUCCCGGGCGGUG |
| 406 | UCAAGUUCCCGGGCGGUGG |
| 407 | CAAGUUCCCGGGCGGUGGU |
| 408 | AAGUUCCCGGGCGGUGGUC |
| 409 | AGUUCCCGGGCGGUGGUCA |
| 410 | GUUCCCGGGCGGUGGUCAG |
| 411 | UUCCCGGGCGGUGGUCAGA |
| 412 | UCCCGGGCGGUGGUCAGAU |
| 413 | CCCGGGCGGUGGUCAGAUC |
| 414 | CCGGGCGGUGGUCAGAUCG |
| 415 | CGGGCGGUGGUCAGAUCGU |
| 416 | GGGCGGUGGUCAGAUCGUC |
| 417 | GGCGGUGGUCAGAUCGUCG |
| 418 | GCGGUGGUCAGAUCGUCGG |
| 419 | CGGUGGUCAGAUCGUCGGU |



**FIG. 2 (page 54 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 420 | GGUGGUCAGAUCGUCGGUG | 455 | GCGCAGGGGCCCCAGGUUG | 490 | GGAAGACUUCCGAGCGGUC | 525 | CGACAACCUAUCCCCAAGG |
| 421 | GUGGUCAGAUCGUCGGUGG | 456 | CGCAGGGGCCCCAGGUUGG | 491 | GAAGACUUCCGAGCGGUCG | 526 | GACAACCUAUCCCCAAGGC |
| 422 | UGGUCAGAUCGUCGGUGGA | 457 | GCAGGGGCCCCAGGUUGGG | 492 | AAGACUUCCGAGCGGUCGC | 527 | ACAACCUAUCCCCAAGGCU |
| 423 | GGUCAGAUCGUCGGUGGAG | 458 | CAGGGGCCCCAGGUUGGGU | 493 | AGACUUCCGAGCGGUCGCA | 528 | CAACCUAUCCCCAAGGCUC |
| 424 | GUCAGAUCGUCGGUGGAGU | 459 | AGGGGCCCCAGGUUGGGUG | 494 | GACUUCCGAGCGGUCGCAA | 529 | AACCUAUCCCCAAGGCUCG |
| 425 | UCAGAUCGUCGGUGGAGUU | 460 | GGGGCCCCAGGUUGGGUGU | 495 | ACUUCCGAGCGGUCGCAAC | 530 | ACCUAUCCCCAAGGCUCGC |
| 426 | CAGAUCGUCGGUGGAGUUU | 461 | GGGCCCCAGGUUGGGUGUG | 496 | CUUCCGAGCGGUCGCAACC | 531 | CCUAUCCCCAAGGCUCGCC |
| 427 | AGAUCGUCGGUGGAGUUUA | 462 | GGCCCCAGGUUGGGUGUGC | 497 | UUCCGAGCGGUCGCAACCU | 532 | CUAUCCCCAAGGCUCGCCA |
| 428 | GAUCGUCGGUGGAGUUUAC | 463 | GCCCCAGGUUGGGUGUGCG | 498 | UCCGAGCGGUCGCAACCUC | 533 | UAUCCCCAAGGCUCGCCAG |
| 429 | AUCGUCGGUGGAGUUUACC | 464 | CCCCAGGUUGGGUGUGCGC | 499 | CCGAGCGGUCGCAACCUCG | 534 | AUCCCCAAGGCUCGCCAGC |
| 430 | UCGUCGGUGGAGUUUACCU | 465 | CCCAGGUUGGGUGUGCGCG | 500 | CGAGCGGUCGCAACCUCGU | 535 | UCCCCAAGGCUCGCCAGCC |
| 431 | CGUCGGUGGAGUUUACCUG | 466 | CCAGGUUGGGUGUGCGCGC | 501 | GAGCGGUCGCAACCUCGUG | 536 | CCCCAAGGCUCGCCAGCCC |
| 432 | GUCGGUGGAGUUUACCUGU | 467 | CAGGUUGGGUGUGCGCGCG | 502 | AGCGGUCGCAACCUCGUGG | 537 | CCCAAGGCUCGCCAGCCCG |
| 433 | UCGGUGGAGUUUACCUGUU | 468 | AGGUUGGGUGUGCGCGCGA | 503 | GCGGUCGCAACCUCGUGGA | 538 | CCAAGGCUCGCCAGCCCGA |
| 434 | CGGUGGAGUUUACCUGUUG | 469 | GGUUGGGUGUGCGCGCGAC | 504 | CGGUCGCAACCUCGUGGAA | 539 | CAAGGCUCGCCAGCCCGAG |
| 435 | GGUGGAGUUUACCUGUUGC | 470 | GUUGGGUGUGCGCGCGACU | 505 | GGUCGCAACCUCGUGGAAG | 540 | AAGGCUCGCCAGCCCGAGG |
| 436 | GUGGAGUUUACCUGUUGCC | 471 | UUGGGUGUGCGCGCGACUA | 506 | GUCGCAACCUCGUGGAAGG | 541 | AGGCUCGCCAGCCCGAGGG |
| 437 | UGGAGUUUACCUGUUGCCG | 472 | UGGGUGUGCGCGCGACUAG | 507 | UCGCAACCUCGUGGAAGGC | 542 | GGCUCGCCAGCCCGAGGGU |
| 438 | GGAGUUUACCUGUUGCCGC | 473 | GGGUGUGCGCGCGACUAGG | 508 | CGCAACCUCGUGGAAGGCG | 543 | GCUCGCCAGCCCGAGGGUA |
| 439 | GAGUUUACCUGUUGCCGCG | 474 | GGUGUGCGCGCGACUAGGA | 509 | GCAACCUCGUGGAAGGCGA | 544 | CUCGCCAGCCCGAGGGUAG |
| 440 | AGUUUACCUGUUGCCGCGC | 475 | GUGUGCGCGCGACUAGGAA | 510 | CAACCUCGUGGAAGGCGAC | 545 | UCGCCAGCCCGAGGGUAGG |
| 441 | GUUUACCUGUUGCCGCGCA | 476 | UGUGCGCGCGACUAGGAAG | 511 | AACCUCGUGGAAGGCGACA | 546 | CGCCAGCCCGAGGGUAGGG |
| 442 | UUUACCUGUUGCCGCGCAG | 477 | GUGCGCGCGACUAGGAAGA | 512 | ACCUCGUGGAAGGCGACAA | 547 | GCCAGCCCGAGGGUAGGGC |
| 443 | UUACCUGUUGCCGCGCAGG | 478 | UGCGCGCGACUAGGAAGAC | 513 | CCUCGUGGAAGGCGACAAC | 548 | CCAGCCCGAGGGUAGGGCC |
| 444 | UACCUGUUGCCGCGCAGGG | 479 | GCGCGCGACUAGGAAGACU | 514 | CUCGUGGAAGGCGACAACC | 549 | CAGCCCGAGGGUAGGGCCU |
| 445 | ACCUGUUGCCGCGCAGGGG | 480 | CGCGCGACUAGGAAGACUU | 515 | UCGUGGAAGGCGACAACCU | 550 | AGCCCGAGGGUAGGGCCUG |
| 446 | CCUGUUGCCGCGCAGGGGC | 481 | GCGCGACUAGGAAGACUUC | 516 | CGUGGAAGGCGACAACCUA | 551 | GCCCGAGGGUAGGGCCUGG |
| 447 | CUGUUGCCGCGCAGGGGCC | 482 | CGCGACUAGGAAGACUUCC | 517 | GUGGAAGGCGACAACCUAU | 552 | CCCGAGGGUAGGGCCUGGG |
| 448 | UGUUGCCGCGCAGGGGCCC | 483 | GCGACUAGGAAGACUUCCG | 518 | UGGAAGGCGACAACCUAUC | 553 | CCGAGGGUAGGGCCUGGGC |
| 449 | GUUGCCGCGCAGGGGCCCC | 484 | CGACUAGGAAGACUUCCGA | 519 | GGAAGGCGACAACCUAUCC | 554 | CGAGGGUAGGGCCUGGGCU |
| 450 | UUGCCGCGCAGGGGCCCCA | 485 | GACUAGGAAGACUUCCGAG | 520 | GAAGGCGACAACCUAUCCC | 555 | GAGGGUAGGGCCUGGGCUC |
| 451 | UGCCGCGCAGGGGCCCCAG | 486 | ACUAGGAAGACUUCCGAGC | 521 | AAGGCGACAACCUAUCCCC | 556 | AGGGUAGGGCCUGGGCUCA |
| 452 | GCCGCGCAGGGGCCCCAGG | 487 | CUAGGAAGACUUCCGAGCG | 522 | AGGCGACAACCUAUCCCCA | 557 | GGGUAGGGCCUGGGCUCAG |
| 453 | CCGCGCAGGGGCCCCAGGU | 488 | UAGGAAGACUUCCGAGCGG | 523 | GGCGACAACCUAUCCCCAA | 558 | GGUAGGGCCUGGGCUCAGC |
| 454 | CGCGCAGGGGCCCCAGGUU | 489 | AGGAAGACUUCCGAGCGGU | 524 | GCGACAACCUAUCCCCAAG | 559 | GUAGGGCCUGGGCUCAGCC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 560 | UAGGGCCUGGGCUCAGCCC | 595 | UCUAUGGCAAUGAGGGCUU | 630 | CUCCUGUCACCCCGUGGCU | 665 | CCCCACGGACCCCCGGCGU |
| 561 | AGGGCCUGGGCUCAGCCCG | 596 | CUAUGGCAAUGAGGGCUUG | 631 | UCCUGUCACCCCGUGGCUC | 666 | CCCACGGACCCCCGGCGUA |
| 562 | GGGCCUGGGCUCAGCCCGG | 597 | UAUGGCAAUGAGGGCUUGG | 632 | CCUGUCACCCCGUGGCUCU | 667 | CCACGGACCCCCGGCGUAG |
| 563 | GGCCUGGGCUCAGCCCGGG | 598 | AUGGCAAUGAGGGCUUGGG | 633 | CUGUCACCCCGUGGCUCUC | 668 | CACGGACCCCCGGCGUAGG |
| 564 | GCCUGGGCUCAGCCCGGGU | 599 | UGGCAAUGAGGGCUUGGGG | 634 | UGUCACCCCGUGGCUCUCG | 669 | ACGGACCCCCGGCGUAGGU |
| 565 | CCUGGGCUCAGCCCGGGUA | 600 | GGCAAUGAGGGCUUGGGGU | 635 | GUCACCCCGUGGCUCUCGG | 670 | CGGACCCCCGGCGUAGGUC |
| 566 | CUGGGCUCAGCCCGGGUAC | 601 | GCAAUGAGGGCUUGGGGUG | 636 | UCACCCCGUGGCUCUCGGC | 671 | GGACCCCCGGCGUAGGUCG |
| 567 | UGGGCUCAGCCCGGGUACC | 602 | CAAUGAGGGCUUGGGGUGG | 637 | CACCCCGUGGCUCUCGGCC | 672 | GACCCCCGGCGUAGGUCGC |
| 568 | GGGCUCAGCCCGGGUACCC | 603 | AAUGAGGGCUUGGGGUGGG | 638 | ACCCCGUGGCUCUCGGCCU | 673 | ACCCCCGGCGUAGGUCGCG |
| 569 | GGCUCAGCCCGGGUACCCC | 604 | AUGAGGGCUUGGGGUGGGC | 639 | CCCCGUGGCUCUCGGCCUA | 674 | CCCCCGGCGUAGGUCGCGC |
| 570 | GCUCAGCCCGGGUACCCCU | 605 | UGAGGGCUUGGGGUGGGCA | 640 | CCCGUGGCUCUCGGCCUAG | 675 | CCCCGGCGUAGGUCGCGCA |
| 571 | CUCAGCCCGGGUACCCCUG | 606 | GAGGGCUUGGGGUGGGCAG | 641 | CCGUGGCUCUCGGCCUAGU | 676 | CCCGGCGUAGGUCGCGCAA |
| 572 | UCAGCCCGGGUACCCCUGG | 607 | AGGGCUUGGGGUGGGCAGG | 642 | CGUGGCUCUCGGCCUAGUU | 677 | CCGGCGUAGGUCGCGCAAU |
| 573 | CAGCCCGGGUACCCCUGGC | 608 | GGGCUUGGGGUGGGCAGGA | 643 | GUGGCUCUCGGCCUAGUUG | 678 | CGGCGUAGGUCGCGCAAUU |
| 574 | AGCCCGGGUACCCCUGGCC | 609 | GGCUUGGGGUGGGCAGGAU | 644 | UGGCUCUCGGCCUAGUUGG | 679 | GGCGUAGGUCGCGCAAUUU |
| 575 | GCCCGGGUACCCCUGGCCC | 610 | GCUUGGGGUGGGCAGGAUG | 645 | GGCUCUCGGCCUAGUUGGG | 680 | GCGUAGGUCGCGCAAUUUG |
| 576 | CCCGGGUACCCCUGGCCCC | 611 | CUUGGGGUGGGCAGGAUGG | 646 | GCUCUCGGCCUAGUUGGGG | 681 | CGUAGGUCGCGCAAUUUGG |
| 577 | CCGGGUACCCCUGGCCCCU | 612 | UUGGGGUGGGCAGGAUGGC | 647 | CUCUCGGCCUAGUUGGGGC | 682 | GUAGGUCGCGCAAUUUGGG |
| 578 | CGGGUACCCCUGGCCCCUC | 613 | UGGGGUGGGCAGGAUGGCU | 648 | UCUCGGCCUAGUUGGGGCC | 683 | UAGGUCGCGCAAUUUGGGU |
| 579 | GGGUACCCCUGGCCCCUCU | 614 | GGGGUGGGCAGGAUGGCUC | 649 | CUCGGCCUAGUUGGGGCCC | 684 | AGGUCGCGCAAUUUGGGUA |
| 580 | GGUACCCCUGGCCCCUCUA | 615 | GGGUGGGCAGGAUGGCUCC | 650 | UCGGCCUAGUUGGGGCCCC | 685 | GGUCGCGCAAUUUGGGUAA |
| 581 | GUACCCCUGGCCCCUCUAU | 616 | GGUGGGCAGGAUGGCUCCU | 651 | CGGCCUAGUUGGGGCCCCA | 686 | GUCGCGCAAUUUGGGUAAG |
| 582 | UACCCCUGGCCCCUCUAUG | 617 | GUGGGCAGGAUGGCUCCUG | 652 | GGCCUAGUUGGGGCCCCAC | 687 | UCGCGCAAUUUGGGUAAGG |
| 583 | ACCCCUGGCCCCUCUAUGG | 618 | UGGGCAGGAUGGCUCCUGU | 653 | GCCUAGUUGGGGCCCCACG | 688 | CGCGCAAUUUGGGUAAGGU |
| 584 | CCCCUGGCCCCUCUAUGGC | 619 | GGGCAGGAUGGCUCCUGUC | 654 | CCUAGUUGGGGCCCCACGG | 689 | GCGCAAUUUGGGUAAGGUC |
| 585 | CCCUGGCCCCUCUAUGGCA | 620 | GGCAGGAUGGCUCCUGUCA | 655 | CUAGUUGGGGCCCCACGGA | 690 | CGCAAUUUGGGUAAGGUCA |
| 586 | CCUGGCCCCUCUAUGGCAA | 621 | GCAGGAUGGCUCCUGUCAC | 656 | UAGUUGGGGCCCCACGGAC | 691 | GCAAUUUGGGUAAGGUCAU |
| 587 | CUGGCCCCUCUAUGGCAAU | 622 | CAGGAUGGCUCCUGUCACC | 657 | AGUUGGGGCCCCACGGACC | 692 | CAAUUUGGGUAAGGUCAUC |
| 588 | UGGCCCCUCUAUGGCAAUG | 623 | AGGAUGGCUCCUGUCACCC | 658 | GUUGGGGCCCCACGGACCC | 693 | AAUUUGGGUAAGGUCAUCG |
| 589 | GGCCCCUCUAUGGCAAUGA | 624 | GGAUGGCUCCUGUCACCCC | 659 | UUGGGGCCCCACGGACCCC | 694 | AUUUGGGUAAGGUCAUCGA |
| 590 | GCCCCUCUAUGGCAAUGAG | 625 | GAUGGCUCCUGUCACCCCG | 660 | UGGGGCCCCACGGACCCCC | 695 | UUUGGGUAAGGUCAUCGAU |
| 591 | CCCCUCUAUGGCAAUGAGG | 626 | AUGGCUCCUGUCACCCCGU | 661 | GGGGCCCCACGGACCCCCG | 696 | UUGGGUAAGGUCAUCGAUA |
| 592 | CCCUCUAUGGCAAUGAGGG | 627 | UGGCUCCUGUCACCCCGUG | 662 | GGGCCCCACGGACCCCCGG | 697 | UGGGUAAGGUCAUCGAUAC |
| 593 | CCUCUAUGGCAAUGAGGGC | 628 | GGCUCCUGUCACCCCGUGG | 663 | GGCCCCACGGACCCCCGGC | 698 | GGGUAAGGUCAUCGAUACC |
| 594 | CUCUAUGGCAAUGAGGGCU | 629 | GCUCCUGUCACCCCGUGGC | 664 | GCCCCACGGACCCCCGGCG | 699 | GGUAAGGUCAUCGAUACCC |



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| | |
|---|---|
| 700 | GUAAGGUCAUCGAUACCCU |
| 701 | UAAGGUCAUCGAUACCCUC |
| 702 | AAGGUCAUCGAUACCCUCA |
| 703 | AGGUCAUCGAUACCCUCAC |
| 704 | GGUCAUCGAUACCCUCACG |
| 705 | GUCAUCGAUACCCUCACGU |
| 706 | UCAUCGAUACCCUCACGUG |
| 707 | CAUCGAUACCCUCACGUGC |
| 708 | AUCGAUACCCUCACGUGCG |
| 709 | UCGAUACCCUCACGUGCGG |
| 710 | CGAUACCCUCACGUGCGGC |
| 711 | GAUACCCUCACGUGCGGCU |
| 712 | AUACCCUCACGUGCGGCUU |
| 713 | UACCCUCACGUGCGGCUUC |
| 714 | ACCCUCACGUGCGGCUUCG |
| 715 | CCCUCACGUGCGGCUUCGC |
| 716 | CCUCACGUGCGGCUUCGCC |
| 717 | CUCACGUGCGGCUUCGCCG |
| 718 | UCACGUGCGGCUUCGCCGA |
| 719 | CACGUGCGGCUUCGCCGAU |
| 720 | ACGUGCGGCUUCGCCGAUC |
| 721 | CGUGCGGCUUCGCCGAUCU |
| 722 | GUGCGGCUUCGCCGAUCUC |
| 723 | UGCGGCUUCGCCGAUCUCA |
| 724 | GCGGCUUCGCCGAUCUCAU |
| 725 | CGGCUUCGCCGAUCUCAUG |
| 726 | GGCUUCGCCGAUCUCAUGG |
| 727 | GCUUCGCCGAUCUCAUGGG |
| 728 | CUUCGCCGAUCUCAUGGGG |
| 729 | UUCGCCGAUCUCAUGGGGU |
| 730 | UCGCCGAUCUCAUGGGGUA |
| 731 | CGCCGAUCUCAUGGGGUAC |
| 732 | GCCGAUCUCAUGGGGUACA |
| 733 | CCGAUCUCAUGGGGUACAU |
| 734 | CGAUCUCAUGGGGUACAUU |
| 735 | GAUCUCAUGGGGUACAUUC |
| 736 | AUCUCAUGGGGUACAUUCC |
| 737 | UCUCAUGGGGUACAUUCCG |
| 738 | CUCAUGGGGUACAUUCCGC |
| 739 | UCAUGGGGUACAUUCCGCU |
| 740 | CAUGGGGUACAUUCCGCUC |
| 741 | AUGGGGUACAUUCCGCUCG |
| 742 | UGGGGUACAUUCCGCUCGU |
| 743 | GGGGUACAUUCCGCUCGUC |
| 744 | GGGUACAUUCCGCUCGUCG |
| 745 | GGUACAUUCCGCUCGUCGG |
| 746 | GUACAUUCCGCUCGUCGGC |
| 747 | UACAUUCCGCUCGUCGGCG |
| 748 | ACAUUCCGCUCGUCGGCGC |
| 749 | CAUUCCGCUCGUCGGCGCC |
| 750 | AUUCCGCUCGUCGGCGCCC |
| 751 | UUCCGCUCGUCGGCGCCCC |
| 752 | UCCGCUCGUCGGCGCCCCC |
| 753 | CCGCUCGUCGGCGCCCCCC |
| 754 | CGCUCGUCGGCGCCCCCCU |
| 755 | GCUCGUCGGCGCCCCCCUA |
| 756 | CUCGUCGGCGCCCCCCUAG |
| 757 | UCGUCGGCGCCCCCCUAGG |
| 758 | CGUCGGCGCCCCCCUAGGG |
| 759 | GUCGGCGCCCCCCUAGGGG |
| 760 | UCGGCGCCCCCCUAGGGGG |
| 761 | CGGCGCCCCCCUAGGGGGC |
| 762 | GGCGCCCCCCUAGGGGGCG |
| 763 | GCGCCCCCCUAGGGGGCGC |
| 764 | CGCCCCCCUAGGGGGCGCU |
| 765 | GCCCCCCUAGGGGGCGCUG |
| 766 | CCCCCCUAGGGGGCGCUGC |
| 767 | CCCCCUAGGGGGCGCUGCC |
| 768 | CCCCUAGGGGGCGCUGCCA |
| 769 | CCCUAGGGGGCGCUGCCAG |
| 770 | CCUAGGGGGCGCUGCCAGG |
| 771 | CUAGGGGGCGCUGCCAGGG |
| 772 | UAGGGGGCGCUGCCAGGGC |
| 773 | AGGGGGCGCUGCCAGGGCC |
| 774 | GGGGGCGCUGCCAGGGCCC |
| 775 | GGGGCGCUGCCAGGGCCCU |
| 776 | GGGCGCUGCCAGGGCCCUG |
| 777 | GGCGCUGCCAGGGCCCUGG |
| 778 | GCGCUGCCAGGGCCCUGGC |
| 779 | CGCUGCCAGGGCCCUGGCG |
| 780 | GCUGCCAGGGCCCUGGCGC |
| 781 | CUGCCAGGGCCCUGGCGCA |
| 782 | UGCCAGGGCCCUGGCGCAU |
| 783 | GCCAGGGCCCUGGCGCAUG |
| 784 | CCAGGGCCCUGGCGCAUGG |
| 785 | CAGGGCCCUGGCGCAUGGC |
| 786 | AGGGCCCUGGCGCAUGGCG |
| 787 | GGGCCCUGGCGCAUGGCGU |
| 788 | GGCCCUGGCGCAUGGCGUC |
| 789 | GCCCUGGCGCAUGGCGUCC |
| 790 | CCCUGGCGCAUGGCGUCCG |
| 791 | CCUGGCGCAUGGCGUCCGG |
| 792 | CUGGCGCAUGGCGUCCGGG |
| 793 | UGGCGCAUGGCGUCCGGGU |
| 794 | GGCGCAUGGCGUCCGGGUU |
| 795 | GCGCAUGGCGUCCGGGUUC |
| 796 | CGCAUGGCGUCCGGGUUCU |
| 797 | GCAUGGCGUCCGGGUUCUG |
| 798 | CAUGGCGUCCGGGUUCUGG |
| 799 | AUGGCGUCCGGGUUCUGGA |
| 800 | UGGCGUCCGGGUUCUGGAG |
| 801 | GGCGUCCGGGUUCUGGAGG |
| 802 | GCGUCCGGGUUCUGGAGGA |
| 803 | CGUCCGGGUUCUGGAGGAC |
| 804 | GUCCGGGUUCUGGAGGACG |
| 805 | UCCGGGUUCUGGAGGACGG |
| 806 | CCGGGUUCUGGAGGACGGC |
| 807 | CGGGUUCUGGAGGACGGCG |
| 808 | GGGUUCUGGAGGACGGCGU |
| 809 | GGUUCUGGAGGACGGCGUG |
| 810 | GUUCUGGAGGACGGCGUGA |
| 811 | UUCUGGAGGACGGCGUGAA |
| 812 | UCUGGAGGACGGCGUGAAC |
| 813 | CUGGAGGACGGCGUGAACU |
| 814 | UGGAGGACGGCGUGAACUA |
| 815 | GGAGGACGGCGUGAACUAU |
| 816 | GAGGACGGCGUGAACUAUG |
| 817 | AGGACGGCGUGAACUAUGC |
| 818 | GGACGGCGUGAACUAUGCA |
| 819 | GACGGCGUGAACUAUGCAA |
| 820 | ACGGCGUGAACUAUGCAAC |
| 821 | CGGCGUGAACUAUGCAACA |
| 822 | GGCGUGAACUAUGCAACAG |
| 823 | GCGUGAACUAUGCAACAGG |
| 824 | CGUGAACUAUGCAACAGGG |
| 825 | GUGAACUAUGCAACAGGGA |
| 826 | UGAACUAUGCAACAGGGAA |
| 827 | GAACUAUGCAACAGGGAAU |
| 828 | AACUAUGCAACAGGGAAUC |
| 829 | ACUAUGCAACAGGGAAUCU |
| 830 | CUAUGCAACAGGGAAUCUG |
| 831 | UAUGCAACAGGGAAUCUGC |
| 832 | AUGCAACAGGGAAUCUGCC |
| 833 | UGCAACAGGGAAUCUGCCC |
| 834 | GCAACAGGGAAUCUGCCCG |
| 835 | CAACAGGGAAUCUGCCCGG |
| 836 | AACAGGGAAUCUGCCCGGU |
| 837 | ACAGGGAAUCUGCCCGGUU |
| 838 | CAGGGAAUCUGCCCGGUUG |
| 839 | AGGGAAUCUGCCCGGUUGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 840 | GGGAAUCUGCCCGGUUGCU | 875 | UUUGGCUUUGCUGUCCUGU | 910 | CCGCUUAUGAAGUGCGCAA | 945 | CAUGUCACGAACGACUGCU |
| 841 | GGAAUCUGCCCGGUUGCUC | 876 | UUGGCUUUGCUGUCCUGUU | 911 | CGCUUAUGAAGUGCGCAAC | 946 | AUGUCACGAACGACUGCUC |
| 842 | GAAUCUGCCCGGUUGCUCC | 877 | UGGCUUUGCUGUCCUGUUU | 912 | GCUUAUGAAGUGCGCAACG | 947 | UGUCACGAACGACUGCUCC |
| 843 | AAUCUGCCCGGUUGCUCCU | 878 | GGCUUUGCUGUCCUGUUUG | 913 | CUUAUGAAGUGCGCAACGU | 948 | GUCACGAACGACUGCUCCA |
| 844 | AUCUGCCCGGUUGCUCCUU | 879 | GCUUUGCUGUCCUGUUUGA | 914 | UUAUGAAGUGCGCAACGUA | 949 | UCACGAACGACUGCUCCAA |
| 845 | UCUGCCCGGUUGCUCCUUU | 880 | CUUUGCUGUCCUGUUUGAC | 915 | UAUGAAGUGCGCAACGUAU | 950 | CACGAACGACUGCUCCAAC |
| 846 | CUGCCCGGUUGCUCCUUUU | 881 | UUUGCUGUCCUGUUUGACC | 916 | AUGAAGUGCGCAACGUAUC | 951 | ACGAACGACUGCUCCAACG |
| 847 | UGCCCGGUUGCUCCUUUUC | 882 | UUGCUGUCCUGUUUGACCA | 917 | UGAAGUGCGCAACGUAUCC | 952 | CGAACGACUGCUCCAACGC |
| 848 | GCCCGGUUGCUCCUUUUCU | 883 | UGCUGUCCUGUUUGACCAU | 918 | GAAGUGCGCAACGUAUCCG | 953 | GAACGACUGCUCCAACGCA |
| 849 | CCCGGUUGCUCCUUUUCUA | 884 | GCUGUCCUGUUUGACCAUC | 919 | AAGUGCGCAACGUAUCCGG | 954 | AACGACUGCUCCAACGCAA |
| 850 | CCGGUUGCUCCUUUUCUAU | 885 | CUGUCCUGUUUGACCAUCC | 920 | AGUGCGCAACGUAUCCGGA | 955 | ACGACUGCUCCAACGCAAG |
| 851 | CGGUUGCUCCUUUUCUAUC | 886 | UGUCCUGUUUGACCAUCCC | 921 | GUGCGCAACGUAUCCGGAG | 956 | CGACUGCUCCAACGCAAGC |
| 852 | GGUUGCUCCUUUUCUAUCU | 887 | GUCCUGUUUGACCAUCCCA | 922 | UGCGCAACGUAUCCGGAGU | 957 | GACUGCUCCAACGCAAGCA |
| 853 | GUUGCUCCUUUUCUAUCUU | 888 | UCCUGUUUGACCAUCCCAG | 923 | GCGCAACGUAUCCGGAGUG | 958 | ACUGCUCCAACGCAAGCAU |
| 854 | UUGCUCCUUUUCUAUCUUC | 889 | CCUGUUUGACCAUCCCAGC | 924 | CGCAACGUAUCCGGAGUGU | 959 | CUGCUCCAACGCAAGCAUU |
| 855 | UGCUCCUUUUCUAUCUUCC | 890 | CUGUUUGACCAUCCCAGCU | 925 | GCAACGUAUCCGGAGUGUA | 960 | UGCUCCAACGCAAGCAUUG |
| 856 | GCUCCUUUUCUAUCUUCCU | 891 | UGUUUGACCAUCCCAGCUU | 926 | CAACGUAUCCGGAGUGUAC | 961 | GCUCCAACGCAAGCAUUGU |
| 857 | CUCCUUUUCUAUCUUCCUU | 892 | GUUUGACCAUCCCAGCUUC | 927 | AACGUAUCCGGAGUGUACC | 962 | CUCCAACGCAAGCAUUGUG |
| 858 | UCCUUUUCUAUCUUCCUUU | 893 | UUUGACCAUCCCAGCUUCC | 928 | ACGUAUCCGGAGUGUACCA | 963 | UCCAACGCAAGCAUUGUGU |
| 859 | CCUUUUCUAUCUUCCUUUU | 894 | UUGACCAUCCCAGCUUCCG | 929 | CGUAUCCGGAGUGUACCAU | 964 | CCAACGCAAGCAUUGUGUA |
| 860 | CUUUUCUAUCUUCCUUUUG | 895 | UGACCAUCCCAGCUUCCGC | 930 | GUAUCCGGAGUGUACCAUG | 965 | CAACGCAAGCAUUGUGUAU |
| 861 | UUUUCUAUCUUCCUUUUGG | 896 | GACCAUCCCAGCUUCCGCU | 931 | UAUCCGGAGUGUACCAUGU | 966 | AACGCAAGCAUUGUGUAUG |
| 862 | UUUCUAUCUUCCUUUUGGC | 897 | ACCAUCCCAGCUUCCGCUU | 932 | AUCCGGAGUGUACCAUGUC | 967 | ACGCAAGCAUUGUGUAUGA |
| 863 | UUCUAUCUUCCUUUUGGCU | 898 | CCAUCCCAGCUUCCGCUUA | 933 | UCCGGAGUGUACCAUGUCA | 968 | CGCAAGCAUUGUGUAUGAG |
| 864 | UCUAUCUUCCUUUUGGCUU | 899 | CAUCCCAGCUUCCGCUUAU | 934 | CCGGAGUGUACCAUGUCAC | 969 | GCAAGCAUUGUGUAUGAGG |
| 865 | CUAUCUUCCUUUUGGCUUU | 900 | AUCCCAGCUUCCGCUUAUG | 935 | CGGAGUGUACCAUGUCACG | 970 | CAAGCAUUGUGUAUGAGGC |
| 866 | UAUCUUCCUUUUGGCUUUG | 901 | UCCCAGCUUCCGCUUAUGA | 936 | GGAGUGUACCAUGUCACGA | 971 | AAGCAUUGUGUAUGAGGCA |
| 867 | AUCUUCCUUUUGGCUUUGC | 902 | CCCAGCUUCCGCUUAUGAA | 937 | GAGUGUACCAUGUCACGAA | 972 | AGCAUUGUGUAUGAGGCAG |
| 868 | UCUUCCUUUUGGCUUUGCU | 903 | CCAGCUUCCGCUUAUGAAG | 938 | AGUGUACCAUGUCACGAAC | 973 | GCAUUGUGUAUGAGGCAGC |
| 869 | CUUCCUUUUGGCUUUGCUG | 904 | CAGCUUCCGCUUAUGAAGU | 939 | GUGUACCAUGUCACGAACG | 974 | CAUUGUGUAUGAGGCAGCG |
| 870 | UUCCUUUUGGCUUUGCUGU | 905 | AGCUUCCGCUUAUGAAGUG | 940 | UGUACCAUGUCACGAACGA | 975 | AUUGUGUAUGAGGCAGCGG |
| 871 | UCCUUUUGGCUUUGCUGUC | 906 | GCUUCCGCUUAUGAAGUGC | 941 | GUACCAUGUCACGAACGAC | 976 | UUGUGUAUGAGGCAGCGGA |
| 872 | CCUUUUGGCUUUGCUGUCC | 907 | CUUCCGCUUAUGAAGUGCG | 942 | UACCAUGUCACGAACGACU | 977 | UGUGUAUGAGGCAGCGGAC |
| 873 | CUUUUGGCUUUGCUGUCCU | 908 | UUCCGCUUAUGAAGUGCGC | 943 | ACCAUGUCACGAACGACUG | 978 | GUGUAUGAGGCAGCGGACA |
| 874 | UUUUGGCUUUGCUGUCCUG | 909 | UCCGCUUAUGAAGUGCGCA | 944 | CCAUGUCACGAACGACUGC | 979 | UGUAUGAGGCAGCGGACAU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 980 | GUAUGAGGCAGCGGACAUG | 1015 | GGUGCGUGCCCUGCGUUCG | 1050 | CGCUGCUGGGUAGCGCUCA | 1085 | CAGGAACGCUAGCGUCCCC |
| 981 | UAUGAGGCAGCGGACAUGA | 1016 | GUGCGUGCCCUGCGUUCGG | 1051 | GCUGCUGGGUAGCGCUCAC | 1086 | AGGAACGCUAGCGUCCCCA |
| 982 | AUGAGGCAGCGGACAUGAU | 1017 | UGCGUGCCCUGCGUUCGGG | 1052 | CUGCUGGGUAGCGCUCACU | 1087 | GGAACGCUAGCGUCCCCAC |
| 983 | UGAGGCAGCGGACAUGAUC | 1018 | GCGUGCCCUGCGUUCGGGA | 1053 | UGCUGGGUAGCGCUCACUC | 1088 | GAACGCUAGCGUCCCCACU |
| 984 | GAGGCAGCGGACAUGAUCA | 1019 | CGUGCCCUGCGUUCGGGAG | 1054 | GCUGGGUAGCGCUCACUCC | 1089 | AACGCUAGCGUCCCCACUA |
| 985 | AGGCAGCGGACAUGAUCAU | 1020 | GUGCCCUGCGUUCGGGAGA | 1055 | CUGGGUAGCGCUCACUCCC | 1090 | ACGCUAGCGUCCCCACUAC |
| 986 | GGCAGCGGACAUGAUCAUG | 1021 | UGCCCUGCGUUCGGGAGAA | 1056 | UGGGUAGCGCUCACUCCCA | 1091 | CGCUAGCGUCCCCACUACG |
| 987 | GCAGCGGACAUGAUCAUGC | 1022 | GCCCUGCGUUCGGGAGAAC | 1057 | GGGUAGCGCUCACUCCCAC | 1092 | GCUAGCGUCCCCACUACGA |
| 988 | CAGCGGACAUGAUCAUGCA | 1023 | CCCUGCGUUCGGGAGAACA | 1058 | GGUAGCGCUCACUCCCACG | 1093 | CUAGCGUCCCCACUACGAC |
| 989 | AGCGGACAUGAUCAUGCAU | 1024 | CCUGCGUUCGGGAGAACAA | 1059 | GUAGCGCUCACUCCCACGC | 1094 | UAGCGUCCCCACUACGACG |
| 990 | GCGGACAUGAUCAUGCAUA | 1025 | CUGCGUUCGGGAGAACAAC | 1060 | UAGCGCUCACUCCCACGCU | 1095 | AGCGUCCCCACUACGACGA |
| 991 | CGGACAUGAUCAUGCAUAC | 1026 | UGCGUUCGGGAGAACAACU | 1061 | AGCGCUCACUCCCACGCUC | 1096 | GCGUCCCCACUACGACGAU |
| 992 | GGACAUGAUCAUGCAUACC | 1027 | GCGUUCGGGAGAACAACUC | 1062 | GCGCUCACUCCCACGCUCG | 1097 | CGUCCCCACUACGACGAUA |
| 993 | GACAUGAUCAUGCAUACCC | 1028 | CGUUCGGGAGAACAACUCC | 1063 | CGCUCACUCCCACGCUCGC | 1098 | GUCCCCACUACGACGAUAC |
| 994 | ACAUGAUCAUGCAUACCCC | 1029 | GUUCGGGAGAACAACUCCU | 1064 | GCUCACUCCCACGCUCGCG | 1099 | UCCCCACUACGACGAUACG |
| 995 | CAUGAUCAUGCAUACCCCC | 1030 | UUCGGGAGAACAACUCCUC | 1065 | CUCACUCCCACGCUCGCGG | 1100 | CCCCACUACGACGAUACGA |
| 996 | AUGAUCAUGCAUACCCCCG | 1031 | UCGGGAGAACAACUCCUCC | 1066 | UCACUCCCACGCUCGCGGC | 1101 | CCCACUACGACGAUACGAC |
| 997 | UGAUCAUGCAUACCCCCGG | 1032 | CGGGAGAACAACUCCUCCC | 1067 | CACUCCCACGCUCGCGGCC | 1102 | CCACUACGACGAUACGACG |
| 998 | GAUCAUGCAUACCCCCGGG | 1033 | GGGAGAACAACUCCUCCCG | 1068 | ACUCCCACGCUCGCGGCCA | 1103 | CACUACGACGAUACGACGC |
| 999 | AUCAUGCAUACCCCCGGGU | 1034 | GGAGAACAACUCCUCCCGC | 1069 | CUCCCACGCUCGCGGCCAG | 1104 | ACUACGACGAUACGACGCC |
| 1000 | UCAUGCAUACCCCCGGGUG | 1035 | GAGAACAACUCCUCCCGCU | 1070 | UCCCACGCUCGCGGCCAGG | 1105 | CUACGACGAUACGACGCCA |
| 1001 | CAUGCAUACCCCCGGGUGC | 1036 | AGAACAACUCCUCCCGCUG | 1071 | CCCACGCUCGCGGCCAGGA | 1106 | UACGACGAUACGACGCCAU |
| 1002 | AUGCAUACCCCCGGGUGCG | 1037 | GAACAACUCCUCCCGCUGC | 1072 | CCACGCUCGCGGCCAGGAA | 1107 | ACGACGAUACGACGCCAUG |
| 1003 | UGCAUACCCCCGGGUGCGU | 1038 | AACAACUCCUCCCGCUGCU | 1073 | CACGCUCGCGGCCAGGAAC | 1108 | CGACGAUACGACGCCAUGU |
| 1004 | GCAUACCCCCGGGUGCGUG | 1039 | ACAACUCCUCCCGCUGCUG | 1074 | ACGCUCGCGGCCAGGAACG | 1109 | GACGAUACGACGCCAUGUC |
| 1005 | CAUACCCCCGGGUGCGUGC | 1040 | CAACUCCUCCCGCUGCUGG | 1075 | CGCUCGCGGCCAGGAACGC | 1110 | ACGAUACGACGCCAUGUCG |
| 1006 | AUACCCCCGGGUGCGUGCC | 1041 | AACUCCUCCCGCUGCUGGG | 1076 | GCUCGCGGCCAGGAACGCU | 1111 | CGAUACGACGCCAUGUCGA |
| 1007 | UACCCCCGGGUGCGUGCCC | 1042 | ACUCCUCCCGCUGCUGGGU | 1077 | CUCGCGGCCAGGAACGCUA | 1112 | GAUACGACGCCAUGUCGAU |
| 1008 | ACCCCCGGGUGCGUGCCCU | 1043 | CUCCUCCCGCUGCUGGGUA | 1078 | UCGCGGCCAGGAACGCUAG | 1113 | AUACGACGCCAUGUCGAUU |
| 1009 | CCCCCGGGUGCGUGCCCUG | 1044 | UCCUCCCGCUGCUGGGUAG | 1079 | CGCGGCCAGGAACGCUAGC | 1114 | UACGACGCCAUGUCGAUUU |
| 1010 | CCCCGGGUGCGUGCCCUGC | 1045 | CCUCCCGCUGCUGGGUAGC | 1080 | GCGGCCAGGAACGCUAGCG | 1115 | ACGACGCCAUGUCGAUUUG |
| 1011 | CCCGGGUGCGUGCCCUGCG | 1046 | CUCCCGCUGCUGGGUAGCG | 1081 | CGGCCAGGAACGCUAGCGU | 1116 | CGACGCCAUGUCGAUUUGC |
| 1012 | CCGGGUGCGUGCCCUGCGU | 1047 | UCCCGCUGCUGGGUAGCGC | 1082 | GGCCAGGAACGCUAGCGUC | 1117 | GACGCCAUGUCGAUUUGCU |
| 1013 | CGGGUGCGUGCCCUGCGUU | 1048 | CCCGCUGCUGGGUAGCGCU | 1083 | GCCAGGAACGCUAGCGUCC | 1118 | ACGCCAUGUCGAUUUGCUC |
| 1014 | GGGUGCGUGCCCUGCGUUC | 1049 | CCGCUGCUGGGUAGCGCUC | 1084 | CCAGGAACGCUAGCGUCCC | 1119 | CGCCAUGUCGAUUUGCUCG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1120 | GCCAUGUCGAUUUGCUCGU | 1155 | UGCUCCGCUAUGUACGUGG | 1190 | UGUUUUCCUCGUCGCCCAG | 1225 | CUCGCCGGCACGAGACAGU |
| 1121 | CCAUGUCGAUUUGCUCGUU | 1156 | GCUCCGCUAUGUACGUGGG | 1191 | GUUUUCCUCGUCGCCCAGC | 1226 | UCGCCGGCACGAGACAGUA |
| 1122 | CAUGUCGAUUUGCUCGUUG | 1157 | CUCCGCUAUGUACGUGGGA | 1192 | UUUUCCUCGUCGCCCAGCU | 1227 | CGCCGGCACGAGACAGUAC |
| 1123 | AUGUCGAUUUGCUCGUUGG | 1158 | UCCGCUAUGUACGUGGGAG | 1193 | UUUCCUCGUCGCCCAGCUG | 1228 | GCCGGCACGAGACAGUACA |
| 1124 | UGUCGAUUUGCUCGUUGGG | 1159 | CCGCUAUGUACGUGGGAGA | 1194 | UUCCUCGUCGCCCAGCUGU | 1229 | CCGGCACGAGACAGUACAG |
| 1125 | GUCGAUUUGCUCGUUGGGG | 1160 | CGCUAUGUACGUGGGAGAU | 1195 | UCCUCGUCGCCCAGCUGUU | 1230 | CGGCACGAGACAGUACAGG |
| 1126 | UCGAUUUGCUCGUUGGGGC | 1161 | GCUAUGUACGUGGGAGAUC | 1196 | CCUCGUCGCCCAGCUGUUC | 1231 | GGCACGAGACAGUACAGGA |
| 1127 | CGAUUUGCUCGUUGGGGCG | 1162 | CUAUGUACGUGGGAGAUCU | 1197 | CUCGUCGCCCAGCUGUUCA | 1232 | GCACGAGACAGUACAGGAC |
| 1128 | GAUUUGCUCGUUGGGGCGG | 1163 | UAUGUACGUGGGAGAUCUC | 1198 | UCGUCGCCCAGCUGUUCAC | 1233 | CACGAGACAGUACAGGACU |
| 1129 | AUUUGCUCGUUGGGGCGGC | 1164 | AUGUACGUGGGAGAUCUCU | 1199 | CGUCGCCCAGCUGUUCACC | 1234 | ACGAGACAGUACAGGACUG |
| 1130 | UUUGCUCGUUGGGGCGGCU | 1165 | UGUACGUGGGAGAUCUCUG | 1200 | GUCGCCCAGCUGUUCACCU | 1235 | CGAGACAGUACAGGACUGC |
| 1131 | UUGCUCGUUGGGGCGGCUG | 1166 | GUACGUGGGAGAUCUCUGC | 1201 | UCGCCCAGCUGUUCACCUU | 1236 | GAGACAGUACAGGACUGCA |
| 1132 | UGCUCGUUGGGGCGGCUGC | 1167 | UACGUGGGAGAUCUCUGCG | 1202 | CGCCCAGCUGUUCACCUUC | 1237 | AGACAGUACAGGACUGCAA |
| 1133 | GCUCGUUGGGGCGGCUGCU | 1168 | ACGUGGGAGAUCUCUGCGG | 1203 | GCCCAGCUGUUCACCUUCU | 1238 | GACAGUACAGGACUGCAAU |
| 1134 | CUCGUUGGGGCGGCUGCUC | 1169 | CGUGGGAGAUCUCUGCGGA | 1204 | CCCAGCUGUUCACCUUCUC | 1239 | ACAGUACAGGACUGCAAUU |
| 1135 | UCGUUGGGGCGGCUGCUCU | 1170 | GUGGGAGAUCUCUGCGGAU | 1205 | CCAGCUGUUCACCUUCUCG | 1240 | CAGUACAGGACUGCAAUUG |
| 1136 | CGUUGGGGCGGCUGCUCUC | 1171 | UGGGAGAUCUCUGCGGAUC | 1206 | CAGCUGUUCACCUUCUCGC | 1241 | AGUACAGGACUGCAAUUGC |
| 1137 | GUUGGGGCGGCUGCUCUCU | 1172 | GGGAGAUCUCUGCGGAUCU | 1207 | AGCUGUUCACCUUCUCGCC | 1242 | GUACAGGACUGCAAUUGCU |
| 1138 | UUGGGGCGGCUGCUCUCUG | 1173 | GGAGAUCUCUGCGGAUCUG | 1208 | GCUGUUCACCUUCUCGCCU | 1243 | UACAGGACUGCAAUUGCUC |
| 1139 | UGGGGCGGCUGCUCUCUGC | 1174 | GAGAUCUCUGCGGAUCUGU | 1209 | CUGUUCACCUUCUCGCCUC | 1244 | ACAGGACUGCAAUUGCUCA |
| 1140 | GGGGCGGCUGCUCUCUGCU | 1175 | AGAUCUCUGCGGAUCUGUU | 1210 | UGUUCACCUUCUCGCCUCG | 1245 | CAGGACUGCAAUUGCUCAA |
| 1141 | GGGCGGCUGCUCUCUGCUC | 1176 | GAUCUCUGCGGAUCUGUUU | 1211 | GUUCACCUUCUCGCCUCGC | 1246 | AGGACUGCAAUUGCUCAAU |
| 1142 | GGCGGCUGCUCUCUGCUCC | 1177 | AUCUCUGCGGAUCUGUUUU | 1212 | UUCACCUUCUCGCCUCGCC | 1247 | GGACUGCAAUUGCUCAAUA |
| 1143 | GCGGCUGCUCUCUGCUCCG | 1178 | UCUCUGCGGAUCUGUUUUC | 1213 | UCACCUUCUCGCCUCGCCG | 1248 | GACUGCAAUUGCUCAAUAU |
| 1144 | CGGCUGCUCUCUGCUCCGC | 1179 | CUCUGCGGAUCUGUUUUCC | 1214 | CACCUUCUCGCCUCGCCGG | 1249 | ACUGCAAUUGCUCAAUAUA |
| 1145 | GGCUGCUCUCUGCUCCGCU | 1180 | UCUGCGGAUCUGUUUUCCU | 1215 | ACCUUCUCGCCUCGCCGGC | 1250 | CUGCAAUUGCUCAAUAUAU |
| 1146 | GCUGCUCUCUGCUCCGCUA | 1181 | CUGCGGAUCUGUUUUCCUC | 1216 | CCUUCUCGCCUCGCCGGCA | 1251 | UGCAAUUGCUCAAUAUAUC |
| 1147 | CUGCUCUCUGCUCCGCUAU | 1182 | UGCGGAUCUGUUUUCCUCG | 1217 | CUUCUCGCCUCGCCGGCAC | 1252 | GCAAUUGCUCAAUAUAUCC |
| 1148 | UGCUCUCUGCUCCGCUAUG | 1183 | GCGGAUCUGUUUUCCUCGU | 1218 | UUCUCGCCUCGCCGGCACG | 1253 | CAAUUGCUCAAUAUAUCCC |
| 1149 | GCUCUCUGCUCCGCUAUGU | 1184 | CGGAUCUGUUUUCCUCGUC | 1219 | UCUCGCCUCGCCGGCACGA | 1254 | AAUUGCUCAAUAUAUCCCG |
| 1150 | CUCUCUGCUCCGCUAUGUA | 1185 | GGAUCUGUUUUCCUCGUCG | 1220 | CUCGCCUCGCCGGCACGAG | 1255 | AUUGCUCAAUAUAUCCCGG |
| 1151 | UCUCUGCUCCGCUAUGUAC | 1186 | GAUCUGUUUUCCUCGUCGC | 1221 | UCGCCUCGCCGGCACGAGA | 1256 | UUGCUCAAUAUAUCCCGGC |
| 1152 | CUCUGCUCCGCUAUGUACG | 1187 | AUCUGUUUUCCUCGUCGCC | 1222 | CGCCUCGCCGGCACGAGAC | 1257 | UGCUCAAUAUAUCCCGGCC |
| 1153 | UCUGCUCCGCUAUGUACGU | 1188 | UCUGUUUUCCUCGUCGCCC | 1223 | GCCUCGCCGGCACGAGACA | 1258 | GCUCAAUAUAUCCCGGCCA |
| 1154 | CUGCUCCGCUAUGUACGUG | 1189 | CUGUUUUCCUCGUCGCCCA | 1224 | CCUCGCCGGCACGAGACAG | 1259 | CUCAAUAUAUCCCGGCCAC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1260 | UCAAUAUAUCCCGGCCACG | 1295 | GGCUUGGGAUAUGAUGAUG | 1330 | CAGCCCUAGUGGUAUCGCA | 1365 | CAAGCUGUCGUGGAUAUGG |
| 1261 | CAAUAUAUCCCGGCCACGU | 1296 | GCUUGGGAUAUGAUGAUGA | 1331 | AGCCCUAGUGGUAUCGCAG | 1366 | AAGCUGUCGUGGAUAUGGU |
| 1262 | AAUAUAUCCCGGCCACGUG | 1297 | CUUGGGAUAUGAUGAUGAA | 1332 | GCCCUAGUGGUAUCGCAGU | 1367 | AGCUGUCGUGGAUAUGGUG |
| 1263 | AUAUAUCCCGGCCACGUGA | 1298 | UUGGGAUAUGAUGAUGAAC | 1333 | CCCUAGUGGUAUCGCAGUU | 1368 | GCUGUCGUGGAUAUGGUGG |
| 1264 | UAUAUCCCGGCCACGUGAC | 1299 | UGGGAUAUGAUGAUGAACU | 1334 | CCUAGUGGUAUCGCAGUUA | 1369 | CUGUCGUGGAUAUGGUGGC |
| 1265 | AUAUCCCGGCCACGUGACA | 1300 | GGGAUAUGAUGAUGAACUG | 1335 | CUAGUGGUAUCGCAGUUAC | 1370 | UGUCGUGGAUAUGGUGGCG |
| 1266 | UAUCCCGGCCACGUGACAG | 1301 | GGAUAUGAUGAUGAACUGG | 1336 | UAGUGGUAUCGCAGUUACU | 1371 | GUCGUGGAUAUGGUGGCGG |
| 1267 | AUCCCGGCCACGUGACAGG | 1302 | GAUAUGAUGAUGAACUGGU | 1337 | AGUGGUAUCGCAGUUACUC | 1372 | UCGUGGAUAUGGUGGCGGG |
| 1268 | UCCCGGCCACGUGACAGGU | 1303 | AUAUGAUGAUGAACUGGUC | 1338 | GUGGUAUCGCAGUUACUCC | 1373 | CGUGGAUAUGGUGGCGGGG |
| 1269 | CCCGGCCACGUGACAGGUC | 1304 | UAUGAUGAUGAACUGGUCA | 1339 | UGGUAUCGCAGUUACUCCG | 1374 | GUGGAUAUGGUGGCGGGGG |
| 1270 | CCGGCCACGUGACAGGUCA | 1305 | AUGAUGAUGAACUGGUCAC | 1340 | GGUAUCGCAGUUACUCCGG | 1375 | UGGAUAUGGUGGCGGGGGC |
| 1271 | CGGCCACGUGACAGGUCAC | 1306 | UGAUGAUGAACUGGUCACC | 1341 | GUAUCGCAGUUACUCCGGA | 1376 | GGAUAUGGUGGCGGGGGCC |
| 1272 | GGCCACGUGACAGGUCACC | 1307 | GAUGAUGAACUGGUCACCU | 1342 | UAUCGCAGUUACUCCGGAU | 1377 | GAUAUGGUGGCGGGGGCCC |
| 1273 | GCCACGUGACAGGUCACCG | 1308 | AUGAUGAACUGGUCACCUA | 1343 | AUCGCAGUUACUCCGGAUC | 1378 | AUAUGGUGGCGGGGGCCCA |
| 1274 | CCACGUGACAGGUCACCGU | 1309 | UGAUGAACUGGUCACCUAC | 1344 | UCGCAGUUACUCCGGAUCC | 1379 | UAUGGUGGCGGGGGCCCAU |
| 1275 | CACGUGACAGGUCACCGUA | 1310 | GAUGAACUGGUCACCUACA | 1345 | CGCAGUUACUCCGGAUCCC | 1380 | AUGGUGGCGGGGGCCCAUU |
| 1276 | ACGUGACAGGUCACCGUAU | 1311 | AUGAACUGGUCACCUACAG | 1346 | GCAGUUACUCCGGAUCCCA | 1381 | UGGUGGCGGGGGCCCAUUC |
| 1277 | CGUGACAGGUCACCGUAUG | 1312 | UGAACUGGUCACCUACAGC | 1347 | CAGUUACUCCGGAUCCCAC | 1382 | GGUGGCGGGGGCCCAUUGC |
| 1278 | GUGACAGGUCACCGUAUGG | 1313 | GAACUGGUCACCUACAGCA | 1348 | AGUUACUCCGGAUCCCACA | 1383 | GUGGCGGGGGCCCAUUGGG |
| 1279 | UGACAGGUCACCGUAUGGC | 1314 | AACUGGUCACCUACAGCAG | 1349 | GUUACUCCGGAUCCCACAA | 1384 | UGGCGGGGGCCCAUUGGGG |
| 1280 | GACAGGUCACCGUAUGGCU | 1315 | ACUGGUCACCUACAGCAGC | 1350 | UUACUCCGGAUCCCACAAG | 1385 | GGCGGGGGCCCAUUGGGGA |
| 1281 | ACAGGUCACCGUAUGGCUU | 1316 | CUGGUCACCUACAGCAGCC | 1351 | UACUCCGGAUCCCACAAGC | 1386 | GCGGGGGCCCAUUGGGGAG |
| 1282 | CAGGUCACCGUAUGGCUUG | 1317 | UGGUCACCUACAGCAGCCC | 1352 | ACUCCGGAUCCCACAAGCU | 1387 | CGGGGGCCCAUUGGGGAGU |
| 1283 | AGGUCACCGUAUGGCUUGG | 1318 | GGUCACCUACAGCAGCCCU | 1353 | CUCCGGAUCCCACAAGCUG | 1388 | GGGGGCCCAUUGGGGAGUC |
| 1284 | GGUCACCGUAUGGCUUGGG | 1319 | GUCACCUACAGCAGCCCUA | 1354 | UCCGGAUCCCACAAGCUGU | 1389 | GGGGCCCAUUGGGGAGUCC |
| 1285 | GUCACCGUAUGGCUUGGGA | 1320 | UCACCUACAGCAGCCCUAG | 1355 | CCGGAUCCCACAAGCUGUC | 1390 | GGGCCCAUUGGGGAGUCCU |
| 1286 | UCACCGUAUGGCUUGGGAU | 1321 | CACCUACAGCAGCCCUAGU | 1356 | CGGAUCCCACAAGCUGUCG | 1391 | GGCCCAUUGGGGAGUCCUA |
| 1287 | CACCGUAUGGCUUGGGAUA | 1322 | ACCUACAGCAGCCCUAGUG | 1357 | GGAUCCCACAAGCUGUCGU | 1392 | GCCCAUUGGGGAGUCCUAG |
| 1288 | ACCGUAUGGCUUGGGAUAU | 1323 | CCUACAGCAGCCCUAGUGG | 1358 | GAUCCCACAAGCUGUCGUG | 1393 | CCCAUUGGGGAGUCCUAGC |
| 1289 | CCGUAUGGCUUGGGAUAUG | 1324 | CUACAGCAGCCCUAGUGGU | 1359 | AUCCCACAAGCUGUCGUGG | 1394 | CCAUUGGGGAGUCCUAGCG |
| 1290 | CGUAUGGCUUGGGAUAUGA | 1325 | UACAGCAGCCCUAGUGGUA | 1360 | UCCCACAAGCUGUCGUGGA | 1395 | CAUUGGGGAGUCCUAGCGG |
| 1291 | GUAUGGCUUGGGAUAUGAU | 1326 | ACAGCAGCCCUAGUGGUAU | 1361 | CCCACAAGCUGUCGUGGAU | 1396 | AUUGGGGAGUCCUAGCGGG |
| 1292 | UAUGGCUUGGGAUAUGAUG | 1327 | CAGCAGCCCUAGUGGUAUC | 1362 | CCACAAGCUGUCGUGGAUA | 1397 | UUGGGGAGUCCUAGCGGGC |
| 1293 | AUGGCUUGGGAUAUGAUGA | 1328 | AGCAGCCCUAGUGGUAUCG | 1363 | CACAAGCUGUCGUGGAUAU | 1398 | UGGGGAGUCCUAGCGGGCC |
| 1294 | UGGCUUGGGAUAUGAUGAU | 1329 | GCAGCCCUAGUGGUAUCGC | 1364 | ACAAGCUGUCGUGGAUAUG | 1399 | GGGGAGUCCUAGCGGGCCU |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1400 | GGGAGUCCUAGCGGGCCUU | 1435 | UGGGGAACUGGGCUAAGGU | 1470 | CUCUUUGCCGGCGUUGACG | 1505 | AGGGGGGACGAUGGCCAAA |
| 1401 | GGAGUCCUAGCGGGCCUUG | 1436 | GGGGAACUGGGCUAAGGUU | 1471 | UCUUUGCCGGCGUUGACGG | 1506 | GGGGGGACGAUGGCCAAAA |
| 1402 | GAGUCCUAGCGGGCCUUGC | 1437 | GGGAACUGGGCUAAGGUUC | 1472 | CUUUGCCGGCGUUGACGGG | 1507 | GGGGGACGAUGGCCAAAAA |
| 1403 | AGUCCUAGCGGGCCUUGCC | 1438 | GGAACUGGGCUAAGGUUCU | 1473 | UUUGCCGGCGUUGACGGGG | 1508 | GGGGACGAUGGCCAAAAAC |
| 1404 | GUCCUAGCGGGCCUUGCCU | 1439 | GAACUGGGCUAAGGUUCUG | 1474 | UUGCCGGCGUUGACGGGGG | 1509 | GGGACGAUGGCCAAAAACA |
| 1405 | UCCUAGCGGGCCUUGCCUA | 1440 | AACUGGGCUAAGGUUCUGA | 1475 | UGCCGGCGUUGACGGGGGA | 1510 | GGACGAUGGCCAAAAACAC |
| 1406 | CCUAGCGGGCCUUGCCUAC | 1441 | ACUGGGCUAAGGUUCUGAU | 1476 | GCCGGCGUUGACGGGGGAA | 1511 | GACGAUGGCCAAAAACACC |
| 1407 | CUAGCGGGCCUUGCCUACU | 1442 | CUGGGCUAAGGUUCUGAUU | 1477 | CCGGCGUUGACGGGGGAAC | 1512 | ACGAUGGCCAAAAACACCC |
| 1408 | UAGCGGGCCUUGCCUACUA | 1443 | UGGGCUAAGGUUCUGAUUG | 1478 | CGGCGUUGACGGGGGAACC | 1513 | CGAUGGCCAAAAACACCCU |
| 1409 | AGCGGGCCUUGCCUACUAU | 1444 | GGGCUAAGGUUCUGAUUGU | 1479 | GGCGUUGACGGGGGAACCU | 1514 | GAUGGCCAAAAACACCCUC |
| 1410 | GCGGGCCUUGCCUACUAUU | 1445 | GGCUAAGGUUCUGAUUGUG | 1480 | GCGUUGACGGGGGAACCUA | 1515 | AUGGCCAAAAACACCCUCG |
| 1411 | CGGGCCUUGCCUACUAUUC | 1446 | GCUAAGGUUCUGAUUGUGA | 1481 | CGUUGACGGGGGAACCUAU | 1516 | UGGCCAAAAACACCCUCGG |
| 1412 | GGGCCUUGCCUACUAUUCC | 1447 | CUAAGGUUCUGAUUGUGAU | 1482 | GUUGACGGGGGAACCUAUG | 1517 | GGCCAAAAACACCCUCGGG |
| 1413 | GGCCUUGCCUACUAUUCCA | 1448 | UAAGGUUCUGAUUGUGAUG | 1483 | UUGACGGGGGAACCUAUGU | 1518 | GCCAAAAACACCCUCGGGA |
| 1414 | GCCUUGCCUACUAUUCCAU | 1449 | AAGGUUCUGAUUGUGAUGC | 1484 | UGACGGGGGAACCUAUGUG | 1519 | CCAAAAACACCCUCGGGAU |
| 1415 | CCUUGCCUACUAUUCCAUG | 1450 | AGGUUCUGAUUGUGAUGCU | 1485 | GACGGGGGAACCUAUGUGA | 1520 | CAAAAACACCCUCGGGAUU |
| 1416 | CUUGCCUACUAUUCCAUGG | 1451 | GGUUCUGAUUGUGAUGCUA | 1486 | ACGGGGGAACCUAUGUGAC | 1521 | AAAAACACCCUCGGGAUUA |
| 1417 | UUGCCUACUAUUCCAUGGU | 1452 | GUUCUGAUUGUGAUGCUAC | 1487 | CGGGGGAACCUAUGUGACA | 1522 | AAAACACCCUCGGGAUUAC |
| 1418 | UGCCUACUAUUCCAUGGUG | 1453 | UUCUGAUUGUGAUGCUACU | 1488 | GGGGGAACCUAUGUGACAG | 1523 | AAACACCCUCGGGAUUACG |
| 1419 | GCCUACUAUUCCAUGGUGG | 1454 | UCUGAUUGUGAUGCUACUC | 1489 | GGGGAACCUAUGUGACAGG | 1524 | AACACCCUCGGGAUUACGU |
| 1420 | CCUACUAUUCCAUGGUGGG | 1455 | CUGAUUGUGAUGCUACUCU | 1490 | GGGAACCUAUGUGACAGGG | 1525 | ACACCCUCGGGAUUACGUC |
| 1421 | CUACUAUUCCAUGGUGGGG | 1456 | UGAUUGUGAUGCUACUCUU | 1491 | GGAACCUAUGUGACAGGGG | 1526 | CACCCUCGGGAUUACGUCC |
| 1422 | UACUAUUCCAUGGUGGGGA | 1457 | GAUUGUGAUGCUACUCUUU | 1492 | GAACCUAUGUGACAGGGGG | 1527 | ACCCUCGGGAUUACGUCCC |
| 1423 | ACUAUUCCAUGGUGGGGAA | 1458 | AUUGUGAUGCUACUCUUUG | 1493 | AACCUAUGUGACAGGGGGG | 1528 | CCCUCGGGAUUACGUCCCU |
| 1424 | CUAUUCCAUGGUGGGGAAC | 1459 | UUGUGAUGCUACUCUUUGC | 1494 | ACCUAUGUGACAGGGGGGA | 1529 | CCUCGGGAUUACGUCCCUC |
| 1425 | UAUUCCAUGGUGGGGAACU | 1460 | UGUGAUGCUACUCUUUGCC | 1495 | CCUAUGUGACAGGGGGGAC | 1530 | CUCGGGAUUACGUCCCUCU |
| 1426 | AUUCCAUGGUGGGGAACUG | 1461 | GUGAUGCUACUCUUUGCCG | 1496 | CUAUGUGACAGGGGGGACG | 1531 | UCGGGAUUACGUCCCUCUU |
| 1427 | UUCCAUGGUGGGGAACUGG | 1462 | UGAUGCUACUCUUUGCCGG | 1497 | UAUGUGACAGGGGGGACGA | 1532 | CGGGAUUACGUCCCUCUUU |
| 1428 | UCCAUGGUGGGGAACUGGG | 1463 | GAUGCUACUCUUUGCCGGC | 1498 | AUGUGACAGGGGGGACGAU | 1533 | GGGAUUACGUCCCUCUUUU |
| 1429 | CCAUGGUGGGGAACUGGGC | 1464 | AUGCUACUCUUUGCCGGCG | 1499 | UGUGACAGGGGGGACGAUG | 1534 | GGAUUACGUCCCUCUUUUC |
| 1430 | CAUGGUGGGGAACUGGGCU | 1465 | UGCUACUCUUUGCCGGCGU | 1500 | GUGACAGGGGGGACGAUGG | 1535 | GAUUACGUCCCUCUUUUCA |
| 1431 | AUGGUGGGGAACUGGGCUA | 1466 | GCUACUCUUUGCCGGCGUU | 1501 | UGACAGGGGGGACGAUGGC | 1536 | AUUACGUCCCUCUUUUCAC |
| 1432 | UGGUGGGGAACUGGGCUAA | 1467 | CUACUCUUUGCCGGCGUUG | 1502 | GACAGGGGGGACGAUGGCC | 1537 | UUACGUCCCUCUUUUCACC |
| 1433 | GGUGGGGAACUGGGCUAAG | 1468 | UACUCUUUGCCGGCGUUGA | 1503 | ACAGGGGGGACGAUGGCCA | 1538 | UACGUCCCUCUUUUCACCC |
| 1434 | GUGGGGAACUGGGCUAAGG | 1469 | ACUCUUUGCCGGCGUUGAC | 1504 | CAGGGGGGACGAUGGCCAA | 1539 | ACGUCCCUCUUUUCACCCG |

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| | |
|---|---|
| 1540 | CGUCCCUCUUUUCACCCGG |
| 1541 | GUCCCUCUUUUCACCCGGG |
| 1542 | UCCCUCUUUUCACCCGGGU |
| 1543 | CCCUCUUUUCACCCGGGUC |
| 1544 | CCUCUUUUCACCCGGGUCA |
| 1545 | CUCUUUUCACCCGGGUCAU |
| 1546 | UCUUUUCACCCGGGUCAUC |
| 1547 | CUUUUCACCCGGGUCAUCC |
| 1548 | UUUUCACCCGGGUCAUCCC |
| 1549 | UUUCACCCGGGUCAUCCCA |
| 1550 | UUCACCCGGGUCAUCCCAG |
| 1551 | UCACCCGGGUCAUCCCAGA |
| 1552 | CACCCGGGUCAUCCCAGAA |
| 1553 | ACCCGGGUCAUCCCAGAAA |
| 1554 | CCCGGGUCAUCCCAGAAAA |
| 1555 | CCGGGUCAUCCCAGAAAAU |
| 1556 | CGGGUCAUCCCAGAAAAUC |
| 1557 | GGGUCAUCCCAGAAAAUCC |
| 1558 | GGUCAUCCCAGAAAAUCCA |
| 1559 | GUCAUCCCAGAAAAUCCAG |
| 1560 | UCAUCCCAGAAAAUCCAGC |
| 1561 | CAUCCCAGAAAAUCCAGCU |
| 1562 | AUCCCAGAAAAUCCAGCUU |
| 1563 | UCCCAGAAAAUCCAGCUUG |
| 1564 | CCCAGAAAAUCCAGCUUGU |
| 1565 | CCAGAAAAUCCAGCUUGUA |
| 1566 | CAGAAAAUCCAGCUUGUAA |
| 1567 | AGAAAAUCCAGCUUGUAAA |
| 1568 | GAAAAUCCAGCUUGUAAAC |
| 1569 | AAAAUCCAGCUUGUAAACA |
| 1570 | AAAUCCAGCUUGUAAACAC |
| 1571 | AAUCCAGCUUGUAAACACC |
| 1572 | AUCCAGCUUGUAAACACCA |
| 1573 | UCCAGCUUGUAAACACCAA |
| 1574 | CCAGCUUGUAAACACCAAC |
| 1575 | CAGCUUGUAAACACCAACG |
| 1576 | AGCUUGUAAACACCAACGG |
| 1577 | GCUUGUAAACACCAACGGC |
| 1578 | CUUGUAAACACCAACGGCA |
| 1579 | UUGUAAACACCAACGGCAG |
| 1580 | UGUAAACACCAACGGCAGC |
| 1581 | GUAAACACCAACGGCAGCU |
| 1582 | UAAACACCAACGGCAGCUG |
| 1583 | AAACACCAACGGCAGCUGG |
| 1584 | AACACCAACGGCAGCUGGC |
| 1585 | ACACCAACGGCAGCUGGCA |
| 1586 | CACCAACGGCAGCUGGCAC |
| 1587 | ACCAACGGCAGCUGGCACA |
| 1588 | CCAACGGCAGCUGGCACAU |
| 1589 | CAACGGCAGCUGGCACAUC |
| 1590 | AACGGCAGCUGGCACAUCA |
| 1591 | ACGGCAGCUGGCACAUCAA |
| 1592 | CGGCAGCUGGCACAUCAAC |
| 1593 | GGCAGCUGGCACAUCAACA |
| 1594 | GCAGCUGGCACAUCAACAG |
| 1595 | CAGCUGGCACAUCAACAGG |
| 1596 | AGCUGGCACAUCAACAGGA |
| 1597 | GCUGGCACAUCAACAGGAC |
| 1598 | CUGGCACAUCAACAGGACU |
| 1599 | UGGCACAUCAACAGGACUG |
| 1600 | GGCACAUCAACAGGACUGC |
| 1601 | GCACAUCAACAGGACUGCC |
| 1602 | CACAUCAACAGGACUGCCC |
| 1603 | ACAUCAACAGGACUGCCCU |
| 1604 | CAUCAACAGGACUGCCCUG |
| 1605 | AUCAACAGGACUGCCCUGA |
| 1606 | UCAACAGGACUGCCCUGAA |
| 1607 | CAACAGGACUGCCCUGAAC |
| 1608 | AACAGGACUGCCCUGAACU |
| 1609 | ACAGGACUGCCCUGAACUG |
| 1610 | CAGGACUGCCCUGAACUGC |
| 1611 | AGGACUGCCCUGAACUGCA |
| 1612 | GGACUGCCCUGAACUGCAA |
| 1613 | GACUGCCCUGAACUGCAAU |
| 1614 | ACUGCCCUGAACUGCAAUG |
| 1615 | CUGCCCUGAACUGCAAUGA |
| 1616 | UGCCCUGAACUGCAAUGAC |
| 1617 | GCCCUGAACUGCAAUGACU |
| 1618 | CCCUGAACUGCAAUGACUC |
| 1619 | CCUGAACUGCAAUGACUCC |
| 1620 | CUGAACUGCAAUGACUCCC |
| 1621 | UGAACUGCAAUGACUCCCU |
| 1622 | GAACUGCAAUGACUCCCUC |
| 1623 | AACUGCAAUGACUCCCUCA |
| 1624 | ACUGCAAUGACUCCCUCAA |
| 1625 | CUGCAAUGACUCCCUCAAC |
| 1626 | UGCAAUGACUCCCUCAACA |
| 1627 | GCAAUGACUCCCUCAACAC |
| 1628 | CAAUGACUCCCUCAACACU |
| 1629 | AAUGACUCCCUCAACACUG |
| 1630 | AUGACUCCCUCAACACUGG |
| 1631 | UGACUCCCUCAACACUGGG |
| 1632 | GACUCCCUCAACACUGGGU |
| 1633 | ACUCCCUCAACACUGGGUU |
| 1634 | CUCCCUCAACACUGGGUUC |
| 1635 | UCCCUCAACACUGGGUUCC |
| 1636 | CCCUCAACACUGGGUUCCU |
| 1637 | CCUCAACACUGGGUUCCUU |
| 1638 | CUCAACACUGGGUUCCUUG |
| 1639 | UCAACACUGGGUUCCUUGC |
| 1640 | CAACACUGGGUUCCUUGCU |
| 1641 | AACACUGGGUUCCUUGCUG |
| 1642 | ACACUGGGUUCCUUGCUGC |
| 1643 | CACUGGGUUCCUUGCUGCG |
| 1644 | ACUGGGUUCCUUGCUGCGC |
| 1645 | CUGGGUUCCUUGCUGCGCU |
| 1646 | UGGGUUCCUUGCUGCGCUG |
| 1647 | GGGUUCCUUGCUGCGCUGU |
| 1648 | GGUUCCUUGCUGCGCUGUU |
| 1649 | GUUCCUUGCUGCGCUGUUC |
| 1650 | UUCCUUGCUGCGCUGUUCU |
| 1651 | UCCUUGCUGCGCUGUUCUA |
| 1652 | CCUUGCUGCGCUGUUCUAC |
| 1653 | CUUGCUGCGCUGUUCUACG |
| 1654 | UUGCUGCGCUGUUCUACGU |
| 1655 | UGCUGCGCUGUUCUACGUG |
| 1656 | GCUGCGCUGUUCUACGUGC |
| 1657 | CUGCGCUGUUCUACGUGCA |
| 1658 | UGCGCUGUUCUACGUGCAC |
| 1659 | GCGCUGUUCUACGUGCACA |
| 1660 | CGCUGUUCUACGUGCACAA |
| 1661 | GCUGUUCUACGUGCACAAG |
| 1662 | CUGUUCUACGUGCACAAGU |
| 1663 | UGUUCUACGUGCACAAGUU |
| 1664 | GUUCUACGUGCACAAGUUC |
| 1665 | UUCUACGUGCACAAGUUCA |
| 1666 | UCUACGUGCACAAGUUCAA |
| 1667 | CUACGUGCACAAGUUCAAC |
| 1668 | UACGUGCACAAGUUCAACU |
| 1669 | ACGUGCACAAGUUCAACUC |
| 1670 | CGUGCACAAGUUCAACUCA |
| 1671 | GUGCACAAGUUCAACUCAU |
| 1672 | UGCACAAGUUCAACUCAUC |
| 1673 | GCACAAGUUCAACUCAUCU |
| 1674 | CACAAGUUCAACUCAUCUG |
| 1675 | ACAAGUUCAACUCAUCUGG |
| 1676 | CAAGUUCAACUCAUCUGGA |
| 1677 | AAGUUCAACUCAUCUGGAU |
| 1678 | AGUUCAACUCAUCUGGAUG |
| 1679 | GUUCAACUCAUCUGGAUGC |



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| | |
|---|---|
| 1680 | UUCAACUCAUCUGGAUGCC |
| 1681 | UCAACUCAUCUGGAUGCCC |
| 1682 | CAACUCAUCUGGAUGCCCA |
| 1683 | AACUCAUCUGGAUGCCCAG |
| 1684 | ACUCAUCUGGAUGCCCAGA |
| 1685 | CUCAUCUGGAUGCCCAGAG |
| 1686 | UCAUCUGGAUGCCCAGAGC |
| 1687 | CAUCUGGAUGCCCAGAGCG |
| 1688 | AUCUGGAUGCCCAGAGCGC |
| 1689 | UCUGGAUGCCCAGAGCGCA |
| 1690 | CUGGAUGCCCAGAGCGCAU |
| 1691 | UGGAUGCCCAGAGCGCAUG |
| 1692 | GGAUGCCCAGAGCGCAUGG |
| 1693 | GAUGCCCAGAGCGCAUGGC |
| 1694 | AUGCCCAGAGCGCAUGGCC |
| 1695 | UGCCCAGAGCGCAUGGCCA |
| 1696 | GCCCAGAGCGCAUGGCCAG |
| 1697 | CCCAGAGCGCAUGGCCAGC |
| 1698 | CCAGAGCGCAUGGCCAGCU |
| 1699 | CAGAGCGCAUGGCCAGCUG |
| 1700 | AGAGCGCAUGGCCAGCUGC |
| 1701 | GAGCGCAUGGCCAGCUGCA |
| 1702 | AGCGCAUGGCCAGCUGCAG |
| 1703 | GCGCAUGGCCAGCUGCAGC |
| 1704 | CGCAUGGCCAGCUGCAGCC |
| 1705 | GCAUGGCCAGCUGCAGCCC |
| 1706 | CAUGGCCAGCUGCAGCCCC |
| 1707 | AUGGCCAGCUGCAGCCCCA |
| 1708 | UGGCCAGCUGCAGCCCCAU |
| 1709 | GGCCAGCUGCAGCCCCAUC |
| 1710 | GCCAGCUGCAGCCCCAUCG |
| 1711 | CCAGCUGCAGCCCCAUCGA |
| 1712 | CAGCUGCAGCCCCAUCGAC |
| 1713 | AGCUGCAGCCCCAUCGACG |
| 1714 | GCUGCAGCCCCAUCGACGC |
| 1715 | CUGCAGCCCCAUCGACGCG |
| 1716 | UGCAGCCCCAUCGACGCGU |
| 1717 | GCAGCCCCAUCGACGCGUU |
| 1718 | CAGCCCCAUCGACGCGUUC |
| 1719 | AGCCCCAUCGACGCGUUCG |
| 1720 | GCCCCAUCGACGCGUUCGC |
| 1721 | CCCCAUCGACGCGUUCGCU |
| 1722 | CCCAUCGACGCGUUCGCUC |
| 1723 | CCAUCGACGCGUUCGCUCA |
| 1724 | CAUCGACGCGUUCGCUCAG |
| 1725 | AUCGACGCGUUCGCUCAGG |
| 1726 | UCGACGCGUUCGCUCAGGG |
| 1727 | CGACGCGUUCGCUCAGGGG |
| 1728 | GACGCGUUCGCUCAGGGGU |
| 1729 | ACGCGUUCGCUCAGGGGUG |
| 1730 | CGCGUUCGCUCAGGGGUGG |
| 1731 | GCGUUCGCUCAGGGGUGGG |
| 1732 | CGUUCGCUCAGGGGUGGGG |
| 1733 | GUUCGCUCAGGGGUGGGGG |
| 1734 | UUCGCUCAGGGGUGGGGGC |
| 1735 | UCGCUCAGGGGUGGGGGCC |
| 1736 | CGCUCAGGGGUGGGGGCCC |
| 1737 | GCUCAGGGGUGGGGGCCCA |
| 1738 | CUCAGGGGUGGGGGCCCAU |
| 1739 | UCAGGGGUGGGGGCCCAUC |
| 1740 | CAGGGGUGGGGGCCCAUCA |
| 1741 | AGGGGUGGGGGCCCAUCAC |
| 1742 | GGGGUGGGGGCCCAUCACU |
| 1743 | GGGUGGGGGCCCAUCACUU |
| 1744 | GGUGGGGGCCCAUCACUUA |
| 1745 | GUGGGGGCCCAUCACUUAC |
| 1746 | UGGGGGCCCAUCACUUACA |
| 1747 | GGGGGCCCAUCACUUACAA |
| 1748 | GGGGCCCAUCACUUACAAU |
| 1749 | GGGCCCAUCACUUACAAUG |
| 1750 | GGCCCAUCACUUACAAUGA |
| 1751 | GCCCAUCACUUACAAUGAG |
| 1752 | CCCAUCACUUACAAUGAGU |
| 1753 | CCAUCACUUACAAUGAGUC |
| 1754 | CAUCACUUACAAUGAGUCA |
| 1755 | AUCACUUACAAUGAGUCAC |
| 1756 | UCACUUACAAUGAGUCACA |
| 1757 | CACUUACAAUGAGUCACAC |
| 1758 | ACUUACAAUGAGUCACACA |
| 1759 | CUUACAAUGAGUCACACAG |
| 1760 | UUACAAUGAGUCACACAGC |
| 1761 | UACAAUGAGUCACACAGCU |
| 1762 | ACAAUGAGUCACACAGCUC |
| 1763 | CAAUGAGUCACACAGCUCG |
| 1764 | AAUGAGUCACACAGCUCGG |
| 1765 | AUGAGUCACACAGCUCGGA |
| 1766 | UGAGUCACACAGCUCGGAC |
| 1767 | GAGUCACACAGCUCGGACC |
| 1768 | AGUCACACAGCUCGGACCA |
| 1769 | GUCACACAGCUCGGACCAG |
| 1770 | UCACACAGCUCGGACCAGA |
| 1771 | CACACAGCUCGGACCAGAG |
| 1772 | ACACAGCUCGGACCAGAGG |
| 1773 | CACAGCUCGGACCAGAGGC |
| 1774 | ACAGCUCGGACCAGAGGCC |
| 1775 | CAGCUCGGACCAGAGGCCU |
| 1776 | AGCUCGGACCAGAGGCCUU |
| 1777 | GCUCGGACCAGAGGCCUUA |
| 1778 | CUCGGACCAGAGGCCUUAU |
| 1779 | UCGGACCAGAGGCCUUAUU |
| 1780 | CGGACCAGAGGCCUUAUUG |
| 1781 | GGACCAGAGGCCUUAUUGU |
| 1782 | GACCAGAGGCCUUAUUGUU |
| 1783 | ACCAGAGGCCUUAUUGUUG |
| 1784 | CCAGAGGCCUUAUUGUUGG |
| 1785 | CAGAGGCCUUAUUGUUGGC |
| 1786 | AGAGGCCUUAUUGUUGGCA |
| 1787 | GAGGCCUUAUUGUUGGCAC |
| 1788 | AGGCCUUAUUGUUGGCACU |
| 1789 | GGCCUUAUUGUUGGCACUA |
| 1790 | GCCUUAUUGUUGGCACUAC |
| 1791 | CCUUAUUGUUGGCACUACG |
| 1792 | CUUAUUGUUGGCACUACGC |
| 1793 | UUAUUGUUGGCACUACGCA |
| 1794 | UAUUGUUGGCACUACGCAC |
| 1795 | AUUGUUGGCACUACGCACC |
| 1796 | UUGUUGGCACUACGCACCC |
| 1797 | UGUUGGCACUACGCACCCC |
| 1798 | GUUGGCACUACGCACCCCG |
| 1799 | UUGGCACUACGCACCCCGG |
| 1800 | UGGCACUACGCACCCCGGC |
| 1801 | GGCACUACGCACCCCGGCC |
| 1802 | GCACUACGCACCCCGGCCG |
| 1803 | CACUACGCACCCCGGCCGU |
| 1804 | ACUACGCACCCCGGCCGUG |
| 1805 | CUACGCACCCCGGCCGUGC |
| 1806 | UACGCACCCCGGCCGUGCG |
| 1807 | ACGCACCCCGGCCGUGCGG |
| 1808 | CGCACCCCGGCCGUGCGGU |
| 1809 | GCACCCCGGCCGUGCGGUA |
| 1810 | CACCCCGGCCGUGCGGUAU |
| 1811 | ACCCCGGCCGUGCGGUAUC |
| 1812 | CCCCGGCCGUGCGGUAUCG |
| 1813 | CCCGGCCGUGCGGUAUCGU |
| 1814 | CCGGCCGUGCGGUAUCGUA |
| 1815 | CGGCCGUGCGGUAUCGUAC |
| 1816 | GGCCGUGCGGUAUCGUACC |
| 1817 | GCCGUGCGGUAUCGUACCC |
| 1818 | CCGUGCGGUAUCGUACCCG |
| 1819 | CGUGCGGUAUCGUACCCGC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1820 | GUGCGGUAUCGUACCCGCG | 1855 | CAGUGUACUGCUUCACCCC | 1890 | GGGACGACCGACCGGUUCG | 1925 | UUGGGGGGAGAAUGAGACG |
| 1821 | UGCGGUAUCGUACCCGCGG | 1856 | AGUGUACUGCUUCACCCCA | 1891 | GGACGACCGACCGGUUCGG | 1926 | UGGGGGGAGAAUGAGACGG |
| 1822 | GCGGUAUCGUACCCGCGGC | 1857 | GUGUACUGCUUCACCCCAA | 1892 | GACGACCGACCGGUUCGGC | 1927 | GGGGGGAGAAUGAGACGGA |
| 1823 | CGGUAUCGUACCCGCGGCG | 1858 | UGUACUGCUUCACCCCAAG | 1893 | ACGACCGACCGGUUCGGCG | 1928 | GGGGGAGAAUGAGACGGAC |
| 1824 | GGUAUCGUACCCGCGGCGC | 1859 | GUACUGCUUCACCCCAAGC | 1894 | CGACCGACCGGUUCGGCGU | 1929 | GGGGAGAAUGAGACGGACG |
| 1825 | GUAUCGUACCCGCGGCGCA | 1860 | UACUGCUUCACCCCAAGCC | 1895 | GACCGACCGGUUCGGCGUC | 1930 | GGGAGAAUGAGACGGACGU |
| 1826 | UAUCGUACCCGCGGCGCAG | 1861 | ACUGCUUCACCCCAAGCCC | 1896 | ACCGACCGGUUCGGCGUCC | 1931 | GGAGAAUGAGACGGACGUG |
| 1827 | AUCGUACCCGCGGCGCAGG | 1862 | CUGCUUCACCCCAAGCCCU | 1897 | CCGACCGGUUCGGCGUCCC | 1932 | GAGAAUGAGACGGACGUGC |
| 1828 | UCGUACCCGCGGCGCAGGU | 1863 | UGCUUCACCCCAAGCCCUG | 1898 | CGACCGGUUCGGCGUCCCU | 1933 | AGAAUGAGACGGACGUGCU |
| 1829 | CGUACCCGCGGCGCAGGUG | 1864 | GCUUCACCCCAAGCCCUGU | 1899 | GACCGGUUCGGCGUCCCUA | 1934 | GAAUGAGACGGACGUGCUG |
| 1830 | GUACCCGCGGCGCAGGUGU | 1865 | CUUCACCCCAAGCCCUGUC | 1900 | ACCGGUUCGGCGUCCCUAC | 1935 | AAUGAGACGGACGUGCUGC |
| 1831 | UACCCGCGGCGCAGGUGUG | 1866 | UUCACCCCAAGCCCUGUCG | 1901 | CCGGUUCGGCGUCCCUACG | 1936 | AUGAGACGGACGUGCUGCU |
| 1832 | ACCCGCGGCGCAGGUGUGU | 1867 | UCACCCCAAGCCCUGUCGU | 1902 | CGGUUCGGCGUCCCUACGU | 1937 | UGAGACGGACGUGCUGCUU |
| 1833 | CCCGCGGCGCAGGUGUGUG | 1868 | CACCCCAAGCCCUGUCGUG | 1903 | GGUUCGGCGUCCCUACGUA | 1938 | GAGACGGACGUGCUGCUUC |
| 1834 | CCGCGGCGCAGGUGUGUGG | 1869 | ACCCCAAGCCCUGUCGUGG | 1904 | GUUCGGCGUCCCUACGUAC | 1939 | AGACGGACGUGCUGCUUCU |
| 1835 | CGCGGCGCAGGUGUGUGGU | 1870 | CCCCAAGCCCUGUCGUGGU | 1905 | UUCGGCGUCCCUACGUACA | 1940 | GACGGACGUGCUGCUUCUU |
| 1836 | GCGGCGCAGGUGUGUGGUC | 1871 | CCCAAGCCCUGUCGUGGUG | 1906 | UCGGCGUCCCUACGUACAG | 1941 | ACGGACGUGCUGCUUCUUA |
| 1837 | CGGCGCAGGUGUGUGGUCC | 1872 | CCAAGCCCUGUCGUGGUGG | 1907 | CGGCGUCCCUACGUACAGU | 1942 | CGGACGUGCUGCUUCUUAA |
| 1838 | GGCGCAGGUGUGUGGUCCA | 1873 | CAAGCCCUGUCGUGGUGGG | 1908 | GGCGUCCCUACGUACAGUU | 1943 | GGACGUGCUGCUUCUUAAC |
| 1839 | GCGCAGGUGUGUGGUCCAG | 1874 | AAGCCCUGUCGUGGUGGGG | 1909 | GCGUCCCUACGUACAGUUG | 1944 | GACGUGCUGCUUCUUAACA |
| 1840 | CGCAGGUGUGUGGUCCAGU | 1875 | AGCCCUGUCGUGGUGGGGA | 1910 | CGUCCCUACGUACAGUUGG | 1945 | ACGUGCUGCUUCUUAACAA |
| 1841 | GCAGGUGUGUGGUCCAGUG | 1876 | GCCCUGUCGUGGUGGGGAC | 1911 | GUCCCUACGUACAGUUGGG | 1946 | CGUGCUGCUUCUUAACAAC |
| 1842 | CAGGUGUGUGGUCCAGUGU | 1877 | CCCUGUCGUGGUGGGGACG | 1912 | UCCCUACGUACAGUUGGGG | 1947 | GUGCUGCUUCUUAACAACA |
| 1843 | AGGUGUGUGGUCCAGUGUA | 1878 | CCUGUCGUGGUGGGGACGA | 1913 | CCCUACGUACAGUUGGGGG | 1948 | UGCUGCUUCUUAACAACAC |
| 1844 | GGUGUGUGGUCCAGUGUAC | 1879 | CUGUCGUGGUGGGGACGAC | 1914 | CCUACGUACAGUUGGGGGG | 1949 | GCUGCUUCUUAACAACACG |
| 1845 | GUGUGUGGUCCAGUGUACU | 1880 | UGUCGUGGUGGGGACGACC | 1915 | CUACGUACAGUUGGGGGGA | 1950 | CUGCUUCUUAACAACACGC |
| 1846 | UGUGUGGUCCAGUGUACUG | 1881 | GUCGUGGUGGGGACGACCG | 1916 | UACGUACAGUUGGGGGGAG | 1951 | UGCUUCUUAACAACACGCG |
| 1847 | GUGUGGUCCAGUGUACUGC | 1882 | UCGUGGUGGGGACGACCGA | 1917 | ACGUACAGUUGGGGGGAGA | 1952 | GCUUCUUAACAACACGCGG |
| 1848 | UGUGGUCCAGUGUACUGCU | 1883 | CGUGGUGGGGACGACCGAC | 1918 | CGUACAGUUGGGGGGAGAA | 1953 | CUUCUUAACAACACGCGGC |
| 1849 | GUGGUCCAGUGUACUGCUU | 1884 | GUGGUGGGGACGACCGACC | 1919 | GUACAGUUGGGGGGAGAAU | 1954 | UUCUUAACAACACGCGGCC |
| 1850 | UGGUCCAGUGUACUGCUUC | 1885 | UGGUGGGGACGACCGACCG | 1920 | UACAGUUGGGGGGAGAAUG | 1955 | UCUUAACAACACGCGGCCG |
| 1851 | GGUCCAGUGUACUGCUUCA | 1886 | GGUGGGGACGACCGACCGG | 1921 | ACAGUUGGGGGGAGAAUGA | 1956 | CUUAACAACACGCGGCCGC |
| 1852 | GUCCAGUGUACUGCUUCAC | 1887 | GUGGGGACGACCGACCGGU | 1922 | CAGUUGGGGGGAGAAUGAG | 1957 | UUAACAACACGCGGCCGCC |
| 1853 | UCCAGUGUACUGCUUCACC | 1888 | UGGGGACGACCGACCGGUU | 1923 | AGUUGGGGGGAGAAUGAGA | 1958 | UAACAACACGCGGCCGCCG |
| 1854 | CCAGUGUACUGCUUCACCC | 1889 | GGGGACGACCGACCGGUUC | 1924 | GUUGGGGGGAGAAUGAGAC | 1959 | AACAACACGCGGCCGCCGC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1960 | ACAACACGCGGCCGCCGCA | 1995 | UGUACAUGGAUGAAUAGCA | 2030 | GUGCGGGGGCCCCCCGUGU | 2065 | GCAAUAAAACCUUGACCUG |
| 1961 | CAACACGCGGCCGCCGCAA | 1996 | GUACAUGGAUGAAUAGCAC | 2031 | UGCGGGGGCCCCCCGUGUA | 2066 | CAAUAAAACCUUGACCUGC |
| 1962 | AACACGCGGCCGCCGCAAG | 1997 | UACAUGGAUGAAUAGCACU | 2032 | GCGGGGGCCCCCCGUGUAA | 2067 | AAUAAAACCUUGACCUGCC |
| 1963 | ACACGCGGCCGCCGCAAGG | 1998 | ACAUGGAUGAAUAGCACUG | 2033 | CGGGGGCCCCCCGUGUAAC | 2068 | AUAAAACCUUGACCUGCCC |
| 1964 | CACGCGGCCGCCGCAAGGC | 1999 | CAUGGAUGAAUAGCACUGG | 2034 | GGGGGCCCCCCGUGUAACA | 2069 | UAAAACCUUGACCUGCCCC |
| 1965 | ACGCGGCCGCCGCAAGGCA | 2000 | AUGGAUGAAUAGCACUGGG | 2035 | GGGGCCCCCCGUGUAACAU | 2070 | AAAACCUUGACCUGCCCCA |
| 1966 | CGCGGCCGCCGCAAGGCAA | 2001 | UGGAUGAAUAGCACUGGGU | 2036 | GGGCCCCCCGUGUAACAUC | 2071 | AAACCUUGACCUGCCCCAC |
| 1967 | GCGGCCGCCGCAAGGCAAC | 2002 | GGAUGAAUAGCACUGGGUU | 2037 | GGCCCCCCGUGUAACAUCG | 2072 | AACCUUGACCUGCCCCACG |
| 1968 | CGGCCGCCGCAAGGCAACU | 2003 | GAUGAAUAGCACUGGGUUC | 2038 | GCCCCCCGUGUAACAUCGG | 2073 | ACCUUGACCUGCCCCACGG |
| 1969 | GGCCGCCGCAAGGCAACUG | 2004 | AUGAAUAGCACUGGGUUCA | 2039 | CCCCCCGUGUAACAUCGGG | 2074 | CCUUGACCUGCCCCACGGA |
| 1970 | GCCGCCGCAAGGCAACUGG | 2005 | UGAAUAGCACUGGGUUCAC | 2040 | CCCCCGUGUAACAUCGGGG | 2075 | CUUGACCUGCCCCACGGAC |
| 1971 | CCGCCGCAAGGCAACUGGU | 2006 | GAAUAGCACUGGGUUCACC | 2041 | CCCCGUGUAACAUCGGGGG | 2076 | UUGACCUGCCCCACGGACU |
| 1972 | CGCCGCAAGGCAACUGGUU | 2007 | AAUAGCACUGGGUUCACCA | 2042 | CCCGUGUAACAUCGGGGGG | 2077 | UGACCUGCCCCACGGACUG |
| 1973 | GCCGCAAGGCAACUGGUUU | 2008 | AUAGCACUGGGUUCACCAA | 2043 | CCGUGUAACAUCGGGGGGA | 2078 | GACCUGCCCCACGGACUGC |
| 1974 | CCGCAAGGCAACUGGUUUG | 2009 | UAGCACUGGGUUCACCAAG | 2044 | CGUGUAACAUCGGGGGGAU | 2079 | ACCUGCCCCACGGACUGCU |
| 1975 | CGCAAGGCAACUGGUUUGG | 2010 | AGCACUGGGUUCACCAAGA | 2045 | GUGUAACAUCGGGGGGAUC | 2080 | CCUGCCCCACGGACUGCUU |
| 1976 | GCAAGGCAACUGGUUUGGC | 2011 | GCACUGGGUUCACCAAGAC | 2046 | UGUAACAUCGGGGGGAUCG | 2081 | CUGCCCCACGGACUGCUUC |
| 1977 | CAAGGCAACUGGUUUGGCU | 2012 | CACUGGGUUCACCAAGACG | 2047 | GUAACAUCGGGGGGAUCGG | 2082 | UGCCCCACGGACUGCUUCC |
| 1978 | AAGGCAACUGGUUUGGCUG | 2013 | ACUGGGUUCACCAAGACGU | 2048 | UAACAUCGGGGGGAUCGGC | 2083 | GCCCCACGGACUGCUUCCG |
| 1979 | AGGCAACUGGUUUGGCUGU | 2014 | CUGGGUUCACCAAGACGUG | 2049 | AACAUCGGGGGGAUCGGCA | 2084 | CCCCACGGACUGCUUCCGG |
| 1980 | GGCAACUGGUUUGGCUGUA | 2015 | UGGGUUCACCAAGACGUGC | 2050 | ACAUCGGGGGGAUCGGCAA | 2085 | CCCACGGACUGCUUCCGGA |
| 1981 | GCAACUGGUUUGGCUGUAC | 2016 | GGGUUCACCAAGACGUGCG | 2051 | CAUCGGGGGGAUCGGCAAU | 2086 | CCACGGACUGCUUCCGGAA |
| 1982 | CAACUGGUUUGGCUGUACA | 2017 | GGUUCACCAAGACGUGCGG | 2052 | AUCGGGGGGAUCGGCAAUA | 2087 | CACGGACUGCUUCCGGAAG |
| 1983 | AACUGGUUUGGCUGUACAU | 2018 | GUUCACCAAGACGUGCGGG | 2053 | UCGGGGGGAUCGGCAAUAA | 2088 | ACGGACUGCUUCCGGAAGC |
| 1984 | ACUGGUUUGGCUGUACAUG | 2019 | UUCACCAAGACGUGCGGGG | 2054 | CGGGGGGAUCGGCAAUAAA | 2089 | CGGACUGCUUCCGGAAGCA |
| 1985 | CUGGUUUGGCUGUACAUGG | 2020 | UCACCAAGACGUGCGGGGG | 2055 | GGGGGGAUCGGCAAUAAAA | 2090 | GGACUGCUUCCGGAAGCAC |
| 1986 | UGGUUUGGCUGUACAUGGA | 2021 | CACCAAGACGUGCGGGGGC | 2056 | GGGGGAUCGGCAAUAAAAC | 2091 | GACUGCUUCCGGAAGCACC |
| 1987 | GGUUUGGCUGUACAUGGAU | 2022 | ACCAAGACGUGCGGGGGCC | 2057 | GGGGAUCGGCAAUAAAACC | 2092 | ACUGCUUCCGGAAGCACCC |
| 1988 | GUUUGGCUGUACAUGGAUG | 2023 | CCAAGACGUGCGGGGGCCC | 2058 | GGGAUCGGCAAUAAAACCU | 2093 | CUGCUUCCGGAAGCACCCC |
| 1989 | UUUGGCUGUACAUGGAUGA | 2024 | CAAGACGUGCGGGGGCCCC | 2059 | GGAUCGGCAAUAAAACCUU | 2094 | UGCUUCCGGAAGCACCCCG |
| 1990 | UUGGCUGUACAUGGAUGAA | 2025 | AAGACGUGCGGGGGCCCCC | 2060 | GAUCGGCAAUAAAACCUUG | 2095 | GCUUCCGGAAGCACCCCGA |
| 1991 | UGGCUGUACAUGGAUGAAU | 2026 | AGACGUGCGGGGGCCCCCC | 2061 | AUCGGCAAUAAAACCUUGA | 2096 | CUUCCGGAAGCACCCCGAG |
| 1992 | GGCUGUACAUGGAUGAAUA | 2027 | GACGUGCGGGGGCCCCCCG | 2062 | UCGGCAAUAAAACCUUGAC | 2097 | UUCCGGAAGCACCCCGAGG |
| 1993 | GCUGUACAUGGAUGAAUAG | 2028 | ACGUGCGGGGGCCCCCCGU | 2063 | CGGCAAUAAAACCUUGACC | 2098 | UCCGGAAGCACCCCGAGGC |
| 1994 | CUGUACAUGGAUGAAUAGC | 2029 | CGUGCGGGGGCCCCCCGUG | 2064 | GGCAAUAAAACCUUGACCU | 2099 | CCGGAAGCACCCCGAGGCC |



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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2100 | CGGAAGCACCCCGAGGCCA | 2135 | UUCGGGGCCUUGGUUGACA | 2170 | ACUACCCAUACAGGCUUUG | 2205 | GUCAACUUUACCAUCUUCA |
| 2101 | GGAAGCACCCCGAGGCCAC | 2136 | UCGGGGCCUUGGUUGACAC | 2171 | CUACCCAUACAGGCUUUGG | 2206 | UCAACUUUACCAUCUUCAA |
| 2102 | GAAGCACCCCGAGGCCACU | 2137 | CGGGGCCUUGGUUGACACC | 2172 | UACCCAUACAGGCUUUGGC | 2207 | CAACUUUACCAUCUUCAAG |
| 2103 | AAGCACCCCGAGGCCACUU | 2138 | GGGGCCUUGGUUGACACCC | 2173 | ACCCAUACAGGCUUUGGCA | 2208 | AACUUUACCAUCUUCAAGG |
| 2104 | AGCACCCCGAGGCCACUUA | 2139 | GGGCCUUGGUUGACACCCA | 2174 | CCCAUACAGGCUUUGGCAC | 2209 | ACUUUACCAUCUUCAAGGU |
| 2105 | GCACCCCGAGGCCACUUAC | 2140 | GGCCUUGGUUGACACCCAG | 2175 | CCAUACAGGCUUUGGCACU | 2210 | CUUUACCAUCUUCAAGGUU |
| 2106 | CACCCCGAGGCCACUUACA | 2141 | GCCUUGGUUGACACCCAGA | 2176 | CAUACAGGCUUUGGCACUA | 2211 | UUUACCAUCUUCAAGGUUA |
| 2107 | ACCCCGAGGCCACUUACAC | 2142 | CCUUGGUUGACACCCAGAU | 2177 | AUACAGGCUUUGGCACUAC | 2212 | UUACCAUCUUCAAGGUUAG |
| 2108 | CCCCGAGGCCACUUACACC | 2143 | CUUGGUUGACACCCAGAUG | 2178 | UACAGGCUUUGGCACUACC | 2213 | UACCAUCUUCAAGGUUAGG |
| 2109 | CCCGAGGCCACUUACACCA | 2144 | UUGGUUGACACCCAGAUGC | 2179 | ACAGGCUUUGGCACUACCC | 2214 | ACCAUCUUCAAGGUUAGGA |
| 2110 | CCGAGGCCACUUACACCAA | 2145 | UGGUUGACACCCAGAUGCU | 2180 | CAGGCUUUGGCACUACCCC | 2215 | CCAUCUUCAAGGUUAGGAU |
| 2111 | CGAGGCCACUUACACCAAG | 2146 | GGUUGACACCCAGAUGCUU | 2181 | AGGCUUUGGCACUACCCCU | 2216 | CAUCUUCAAGGUUAGGAUG |
| 2112 | GAGGCCACUUACACCAAGU | 2147 | GUUGACACCCAGAUGCUUG | 2182 | GGCUUUGGCACUACCCCUG | 2217 | AUCUUCAAGGUUAGGAUGU |
| 2113 | AGGCCACUUACACCAAGUG | 2148 | UUGACACCCAGAUGCUUGG | 2183 | GCUUUGGCACUACCCCUGC | 2218 | UCUUCAAGGUUAGGAUGUA |
| 2114 | GGCCACUUACACCAAGUGU | 2149 | UGACACCCAGAUGCUUGGU | 2184 | CUUUGGCACUACCCCUGCA | 2219 | CUUCAAGGUUAGGAUGUAC |
| 2115 | GCCACUUACACCAAGUGUG | 2150 | GACACCCAGAUGCUUGGUC | 2185 | UUUGGCACUACCCCUGCAC | 2220 | UUCAAGGUUAGGAUGUACG |
| 2116 | CCACUUACACCAAGUGUGG | 2151 | ACACCCAGAUGCUUGGUCC | 2186 | UUGGCACUACCCCUGCACU | 2221 | UCAAGGUUAGGAUGUACGU |
| 2117 | CACUUACACCAAGUGUGGU | 2152 | CACCCAGAUGCUUGGUCCA | 2187 | UGGCACUACCCCUGCACUG | 2222 | CAAGGUUAGGAUGUACGUG |
| 2118 | ACUUACACCAAGUGUGGUU | 2153 | ACCCAGAUGCUUGGUCCAC | 2188 | GGCACUACCCCUGCACUGU | 2223 | AAGGUUAGGAUGUACGUGG |
| 2119 | CUUACACCAAGUGUGGUUC | 2154 | CCCAGAUGCUUGGUCCACU | 2189 | GCACUACCCCUGCACUGUC | 2224 | AGGUUAGGAUGUACGUGGG |
| 2120 | UUACACCAAGUGUGGUUCG | 2155 | CCAGAUGCUUGGUCCACUA | 2190 | CACUACCCCUGCACUGUCA | 2225 | GGUUAGGAUGUACGUGGGG |
| 2121 | UACACCAAGUGUGGUUCGG | 2156 | CAGAUGCUUGGUCCACUAC | 2191 | ACUACCCCUGCACUGUCAA | 2226 | GUUAGGAUGUACGUGGGGG |
| 2122 | ACACCAAGUGUGGUUCGGG | 2157 | AGAUGCUUGGUCCACUACC | 2192 | CUACCCCUGCACUGUCAAC | 2227 | UUAGGAUGUACGUGGGGGG |
| 2123 | CACCAAGUGUGGUUCGGGG | 2158 | GAUGCUUGGUCCACUACCC | 2193 | UACCCCUGCACUGUCAACU | 2228 | UAGGAUGUACGUGGGGGGA |
| 2124 | ACCAAGUGUGGUUCGGGGC | 2159 | AUGCUUGGUCCACUACCCA | 2194 | ACCCCUGCACUGUCAACUU | 2229 | AGGAUGUACGUGGGGGGAG |
| 2125 | CCAAGUGUGGUUCGGGGCC | 2160 | UGCUUGGUCCACUACCCAU | 2195 | CCCCUGCACUGUCAACUUU | 2230 | GGAUGUACGUGGGGGGAGU |
| 2126 | CAAGUGUGGUUCGGGGCCU | 2161 | GCUUGGUCCACUACCCAUA | 2196 | CCCUGCACUGUCAACUUUA | 2231 | GAUGUACGUGGGGGGAGUG |
| 2127 | AAGUGUGGUUCGGGGCCUU | 2162 | CUUGGUCCACUACCCAUAC | 2197 | CCUGCACUGUCAACUUUAC | 2232 | AUGUACGUGGGGGGAGUGG |
| 2128 | AGUGUGGUUCGGGGCCUUG | 2163 | UUGGUCCACUACCCAUACA | 2198 | CUGCACUGUCAACUUUACC | 2233 | UGUACGUGGGGGGAGUGGA |
| 2129 | GUGUGGUUCGGGGCCUUGG | 2164 | UGGUCCACUACCCAUACAG | 2199 | UGCACUGUCAACUUUACCA | 2234 | GUACGUGGGGGGAGUGGAG |
| 2130 | UGUGGUUCGGGGCCUUGGU | 2165 | GGUCCACUACCCAUACAGG | 2200 | GCACUGUCAACUUUACCAU | 2235 | UACGUGGGGGGAGUGGAGC |
| 2131 | GUGGUUCGGGGCCUUGGUU | 2166 | GUCCACUACCCAUACAGGC | 2201 | CACUGUCAACUUUACCAUC | 2236 | ACGUGGGGGGAGUGGAGCA |
| 2132 | UGGUUCGGGGCCUUGGUUG | 2167 | UCCACUACCCAUACAGGCU | 2202 | ACUGUCAACUUUACCAUCU | 2237 | CGUGGGGGGAGUGGAGCAC |
| 2133 | GGUUCGGGGCCUUGGUUGA | 2168 | CCACUACCCAUACAGGCUU | 2203 | CUGUCAACUUUACCAUCUU | 2238 | GUGGGGGGAGUGGAGCACA |
| 2134 | GUUCGGGGCCUUGGUUGAC | 2169 | CACUACCCAUACAGGCUUU | 2204 | UGUCAACUUUACCAUCUUC | 2239 | UGGGGGGAGUGGAGCACAG |



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| | |
|---|---|
| 2240 | GGGGGGAGUGGAGCACAGG |
| 2241 | GGGGGAGUGGAGCACAGGC |
| 2242 | GGGGAGUGGAGCACAGGCU |
| 2243 | GGGAGUGGAGCACAGGCUC |
| 2244 | GGAGUGGAGCACAGGCUCG |
| 2245 | GAGUGGAGCACAGGCUCGA |
| 2246 | AGUGGAGCACAGGCUCGAA |
| 2247 | GUGGAGCACAGGCUCGAAG |
| 2248 | UGGAGCACAGGCUCGAAGC |
| 2249 | GGAGCACAGGCUCGAAGCC |
| 2250 | GAGCACAGGCUCGAAGCCG |
| 2251 | AGCACAGGCUCGAAGCCGC |
| 2252 | GCACAGGCUCGAAGCCGCA |
| 2253 | CACAGGCUCGAAGCCGCAU |
| 2254 | ACAGGCUCGAAGCCGCAUG |
| 2255 | CAGGCUCGAAGCCGCAUGC |
| 2256 | AGGCUCGAAGCCGCAUGCA |
| 2257 | GGCUCGAAGCCGCAUGCAA |
| 2258 | GCUCGAAGCCGCAUGCAAU |
| 2259 | CUCGAAGCCGCAUGCAAUU |
| 2260 | UCGAAGCCGCAUGCAAUUG |
| 2261 | CGAAGCCGCAUGCAAUUGG |
| 2262 | GAAGCCGCAUGCAAUUGGA |
| 2263 | AAGCCGCAUGCAAUUGGAC |
| 2264 | AGCCGCAUGCAAUUGGACU |
| 2265 | GCCGCAUGCAAUUGGACUC |
| 2266 | CCGCAUGCAAUUGGACUCG |
| 2267 | CGCAUGCAAUUGGACUCGA |
| 2268 | GCAUGCAAUUGGACUCGAG |
| 2269 | CAUGCAAUUGGACUCGAGG |
| 2270 | AUGCAAUUGGACUCGAGGA |
| 2271 | UGCAAUUGGACUCGAGGAG |
| 2272 | GCAAUUGGACUCGAGGAGA |
| 2273 | CAAUUGGACUCGAGGAGAG |
| 2274 | AAUUGGACUCGAGGAGAGC |
| 2275 | AUUGGACUCGAGGAGAGCG |
| 2276 | UUGGACUCGAGGAGAGCGU |
| 2277 | UGGACUCGAGGAGAGCGUU |
| 2278 | GGACUCGAGGAGAGCGUUG |
| 2279 | GACUCGAGGAGAGCGUUGU |
| 2280 | ACUCGAGGAGAGCGUUGUA |
| 2281 | CUCGAGGAGAGCGUUGUAA |
| 2282 | UCGAGGAGAGCGUUGUAAC |
| 2283 | CGAGGAGAGCGUUGUAACC |
| 2284 | GAGGAGAGCGUUGUAACCU |
| 2285 | AGGAGAGCGUUGUAACCUG |
| 2286 | GGAGAGCGUUGUAACCUGG |
| 2287 | GAGAGCGUUGUAACCUGGA |
| 2288 | AGAGCGUUGUAACCUGGAG |
| 2289 | GAGCGUUGUAACCUGGAGG |
| 2290 | AGCGUUGUAACCUGGAGGA |
| 2291 | GCGUUGUAACCUGGAGGAC |
| 2292 | CGUUGUAACCUGGAGGACA |
| 2293 | GUUGUAACCUGGAGGACAG |
| 2294 | UUGUAACCUGGAGGACAGG |
| 2295 | UGUAACCUGGAGGACAGGG |
| 2296 | GUAACCUGGAGGACAGGGA |
| 2297 | UAACCUGGAGGACAGGGAC |
| 2298 | AACCUGGAGGACAGGGACA |
| 2299 | ACCUGGAGGACAGGGACAG |
| 2300 | CCUGGAGGACAGGGACAGA |
| 2301 | CUGGAGGACAGGGACAGAU |
| 2302 | UGGAGGACAGGGACAGAUC |
| 2303 | GGAGGACAGGGACAGAUCA |
| 2304 | GAGGACAGGGACAGAUCAG |
| 2305 | AGGACAGGGACAGAUCAGA |
| 2306 | GGACAGGGACAGAUCAGAG |
| 2307 | GACAGGGACAGAUCAGAGC |
| 2308 | ACAGGGACAGAUCAGAGCU |
| 2309 | CAGGGACAGAUCAGAGCUU |
| 2310 | AGGGACAGAUCAGAGCUUA |
| 2311 | GGGACAGAUCAGAGCUUAG |
| 2312 | GGACAGAUCAGAGCUUAGC |
| 2313 | GACAGAUCAGAGCUUAGCC |
| 2314 | ACAGAUCAGAGCUUAGCCC |
| 2315 | CAGAUCAGAGCUUAGCCCG |
| 2316 | AGAUCAGAGCUUAGCCCGC |
| 2317 | GAUCAGAGCUUAGCCCGCU |
| 2318 | AUCAGAGCUUAGCCCGCUG |
| 2319 | UCAGAGCUUAGCCCGCUGC |
| 2320 | CAGAGCUUAGCCCGCUGCU |
| 2321 | AGAGCUUAGCCCGCUGCUG |
| 2322 | GAGCUUAGCCCGCUGCUGC |
| 2323 | AGCUUAGCCCGCUGCUGCU |
| 2324 | GCUUAGCCCGCUGCUGCUG |
| 2325 | CUUAGCCCGCUGCUGCUGU |
| 2326 | UUAGCCCGCUGCUGCUGUC |
| 2327 | UAGCCCGCUGCUGCUGUCU |
| 2328 | AGCCCGCUGCUGCUGUCUA |
| 2329 | GCCCGCUGCUGCUGUCUAC |
| 2330 | CCCGCUGCUGCUGUCUACA |
| 2331 | CCGCUGCUGCUGUCUACAA |
| 2332 | CGCUGCUGCUGUCUACAAC |
| 2333 | GCUGCUGCUGUCUACAACG |
| 2334 | CUGCUGCUGUCUACAACGG |
| 2335 | UGCUGCUGUCUACAACGGA |
| 2336 | GCUGCUGUCUACAACGGAG |
| 2337 | CUGCUGUCUACAACGGAGU |
| 2338 | UGCUGUCUACAACGGAGUG |
| 2339 | GCUGUCUACAACGGAGUGG |
| 2340 | CUGUCUACAACGGAGUGGC |
| 2341 | UGUCUACAACGGAGUGGCA |
| 2342 | GUCUACAACGGAGUGGCAG |
| 2343 | UCUACAACGGAGUGGCAGG |
| 2344 | CUACAACGGAGUGGCAGGU |
| 2345 | UACAACGGAGUGGCAGGUA |
| 2346 | ACAACGGAGUGGCAGGUAU |
| 2347 | CAACGGAGUGGCAGGUAUU |
| 2348 | AACGGAGUGGCAGGUAUUG |
| 2349 | ACGGAGUGGCAGGUAUUGC |
| 2350 | CGGAGUGGCAGGUAUUGCC |
| 2351 | GGAGUGGCAGGUAUUGCCC |
| 2352 | GAGUGGCAGGUAUUGCCCU |
| 2353 | AGUGGCAGGUAUUGCCCUG |
| 2354 | GUGGCAGGUAUUGCCCUGU |
| 2355 | UGGCAGGUAUUGCCCUGUU |
| 2356 | GGCAGGUAUUGCCCUGUUC |
| 2357 | GCAGGUAUUGCCCUGUUCC |
| 2358 | CAGGUAUUGCCCUGUUCCU |
| 2359 | AGGUAUUGCCCUGUUCCUU |
| 2360 | GGUAUUGCCCUGUUCCUUC |
| 2361 | GUAUUGCCCUGUUCCUUCA |
| 2362 | UAUUGCCCUGUUCCUUCAC |
| 2363 | AUUGCCCUGUUCCUUCACC |
| 2364 | UUGCCCUGUUCCUUCACCA |
| 2365 | UGCCCUGUUCCUUCACCAC |
| 2366 | GCCCUGUUCCUUCACCACC |
| 2367 | CCCUGUUCCUUCACCACCC |
| 2368 | CCUGUUCCUUCACCACCCU |
| 2369 | CUGUUCCUUCACCACCCUA |
| 2370 | UGUUCCUUCACCACCCUAC |
| 2371 | GUUCCUUCACCACCCUACC |
| 2372 | UUCCUUCACCACCCUACCG |
| 2373 | UCCUUCACCACCCUACCGG |
| 2374 | CCUUCACCACCCUACCGGC |
| 2375 | CUUCACCACCCUACCGGCU |
| 2376 | UUCACCACCCUACCGGCUC |
| 2377 | UCACCACCCUACCGGCUCU |
| 2378 | CACCACCCUACCGGCUCUG |
| 2379 | ACCACCCUACCGGCUCUGU |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2380 | CCACCCUACCGGCUCUGUC | 2415 | CUCCAUCAGAACGUCGUGG | 2450 | CGGUAUAGGGUCGGCGGUU | 2485 | AAUGGGAGUAUGUCCUGUU |
| 2381 | CACCCUACCGGCUCUGUCC | 2416 | UCCAUCAGAACGUCGUGGA | 2451 | GGUAUAGGGUCGGCGGUUG | 2486 | AUGGGAGUAUGUCCUGUUG |
| 2382 | ACCCUACCGGCUCUGUCCA | 2417 | CCAUCAGAACGUCGUGGAC | 2452 | GUAUAGGGUCGGCGGUUGU | 2487 | UGGGAGUAUGUCCUGUUGC |
| 2383 | CCCUACCGGCUCUGUCCAC | 2418 | CAUCAGAACGUCGUGGACG | 2453 | UAUAGGGUCGGCGGUUGUC | 2488 | GGGAGUAUGUCCUGUUGCU |
| 2384 | CCUACCGGCUCUGUCCACU | 2419 | AUCAGAACGUCGUGGACGU | 2454 | AUAGGGUCGGCGGUUGUCU | 2489 | GGAGUAUGUCCUGUUGCUC |
| 2385 | CUACCGGCUCUGUCCACUG | 2420 | UCAGAACGUCGUGGACGUA | 2455 | UAGGGUCGGCGGUUGUCUC | 2490 | GAGUAUGUCCUGUUGCUCU |
| 2386 | UACCGGCUCUGUCCACUGG | 2421 | CAGAACGUCGUGGACGUAC | 2456 | AGGGUCGGCGGUUGUCUCC | 2491 | AGUAUGUCCUGUUGCUCUU |
| 2387 | ACCGGCUCUGUCCACUGGU | 2422 | AGAACGUCGUGGACGUACA | 2457 | GGGUCGGCGGUUGUCUCCU | 2492 | GUAUGUCCUGUUGCUCUUC |
| 2388 | CCGGCUCUGUCCACUGGUU | 2423 | GAACGUCGUGGACGUACAA | 2458 | GGUCGGCGGUUGUCUCCUU | 2493 | UAUGUCCUGUUGCUCUUCC |
| 2389 | CGGCUCUGUCCACUGGUUU | 2424 | AACGUCGUGGACGUACAAU | 2459 | GUCGGCGGUUGUCUCCUUU | 2494 | AUGUCCUGUUGCUCUUCCU |
| 2390 | GGCUCUGUCCACUGGUUUG | 2425 | ACGUCGUGGACGUACAAUA | 2460 | UCGGCGGUUGUCUCCUUUG | 2495 | UGUCCUGUUGCUCUUCCUU |
| 2391 | GCUCUGUCCACUGGUUUGA | 2426 | CGUCGUGGACGUACAAUAC | 2461 | CGGCGGUUGUCUCCUUUGC | 2496 | GUCCUGUUGCUCUUCCUUC |
| 2392 | CUCUGUCCACUGGUUUGAU | 2427 | GUCGUGGACGUACAAUACC | 2462 | GGCGGUUGUCUCCUUUGCA | 2497 | UCCUGUUGCUCUUCCUUCU |
| 2393 | UCUGUCCACUGGUUUGAUC | 2428 | UCGUGGACGUACAAUACCU | 2463 | GCGGUUGUCUCCUUUGCAA | 2498 | CCUGUUGCUCUUCCUUCUU |
| 2394 | CUGUCCACUGGUUUGAUCC | 2429 | CGUGGACGUACAAUACCUG | 2464 | CGGUUGUCUCCUUUGCAAU | 2499 | CUGUUGCUCUUCCUUCUUC |
| 2395 | UGUCCACUGGUUUGAUCCA | 2430 | GUGGACGUACAAUACCUGU | 2465 | GGUUGUCUCCUUUGCAAUC | 2500 | UGUUGCUCUUCCUUCUUCU |
| 2396 | GUCCACUGGUUUGAUCCAU | 2431 | UGGACGUACAAUACCUGUA | 2466 | GUUGUCUCCUUUGCAAUCA | 2501 | GUUGCUCUUCCUUCUUCUG |
| 2397 | UCCACUGGUUUGAUCCAUC | 2432 | GGACGUACAAUACCUGUAC | 2467 | UUGUCUCCUUUGCAAUCAA | 2502 | UUGCUCUUCCUUCUUCUGG |
| 2398 | CCACUGGUUUGAUCCAUCU | 2433 | GACGUACAAUACCUGUACG | 2468 | UGUCUCCUUUGCAAUCAAA | 2503 | UGCUCUUCCUUCUUCUGGC |
| 2399 | CACUGGUUUGAUCCAUCUC | 2434 | ACGUACAAUACCUGUACGG | 2469 | GUCUCCUUUGCAAUCAAAU | 2504 | GCUCUUCCUUCUUCUGGCG |
| 2400 | ACUGGUUUGAUCCAUCUCC | 2435 | CGUACAAUACCUGUACGGU | 2470 | UCUCCUUUGCAAUCAAAUG | 2505 | CUCUUCCUUCUUCUGGCGG |
| 2401 | CUGGUUUGAUCCAUCUCCA | 2436 | GUACAAUACCUGUACGGUA | 2471 | CUCCUUUGCAAUCAAAUGG | 2506 | UCUUCCUUCUUCUGGCGGA |
| 2402 | UGGUUUGAUCCAUCUCCAU | 2437 | UACAAUACCUGUACGGUAU | 2472 | UCCUUUGCAAUCAAAUGGG | 2507 | CUUCCUUCUUCUGGCGGAC |
| 2403 | GGUUUGAUCCAUCUCCAUC | 2438 | ACAAUACCUGUACGGUAUA | 2473 | CCUUUGCAAUCAAAUGGGA | 2508 | UUCCUUCUUCUGGCGGACG |
| 2404 | GUUUGAUCCAUCUCCAUCA | 2439 | CAAUACCUGUACGGUAUAG | 2474 | CUUUGCAAUCAAAUGGGAG | 2509 | UCCUUCUUCUGGCGGACGC |
| 2405 | UUUGAUCCAUCUCCAUCAG | 2440 | AAUACCUGUACGGUAUAGG | 2475 | UUUGCAAUCAAAUGGGAGU | 2510 | CCUUCUUCUGGCGGACGCG |
| 2406 | UUGAUCCAUCUCCAUCAGA | 2441 | AUACCUGUACGGUAUAGGG | 2476 | UUGCAAUCAAAUGGGAGUA | 2511 | CUUCUUCUGGCGGACGCGC |
| 2407 | UGAUCCAUCUCCAUCAGAA | 2442 | UACCUGUACGGUAUAGGGU | 2477 | UGCAAUCAAAUGGGAGUAU | 2512 | UUCUUCUGGCGGACGCGCG |
| 2408 | GAUCCAUCUCCAUCAGAAC | 2443 | ACCUGUACGGUAUAGGGUC | 2478 | GCAAUCAAAUGGGAGUAUG | 2513 | UCUUCUGGCGGACGCGCGC |
| 2409 | AUCCAUCUCCAUCAGAACG | 2444 | CCUGUACGGUAUAGGGUCG | 2479 | CAAUCAAAUGGGAGUAUGU | 2514 | CUUCUGGCGGACGCGCGCG |
| 2410 | UCCAUCUCCAUCAGAACGU | 2445 | CUGUACGGUAUAGGGUCGG | 2480 | AAUCAAAUGGGAGUAUGUC | 2515 | UUCUGGCGGACGCGCGCGU |
| 2411 | CCAUCUCCAUCAGAACGUC | 2446 | UGUACGGUAUAGGGUCGGC | 2481 | AUCAAAUGGGAGUAUGUCC | 2516 | UCUGGCGGACGCGCGCGUC |
| 2412 | CAUCUCCAUCAGAACGUCG | 2447 | GUACGGUAUAGGGUCGGCG | 2482 | UCAAAUGGGAGUAUGUCCU | 2517 | CUGGCGGACGCGCGCGUCU |
| 2413 | AUCUCCAUCAGAACGUCGU | 2448 | UACGGUAUAGGGUCGGCGG | 2483 | CAAAUGGGAGUAUGUCCUG | 2518 | UGGCGGACGCGCGCGUCUG |
| 2414 | UCUCCAUCAGAACGUCGUG | 2449 | ACGGUAUAGGGUCGGCGGU | 2484 | AAAUGGGAGUAUGUCCUGU | 2519 | GGCGGACGCGCGCGUCUGU |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2520 | GCGGACGCGCGCGUCUGUG | 2555 | GCUGCUGAUAGCUCAAGCU | 2590 | ACCUGGUGGUCCUCAACGC | 2625 | GCGCAUGGCAUUCUCUCCU |
| 2521 | CGGACGCGCGCGUCUGUGC | 2556 | CUGCUGAUAGCUCAAGCUG | 2591 | CCUGGUGGUCCUCAACGCG | 2626 | CGCAUGGCAUUCUCUCCUU |
| 2522 | GGACGCGCGCGUCUGUGCC | 2557 | UGCUGAUAGCUCAAGCUGA | 2592 | CUGGUGGUCCUCAACGCGG | 2627 | GCAUGGCAUUCUCUCCUUC |
| 2523 | GACGCGCGCGUCUGUGCCU | 2558 | GCUGAUAGCUCAAGCUGAG | 2593 | UGGUGGUCCUCAACGCGGC | 2628 | CAUGGCAUUCUCUCCUUCC |
| 2524 | ACGCGCGCGUCUGUGCCUG | 2559 | CUGAUAGCUCAAGCUGAGG | 2594 | GGUGGUCCUCAACGCGGCA | 2629 | AUGGCAUUCUCUCCUUCCU |
| 2525 | CGCGCGCGUCUGUGCCUGC | 2560 | UGAUAGCUCAAGCUGAGGC | 2595 | GUGGUCCUCAACGCGGCAU | 2630 | UGGCAUUCUCUCCUUCCUC |
| 2526 | GCGCGCGUCUGUGCCUGCU | 2561 | GAUAGCUCAAGCUGAGGCC | 2596 | UGGUCCUCAACGCGGCAUC | 2631 | GGCAUUCUCUCCUUCCUCG |
| 2527 | CGCGCGUCUGUGCCUGCUU | 2562 | AUAGCUCAAGCUGAGGCCG | 2597 | GGUCCUCAACGCGGCAUCC | 2632 | GCAUUCUCUCCUUCCUCGU |
| 2528 | GCGCGUCUGUGCCUGCUUG | 2563 | UAGCUCAAGCUGAGGCCGC | 2598 | GUCCUCAACGCGGCAUCCG | 2633 | CAUUCUCUCCUUCCUCGUG |
| 2529 | CGCGUCUGUGCCUGCUUGU | 2564 | AGCUCAAGCUGAGGCCGCC | 2599 | UCCUCAACGCGGCAUCCGU | 2634 | AUUCUCUCCUUCCUCGUGU |
| 2530 | GCGUCUGUGCCUGCUUGUG | 2565 | GCUCAAGCUGAGGCCGCCC | 2600 | CCUCAACGCGGCAUCCGUG | 2635 | UUCUCUCCUUCCUCGUGUU |
| 2531 | CGUCUGUGCCUGCUUGUGG | 2566 | CUCAAGCUGAGGCCGCCCU | 2601 | CUCAACGCGGCAUCCGUGG | 2636 | UCUCUCCUUCCUCGUGUUC |
| 2532 | GUCUGUGCCUGCUUGUGGA | 2567 | UCAAGCUGAGGCCGCCCUA | 2602 | UCAACGCGGCAUCCGUGGC | 2637 | CUCUCCUUCCUCGUGUUCU |
| 2533 | UCUGUGCCUGCUUGUGGAU | 2568 | CAAGCUGAGGCCGCCCUAG | 2603 | CAACGCGGCAUCCGUGGCC | 2638 | UCUCCUUCCUCGUGUUCUU |
| 2534 | CUGUGCCUGCUUGUGGAUG | 2569 | AAGCUGAGGCCGCCCUAGA | 2604 | AACGCGGCAUCCGUGGCCG | 2639 | CUCCUUCCUCGUGUUCUUC |
| 2535 | UGUGCCUGCUUGUGGAUGA | 2570 | AGCUGAGGCCGCCCUAGAG | 2605 | ACGCGGCAUCCGUGGCCGG | 2640 | UCCUUCCUCGUGUUCUUCU |
| 2536 | GUGCCUGCUUGUGGAUGAU | 2571 | GCUGAGGCCGCCCUAGAGA | 2606 | CGCGGCAUCCGUGGCCGGG | 2641 | CCUUCCUCGUGUUCUUCUG |
| 2537 | UGCCUGCUUGUGGAUGAUG | 2572 | CUGAGGCCGCCCUAGAGAA | 2607 | GCGGCAUCCGUGGCCGGGG | 2642 | CUUCCUCGUGUUCUUCUGU |
| 2538 | GCCUGCUUGUGGAUGAUGC | 2573 | UGAGGCCGCCCUAGAGAAC | 2608 | CGGCAUCCGUGGCCGGGGC | 2643 | UUCCUCGUGUUCUUCUGUG |
| 2539 | CCUGCUUGUGGAUGAUGCU | 2574 | GAGGCCGCCCUAGAGAACC | 2609 | GGCAUCCGUGGCCGGGGCG | 2644 | UCCUCGUGUUCUUCUGUGC |
| 2540 | CUGCUUGUGGAUGAUGCUG | 2575 | AGGCCGCCCUAGAGAACCU | 2610 | GCAUCCGUGGCCGGGGCGC | 2645 | CCUCGUGUUCUUCUGUGCU |
| 2541 | UGCUUGUGGAUGAUGCUGC | 2576 | GGCCGCCCUAGAGAACCUG | 2611 | CAUCCGUGGCCGGGGCGCA | 2646 | CUCGUGUUCUUCUGUGCUG |
| 2542 | GCUUGUGGAUGAUGCUGCU | 2577 | GCCGCCCUAGAGAACCUGG | 2612 | AUCCGUGGCCGGGGCGCAU | 2647 | UCGUGUUCUUCUGUGCUGC |
| 2543 | CUUGUGGAUGAUGCUGCUG | 2578 | CCGCCCUAGAGAACCUGGU | 2613 | UCCGUGGCCGGGGCGCAUG | 2648 | CGUGUUCUUCUGUGCUGCC |
| 2544 | UUGUGGAUGAUGCUGCUGA | 2579 | CGCCCUAGAGAACCUGGUG | 2614 | CCGUGGCCGGGGCGCAUGG | 2649 | GUGUUCUUCUGUGCUGCCU |
| 2545 | UGUGGAUGAUGCUGCUGAU | 2580 | GCCCUAGAGAACCUGGUGG | 2615 | CGUGGCCGGGGCGCAUGGC | 2650 | UGUUCUUCUGUGCUGCCUG |
| 2546 | GUGGAUGAUGCUGCUGAUA | 2581 | CCCUAGAGAACCUGGUGGU | 2616 | GUGGCCGGGGCGCAUGGCA | 2651 | GUUCUUCUGUGCUGCCUGG |
| 2547 | UGGAUGAUGCUGCUGAUAG | 2582 | CCUAGAGAACCUGGUGGUC | 2617 | UGGCCGGGGCGCAUGGCAU | 2652 | UUCUUCUGUGCUGCCUGGU |
| 2548 | GGAUGAUGCUGCUGAUAGC | 2583 | CUAGAGAACCUGGUGGUCC | 2618 | GGCCGGGGCGCAUGGCAUU | 2653 | UCUUCUGUGCUGCCUGGUA |
| 2549 | GAUGAUGCUGCUGAUAGCU | 2584 | UAGAGAACCUGGUGGUCCU | 2619 | GCCGGGGCGCAUGGCAUUC | 2654 | CUUCUGUGCUGCCUGGUAC |
| 2550 | AUGAUGCUGCUGAUAGCUC | 2585 | AGAGAACCUGGUGGUCCUC | 2620 | CCGGGGCGCAUGGCAUUCU | 2655 | UUCUGUGCUGCCUGGUACA |
| 2551 | UGAUGCUGCUGAUAGCUCA | 2586 | GAGAACCUGGUGGUCCUCA | 2621 | CGGGGCGCAUGGCAUUCUC | 2656 | UCUGUGCUGCCUGGUACAU |
| 2552 | GAUGCUGCUGAUAGCUCAA | 2587 | AGAACCUGGUGGUCCUCAA | 2622 | GGGGCGCAUGGCAUUCUCU | 2657 | CUGUGCUGCCUGGUACAUC |
| 2553 | AUGCUGCUGAUAGCUCAAG | 2588 | GAACCUGGUGGUCCUCAAC | 2623 | GGGCGCAUGGCAUUCUCUC | 2658 | UGUGCUGCCUGGUACAUCA |
| 2554 | UGCUGCUGAUAGCUCAAGC | 2589 | AACCUGGUGGUCCUCAACG | 2624 | GGCGCAUGGCAUUCUCUCC | 2659 | GUGCUGCCUGGUACAUCAA |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2660 | UGCUGCCUGGUACAUCAAG | 2695 | GGGCGGCAUAUGCCCUCUA | 2730 | CUCCUGCUCCUGCUGGCGU | 2765 | CGCCAUGGACCGGGAGAUG |
| 2661 | GCUGCCUGGUACAUCAAGG | 2696 | GGCGGCAUAUGCCCUCUAC | 2731 | UCCUGCUCCUGCUGGCGUU | 2766 | GCCAUGGACCGGGAGAUGG |
| 2662 | CUGCCUGGUACAUCAAGGG | 2697 | GCGGCAUAUGCCCUCUACG | 2732 | CCUGCUCCUGCUGGCGUUA | 2767 | CCAUGGACCGGGAGAUGGC |
| 2663 | UGCCUGGUACAUCAAGGGC | 2698 | CGGCAUAUGCCCUCUACGG | 2733 | CUGCUCCUGCUGGCGUUAC | 2768 | CAUGGACCGGGAGAUGGCA |
| 2664 | GCCUGGUACAUCAAGGGCA | 2699 | GGCAUAUGCCCUCUACGGC | 2734 | UGCUCCUGCUGGCGUUACC | 2769 | AUGGACCGGGAGAUGGCAG |
| 2665 | CCUGGUACAUCAAGGGCAG | 2700 | GCAUAUGCCCUCUACGGCG | 2735 | GCUCCUGCUGGCGUUACCA | 2770 | UGGACCGGGAGAUGGCAGC |
| 2666 | CUGGUACAUCAAGGGCAGG | 2701 | CAUAUGCCCUCUACGGCGU | 2736 | CUCCUGCUGGCGUUACCAC | 2771 | GGACCGGGAGAUGGCAGCA |
| 2667 | UGGUACAUCAAGGGCAGGC | 2702 | AUAUGCCCUCUACGGCGUA | 2737 | UCCUGCUGGCGUUACCACC | 2772 | GACCGGGAGAUGGCAGCAU |
| 2668 | GGUACAUCAAGGGCAGGCU | 2703 | UAUGCCCUCUACGGCGUAU | 2738 | CCUGCUGGCGUUACCACCA | 2773 | ACCGGGAGAUGGCAGCAUC |
| 2669 | GUACAUCAAGGGCAGGCUG | 2704 | AUGCCCUCUACGGCGUAUG | 2739 | CUGCUGGCGUUACCACCAC | 2774 | CCGGGAGAUGGCAGCAUCG |
| 2670 | UACAUCAAGGGCAGGCUGG | 2705 | UGCCCUCUACGGCGUAUGG | 2740 | UGCUGGCGUUACCACCACG | 2775 | CGGGAGAUGGCAGCAUCGU |
| 2671 | ACAUCAAGGGCAGGCUGGU | 2706 | GCCCUCUACGGCGUAUGGC | 2741 | GCUGGCGUUACCACCACGA | 2776 | GGGAGAUGGCAGCAUCGUG |
| 2672 | CAUCAAGGGCAGGCUGGUC | 2707 | CCCUCUACGGCGUAUGGCC | 2742 | CUGGCGUUACCACCACGAG | 2777 | GGAGAUGGCAGCAUCGUGC |
| 2673 | AUCAAGGGCAGGCUGGUCC | 2708 | CCUCUACGGCGUAUGGCCG | 2743 | UGGCGUUACCACCACGAGC | 2778 | GAGAUGGCAGCAUCGUGCG |
| 2674 | UCAAGGGCAGGCUGGUCCC | 2709 | CUCUACGGCGUAUGGCCGC | 2744 | GGCGUUACCACCACGAGCA | 2779 | AGAUGGCAGCAUCGUGCGG |
| 2675 | CAAGGGCAGGCUGGUCCCU | 2710 | UCUACGGCGUAUGGCCGCU | 2745 | GCGUUACCACCACGAGCAU | 2780 | GAUGGCAGCAUCGUGCGGA |
| 2676 | AAGGGCAGGCUGGUCCCUG | 2711 | CUACGGCGUAUGGCCGCUA | 2746 | CGUUACCACCACGAGCAUA | 2781 | AUGGCAGCAUCGUGCGGAG |
| 2677 | AGGGCAGGCUGGUCCCUGG | 2712 | UACGGCGUAUGGCCGCUAC | 2747 | GUUACCACCACGAGCAUAC | 2782 | UGGCAGCAUCGUGCGGAGG |
| 2678 | GGGCAGGCUGGUCCCUGGG | 2713 | ACGGCGUAUGGCCGCUACU | 2748 | UUACCACCACGAGCAUACG | 2783 | GGCAGCAUCGUGCGGAGGC |
| 2679 | GGCAGGCUGGUCCCUGGGG | 2714 | CGGCGUAUGGCCGCUACUC | 2749 | UACCACCACGAGCAUACGC | 2784 | GCAGCAUCGUGCGGAGGCG |
| 2680 | GCAGGCUGGUCCCUGGGGC | 2715 | GGCGUAUGGCCGCUACUCC | 2750 | ACCACCACGAGCAUACGCC | 2785 | CAGCAUCGUGCGGAGGCGC |
| 2681 | CAGGCUGGUCCCUGGGGCG | 2716 | GCGUAUGGCCGCUACUCCU | 2751 | CCACCACGAGCAUACGCCA | 2786 | AGCAUCGUGCGGAGGCGCG |
| 2682 | AGGCUGGUCCCUGGGGCGG | 2717 | CGUAUGGCCGCUACUCCUG | 2752 | CACCACGAGCAUACGCCAU | 2787 | GCAUCGUGCGGAGGCGCGG |
| 2683 | GGCUGGUCCCUGGGGCGGC | 2718 | GUAUGGCCGCUACUCCUGC | 2753 | ACCACGAGCAUACGCCAUG | 2788 | CAUCGUGCGGAGGCGCGGU |
| 2684 | GCUGGUCCCUGGGGCGGCA | 2719 | UAUGGCCGCUACUCCUGCU | 2754 | CCACGAGCAUACGCCAUGG | 2789 | AUCGUGCGGAGGCGCGGUU |
| 2685 | CUGGUCCCUGGGGCGGCAU | 2720 | AUGGCCGCUACUCCUGCUC | 2755 | CACGAGCAUACGCCAUGGA | 2790 | UCGUGCGGAGGCGCGGUUU |
| 2686 | UGGUCCCUGGGGCGGCAUA | 2721 | UGGCCGCUACUCCUGCUCC | 2756 | ACGAGCAUACGCCAUGGAC | 2791 | CGUGCGGAGGCGCGGUUUU |
| 2687 | GGUCCCUGGGGCGGCAUAU | 2722 | GGCCGCUACUCCUGCUCCU | 2757 | CGAGCAUACGCCAUGGACC | 2792 | GUGCGGAGGCGCGGUUUUC |
| 2688 | GUCCCUGGGGCGGCAUAUG | 2723 | GCCGCUACUCCUGCUCCUG | 2758 | GAGCAUACGCCAUGGACCG | 2793 | UGCGGAGGCGCGGUUUUCG |
| 2689 | UCCCUGGGGCGGCAUAUGC | 2724 | CCGCUACUCCUGCUCCUGC | 2759 | AGCAUACGCCAUGGACCGG | 2794 | GCGGAGGCGCGGUUUUCGU |
| 2690 | CCCUGGGGCGGCAUAUGCC | 2725 | CGCUACUCCUGCUCCUGCU | 2760 | GCAUACGCCAUGGACCGGG | 2795 | CGGAGGCGCGGUUUUCGUA |
| 2691 | CCUGGGGCGGCAUAUGCCC | 2726 | GCUACUCCUGCUCCUGCUG | 2761 | CAUACGCCAUGGACCGGGA | 2796 | GGAGGCGCGGUUUUCGUAG |
| 2692 | CUGGGGCGGCAUAUGCCCU | 2727 | CUACUCCUGCUCCUGCUGG | 2762 | AUACGCCAUGGACCGGGAG | 2797 | GAGGCGCGGUUUUCGUAGG |
| 2693 | UGGGGCGGCAUAUGCCCUC | 2728 | UACUCCUGCUCCUGCUGGC | 2763 | UACGCCAUGGACCGGGAGA | 2798 | AGGCGCGGUUUUCGUAGGU |
| 2694 | GGGGCGGCAUAUGCCCUCU | 2729 | ACUCCUGCUCCUGCUGGCG | 2764 | ACGCCAUGGACCGGGAGAU | 2799 | GGCGCGGUUUUCGUAGGUC |



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| | |
|---|---|
| 2800 | GCGCGGUUUUCGUAGGUCU |
| 2801 | CGCGGUUUUCGUAGGUCUG |
| 2802 | GCGGUUUUCGUAGGUCUGA |
| 2803 | CGGUUUUCGUAGGUCUGAU |
| 2804 | GGUUUUCGUAGGUCUGAUA |
| 2805 | GUUUUCGUAGGUCUGAUAC |
| 2806 | UUUUCGUAGGUCUGAUACU |
| 2807 | UUUCGUAGGUCUGAUACUC |
| 2808 | UUCGUAGGUCUGAUACUCU |
| 2809 | UCGUAGGUCUGAUACUCUU |
| 2810 | CGUAGGUCUGAUACUCUUG |
| 2811 | GUAGGUCUGAUACUCUUGA |
| 2812 | UAGGUCUGAUACUCUUGAC |
| 2813 | AGGUCUGAUACUCUUGACC |
| 2814 | GGUCUGAUACUCUUGACCU |
| 2815 | GUCUGAUACUCUUGACCUU |
| 2816 | UCUGAUACUCUUGACCUUG |
| 2817 | CUGAUACUCUUGACCUUGU |
| 2818 | UGAUACUCUUGACCUUGUC |
| 2819 | GAUACUCUUGACCUUGUCA |
| 2820 | AUACUCUUGACCUUGUCAC |
| 2821 | UACUCUUGACCUUGUCACC |
| 2822 | ACUCUUGACCUUGUCACCG |
| 2823 | CUCUUGACCUUGUCACCGC |
| 2824 | UCUUGACCUUGUCACCGCA |
| 2825 | CUUGACCUUGUCACCGCAC |
| 2826 | UUGACCUUGUCACCGCACU |
| 2827 | UGACCUUGUCACCGCACUA |
| 2828 | GACCUUGUCACCGCACUAU |
| 2829 | ACCUUGUCACCGCACUAUA |
| 2830 | CCUUGUCACCGCACUAUAA |
| 2831 | CUUGUCACCGCACUAUAAG |
| 2832 | UUGUCACCGCACUAUAAGC |
| 2833 | UGUCACCGCACUAUAAGCU |
| 2834 | GUCACCGCACUAUAAGCUG |
| 2835 | UCACCGCACUAUAAGCUGU |
| 2836 | CACCGCACUAUAAGCUGUU |
| 2837 | ACCGCACUAUAAGCUGUUC |
| 2838 | CCGCACUAUAAGCUGUUCC |
| 2839 | CGCACUAUAAGCUGUUCCU |
| 2840 | GCACUAUAAGCUGUUCCUC |
| 2841 | CACUAUAAGCUGUUCCUCG |
| 2842 | ACUAUAAGCUGUUCCUCGC |
| 2843 | CUAUAAGCUGUUCCUCGCU |
| 2844 | UAUAAGCUGUUCCUCGCUA |
| 2845 | AUAAGCUGUUCCUCGCUAG |
| 2846 | UAAGCUGUUCCUCGCUAGG |
| 2847 | AAGCUGUUCCUCGCUAGGC |
| 2848 | AGCUGUUCCUCGCUAGGCU |
| 2849 | GCUGUUCCUCGCUAGGCUC |
| 2850 | CUGUUCCUCGCUAGGCUCA |
| 2851 | UGUUCCUCGCUAGGCUCAU |
| 2852 | GUUCCUCGCUAGGCUCAUA |
| 2853 | UUCCUCGCUAGGCUCAUAU |
| 2854 | UCCUCGCUAGGCUCAUAUG |
| 2855 | CCUCGCUAGGCUCAUAUGG |
| 2856 | CUCGCUAGGCUCAUAUGGU |
| 2857 | UCGCUAGGCUCAUAUGGUG |
| 2858 | CGCUAGGCUCAUAUGGUGG |
| 2859 | GCUAGGCUCAUAUGGUGGU |
| 2860 | CUAGGCUCAUAUGGUGGUU |
| 2861 | UAGGCUCAUAUGGUGGUUA |
| 2862 | AGGCUCAUAUGGUGGUUAC |
| 2863 | GGCUCAUAUGGUGGUUACA |
| 2864 | GCUCAUAUGGUGGUUACAA |
| 2865 | CUCAUAUGGUGGUUACAAU |
| 2866 | UCAUAUGGUGGUUACAAUA |
| 2867 | CAUAUGGUGGUUACAAUAU |
| 2868 | AUAUGGUGGUUACAAUAUU |
| 2869 | UAUGGUGGUUACAAUAUUU |
| 2870 | AUGGUGGUUACAAUAUUUU |
| 2871 | UGGUGGUUACAAUAUUUUA |
| 2872 | GGUGGUUACAAUAUUUUAU |
| 2873 | GUGGUUACAAUAUUUUAUC |
| 2874 | UGGUUACAAUAUUUUAUCA |
| 2875 | GGUUACAAUAUUUUAUCAC |
| 2876 | GUUACAAUAUUUUAUCACC |
| 2877 | UUACAAUAUUUUAUCACCA |
| 2878 | UACAAUAUUUUAUCACCAG |
| 2879 | ACAAUAUUUUAUCACCAGG |
| 2880 | CAAUAUUUUAUCACCAGGG |
| 2881 | AAUAUUUUAUCACCAGGGC |
| 2882 | AUAUUUUAUCACCAGGGCC |
| 2883 | UAUUUUAUCACCAGGGCCG |
| 2884 | AUUUUAUCACCAGGGCCGA |
| 2885 | UUUUAUCACCAGGGCCGAG |
| 2886 | UUUAUCACCAGGGCCGAGG |
| 2887 | UUAUCACCAGGGCCGAGGC |
| 2888 | UAUCACCAGGGCCGAGGCA |
| 2889 | AUCACCAGGGCCGAGGCAC |
| 2890 | UCACCAGGGCCGAGGCACA |
| 2891 | CACCAGGGCCGAGGCACAC |
| 2892 | ACCAGGGCCGAGGCACACU |
| 2893 | CCAGGGCCGAGGCACACUU |
| 2894 | CAGGGCCGAGGCACACUUG |
| 2895 | AGGGCCGAGGCACACUUGC |
| 2896 | GGGCCGAGGCACACUUGCA |
| 2897 | GGCCGAGGCACACUUGCAA |
| 2898 | GCCGAGGCACACUUGCAAG |
| 2899 | CCGAGGCACACUUGCAAGU |
| 2900 | CGAGGCACACUUGCAAGUG |
| 2901 | GAGGCACACUUGCAAGUGU |
| 2902 | AGGCACACUUGCAAGUGUG |
| 2903 | GGCACACUUGCAAGUGUGG |
| 2904 | GCACACUUGCAAGUGUGGA |
| 2905 | CACACUUGCAAGUGUGGAU |
| 2906 | ACACUUGCAAGUGUGGAUC |
| 2907 | CACUUGCAAGUGUGGAUCC |
| 2908 | ACUUGCAAGUGUGGAUCCC |
| 2909 | CUUGCAAGUGUGGAUCCCC |
| 2910 | UUGCAAGUGUGGAUCCCCC |
| 2911 | UGCAAGUGUGGAUCCCCCC |
| 2912 | GCAAGUGUGGAUCCCCCCC |
| 2913 | CAAGUGUGGAUCCCCCCCC |
| 2914 | AAGUGUGGAUCCCCCCCCU |
| 2915 | AGUGUGGAUCCCCCCCCUC |
| 2916 | GUGUGGAUCCCCCCCCCUCA |
| 2917 | UGUGGAUCCCCCCCCCUCAA |
| 2918 | GUGGAUCCCCCCCCCUCAAC |
| 2919 | UGGAUCCCCCCCCCUCAACG |
| 2920 | GGAUCCCCCCCCCUCAACGU |
| 2921 | GAUCCCCCCCCCUCAACGUU |
| 2922 | AUCCCCCCCCCUCAACGUUC |
| 2923 | UCCCCCCCCCUCAACGUUCG |
| 2924 | CCCCCCCCCUCAACGUUCGG |
| 2925 | CCCCCCCCUCAACGUUCGGG |
| 2926 | CCCCCCCUCAACGUUCGGGG |
| 2927 | CCCCCCUCAACGUUCGGGGG |
| 2928 | CCCCCUCAACGUUCGGGGGG |
| 2929 | CCCCUCAACGUUCGGGGGGG |
| 2930 | CCCUCAACGUUCGGGGGGGC |
| 2931 | CCUCAACGUUCGGGGGGGCC |
| 2932 | CUCAACGUUCGGGGGGGCCG |
| 2933 | UCAACGUUCGGGGGGGCCGC |
| 2934 | CAACGUUCGGGGGGGCCGCG |
| 2935 | AACGUUCGGGGGGGCCGCGA |
| 2936 | ACGUUCGGGGGGGCCGCGAU |
| 2937 | CGUUCGGGGGGGCCGCGAUG |
| 2938 | GUUCGGGGGGGCCGCGAUGC |
| 2939 | UUCGGGGGGGCCGCGAUGCC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2940 | CGGGGGGGCCGCGAUGCCG | 2975 | CGCGAUCCACCCAGAGCUA | 3010 | AAAUCUUGCUCGCCAUACU | 3045 | CUCCAGGCUGGUAUAACCA |
| 2941 | GGGGGGGCCGCGAUGCCGU | 2976 | GCGAUCCACCCAGAGCUAA | 3011 | AAUCUUGCUCGCCAUACUC | 3046 | UCCAGGCUGGUAUAACCAA |
| 2942 | GGGGGGCCGCGAUGCCGUC | 2977 | CGAUCCACCCAGAGCUAAU | 3012 | AUCUUGCUCGCCAUACUCG | 3047 | CCAGGCUGGUAUAACCAAA |
| 2943 | GGGGGCCGCGAUGCCGUCA | 2978 | GAUCCACCCAGAGCUAAUC | 3013 | UCUUGCUCGCCAUACUCGG | 3048 | CAGGCUGGUAUAACCAAAG |
| 2944 | GGGGCCGCGAUGCCGUCAU | 2979 | AUCCACCCAGAGCUAAUCU | 3014 | CUUGCUCGCCAUACUCGGU | 3049 | AGGCUGGUAUAACCAAAGU |
| 2945 | GGGCCGCGAUGCCGUCAUC | 2980 | UCCACCCAGAGCUAAUCUU | 3015 | UUGCUCGCCAUACUCGGUC | 3050 | GGCUGGUAUAACCAAAGUG |
| 2946 | GGCCGCGAUGCCGUCAUCC | 2981 | CCACCCAGAGCUAAUCUUU | 3016 | UGCUCGCCAUACUCGGUCC | 3051 | GCUGGUAUAACCAAAGUGC |
| 2947 | GCCGCGAUGCCGUCAUCCU | 2982 | CACCCAGAGCUAAUCUUUA | 3017 | GCUCGCCAUACUCGGUCCA | 3052 | CUGGUAUAACCAAAGUGCC |
| 2948 | CCGCGAUGCCGUCAUCCUC | 2983 | ACCCAGAGCUAAUCUUUAC | 3018 | CUCGCCAUACUCGGUCCAC | 3053 | UGGUAUAACCAAAGUGCCG |
| 2949 | CGCGAUGCCGUCAUCCUCC | 2984 | CCCAGAGCUAAUCUUUACC | 3019 | UCGCCAUACUCGGUCCACU | 3054 | GGUAUAACCAAAGUGCCGU |
| 2950 | GCGAUGCCGUCAUCCUCCU | 2985 | CCAGAGCUAAUCUUUACCA | 3020 | CGCCAUACUCGGUCCACUC | 3055 | GUAUAACCAAAGUGCCGUA |
| 2951 | CGAUGCCGUCAUCCUCCUC | 2986 | CAGAGCUAAUCUUUACCAU | 3021 | GCCAUACUCGGUCCACUCA | 3056 | UAUAACCAAAGUGCCGUAC |
| 2952 | GAUGCCGUCAUCCUCCUCA | 2987 | AGAGCUAAUCUUUACCAUC | 3022 | CCAUACUCGGUCCACUCAU | 3057 | AUAACCAAAGUGCCGUACU |
| 2953 | AUGCCGUCAUCCUCCUCAC | 2988 | GAGCUAAUCUUUACCAUCA | 3023 | CAUACUCGGUCCACUCAUG | 3058 | UAACCAAAGUGCCGUACUU |
| 2954 | UGCCGUCAUCCUCCUCACG | 2989 | AGCUAAUCUUUACCAUCAC | 3024 | AUACUCGGUCCACUCAUGG | 3059 | AACCAAAGUGCCGUACUUC |
| 2955 | GCCGUCAUCCUCCUCACGU | 2990 | GCUAAUCUUUACCAUCACC | 3025 | UACUCGGUCCACUCAUGGU | 3060 | ACCAAAGUGCCGUACUUCG |
| 2956 | CCGUCAUCCUCCUCACGUG | 2991 | CUAAUCUUUACCAUCACCA | 3026 | ACUCGGUCCACUCAUGGUG | 3061 | CCAAAGUGCCGUACUUCGU |
| 2957 | CGUCAUCCUCCUCACGUGC | 2992 | UAAUCUUUACCAUCACCAA | 3027 | CUCGGUCCACUCAUGGUGC | 3062 | CAAAGUGCCGUACUUCGUG |
| 2958 | GUCAUCCUCCUCACGUGCG | 2993 | AAUCUUUACCAUCACCAAA | 3028 | UCGGUCCACUCAUGGUGCU | 3063 | AAAGUGCCGUACUUCGUGC |
| 2959 | UCAUCCUCCUCACGUGCGC | 2994 | AUCUUUACCAUCACCAAAA | 3029 | CGGUCCACUCAUGGUGCUC | 3064 | AAGUGCCGUACUUCGUGCG |
| 2960 | CAUCCUCCUCACGUGCGCG | 2995 | UCUUUACCAUCACCAAAAU | 3030 | GGUCCACUCAUGGUGCUCC | 3065 | AGUGCCGUACUUCGUGCGC |
| 2961 | AUCCUCCUCACGUGCGCGA | 2996 | CUUUACCAUCACCAAAAUC | 3031 | GUCCACUCAUGGUGCUCCA | 3066 | GUGCCGUACUUCGUGCGCG |
| 2962 | UCCUCCUCACGUGCGCGAU | 2997 | UUUACCAUCACCAAAAUCU | 3032 | UCCACUCAUGGUGCUCCAG | 3067 | UGCCGUACUUCGUGCGCGC |
| 2963 | CCUCCUCACGUGCGCGAUC | 2998 | UUACCAUCACCAAAAUCUU | 3033 | CCACUCAUGGUGCUCCAGG | 3068 | GCCGUACUUCGUGCGCGCA |
| 2964 | CUCCUCACGUGCGCGAUCC | 2999 | UACCAUCACCAAAAUCUUG | 3034 | CACUCAUGGUGCUCCAGGC | 3069 | CCGUACUUCGUGCGCGCAC |
| 2965 | UCCUCACGUGCGCGAUCCA | 3000 | ACCAUCACCAAAAUCUUGC | 3035 | ACUCAUGGUGCUCCAGGCU | 3070 | CGUACUUCGUGCGCGCACA |
| 2966 | CCUCACGUGCGCGAUCCAC | 3001 | CCAUCACCAAAAUCUUGCU | 3036 | CUCAUGGUGCUCCAGGCUG | 3071 | GUACUUCGUGCGCGCACAC |
| 2967 | CUCACGUGCGCGAUCCACC | 3002 | CAUCACCAAAAUCUUGCUC | 3037 | UCAUGGUGCUCCAGGCUGG | 3072 | UACUUCGUGCGCGCACACG |
| 2968 | UCACGUGCGCGAUCCACCC | 3003 | AUCACCAAAAUCUUGCUCG | 3038 | CAUGGUGCUCCAGGCUGGU | 3073 | ACUUCGUGCGCGCACACGG |
| 2969 | CACGUGCGCGAUCCACCCA | 3004 | UCACCAAAAUCUUGCUCGC | 3039 | AUGGUGCUCCAGGCUGGUA | 3074 | CUUCGUGCGCGCACACGGG |
| 2970 | ACGUGCGCGAUCCACCCAG | 3005 | CACCAAAAUCUUGCUCGCC | 3040 | UGGUGCUCCAGGCUGGUAU | 3075 | UUCGUGCGCGCACACGGGC |
| 2971 | CGUGCGCGAUCCACCCAGA | 3006 | ACCAAAAUCUUGCUCGCCA | 3041 | GGUGCUCCAGGCUGGUAUA | 3076 | UCGUGCGCGCACACGGGCU |
| 2972 | GUGCGCGAUCCACCCAGAG | 3007 | CCAAAAUCUUGCUCGCCAU | 3042 | GUGCUCCAGGCUGGUAUAA | 3077 | CGUGCGCGCACACGGGCUC |
| 2973 | UGCGCGAUCCACCCAGAGC | 3008 | CAAAAUCUUGCUCGCCAUA | 3043 | UGCUCCAGGCUGGUAUAAC | 3078 | GUGCGCGCACACGGGCUCA |
| 2974 | GCGCGAUCCACCCAGAGCU | 3009 | AAAAUCUUGCUCGCCAUAC | 3044 | GCUCCAGGCUGGUAUAACC | 3079 | UGCGCGCACACGGGCUCAU |



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| | |
|---|---|
| 3080 | GCGCGCACACGGGCUCAUU |
| 3081 | CGCGCACACGGGCUCAUUC |
| 3082 | GCGCACACGGGCUCAUUCG |
| 3083 | CGCACACGGGCUCAUUCGU |
| 3084 | GCACACGGGCUCAUUCGUG |
| 3085 | CACACGGGCUCAUUCGUGC |
| 3086 | ACACGGGCUCAUUCGUGCA |
| 3087 | CACGGGCUCAUUCGUGCAU |
| 3088 | ACGGGCUCAUUCGUGCAUG |
| 3089 | CGGGCUCAUUCGUGCAUGC |
| 3090 | GGGCUCAUUCGUGCAUGCA |
| 3091 | GGCUCAUUCGUGCAUGCAU |
| 3092 | GCUCAUUCGUGCAUGCAUG |
| 3093 | CUCAUUCGUGCAUGCAUGC |
| 3094 | UCAUUCGUGCAUGCAUGCU |
| 3095 | CAUUCGUGCAUGCAUGCUG |
| 3096 | AUUCGUGCAUGCAUGCUGG |
| 3097 | UUCGUGCAUGCAUGCUGGU |
| 3098 | UCGUGCAUGCAUGCUGGUG |
| 3099 | CGUGCAUGCAUGCUGGUGC |
| 3100 | GUGCAUGCAUGCUGGUGCG |
| 3101 | UGCAUGCAUGCUGGUGCGG |
| 3102 | GCAUGCAUGCUGGUGCGGA |
| 3103 | CAUGCAUGCUGGUGCGGAA |
| 3104 | AUGCAUGCUGGUGCGGAAG |
| 3105 | UGCAUGCUGGUGCGGAAGG |
| 3106 | GCAUGCUGGUGCGGAAGGU |
| 3107 | CAUGCUGGUGCGGAAGGUU |
| 3108 | AUGCUGGUGCGGAAGGUUG |
| 3109 | UGCUGGUGCGGAAGGUUGC |
| 3110 | GCUGGUGCGGAAGGUUGCU |
| 3111 | CUGGUGCGGAAGGUUGCUG |
| 3112 | UGGUGCGGAAGGUUGCUGG |
| 3113 | GGUGCGGAAGGUUGCUGGG |
| 3114 | GUGCGGAAGGUUGCUGGGG |
| 3115 | UGCGGAAGGUUGCUGGGGG |
| 3116 | GCGGAAGGUUGCUGGGGGU |
| 3117 | CGGAAGGUUGCUGGGGGUC |
| 3118 | GGAAGGUUGCUGGGGGUCA |
| 3119 | GAAGGUUGCUGGGGGUCAU |
| 3120 | AAGGUUGCUGGGGGUCAUU |
| 3121 | AGGUUGCUGGGGGUCAUUA |
| 3122 | GGUUGCUGGGGGUCAUUAU |
| 3123 | GUUGCUGGGGGUCAUUAUG |
| 3124 | UUGCUGGGGGUCAUUAUGU |
| 3125 | UGCUGGGGGUCAUUAUGUC |
| 3126 | GCUGGGGGUCAUUAUGUCC |
| 3127 | CUGGGGGUCAUUAUGUCCA |
| 3128 | UGGGGGUCAUUAUGUCCAA |
| 3129 | GGGGGUCAUUAUGUCCAAA |
| 3130 | GGGGUCAUUAUGUCCAAAU |
| 3131 | GGGUCAUUAUGUCCAAAUG |
| 3132 | GGUCAUUAUGUCCAAAUGG |
| 3133 | GUCAUUAUGUCCAAAUGGC |
| 3134 | UCAUUAUGUCCAAAUGGCU |
| 3135 | CAUUAUGUCCAAAUGGCUC |
| 3136 | AUUAUGUCCAAAUGGCUCU |
| 3137 | UUAUGUCCAAAUGGCUCUC |
| 3138 | UAUGUCCAAAUGGCUCUCA |
| 3139 | AUGUCCAAAUGGCUCUCAU |
| 3140 | UGUCCAAAUGGCUCUCAUG |
| 3141 | GUCCAAAUGGCUCUCAUGA |
| 3142 | UCCAAAUGGCUCUCAUGAA |
| 3143 | CCAAAUGGCUCUCAUGAAG |
| 3144 | CAAAUGGCUCUCAUGAAGU |
| 3145 | AAAUGGCUCUCAUGAAGUU |
| 3146 | AAUGGCUCUCAUGAAGUUG |
| 3147 | AUGGCUCUCAUGAAGUUGG |
| 3148 | UGGCUCUCAUGAAGUUGGC |
| 3149 | GGCUCUCAUGAAGUUGGCC |
| 3150 | GCUCUCAUGAAGUUGGCCG |
| 3151 | CUCUCAUGAAGUUGGCCGC |
| 3152 | UCUCAUGAAGUUGGCCGCA |
| 3153 | CUCAUGAAGUUGGCCGCAC |
| 3154 | UCAUGAAGUUGGCCGCACU |
| 3155 | CAUGAAGUUGGCCGCACUG |
| 3156 | AUGAAGUUGGCCGCACUGA |
| 3157 | UGAAGUUGGCCGCACUGAC |
| 3158 | GAAGUUGGCCGCACUGACA |
| 3159 | AAGUUGGCCGCACUGACAG |
| 3160 | AGUUGGCCGCACUGACAGG |
| 3161 | GUUGGCCGCACUGACAGGU |
| 3162 | UUGGCCGCACUGACAGGUA |
| 3163 | UGGCCGCACUGACAGGUAC |
| 3164 | GGCCGCACUGACAGGUACG |
| 3165 | GCCGCACUGACAGGUACGU |
| 3166 | CCGCACUGACAGGUACGUA |
| 3167 | CGCACUGACAGGUACGUAC |
| 3168 | GCACUGACAGGUACGUACG |
| 3169 | CACUGACAGGUACGUACGU |
| 3170 | ACUGACAGGUACGUACGUU |
| 3171 | CUGACAGGUACGUACGUUU |
| 3172 | UGACAGGUACGUACGUUUA |
| 3173 | GACAGGUACGUACGUUUAU |
| 3174 | ACAGGUACGUACGUUUAUG |
| 3175 | CAGGUACGUACGUUUAUGA |
| 3176 | AGGUACGUACGUUUAUGAC |
| 3177 | GGUACGUACGUUUAUGACC |
| 3178 | GUACGUACGUUUAUGACCA |
| 3179 | UACGUACGUUUAUGACCAU |
| 3180 | ACGUACGUUUAUGACCAUC |
| 3181 | CGUACGUUUAUGACCAUCU |
| 3182 | GUACGUUUAUGACCAUCUC |
| 3183 | UACGUUUAUGACCAUCUCA |
| 3184 | ACGUUUAUGACCAUCUCAC |
| 3185 | CGUUUAUGACCAUCUCACC |
| 3186 | GUUUAUGACCAUCUCACCC |
| 3187 | UUUAUGACCAUCUCACCCC |
| 3188 | UUAUGACCAUCUCACCCCA |
| 3189 | UAUGACCAUCUCACCCCAC |
| 3190 | AUGACCAUCUCACCCCACU |
| 3191 | UGACCAUCUCACCCCACUG |
| 3192 | GACCAUCUCACCCCACUGC |
| 3193 | ACCAUCUCACCCCACUGCG |
| 3194 | CCAUCUCACCCCACUGCGG |
| 3195 | CAUCUCACCCCACUGCGGG |
| 3196 | AUCUCACCCCACUGCGGGA |
| 3197 | UCUCACCCCACUGCGGGAC |
| 3198 | CUCACCCCACUGCGGGACU |
| 3199 | UCACCCCACUGCGGGACUG |
| 3200 | CACCCCACUGCGGGACUGG |
| 3201 | ACCCCACUGCGGGACUGGG |
| 3202 | CCCCACUGCGGGACUGGGC |
| 3203 | CCCACUGCGGGACUGGGCC |
| 3204 | CCACUGCGGGACUGGGCCC |
| 3205 | CACUGCGGGACUGGGCCCA |
| 3206 | ACUGCGGGACUGGGCCCAC |
| 3207 | CUGCGGGACUGGGCCCACG |
| 3208 | UGCGGGACUGGGCCCACGC |
| 3209 | GCGGGACUGGGCCCACGCG |
| 3210 | CGGGACUGGGCCCACGCGG |
| 3211 | GGGACUGGGCCCACGCGGG |
| 3212 | GGACUGGGCCCACGCGGGC |
| 3213 | GACUGGGCCCACGCGGGCC |
| 3214 | ACUGGGCCCACGCGGGCCU |
| 3215 | CUGGGCCCACGCGGGCCUA |
| 3216 | UGGGCCCACGCGGGCCUAC |
| 3217 | GGGCCCACGCGGGCCUACG |
| 3218 | GGCCCACGCGGGCCUACGA |
| 3219 | GCCCACGCGGGCCUACGAG |

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| | |
|---|---|
| 3220 | CCCACGCGGGCCUACGAGA |
| 3221 | CCACGCGGGCCUACGAGAC |
| 3222 | CACGCGGGCCUACGAGACC |
| 3223 | ACGCGGGCCUACGAGACCU |
| 3224 | CGCGGGCCUACGAGACCUU |
| 3225 | GCGGGCCUACGAGACCUUG |
| 3226 | CGGGCCUACGAGACCUUGC |
| 3227 | GGGCCUACGAGACCUUGCG |
| 3228 | GGCCUACGAGACCUUGCGG |
| 3229 | GCCUACGAGACCUUGCGGU |
| 3230 | CCUACGAGACCUUGCGGUG |
| 3231 | CUACGAGACCUUGCGGUGG |
| 3232 | UACGAGACCUUGCGGUGGC |
| 3233 | ACGAGACCUUGCGGUGGCA |
| 3234 | CGAGACCUUGCGGUGGCAG |
| 3235 | GAGACCUUGCGGUGGCAGU |
| 3236 | AGACCUUGCGGUGGCAGUU |
| 3237 | GACCUUGCGGUGGCAGUUG |
| 3238 | ACCUUGCGGUGGCAGUUGA |
| 3239 | CCUUGCGGUGGCAGUUGAG |
| 3240 | CUUGCGGUGGCAGUUGAGC |
| 3241 | UUGCGGUGGCAGUUGAGCC |
| 3242 | UGCGGUGGCAGUUGAGCCC |
| 3243 | GCGGUGGCAGUUGAGCCCG |
| 3244 | CGGUGGCAGUUGAGCCCGU |
| 3245 | GGUGGCAGUUGAGCCCGUC |
| 3246 | GUGGCAGUUGAGCCCGUCG |
| 3247 | UGGCAGUUGAGCCCGUCGU |
| 3248 | GGCAGUUGAGCCCGUCGUC |
| 3249 | GCAGUUGAGCCCGUCGUCU |
| 3250 | CAGUUGAGCCCGUCGUCUU |
| 3251 | AGUUGAGCCCGUCGUCUUC |
| 3252 | GUUGAGCCCGUCGUCUUCU |
| 3253 | UUGAGCCCGUCGUCUUCUC |
| 3254 | UGAGCCCGUCGUCUUCUCU |
| 3255 | GAGCCCGUCGUCUUCUCUG |
| 3256 | AGCCCGUCGUCUUCUCUGA |
| 3257 | GCCCGUCGUCUUCUCUGAU |
| 3258 | CCCGUCGUCUUCUCUGAUA |
| 3259 | CCGUCGUCUUCUCUGAUAU |
| 3260 | CGUCGUCUUCUCUGAUAUG |
| 3261 | GUCGUCUUCUCUGAUAUGG |
| 3262 | UCGUCUUCUCUGAUAUGGA |
| 3263 | CGUCUUCUCUGAUAUGGAG |
| 3264 | GUCUUCUCUGAUAUGGAGA |
| 3265 | UCUUCUCUGAUAUGGAGAC |
| 3266 | CUUCUCUGAUAUGGAGACC |
| 3267 | UUCUCUGAUAUGGAGACCA |
| 3268 | UCUCUGAUAUGGAGACCAA |
| 3269 | CUCUGAUAUGGAGACCAAG |
| 3270 | UCUGAUAUGGAGACCAAGG |
| 3271 | CUGAUAUGGAGACCAAGGU |
| 3272 | UGAUAUGGAGACCAAGGUU |
| 3273 | GAUAUGGAGACCAAGGUUA |
| 3274 | AUAUGGAGACCAAGGUUAU |
| 3275 | UAUGGAGACCAAGGUUAUC |
| 3276 | AUGGAGACCAAGGUUAUCA |
| 3277 | UGGAGACCAAGGUUAUCAC |
| 3278 | GGAGACCAAGGUUAUCACC |
| 3279 | GAGACCAAGGUUAUCACCU |
| 3280 | AGACCAAGGUUAUCACCUG |
| 3281 | GACCAAGGUUAUCACCUGG |
| 3282 | ACCAAGGUUAUCACCUGGG |
| 3283 | CCAAGGUUAUCACCUGGGG |
| 3284 | CAAGGUUAUCACCUGGGGG |
| 3285 | AAGGUUAUCACCUGGGGGG |
| 3286 | AGGUUAUCACCUGGGGGGC |
| 3287 | GGUUAUCACCUGGGGGGCA |
| 3288 | GUUAUCACCUGGGGGGCAG |
| 3289 | UUAUCACCUGGGGGGCAGA |
| 3290 | UAUCACCUGGGGGGCAGAC |
| 3291 | AUCACCUGGGGGGCAGACA |
| 3292 | UCACCUGGGGGGCAGACAC |
| 3293 | CACCUGGGGGGCAGACACC |
| 3294 | ACCUGGGGGGCAGACACCG |
| 3295 | CCUGGGGGGCAGACACCGC |
| 3296 | CUGGGGGGCAGACACCGCG |
| 3297 | UGGGGGGCAGACACCGCGG |
| 3298 | GGGGGGCAGACACCGCGGC |
| 3299 | GGGGGCAGACACCGCGGCG |
| 3300 | GGGGCAGACACCGCGGCGU |
| 3301 | GGGCAGACACCGCGGCGUG |
| 3302 | GGCAGACACCGCGGCGUGU |
| 3303 | GCAGACACCGCGGCGUGUG |
| 3304 | CAGACACCGCGGCGUGUGG |
| 3305 | AGACACCGCGGCGUGUGGG |
| 3306 | GACACCGCGGCGUGUGGGG |
| 3307 | ACACCGCGGCGUGUGGGGA |
| 3308 | CACCGCGGCGUGUGGGGAC |
| 3309 | ACCGCGGCGUGUGGGGACA |
| 3310 | CCGCGGCGUGUGGGGACAU |
| 3311 | CGCGGCGUGUGGGGACAUC |
| 3312 | GCGGCGUGUGGGGACAUCA |
| 3313 | CGGCGUGUGGGGACAUCAU |
| 3314 | GGCGUGUGGGGACAUCAUC |
| 3315 | GCGUGUGGGGACAUCAUCU |
| 3316 | CGUGUGGGGACAUCAUCUU |
| 3317 | GUGUGGGGACAUCAUCUUG |
| 3318 | UGUGGGGACAUCAUCUUGG |
| 3319 | GUGGGGACAUCAUCUUGGG |
| 3320 | UGGGGACAUCAUCUUGGGC |
| 3321 | GGGGACAUCAUCUUGGGCC |
| 3322 | GGGACAUCAUCUUGGGCCU |
| 3323 | GGACAUCAUCUUGGGCCUG |
| 3324 | GACAUCAUCUUGGGCCUGC |
| 3325 | ACAUCAUCUUGGGCCUGCC |
| 3326 | CAUCAUCUUGGGCCUGCCC |
| 3327 | AUCAUCUUGGGCCUGCCCG |
| 3328 | UCAUCUUGGGCCUGCCCGU |
| 3329 | CAUCUUGGGCCUGCCCGUC |
| 3330 | AUCUUGGGCCUGCCCGUCU |
| 3331 | UCUUGGGCCUGCCCGUCUC |
| 3332 | CUUGGGCCUGCCCGUCUCC |
| 3333 | UUGGGCCUGCCCGUCUCCG |
| 3334 | UGGGCCUGCCCGUCUCCGC |
| 3335 | GGGCCUGCCCGUCUCCGCC |
| 3336 | GGCCUGCCCGUCUCCGCCC |
| 3337 | GCCUGCCCGUCUCCGCCCG |
| 3338 | CCUGCCCGUCUCCGCCCGC |
| 3339 | CUGCCCGUCUCCGCCCGCA |
| 3340 | UGCCCGUCUCCGCCCGCAG |
| 3341 | GCCCGUCUCCGCCCGCAGG |
| 3342 | CCCGUCUCCGCCCGCAGGG |
| 3343 | CCGUCUCCGCCCGCAGGGG |
| 3344 | CGUCUCCGCCCGCAGGGGG |
| 3345 | GUCUCCGCCCGCAGGGGGA |
| 3346 | UCUCCGCCCGCAGGGGGAG |
| 3347 | CUCCGCCCGCAGGGGGAGG |
| 3348 | UCCGCCCGCAGGGGGAGGG |
| 3349 | CCGCCCGCAGGGGGAGGGA |
| 3350 | CGCCCGCAGGGGGAGGGAG |
| 3351 | GCCCGCAGGGGGAGGGAGA |
| 3352 | CCCGCAGGGGGAGGGAGAU |
| 3353 | CCGCAGGGGGAGGGAGAUA |
| 3354 | CGCAGGGGGAGGGAGAUAC |
| 3355 | GCAGGGGGAGGGAGAUACA |
| 3356 | CAGGGGGAGGGAGAUACAU |
| 3357 | AGGGGGAGGGAGAUACAUC |
| 3358 | GGGGGAGGGAGAUACAUCU |
| 3359 | GGGGAGGGAGAUACAUCUG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3360 | GGGAGGGAGAUACAUCUGG | 3395 | UGAAGGGCAGGGGUGGCGA | 3430 | CGGCCUACUCCCAACAGAC | 3465 | UGCAUCAUCACUAGCCUCA |
| 3361 | GGAGGGAGAUACAUCUGGG | 3396 | GAAGGGCAGGGGUGGCGAC | 3431 | GGCCUACUCCCAACAGACG | 3466 | GCAUCAUCACUAGCCUCAC |
| 3362 | GAGGGAGAUACAUCUGGGA | 3397 | AAGGGCAGGGGUGGCGACU | 3432 | GCCUACUCCCAACAGACGC | 3467 | CAUCAUCACUAGCCUCACA |
| 3363 | AGGGAGAUACAUCUGGGAC | 3398 | AGGGCAGGGGUGGCGACUC | 3433 | CCUACUCCCAACAGACGCG | 3468 | AUCAUCACUAGCCUCACAG |
| 3364 | GGGAGAUACAUCUGGGACC | 3399 | GGGCAGGGGUGGCGACUCC | 3434 | CUACUCCCAACAGACGCGA | 3469 | UCAUCACUAGCCUCACAGG |
| 3365 | GGAGAUACAUCUGGGACCG | 3400 | GGCAGGGGUGGCGACUCCU | 3435 | UACUCCCAACAGACGCGAG | 3470 | CAUCACUAGCCUCACAGGC |
| 3366 | GAGAUACAUCUGGGACCGG | 3401 | GCAGGGGUGGCGACUCCUC | 3436 | ACUCCCAACAGACGCGAGG | 3471 | AUCACUAGCCUCACAGGCC |
| 3367 | AGAUACAUCUGGGACCGGC | 3402 | CAGGGGUGGCGACUCCUCG | 3437 | CUCCCAACAGACGCGAGGC | 3472 | UCACUAGCCUCACAGGCCG |
| 3368 | GAUACAUCUGGGACCGGCA | 3403 | AGGGGUGGCGACUCCUCGC | 3438 | UCCCAACAGACGCGAGGCC | 3473 | CACUAGCCUCACAGGCCGG |
| 3369 | AUACAUCUGGGACCGGCAG | 3404 | GGGGUGGCGACUCCUCGCG | 3439 | CCCAACAGACGCGAGGCCU | 3474 | ACUAGCCUCACAGGCCGGG |
| 3370 | UACAUCUGGGACCGGCAGA | 3405 | GGGUGGCGACUCCUCGCGC | 3440 | CCAACAGACGCGAGGCCUA | 3475 | CUAGCCUCACAGGCCGGGA |
| 3371 | ACAUCUGGGACCGGCAGAC | 3406 | GGUGGCGACUCCUCGCGCC | 3441 | CAACAGACGCGAGGCCUAC | 3476 | UAGCCUCACAGGCCGGGAC |
| 3372 | CAUCUGGGACCGGCAGACA | 3407 | GUGGCGACUCCUCGCGCCU | 3442 | AACAGACGCGAGGCCUACU | 3477 | AGCCUCACAGGCCGGGACA |
| 3373 | AUCUGGGACCGGCAGACAG | 3408 | UGGCGACUCCUCGCGCCUA | 3443 | ACAGACGCGAGGCCUACUU | 3478 | GCCUCACAGGCCGGGACAG |
| 3374 | UCUGGGACCGGCAGACAGC | 3409 | GGCGACUCCUCGCGCCUAU | 3444 | CAGACGCGAGGCCUACUUG | 3479 | CCUCACAGGCCGGGACAGG |
| 3375 | CUGGGACCGGCAGACAGCC | 3410 | GCGACUCCUCGCGCCUAUU | 3445 | AGACGCGAGGCCUACUUGG | 3480 | CUCACAGGCCGGGACAGGA |
| 3376 | UGGGACCGGCAGACAGCCU | 3411 | CGACUCCUCGCGCCUAUUA | 3446 | GACGCGAGGCCUACUUGGC | 3481 | UCACAGGCCGGGACAGGAA |
| 3377 | GGGACCGGCAGACAGCCUU | 3412 | GACUCCUCGCGCCUAUUAC | 3447 | ACGCGAGGCCUACUUGGCU | 3482 | CACAGGCCGGGACAGGAAC |
| 3378 | GGACCGGCAGACAGCCUUG | 3413 | ACUCCUCGCGCCUAUUACG | 3448 | CGCGAGGCCUACUUGGCUG | 3483 | ACAGGCCGGGACAGGAACC |
| 3379 | GACCGGCAGACAGCCUUGA | 3414 | CUCCUCGCGCCUAUUACGG | 3449 | GCGAGGCCUACUUGGCUGC | 3484 | CAGGCCGGGACAGGAACCA |
| 3380 | ACCGGCAGACAGCCUUGAA | 3415 | UCCUCGCGCCUAUUACGGC | 3450 | CGAGGCCUACUUGGCUGCA | 3485 | AGGCCGGGACAGGAACCAG |
| 3381 | CCGGCAGACAGCCUUGAAG | 3416 | CCUCGCGCCUAUUACGGCC | 3451 | GAGGCCUACUUGGCUGCAU | 3486 | GGCCGGGACAGGAACCAGG |
| 3382 | CGGCAGACAGCCUUGAAGG | 3417 | CUCGCGCCUAUUACGGCCU | 3452 | AGGCCUACUUGGCUGCAUC | 3487 | GCCGGGACAGGAACCAGGU |
| 3383 | GGCAGACAGCCUUGAAGGG | 3418 | UCGCGCCUAUUACGGCCUA | 3453 | GGCCUACUUGGCUGCAUCA | 3488 | CCGGGACAGGAACCAGGUC |
| 3384 | GCAGACAGCCUUGAAGGGC | 3419 | CGCGCCUAUUACGGCCUAC | 3454 | GCCUACUUGGCUGCAUCAU | 3489 | CGGGACAGGAACCAGGUCG |
| 3385 | CAGACAGCCUUGAAGGGCA | 3420 | GCGCCUAUUACGGCCUACU | 3455 | CCUACUUGGCUGCAUCAUC | 3490 | GGGACAGGAACCAGGUCGA |
| 3386 | AGACAGCCUUGAAGGGCAG | 3421 | CGCCUAUUACGGCCUACUC | 3456 | CUACUUGGCUGCAUCAUCA | 3491 | GGACAGGAACCAGGUCGAG |
| 3387 | GACAGCCUUGAAGGGCAGG | 3422 | GCCUAUUACGGCCUACUCC | 3457 | UACUUGGCUGCAUCAUCAC | 3492 | GACAGGAACCAGGUCGAGG |
| 3388 | ACAGCCUUGAAGGGCAGGG | 3423 | CCUAUUACGGCCUACUCCC | 3458 | ACUUGGCUGCAUCAUCACU | 3493 | ACAGGAACCAGGUCGAGGG |
| 3389 | CAGCCUUGAAGGGCAGGGG | 3424 | CUAUUACGGCCUACUCCCA | 3459 | CUUGGCUGCAUCAUCACUA | 3494 | CAGGAACCAGGUCGAGGGG |
| 3390 | AGCCUUGAAGGGCAGGGGU | 3425 | UAUUACGGCCUACUCCCAA | 3460 | UUGGCUGCAUCAUCACUAG | 3495 | AGGAACCAGGUCGAGGGGG |
| 3391 | GCCUUGAAGGGCAGGGGUG | 3426 | AUUACGGCCUACUCCCAAC | 3461 | UGGCUGCAUCAUCACUAGC | 3496 | GGAACCAGGUCGAGGGGGA |
| 3392 | CCUUGAAGGGCAGGGGUGG | 3427 | UUACGGCCUACUCCCAACA | 3462 | GGCUGCAUCAUCACUAGCC | 3497 | GAACCAGGUCGAGGGGGAG |
| 3393 | CUUGAAGGGCAGGGGUGGC | 3428 | UACGGCCUACUCCCAACAG | 3463 | GCUGCAUCAUCACUAGCCU | 3498 | AACCAGGUCGAGGGGGAGG |
| 3394 | UUGAAGGGCAGGGGUGGCG | 3429 | ACGGCCUACUCCCAACAGA | 3464 | CUGCAUCAUCACUAGCCUC | 3499 | ACCAGGUCGAGGGGGAGGU |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3500 | CCAGGUCGAGGGGGAGGUC | 3535 | CAACACAAUCUUUCCUGGC | 3570 | GUGUGUUGGACUGUCUAUC | 3605 | GACCCUUGCCGGCCCAAAG |
| 3501 | CAGGUCGAGGGGGAGGUCC | 3536 | AACACAAUCUUUCCUGGCG | 3571 | UGUGUUGGACUGUCUAUCA | 3606 | ACCCUUGCCGGCCCAAAGG |
| 3502 | AGGUCGAGGGGGAGGUCCA | 3537 | ACACAAUCUUUCCUGGCGA | 3572 | GUGUUGGACUGUCUAUCAU | 3607 | CCCUUGCCGGCCCAAAGGG |
| 3503 | GGUCGAGGGGGAGGUCCAA | 3538 | CACAAUCUUUCCUGGCGAC | 3573 | UGUUGGACUGUCUAUCAUG | 3608 | CCUUGCCGGCCCAAAGGGC |
| 3504 | GUCGAGGGGGAGGUCCAAG | 3539 | ACAAUCUUUCCUGGCGACC | 3574 | GUUGGACUGUCUAUCAUGG | 3609 | CUUGCCGGCCCAAAGGGCC |
| 3505 | UCGAGGGGGAGGUCCAAGU | 3540 | CAAUCUUUCCUGGCGACCU | 3575 | UUGGACUGUCUAUCAUGGU | 3610 | UUGCCGGCCCAAAGGGCCC |
| 3506 | CGAGGGGGAGGUCCAAGUG | 3541 | AAUCUUUCCUGGCGACCUG | 3576 | UGGACUGUCUAUCAUGGUG | 3611 | UGCCGGCCCAAAGGGCCCA |
| 3507 | GAGGGGGAGGUCCAAGUGG | 3542 | AUCUUUCCUGGCGACCUGC | 3577 | GGACUGUCUAUCAUGGUGC | 3612 | GCCGGCCCAAAGGGCCCAA |
| 3508 | AGGGGGAGGUCCAAGUGGU | 3543 | UCUUUCCUGGCGACCUGCG | 3578 | GACUGUCUAUCAUGGUGCC | 3613 | CCGGCCCAAAGGGCCCAAU |
| 3509 | GGGGGAGGUCCAAGUGGUC | 3544 | CUUUCCUGGCGACCUGCGU | 3579 | ACUGUCUAUCAUGGUGCCG | 3614 | CGGCCCAAAGGGCCCAAUC |
| 3510 | GGGGAGGUCCAAGUGGUCU | 3545 | UUUCCUGGCGACCUGCGUC | 3580 | CUGUCUAUCAUGGUGCCGG | 3615 | GGCCCAAAGGGCCCAAUCA |
| 3511 | GGGAGGUCCAAGUGGUCUC | 3546 | UUCCUGGCGACCUGCGUCA | 3581 | UGUCUAUCAUGGUGCCGGC | 3616 | GCCCAAAGGGCCCAAUCAC |
| 3512 | GGAGGUCCAAGUGGUCUCC | 3547 | UCCUGGCGACCUGCGUCAA | 3582 | GUCUAUCAUGGUGCCGGCU | 3617 | CCCAAAGGGCCCAAUCACC |
| 3513 | GAGGUCCAAGUGGUCUCCA | 3548 | CCUGGCGACCUGCGUCAAU | 3583 | UCUAUCAUGGUGCCGGCUC | 3618 | CCAAAGGGCCCAAUCACCC |
| 3514 | AGGUCCAAGUGGUCUCCAC | 3549 | CUGGCGACCUGCGUCAAUG | 3584 | CUAUCAUGGUGCCGGCUCA | 3619 | CAAAGGGCCCAAUCACCCA |
| 3515 | GGUCCAAGUGGUCUCCACC | 3550 | UGGCGACCUGCGUCAAUGG | 3585 | UAUCAUGGUGCCGGCUCAA | 3620 | AAAGGGCCCAAUCACCCAA |
| 3516 | GUCCAAGUGGUCUCCACCG | 3551 | GGCGACCUGCGUCAAUGGC | 3586 | AUCAUGGUGCCGGCUCAAA | 3621 | AAGGGCCCAAUCACCCAAA |
| 3517 | UCCAAGUGGUCUCCACCGC | 3552 | GCGACCUGCGUCAAUGGCG | 3587 | UCAUGGUGCCGGCUCAAAG | 3622 | AGGGCCCAAUCACCCAAAU |
| 3518 | CCAAGUGGUCUCCACCGCA | 3553 | CGACCUGCGUCAAUGGCGU | 3588 | CAUGGUGCCGGCUCAAAGA | 3623 | GGGCCCAAUCACCCAAAUG |
| 3519 | CAAGUGGUCUCCACCGCAA | 3554 | GACCUGCGUCAAUGGCGUG | 3589 | AUGGUGCCGGCUCAAAGAC | 3624 | GGCCCAAUCACCCAAAUGU |
| 3520 | AAGUGGUCUCCACCGCAAC | 3555 | ACCUGCGUCAAUGGCGUGU | 3590 | UGGUGCCGGCUCAAAGACC | 3625 | GCCCAAUCACCCAAAUGUA |
| 3521 | AGUGGUCUCCACCGCAACA | 3556 | CCUGCGUCAAUGGCGUGUG | 3591 | GGUGCCGGCUCAAAGACCC | 3626 | CCCAAUCACCCAAAUGUAC |
| 3522 | GUGGUCUCCACCGCAACAC | 3557 | CUGCGUCAAUGGCGUGUGU | 3592 | GUGCCGGCUCAAAGACCCU | 3627 | CCAAUCACCCAAAUGUACA |
| 3523 | UGGUCUCCACCGCAACACA | 3558 | UGCGUCAAUGGCGUGUGUU | 3593 | UGCCGGCUCAAAGACCCUU | 3628 | CAAUCACCCAAAUGUACAC |
| 3524 | GGUCUCCACCGCAACACAA | 3559 | GCGUCAAUGGCGUGUGUUG | 3594 | GCCGGCUCAAAGACCCUUG | 3629 | AAUCACCCAAAUGUACACC |
| 3525 | GUCUCCACCGCAACACAAU | 3560 | CGUCAAUGGCGUGUGUUGG | 3595 | CCGGCUCAAAGACCCUUGC | 3630 | AUCACCCAAAUGUACACCA |
| 3526 | UCUCCACCGCAACACAAUC | 3561 | GUCAAUGGCGUGUGUUGGA | 3596 | CGGCUCAAAGACCCUUGCC | 3631 | UCACCCAAAUGUACACCAA |
| 3527 | CUCCACCGCAACACAAUCU | 3562 | UCAAUGGCGUGUGUUGGAC | 3597 | GGCUCAAAGACCCUUGCCG | 3632 | CACCCAAAUGUACACCAAU |
| 3528 | UCCACCGCAACACAAUCUU | 3563 | CAAUGGCGUGUGUUGGACU | 3598 | GCUCAAAGACCCUUGCCGG | 3633 | ACCCAAAUGUACACCAAUG |
| 3529 | CCACCGCAACACAAUCUUU | 3564 | AAUGGCGUGUGUUGGACUG | 3599 | CUCAAAGACCCUUGCCGGC | 3634 | CCCAAAUGUACACCAAUGU |
| 3530 | CACCGCAACACAAUCUUUC | 3565 | AUGGCGUGUGUUGGACUGU | 3600 | UCAAAGACCCUUGCCGGCC | 3635 | CCAAAUGUACACCAAUGUG |
| 3531 | ACCGCAACACAAUCUUUCC | 3566 | UGGCGUGUGUUGGACUGUC | 3601 | CAAAGACCCUUGCCGGCCC | 3636 | CAAAUGUACACCAAUGUGG |
| 3532 | CCGCAACACAAUCUUUCCU | 3567 | GGCGUGUGUUGGACUGUCU | 3602 | AAAGACCCUUGCCGGCCCA | 3637 | AAAUGUACACCAAUGUGGA |
| 3533 | CGCAACACAAUCUUUCCUG | 3568 | GCGUGUGUUGGACUGUCUA | 3603 | AAGACCCUUGCCGGCCCAA | 3638 | AAUGUACACCAAUGUGGAC |
| 3534 | GCAACACAAUCUUUCCUGG | 3569 | CGUGUGUUGGACUGUCUAU | 3604 | AGACCCUUGCCGGCCCAAA | 3639 | AUGUACACCAAUGUGGACC |

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| | |
|---|---|
| 3640 | UGUACACCAAUGUGGACCA |
| 3641 | GUACACCAAUGUGGACCAG |
| 3642 | UACACCAAUGUGGACCAGG |
| 3643 | ACACCAAUGUGGACCAGGA |
| 3644 | CACCAAUGUGGACCAGGAC |
| 3645 | ACCAAUGUGGACCAGGACC |
| 3646 | CCAAUGUGGACCAGGACCU |
| 3647 | CAAUGUGGACCAGGACCUC |
| 3648 | AAUGUGGACCAGGACCUCG |
| 3649 | AUGUGGACCAGGACCUCGU |
| 3650 | UGUGGACCAGGACCUCGUC |
| 3651 | GUGGACCAGGACCUCGUCG |
| 3652 | UGGACCAGGACCUCGUCGG |
| 3653 | GGACCAGGACCUCGUCGGC |
| 3654 | GACCAGGACCUCGUCGGCU |
| 3655 | ACCAGGACCUCGUCGGCUG |
| 3656 | CCAGGACCUCGUCGGCUGG |
| 3657 | CAGGACCUCGUCGGCUGGC |
| 3658 | AGGACCUCGUCGGCUGGCA |
| 3659 | GGACCUCGUCGGCUGGCAA |
| 3660 | GACCUCGUCGGCUGGCAAG |
| 3661 | ACCUCGUCGGCUGGCAAGC |
| 3662 | CCUCGUCGGCUGGCAAGCG |
| 3663 | CUCGUCGGCUGGCAAGCGC |
| 3664 | UCGUCGGCUGGCAAGCGCC |
| 3665 | CGUCGGCUGGCAAGCGCCC |
| 3666 | GUCGGCUGGCAAGCGCCCC |
| 3667 | UCGGCUGGCAAGCGCCCCC |
| 3668 | CGGCUGGCAAGCGCCCCCC |
| 3669 | GGCUGGCAAGCGCCCCCCG |
| 3670 | GCUGGCAAGCGCCCCCCGG |
| 3671 | CUGGCAAGCGCCCCCCGGG |
| 3672 | UGGCAAGCGCCCCCCGGGG |
| 3673 | GGCAAGCGCCCCCCGGGGC |
| 3674 | GCAAGCGCCCCCCGGGGCG |
| 3675 | CAAGCGCCCCCCGGGGCGC |
| 3676 | AAGCGCCCCCCGGGGCGCG |
| 3677 | AGCGCCCCCCGGGGCGCGU |
| 3678 | GCGCCCCCCGGGGCGCGUU |
| 3679 | CGCCCCCCGGGGCGCGUUC |
| 3680 | GCCCCCCGGGGCGCGUUCC |
| 3681 | CCCCCCGGGGCGCGUUCCU |
| 3682 | CCCCCGGGGCGCGUUCCUU |
| 3683 | CCCCGGGGCGCGUUCCUUG |
| 3684 | CCCGGGGCGCGUUCCUUGA |
| 3685 | CCGGGGCGCGUUCCUUGAC |
| 3686 | CGGGGCGCGUUCCUUGACA |
| 3687 | GGGGCGCGUUCCUUGACAC |
| 3688 | GGGCGCGUUCCUUGACACC |
| 3689 | GGCGCGUUCCUUGACACCA |
| 3690 | GCGCGUUCCUUGACACCAU |
| 3691 | CGCGUUCCUUGACACCAUG |
| 3692 | GCGUUCCUUGACACCAUGC |
| 3693 | CGUUCCUUGACACCAUGCA |
| 3694 | GUUCCUUGACACCAUGCAC |
| 3695 | UUCCUUGACACCAUGCACC |
| 3696 | UCCUUGACACCAUGCACCU |
| 3697 | CCUUGACACCAUGCACCUG |
| 3698 | CUUGACACCAUGCACCUGC |
| 3699 | UUGACACCAUGCACCUGCG |
| 3700 | UGACACCAUGCACCUGCGG |
| 3701 | GACACCAUGCACCUGCGGC |
| 3702 | ACACCAUGCACCUGCGGCA |
| 3703 | CACCAUGCACCUGCGGCAG |
| 3704 | ACCAUGCACCUGCGGCAGC |
| 3705 | CCAUGCACCUGCGGCAGCU |
| 3706 | CAUGCACCUGCGGCAGCUC |
| 3707 | AUGCACCUGCGGCAGCUCG |
| 3708 | UGCACCUGCGGCAGCUCGG |
| 3709 | GCACCUGCGGCAGCUCGGA |
| 3710 | CACCUGCGGCAGCUCGGAC |
| 3711 | ACCUGCGGCAGCUCGGACC |
| 3712 | CCUGCGGCAGCUCGGACCU |
| 3713 | CUGCGGCAGCUCGGACCUU |
| 3714 | UGCGGCAGCUCGGACCUUU |
| 3715 | GCGGCAGCUCGGACCUUUA |
| 3716 | CGGCAGCUCGGACCUUUAC |
| 3717 | GGCAGCUCGGACCUUUACU |
| 3718 | GCAGCUCGGACCUUUACUU |
| 3719 | CAGCUCGGACCUUUACUUG |
| 3720 | AGCUCGGACCUUUACUUGG |
| 3721 | GCUCGGACCUUUACUUGGU |
| 3722 | CUCGGACCUUUACUUGGUC |
| 3723 | UCGGACCUUUACUUGGUCA |
| 3724 | CGGACCUUUACUUGGUCAC |
| 3725 | GGACCUUUACUUGGUCACG |
| 3726 | GACCUUUACUUGGUCACGA |
| 3727 | ACCUUUACUUGGUCACGAG |
| 3728 | CCUUUACUUGGUCACGAGG |
| 3729 | CUUUACUUGGUCACGAGGC |
| 3730 | UUUACUUGGUCACGAGGCA |
| 3731 | UUACUUGGUCACGAGGCAU |
| 3732 | UACUUGGUCACGAGGCAUG |
| 3733 | ACUUGGUCACGAGGCAUGC |
| 3734 | CUUGGUCACGAGGCAUGCC |
| 3735 | UUGGUCACGAGGCAUGCCG |
| 3736 | UGGUCACGAGGCAUGCCGA |
| 3737 | GGUCACGAGGCAUGCCGAU |
| 3738 | GUCACGAGGCAUGCCGAUG |
| 3739 | UCACGAGGCAUGCCGAUGU |
| 3740 | CACGAGGCAUGCCGAUGUC |
| 3741 | ACGAGGCAUGCCGAUGUCA |
| 3742 | CGAGGCAUGCCGAUGUCAU |
| 3743 | GAGGCAUGCCGAUGUCAUU |
| 3744 | AGGCAUGCCGAUGUCAUUC |
| 3745 | GGCAUGCCGAUGUCAUUCC |
| 3746 | GCAUGCCGAUGUCAUUCCG |
| 3747 | CAUGCCGAUGUCAUUCCGG |
| 3748 | AUGCCGAUGUCAUUCCGGU |
| 3749 | UGCCGAUGUCAUUCCGGUG |
| 3750 | GCCGAUGUCAUUCCGGUGC |
| 3751 | CCGAUGUCAUUCCGGUGCG |
| 3752 | CGAUGUCAUUCCGGUGCGC |
| 3753 | GAUGUCAUUCCGGUGCGCC |
| 3754 | AUGUCAUUCCGGUGCGCCG |
| 3755 | UGUCAUUCCGGUGCGCCGG |
| 3756 | GUCAUUCCGGUGCGCCGGC |
| 3757 | UCAUUCCGGUGCGCCGGCG |
| 3758 | CAUUCCGGUGCGCCGGCGG |
| 3759 | AUUCCGGUGCGCCGGCGGG |
| 3760 | UUCCGGUGCGCCGGCGGGC |
| 3761 | UCCGGUGCGCCGGCGGGGC |
| 3762 | CCGGUGCGCCGGCGGGGCC |
| 3763 | CGGUGCGCCGGCGGGGCGA |
| 3764 | GGUGCGCCGGCGGGGCGAC |
| 3765 | GUGCGCCGGCGGGGCGACA |
| 3766 | UGCGCCGGCGGGGCGACAG |
| 3767 | GCGCCGGCGGGGCGACAGC |
| 3768 | CGCCGGCGGGGCGACAGCA |
| 3769 | GCCGGCGGGGCGACAGCAG |
| 3770 | CCGGCGGGGCGACAGCAGG |
| 3771 | CGGCGGGGCGACAGCAGGG |
| 3772 | GGCGGGGCGACAGCAGGGG |
| 3773 | GCGGGGCGACAGCAGGGGG |
| 3774 | CGGGGCGACAGCAGGGGGA |
| 3775 | GGGGCGACAGCAGGGGGAG |
| 3776 | GGGCGACAGCAGGGGGAGC |
| 3777 | GGCGACAGCAGGGGGAGCC |
| 3778 | GCGACAGCAGGGGGAGCCU |
| 3779 | CGACAGCAGGGGGAGCCUA |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3780 | GACAGCAGGGGGAGCCUAC | 3815 | CUCCUACUUGAAGGGCUCU | 3850 | UCUGCCCCUCGGGGCACGC | 3885 | GCUGCCGUGUGCACCCGAG |
| 3781 | ACAGCAGGGGGAGCCUACU | 3816 | UCCUACUUGAAGGGCUCUU | 3851 | CUGCCCCUCGGGGCACGCU | 3886 | CUGCCGUGUGCACCCGAGG |
| 3782 | CAGCAGGGGGAGCCUACUC | 3817 | CCUACUUGAAGGGCUCUUC | 3852 | UGCCCCUCGGGGCACGCUG | 3887 | UGCCGUGUGCACCCGAGGG |
| 3783 | AGCAGGGGGAGCCUACUCU | 3818 | CUACUUGAAGGGCUCUUCG | 3853 | GCCCCUCGGGGCACGCUGU | 3888 | GCCGUGUGCACCCGAGGGG |
| 3784 | GCAGGGGGAGCCUACUCUC | 3819 | UACUUGAAGGGCUCUUCGG | 3854 | CCCCUCGGGGCACGCUGUG | 3889 | CCGUGUGCACCCGAGGGGU |
| 3785 | CAGGGGGAGCCUACUCUCC | 3820 | ACUUGAAGGGCUCUUCGGG | 3855 | CCCUCGGGGCACGCUGUGG | 3890 | CGUGUGCACCCGAGGGGUU |
| 3786 | AGGGGGAGCCUACUCUCCC | 3821 | CUUGAAGGGCUCUUCGGGC | 3856 | CCUCGGGGCACGCUGUGGG | 3891 | GUGUGCACCCGAGGGGUUG |
| 3787 | GGGGGAGCCUACUCUCCCC | 3822 | UUGAAGGGCUCUUCGGGCG | 3857 | CUCGGGGCACGCUGUGGGC | 3892 | UGUGCACCCGAGGGGUUGC |
| 3788 | GGGGAGCCUACUCUCCCCC | 3823 | UGAAGGGCUCUUCGGGCGG | 3858 | UCGGGGCACGCUGUGGGCA | 3893 | GUGCACCCGAGGGGUUGCG |
| 3789 | GGGAGCCUACUCUCCCCCA | 3824 | GAAGGGCUCUUCGGGCGGU | 3859 | CGGGGCACGCUGUGGGCAU | 3894 | UGCACCCGAGGGGUUGCGA |
| 3790 | GGAGCCUACUCUCCCCCAG | 3825 | AAGGGCUCUUCGGGCGGUC | 3860 | GGGGCACGCUGUGGGCAUC | 3895 | GCACCCGAGGGGUUGCGAA |
| 3791 | GAGCCUACUCUCCCCCAGG | 3826 | AGGGCUCUUCGGGCGGUCC | 3861 | GGGCACGCUGUGGGCAUCU | 3896 | CACCCGAGGGGUUGCGAAG |
| 3792 | AGCCUACUCUCCCCCAGGC | 3827 | GGGCUCUUCGGGCGGUCCA | 3862 | GGCACGCUGUGGGCAUCUU | 3897 | ACCCGAGGGGUUGCGAAGG |
| 3793 | GCCUACUCUCCCCCAGGCC | 3828 | GGCUCUUCGGGCGGUCCAC | 3863 | GCACGCUGUGGGCAUCUUU | 3898 | CCCGAGGGGUUGCGAAGGC |
| 3794 | CCUACUCUCCCCCAGGCCC | 3829 | GCUCUUCGGGCGGUCCACU | 3864 | CACGCUGUGGGCAUCUUUC | 3899 | CCGAGGGGUUGCGAAGGCG |
| 3795 | CUACUCUCCCCCAGGCCCG | 3830 | CUCUUCGGGCGGUCCACUG | 3865 | ACGCUGUGGGCAUCUUUCG | 3900 | CGAGGGGUUGCGAAGGCGG |
| 3796 | UACUCUCCCCCAGGCCCGU | 3831 | UCUUCGGGCGGUCCACUGC | 3866 | CGCUGUGGGCAUCUUUCGG | 3901 | GAGGGGUUGCGAAGGCGGU |
| 3797 | ACUCUCCCCCAGGCCCGUC | 3832 | CUUCGGGCGGUCCACUGCU | 3867 | GCUGUGGGCAUCUUUCGGG | 3902 | AGGGGUUGCGAAGGCGGUG |
| 3798 | CUCUCCCCCAGGCCCGUCU | 3833 | UUCGGGCGGUCCACUGCUC | 3868 | CUGUGGGCAUCUUUCGGGC | 3903 | GGGGUUGCGAAGGCGGUGG |
| 3799 | UCUCCCCCAGGCCCGUCUC | 3834 | UCGGGCGGUCCACUGCUCU | 3869 | UGUGGGCAUCUUUCGGGCU | 3904 | GGGUUGCGAAGGCGGUGGA |
| 3800 | CUCCCCCAGGCCCGUCUCC | 3835 | CGGGCGGUCCACUGCUCUG | 3870 | GUGGGCAUCUUUCGGGCUG | 3905 | GGUUGCGAAGGCGGUGGAC |
| 3801 | UCCCCCAGGCCCGUCUCCU | 3836 | GGGCGGUCCACUGCUCUGC | 3871 | UGGGCAUCUUUCGGGCUGC | 3906 | GUUGCGAAGGCGGUGGACU |
| 3802 | CCCCCAGGCCCGUCUCCUA | 3837 | GGCGGUCCACUGCUCUGCC | 3872 | GGGCAUCUUUCGGGCUGCC | 3907 | UUGCGAAGGCGGUGGACUU |
| 3803 | CCCCAGGCCCGUCUCCUAC | 3838 | GCGGUCCACUGCUCUGCCC | 3873 | GGCAUCUUUCGGGCUGCCG | 3908 | UGCGAAGGCGGUGGACUUU |
| 3804 | CCCAGGCCCGUCUCCUACU | 3839 | CGGUCCACUGCUCUGCCCC | 3874 | GCAUCUUUCGGGCUGCCGU | 3909 | GCGAAGGCGGUGGACUUUG |
| 3805 | CCAGGCCCGUCUCCUACUU | 3840 | GGUCCACUGCUCUGCCCCU | 3875 | CAUCUUUCGGGCUGCCGUG | 3910 | CGAAGGCGGUGGACUUUGU |
| 3806 | CAGGCCCGUCUCCUACUUG | 3841 | GUCCACUGCUCUGCCCCUC | 3876 | AUCUUUCGGGCUGCCGUGU | 3911 | GAAGGCGGUGGACUUUGUA |
| 3807 | AGGCCCGUCUCCUACUUGA | 3842 | UCCACUGCUCUGCCCCUCG | 3877 | UCUUUCGGGCUGCCGUGUG | 3912 | AAGGCGGUGGACUUUGUAC |
| 3808 | GGCCCGUCUCCUACUUGAA | 3843 | CCACUGCUCUGCCCCUCGG | 3878 | CUUUCGGGCUGCCGUGUGC | 3913 | AGGCGGUGGACUUUGUACC |
| 3809 | GCCCGUCUCCUACUUGAAG | 3844 | CACUGCUCUGCCCCUCGGG | 3879 | UUUCGGGCUGCCGUGUGCA | 3914 | GGCGGUGGACUUUGUACCC |
| 3810 | CCCGUCUCCUACUUGAAGG | 3845 | ACUGCUCUGCCCCUCGGGG | 3880 | UUCGGGCUGCCGUGUGCAC | 3915 | GCGGUGGACUUUGUACCCG |
| 3811 | CCGUCUCCUACUUGAAGGG | 3846 | CUGCUCUGCCCCUCGGGGC | 3881 | UCGGGCUGCCGUGUGCACC | 3916 | CGGUGGACUUUGUACCCGU |
| 3812 | CGUCUCCUACUUGAAGGGC | 3847 | UGCUCUGCCCCUCGGGGCA | 3882 | CGGGCUGCCGUGUGCACCC | 3917 | GGUGGACUUUGUACCCGUC |
| 3813 | GUCUCCUACUUGAAGGGCU | 3848 | GCUCUGCCCCUCGGGGCAC | 3883 | GGGCUGCCGUGUGCACCCG | 3918 | GUGGACUUUGUACCCGUCG |
| 3814 | UCUCCUACUUGAAGGGCUC | 3849 | CUCUGCCCCUCGGGGCACG | 3884 | GGCUGCCGUGUGCACCCGA | 3919 | UGGACUUUGUACCCGUCGA |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3920 | GGACUUUGUACCCGUCGAG | 3955 | UGCGGUCCCCGGUCUUCAC | 3990 | CCGGCCGUACCGCAGACAU | 4025 | ACACGCCCCUACUGGUAGC |
| 3921 | GACUUUGUACCCGUCGAGU | 3956 | GCGGUCCCCGGUCUUCACG | 3991 | CGGCCGUACCGCAGACAUU | 4026 | CACGCCCCUACUGGUAGCG |
| 3922 | ACUUUGUACCCGUCGAGUC | 3957 | CGGUCCCCGGUCUUCACGG | 3992 | GGCCGUACCGCAGACAUUC | 4027 | ACGCCCCUACUGGUAGCGG |
| 3923 | CUUUGUACCCGUCGAGUCU | 3958 | GGUCCCCGGUCUUCACGGA | 3993 | GCCGUACCGCAGACAUUCC | 4028 | CGCCCCUACUGGUAGCGGC |
| 3924 | UUUGUACCCGUCGAGUCUA | 3959 | GUCCCCGGUCUUCACGGAC | 3994 | CCGUACCGCAGACAUUCCA | 4029 | GCCCCUACUGGUAGCGGCA |
| 3925 | UUGUACCCGUCGAGUCUAU | 3960 | UCCCCGGUCUUCACGGACA | 3995 | CGUACCGCAGACAUUCCAG | 4030 | CCCCUACUGGUAGCGGCAA |
| 3926 | UGUACCCGUCGAGUCUAUG | 3961 | CCCCGGUCUUCACGGACAA | 3996 | GUACCGCAGACAUUCCAGG | 4031 | CCCUACUGGUAGCGGCAAG |
| 3927 | GUACCCGUCGAGUCUAUGG | 3962 | CCCGGUCUUCACGGACAAC | 3997 | UACCGCAGACAUUCCAGGU | 4032 | CCUACUGGUAGCGGCAAGA |
| 3928 | UACCCGUCGAGUCUAUGGA | 3963 | CCGGUCUUCACGGACAACU | 3998 | ACCGCAGACAUUCCAGGUG | 4033 | CUACUGGUAGCGGCAAGAG |
| 3929 | ACCCGUCGAGUCUAUGGAA | 3964 | CGGUCUUCACGGACAACUC | 3999 | CCGCAGACAUUCCAGGUGG | 4034 | UACUGGUAGCGGCAAGAGC |
| 3930 | CCCGUCGAGUCUAUGGAAA | 3965 | GGUCUUCACGGACAACUCG | 4000 | CGCAGACAUUCCAGGUGGC | 4035 | ACUGGUAGCGGCAAGAGCA |
| 3931 | CCGUCGAGUCUAUGGAAAC | 3966 | GUCUUCACGGACAACUCGU | 4001 | GCAGACAUUCCAGGUGGCC | 4036 | CUGGUAGCGGCAAGAGCAC |
| 3932 | CGUCGAGUCUAUGGAAACC | 3967 | UCUUCACGGACAACUCGUC | 4002 | CAGACAUUCCAGGUGGCCC | 4037 | UGGUAGCGGCAAGAGCACU |
| 3933 | GUCGAGUCUAUGGAAACCA | 3968 | CUUCACGGACAACUCGUCC | 4003 | AGACAUUCCAGGUGGCCCA | 4038 | GGUAGCGGCAAGAGCACUA |
| 3934 | UCGAGUCUAUGGAAACCAC | 3969 | UUCACGGACAACUCGUCCC | 4004 | GACAUUCCAGGUGGCCCAU | 4039 | GUAGCGGCAAGAGCACUAA |
| 3935 | CGAGUCUAUGGAAACCACU | 3970 | UCACGGACAACUCGUCCCC | 4005 | ACAUUCCAGGUGGCCCAUC | 4040 | UAGCGGCAAGAGCACUAAG |
| 3936 | GAGUCUAUGGAAACCACUA | 3971 | CACGGACAACUCGUCCCCU | 4006 | CAUUCCAGGUGGCCCAUCU | 4041 | AGCGGCAAGAGCACUAAGG |
| 3937 | AGUCUAUGGAAACCACUAU | 3972 | ACGGACAACUCGUCCCCUC | 4007 | AUUCCAGGUGGCCCAUCUA | 4042 | GCGGCAAGAGCACUAAGGU |
| 3938 | GUCUAUGGAAACCACUAUG | 3973 | CGGACAACUCGUCCCCUCC | 4008 | UUCCAGGUGGCCCAUCUAC | 4043 | CGGCAAGAGCACUAAGGUG |
| 3939 | UCUAUGGAAACCACUAUGC | 3974 | GGACAACUCGUCCCCUCCG | 4009 | UCCAGGUGGCCCAUCUACA | 4044 | GGCAAGAGCACUAAGGUGC |
| 3940 | CUAUGGAAACCACUAUGCG | 3975 | GACAACUCGUCCCCUCCGG | 4010 | CCAGGUGGCCCAUCUACAC | 4045 | GCAAGAGCACUAAGGUGCC |
| 3941 | UAUGGAAACCACUAUGCGG | 3976 | ACAACUCGUCCCCUCCGGC | 4011 | CAGGUGGCCCAUCUACACG | 4046 | CAAGAGCACUAAGGUGCCG |
| 3942 | AUGGAAACCACUAUGCGGU | 3977 | CAACUCGUCCCCUCCGGCC | 4012 | AGGUGGCCCAUCUACACGC | 4047 | AAGAGCACUAAGGUGCCGG |
| 3943 | UGGAAACCACUAUGCGGUC | 3978 | AACUCGUCCCCUCCGGCCG | 4013 | GGUGGCCCAUCUACACGCC | 4048 | AGAGCACUAAGGUGCCGGC |
| 3944 | GGAAACCACUAUGCGGUCC | 3979 | ACUCGUCCCCUCCGGCCGU | 4014 | GUGGCCCAUCUACACGCCC | 4049 | GAGCACUAAGGUGCCGGCU |
| 3945 | GAAACCACUAUGCGGUCCC | 3980 | CUCGUCCCCUCCGGCCGUA | 4015 | UGGCCCAUCUACACGCCCC | 4050 | AGCACUAAGGUGCCGGCUG |
| 3946 | AAACCACUAUGCGGUCCCC | 3981 | UCGUCCCCUCCGGCCGUAC | 4016 | GGCCCAUCUACACGCCCCU | 4051 | GCACUAAGGUGCCGGCUGC |
| 3947 | AACCACUAUGCGGUCCCCG | 3982 | CGUCCCCUCCGGCCGUACC | 4017 | GCCCAUCUACACGCCCCUA | 4052 | CACUAAGGUGCCGGCUGCG |
| 3948 | ACCACUAUGCGGUCCCCGG | 3983 | GUCCCCUCCGGCCGUACCG | 4018 | CCCAUCUACACGCCCCUAC | 4053 | ACUAAGGUGCCGGCUGCGU |
| 3949 | CCACUAUGCGGUCCCCGGU | 3984 | UCCCCUCCGGCCGUACCGC | 4019 | CCAUCUACACGCCCCUACU | 4054 | CUAAGGUGCCGGCUGCGUA |
| 3950 | CACUAUGCGGUCCCCGGUC | 3985 | CCCCUCCGGCCGUACCGCA | 4020 | CAUCUACACGCCCCUACUG | 4055 | UAAGGUGCCGGCUGCGUAU |
| 3951 | ACUAUGCGGUCCCCGGUCU | 3986 | CCCUCCGGCCGUACCGCAG | 4021 | AUCUACACGCCCCUACUGG | 4056 | AAGGUGCCGGCUGCGUAUG |
| 3952 | CUAUGCGGUCCCCGGUCUU | 3987 | CCUCCGGCCGUACCGCAGA | 4022 | UCUACACGCCCCUACUGGU | 4057 | AGGUGCCGGCUGCGUAUGC |
| 3953 | UAUGCGGUCCCCGGUCUUC | 3988 | CUCCGGCCGUACCGCAGAC | 4023 | CUACACGCCCCUACUGGUA | 4058 | GGUGCCGGCUGCGUAUGCA |
| 3954 | AUGCGGUCCCCGGUCUUCA | 3989 | UCCGGCCGUACCGCAGACA | 4024 | UACACGCCCCUACUGGUAG | 4059 | GUGCCGGCUGCGUAUGCAG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4060 | UGCCGGCUGCGUAUGCAGC | 4095 | CUUGUCCUGAACCCGUCCG | 4130 | UUUCGGGGCGUAUAUGUCU | 4165 | ACCCUAACAUCAGAACCGG |
| 4061 | GCCGGCUGCGUAUGCAGCC | 4096 | UUGUCCUGAACCCGUCCGU | 4131 | UUCGGGGCGUAUAUGUCUA | 4166 | CCCUAACAUCAGAACCGGG |
| 4062 | CCGGCUGCGUAUGCAGCCC | 4097 | UGUCCUGAACCCGUCCGUC | 4132 | UCGGGGCGUAUAUGUCUAA | 4167 | CCUAACAUCAGAACCGGGG |
| 4063 | CGGCUGCGUAUGCAGCCCA | 4098 | GUCCUGAACCCGUCCGUCG | 4133 | CGGGGCGUAUAUGUCUAAG | 4168 | CUAACAUCAGAACCGGGGU |
| 4064 | GGCUGCGUAUGCAGCCCAA | 4099 | UCCUGAACCCGUCCGUCGC | 4134 | GGGGCGUAUAUGUCUAAGG | 4169 | UAACAUCAGAACCGGGGUA |
| 4065 | GCUGCGUAUGCAGCCCAAG | 4100 | CCUGAACCCGUCCGUCGCC | 4135 | GGGCGUAUAUGUCUAAGGC | 4170 | AACAUCAGAACCGGGGUAA |
| 4066 | CUGCGUAUGCAGCCCAAGG | 4101 | CUGAACCCGUCCGUCGCCG | 4136 | GGCGUAUAUGUCUAAGGCA | 4171 | ACAUCAGAACCGGGGUAAG |
| 4067 | UGCGUAUGCAGCCCAAGGG | 4102 | UGAACCCGUCCGUCGCCGC | 4137 | GCGUAUAUGUCUAAGGCAC | 4172 | CAUCAGAACCGGGGUAAGG |
| 4068 | GCGUAUGCAGCCCAAGGGU | 4103 | GAACCCGUCCGUCGCCGCC | 4138 | CGUAUAUGUCUAAGGCACA | 4173 | AUCAGAACCGGGGUAAGGA |
| 4069 | CGUAUGCAGCCCAAGGGUA | 4104 | AACCCGUCCGUCGCCGCCA | 4139 | GUAUAUGUCUAAGGCACAU | 4174 | UCAGAACCGGGGUAAGGAC |
| 4070 | GUAUGCAGCCCAAGGGUAU | 4105 | ACCCGUCCGUCGCCGCCAC | 4140 | UAUAUGUCUAAGGCACAUG | 4175 | CAGAACCGGGGUAAGGACC |
| 4071 | UAUGCAGCCCAAGGGUAUA | 4106 | CCCGUCCGUCGCCGCCACC | 4141 | AUAUGUCUAAGGCACAUGG | 4176 | AGAACCGGGGUAAGGACCA |
| 4072 | AUGCAGCCCAAGGGUAUAA | 4107 | CCGUCCGUCGCCGCCACCC | 4142 | UAUGUCUAAGGCACAUGGU | 4177 | GAACCGGGGUAAGGACCAU |
| 4073 | UGCAGCCCAAGGGUAUAAG | 4108 | CGUCCGUCGCCGCCACCCU | 4143 | AUGUCUAAGGCACAUGGUA | 4178 | AACCGGGGUAAGGACCAUC |
| 4074 | GCAGCCCAAGGGUAUAAGG | 4109 | GUCCGUCGCCGCCACCCUA | 4144 | UGUCUAAGGCACAUGGUAU | 4179 | ACCGGGGUAAGGACCAUCA |
| 4075 | CAGCCCAAGGGUAUAAGGU | 4110 | UCCGUCGCCGCCACCCUAG | 4145 | GUCUAAGGCACAUGGUAUC | 4180 | CCGGGGUAAGGACCAUCAC |
| 4076 | AGCCCAAGGGUAUAAGGUG | 4111 | CCGUCGCCGCCACCCUAGG | 4146 | UCUAAGGCACAUGGUAUCG | 4181 | CGGGGUAAGGACCAUCACC |
| 4077 | GCCCAAGGGUAUAAGGUGC | 4112 | CGUCGCCGCCACCCUAGGU | 4147 | CUAAGGCACAUGGUAUCGA | 4182 | GGGGUAAGGACCAUCACCA |
| 4078 | CCCAAGGGUAUAAGGUGCU | 4113 | GUCGCCGCCACCCUAGGUU | 4148 | UAAGGCACAUGGUAUCGAC | 4183 | GGGUAAGGACCAUCACCAC |
| 4079 | CCAAGGGUAUAAGGUGCUU | 4114 | UCGCCGCCACCCUAGGUUU | 4149 | AAGGCACAUGGUAUCGACC | 4184 | GGUAAGGACCAUCACCACG |
| 4080 | CAAGGGUAUAAGGUGCUUG | 4115 | CGCCGCCACCCUAGGUUUC | 4150 | AGGCACAUGGUAUCGACCC | 4185 | GUAAGGACCAUCACCACGG |
| 4081 | AAGGGUAUAAGGUGCUUGU | 4116 | GCCGCCACCCUAGGUUUCG | 4151 | GGCACAUGGUAUCGACCCU | 4186 | UAAGGACCAUCACCACGGG |
| 4082 | AGGGUAUAAGGUGCUUGUC | 4117 | CCGCCACCCUAGGUUUCGG | 4152 | GCACAUGGUAUCGACCCUA | 4187 | AAGGACCAUCACCACGGGU |
| 4083 | GGGUAUAAGGUGCUUGUCC | 4118 | CGCCACCCUAGGUUUCGGG | 4153 | CACAUGGUAUCGACCCUAA | 4188 | AGGACCAUCACCACGGGUG |
| 4084 | GGUAUAAGGUGCUUGUCCU | 4119 | GCCACCCUAGGUUUCGGGG | 4154 | ACAUGGUAUCGACCCUAAC | 4189 | GGACCAUCACCACGGGUGC |
| 4085 | GUAUAAGGUGCUUGUCCUG | 4120 | CCACCCUAGGUUUCGGGGC | 4155 | CAUGGUAUCGACCCUAACA | 4190 | GACCAUCACCACGGGUGCC |
| 4086 | UAUAAGGUGCUUGUCCUGA | 4121 | CACCCUAGGUUUCGGGGCG | 4156 | AUGGUAUCGACCCUAACAU | 4191 | ACCAUCACCACGGGUGCCC |
| 4087 | AUAAGGUGCUUGUCCUGAA | 4122 | ACCCUAGGUUUCGGGGCGU | 4157 | UGGUAUCGACCCUAACAUC | 4192 | CCAUCACCACGGGUGCCCC |
| 4088 | UAAGGUGCUUGUCCUGAAC | 4123 | CCCUAGGUUUCGGGGCGUA | 4158 | GGUAUCGACCCUAACAUCA | 4193 | CAUCACCACGGGUGCCCCC |
| 4089 | AAGGUGCUUGUCCUGAACC | 4124 | CCUAGGUUUCGGGGCGUAU | 4159 | GUAUCGACCCUAACAUCAG | 4194 | AUCACCACGGGUGCCCCCA |
| 4090 | AGGUGCUUGUCCUGAACCC | 4125 | CUAGGUUUCGGGGCGUAUA | 4160 | UAUCGACCCUAACAUCAGA | 4195 | UCACCACGGGUGCCCCCAU |
| 4091 | GGUGCUUGUCCUGAACCCG | 4126 | UAGGUUUCGGGGCGUAUAU | 4161 | AUCGACCCUAACAUCAGAA | 4196 | CACCACGGGUGCCCCCAUC |
| 4092 | GUGCUUGUCCUGAACCCGU | 4127 | AGGUUUCGGGGCGUAUAUG | 4162 | UCGACCCUAACAUCAGAAC | 4197 | ACCACGGGUGCCCCCAUCA |
| 4093 | UGCUUGUCCUGAACCCGUC | 4128 | GGUUUCGGGGCGUAUAUGU | 4163 | CGACCCUAACAUCAGAACC | 4198 | CCACGGGUGCCCCCAUCAC |
| 4094 | GCUUGUCCUGAACCCGUCC | 4129 | GUUUCGGGGCGUAUAUGUC | 4164 | GACCCUAACAUCAGAACCG | 4199 | CACGGGUGCCCCCAUCACG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4200 | ACGGGUGCCCCCAUCACGU | 4235 | GUUUCUUGCCGACGGUGGU | 4270 | AUGACAUCAUAAUAUGUGA | 4305 | GACUCGACCACUAUCCUGG |
| 4201 | CGGGUGCCCCCAUCACGUA | 4236 | UUUCUUGCCGACGGUGGUU | 4271 | UGACAUCAUAAUAUGUGAU | 4306 | ACUCGACCACUAUCCUGGG |
| 4202 | GGGUGCCCCCAUCACGUAC | 4237 | UUCUUGCCGACGGUGGUUG | 4272 | GACAUCAUAAUAUGUGAUG | 4307 | CUCGACCACUAUCCUGGGC |
| 4203 | GGUGCCCCCAUCACGUACU | 4238 | UCUUGCCGACGGUGGUUGC | 4273 | ACAUCAUAAUAUGUGAUGA | 4308 | UCGACCACUAUCCUGGGCA |
| 4204 | GUGCCCCCAUCACGUACUC | 4239 | CUUGCCGACGGUGGUUGCU | 4274 | CAUCAUAAUAUGUGAUGAG | 4309 | CGACCACUAUCCUGGGCAU |
| 4205 | UGCCCCCAUCACGUACUCC | 4240 | UUGCCGACGGUGGUUGCUC | 4275 | AUCAUAAUAUGUGAUGAGU | 4310 | GACCACUAUCCUGGGCAUC |
| 4206 | GCCCCCAUCACGUACUCCA | 4241 | UGCCGACGGUGGUUGCUCU | 4276 | UCAUAAUAUGUGAUGAGUG | 4311 | ACCACUAUCCUGGGCAUCG |
| 4207 | CCCCCAUCACGUACUCCAC | 4242 | GCCGACGGUGGUUGCUCUG | 4277 | CAUAAUAUGUGAUGAGUGC | 4312 | CCACUAUCCUGGGCAUCGG |
| 4208 | CCCCAUCACGUACUCCACC | 4243 | CCGACGGUGGUUGCUCUGG | 4278 | AUAAUAUGUGAUGAGUGCC | 4313 | CACUAUCCUGGGCAUCGGC |
| 4209 | CCCAUCACGUACUCCACCU | 4244 | CGACGGUGGUUGCUCUGGG | 4279 | UAAUAUGUGAUGAGUGCCA | 4314 | ACUAUCCUGGGCAUCGGCA |
| 4210 | CCAUCACGUACUCCACCUA | 4245 | GACGGUGGUUGCUCUGGGG | 4280 | AAUAUGUGAUGAGUGCCAC | 4315 | CUAUCCUGGGCAUCGGCAC |
| 4211 | CAUCACGUACUCCACCUAU | 4246 | ACGGUGGUUGCUCUGGGGG | 4281 | AUAUGUGAUGAGUGCCACU | 4316 | UAUCCUGGGCAUCGGCACA |
| 4212 | AUCACGUACUCCACCUAUG | 4247 | CGGUGGUUGCUCUGGGGGC | 4282 | UAUGUGAUGAGUGCCACUC | 4317 | AUCCUGGGCAUCGGCACAG |
| 4213 | UCACGUACUCCACCUAUGG | 4248 | GGUGGUUGCUCUGGGGGCG | 4283 | AUGUGAUGAGUGCCACUCA | 4318 | UCCUGGGCAUCGGCACAGU |
| 4214 | CACGUACUCCACCUAUGGC | 4249 | GUGGUUGCUCUGGGGGCGC | 4284 | UGUGAUGAGUGCCACUCAA | 4319 | CCUGGGCAUCGGCACAGUC |
| 4215 | ACGUACUCCACCUAUGGCA | 4250 | UGGUUGCUCUGGGGGCGCC | 4285 | GUGAUGAGUGCCACUCAAC | 4320 | CUGGGCAUCGGCACAGUCC |
| 4216 | CGUACUCCACCUAUGGCAA | 4251 | GGUUGCUCUGGGGGCGCCU | 4286 | UGAUGAGUGCCACUCAACU | 4321 | UGGGCAUCGGCACAGUCCU |
| 4217 | GUACUCCACCUAUGGCAAG | 4252 | GUUGCUCUGGGGGCGCCUA | 4287 | GAUGAGUGCCACUCAACUG | 4322 | GGGCAUCGGCACAGUCCUG |
| 4218 | UACUCCACCUAUGGCAAGU | 4253 | UUGCUCUGGGGGCGCCUAU | 4288 | AUGAGUGCCACUCAACUGA | 4323 | GGCAUCGGCACAGUCCUGG |
| 4219 | ACUCCACCUAUGGCAAGUU | 4254 | UGCUCUGGGGGCGCCUAUG | 4289 | UGAGUGCCACUCAACUGAC | 4324 | GCAUCGGCACAGUCCUGGA |
| 4220 | CUCCACCUAUGGCAAGUUU | 4255 | GCUCUGGGGGCGCCUAUGA | 4290 | GAGUGCCACUCAACUGACU | 4325 | CAUCGGCACAGUCCUGGAC |
| 4221 | UCCACCUAUGGCAAGUUUC | 4256 | CUCUGGGGGCGCCUAUGAC | 4291 | AGUGCCACUCAACUGACUC | 4326 | AUCGGCACAGUCCUGGACC |
| 4222 | CCACCUAUGGCAAGUUUCU | 4257 | UCUGGGGGCGCCUAUGACA | 4292 | GUGCCACUCAACUGACUCG | 4327 | UCGGCACAGUCCUGGACCA |
| 4223 | CACCUAUGGCAAGUUUCUU | 4258 | CUGGGGGCGCCUAUGACAU | 4293 | UGCCACUCAACUGACUCGA | 4328 | CGGCACAGUCCUGGACCAA |
| 4224 | ACCUAUGGCAAGUUUCUUG | 4259 | UGGGGGCGCCUAUGACAUC | 4294 | GCCACUCAACUGACUCGAC | 4329 | GGCACAGUCCUGGACCAAG |
| 4225 | CCUAUGGCAAGUUUCUUGC | 4260 | GGGGGCGCCUAUGACAUCA | 4295 | CCACUCAACUGACUCGACC | 4330 | GCACAGUCCUGGACCAAGC |
| 4226 | CUAUGGCAAGUUUCUUGCC | 4261 | GGGGCGCCUAUGACAUCAU | 4296 | CACUCAACUGACUCGACCA | 4331 | CACAGUCCUGGACCAAGCG |
| 4227 | UAUGGCAAGUUUCUUGCCG | 4262 | GGGCGCCUAUGACAUCAUA | 4297 | ACUCAACUGACUCGACCAC | 4332 | ACAGUCCUGGACCAAGCGG |
| 4228 | AUGGCAAGUUUCUUGCCGA | 4263 | GGCGCCUAUGACAUCAUAA | 4298 | CUCAACUGACUCGACCACU | 4333 | CAGUCCUGGACCAAGCGGA |
| 4229 | UGGCAAGUUUCUUGCCGAC | 4264 | GCGCCUAUGACAUCAUAAU | 4299 | UCAACUGACUCGACCACUA | 4334 | AGUCCUGGACCAAGCGGAG |
| 4230 | GGCAAGUUUCUUGCCGACG | 4265 | CGCCUAUGACAUCAUAAUA | 4300 | CAACUGACUCGACCACUAU | 4335 | GUCCUGGACCAAGCGGAGA |
| 4231 | GCAAGUUUCUUGCCGACGG | 4266 | GCCUAUGACAUCAUAAUAU | 4301 | AACUGACUCGACCACUAUC | 4336 | UCCUGGACCAAGCGGAGAC |
| 4232 | CAAGUUUCUUGCCGACGGU | 4267 | CCUAUGACAUCAUAAUAUG | 4302 | ACUGACUCGACCACUAUCC | 4337 | CCUGGACCAAGCGGAGACG |
| 4233 | AAGUUUCUUGCCGACGGUG | 4268 | CUAUGACAUCAUAAUAUGU | 4303 | CUGACUCGACCACUAUCCU | 4338 | CUGGACCAAGCGGAGACGG |
| 4234 | AGUUUCUUGCCGACGGUGG | 4269 | UAUGACAUCAUAAUAUGUG | 4304 | UGACUCGACCACUAUCCUG | 4339 | UGGACCAAGCGGAGACGGC |

**FIG. 2 (page 82 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4340 | GGACCAAGCGGAGACGGCU | 4375 | UGCUCGCCACCGCUACGCC | 4410 | GUGCCACAUCCAAACAUCG | 4445 | CAGCACUGGAGAAAUCCCC |
| 4341 | GACCAAGCGGAGACGGCUG | 4376 | GCUCGCCACCGCUACGCCU | 4411 | UGCCACAUCCAAACAUCGA | 4446 | AGCACUGGAGAAAUCCCCU |
| 4342 | ACCAAGCGGAGACGGCUGG | 4377 | CUCGCCACCGCUACGCCUC | 4412 | GCCACAUCCAAACAUCGAG | 4447 | GCACUGGAGAAAUCCCCUU |
| 4343 | CCAAGCGGAGACGGCUGGA | 4378 | UCGCCACCGCUACGCCUCC | 4413 | CCACAUCCAAACAUCGAGG | 4448 | CACUGGAGAAAUCCCCUUU |
| 4344 | CAAGCGGAGACGGCUGGAG | 4379 | CGCCACCGCUACGCCUCCG | 4414 | CACAUCCAAACAUCGAGGA | 4449 | ACUGGAGAAAUCCCCUUUU |
| 4345 | AAGCGGAGACGGCUGGAGC | 4380 | GCCACCGCUACGCCUCCGG | 4415 | ACAUCCAAACAUCGAGGAG | 4450 | CUGGAGAAAUCCCCUUUUA |
| 4346 | AGCGGAGACGGCUGGAGCG | 4381 | CCACCGCUACGCCUCCGGG | 4416 | CAUCCAAACAUCGAGGAGG | 4451 | UGGAGAAAUCCCCUUUUAU |
| 4347 | GCGGAGACGGCUGGAGCGC | 4382 | CACCGCUACGCCUCCGGGA | 4417 | AUCCAAACAUCGAGGAGGU | 4452 | GGAGAAAUCCCCUUUUAUG |
| 4348 | CGGAGACGGCUGGAGCGCG | 4383 | ACCGCUACGCCUCCGGGAU | 4418 | UCCAAACAUCGAGGAGGUG | 4453 | GAGAAAUCCCCUUUUAUGG |
| 4349 | GGAGACGGCUGGAGCGCGA | 4384 | CCGCUACGCCUCCGGGAUC | 4419 | CCAAACAUCGAGGAGGUGG | 4454 | AGAAAUCCCCUUUUAUGGC |
| 4350 | GAGACGGCUGGAGCGCGAC | 4385 | CGCUACGCCUCCGGGAUCG | 4420 | CAAACAUCGAGGAGGUGGC | 4455 | GAAAUCCCCUUUUAUGGCA |
| 4351 | AGACGGCUGGAGCGCGACU | 4386 | GCUACGCCUCCGGGAUCGG | 4421 | AAACAUCGAGGAGGUGGCU | 4456 | AAAUCCCCUUUUAUGGCAA |
| 4352 | GACGGCUGGAGCGCGACUC | 4387 | CUACGCCUCCGGGAUCGGU | 4422 | AACAUCGAGGAGGUGGCUC | 4457 | AAUCCCCUUUUAUGGCAAA |
| 4353 | ACGGCUGGAGCGCGACUCG | 4388 | UACGCCUCCGGGAUCGGUC | 4423 | ACAUCGAGGAGGUGGCUCU | 4458 | AUCCCCUUUUAUGGCAAAG |
| 4354 | CGGCUGGAGCGCGACUCGU | 4389 | ACGCCUCCGGGAUCGGUCA | 4424 | CAUCGAGGAGGUGGCUCUG | 4459 | UCCCCUUUUAUGGCAAAGC |
| 4355 | GGCUGGAGCGCGACUCGUC | 4390 | CGCCUCCGGGAUCGGUCAC | 4425 | AUCGAGGAGGUGGCUCUGU | 4460 | CCCCUUUUAUGGCAAAGCC |
| 4356 | GCUGGAGCGCGACUCGUCG | 4391 | GCCUCCGGGAUCGGUCACC | 4426 | UCGAGGAGGUGGCUCUGUC | 4461 | CCCUUUUAUGGCAAAGCCA |
| 4357 | CUGGAGCGCGACUCGUCGU | 4392 | CCUCCGGGAUCGGUCACCG | 4427 | CGAGGAGGUGGCUCUGUCC | 4462 | CCUUUUAUGGCAAAGCCAU |
| 4358 | UGGAGCGCGACUCGUCGUG | 4393 | CUCCGGGAUCGGUCACCGU | 4428 | GAGGAGGUGGCUCUGUCCA | 4463 | CUUUUAUGGCAAAGCCAUC |
| 4359 | GGAGCGCGACUCGUCGUGC | 4394 | UCCGGGAUCGGUCACCGUG | 4429 | AGGAGGUGGCUCUGUCCAG | 4464 | UUUUAUGGCAAAGCCAUCC |
| 4360 | GAGCGCGACUCGUCGUGCU | 4395 | CCGGGAUCGGUCACCGUGC | 4430 | GGAGGUGGCUCUGUCCAGC | 4465 | UUUAUGGCAAAGCCAUCCC |
| 4361 | AGCGCGACUCGUCGUGCUC | 4396 | CGGGAUCGGUCACCGUGCC | 4431 | GAGGUGGCUCUGUCCAGCA | 4466 | UUAUGGCAAAGCCAUCCCC |
| 4362 | GCGCGACUCGUCGUGCUCG | 4397 | GGGAUCGGUCACCGUGCCA | 4432 | AGGUGGCUCUGUCCAGCAC | 4467 | UAUGGCAAAGCCAUCCCCA |
| 4363 | CGCGACUCGUCGUGCUCGC | 4398 | GGAUCGGUCACCGUGCCAC | 4433 | GGUGGCUCUGUCCAGCACU | 4468 | AUGGCAAAGCCAUCCCCAU |
| 4364 | GCGACUCGUCGUGCUCGCC | 4399 | GAUCGGUCACCGUGCCACA | 4434 | GUGGCUCUGUCCAGCACUG | 4469 | UGGCAAAGCCAUCCCCAUC |
| 4365 | CGACUCGUCGUGCUCGCCA | 4400 | AUCGGUCACCGUGCCACAU | 4435 | UGGCUCUGUCCAGCACUGG | 4470 | GGCAAAGCCAUCCCCAUCG |
| 4366 | GACUCGUCGUGCUCGCCAC | 4401 | UCGGUCACCGUGCCACAUC | 4436 | GGCUCUGUCCAGCACUGGA | 4471 | GCAAAGCCAUCCCCAUCGA |
| 4367 | ACUCGUCGUGCUCGCCACC | 4402 | CGGUCACCGUGCCACAUCC | 4437 | GCUCUGUCCAGCACUGGAG | 4472 | CAAAGCCAUCCCCAUCGAG |
| 4368 | CUCGUCGUGCUCGCCACCG | 4403 | GGUCACCGUGCCACAUCCA | 4438 | CUCUGUCCAGCACUGGAGA | 4473 | AAAGCCAUCCCCAUCGAGA |
| 4369 | UCGUCGUGCUCGCCACCGC | 4404 | GUCACCGUGCCACAUCCAA | 4439 | UCUGUCCAGCACUGGAGAA | 4474 | AAGCCAUCCCCAUCGAGAC |
| 4370 | CGUCGUGCUCGCCACCGCU | 4405 | UCACCGUGCCACAUCCAAA | 4440 | CUGUCCAGCACUGGAGAAA | 4475 | AGCCAUCCCCAUCGAGACC |
| 4371 | GUCGUGCUCGCCACCGCUA | 4406 | CACCGUGCCACAUCCAAAC | 4441 | UGUCCAGCACUGGAGAAAU | 4476 | GCCAUCCCCAUCGAGACCA |
| 4372 | UCGUGCUCGCCACCGCUAC | 4407 | ACCGUGCCACAUCCAAACA | 4442 | GUCCAGCACUGGAGAAAUC | 4477 | CCAUCCCCAUCGAGACCAU |
| 4373 | CGUGCUCGCCACCGCUACG | 4408 | CCGUGCCACAUCCAAACAU | 4443 | UCCAGCACUGGAGAAAUCC | 4478 | CAUCCCCAUCGAGACCAUC |
| 4374 | GUGCUCGCCACCGCUACGC | 4409 | CGUGCCACAUCCAAACAUC | 4444 | CCAGCACUGGAGAAAUCCC | 4479 | AUCCCCAUCGAGACCAUCA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4480 | UCCCCAUCGAGACCAUCAA | 4515 | AUUUUCUGCCAUUCCAAGA | 4550 | CGCCGCGAAGCUGUCCGGC | 4585 | UAGCAUAUUACCGGGGCCU |
| 4481 | CCCCAUCGAGACCAUCAAG | 4516 | UUUUCUGCCAUUCCAAGAA | 4551 | GCCGCGAAGCUGUCCGGCC | 4586 | AGCAUAUUACCGGGGCCUU |
| 4482 | CCCAUCGAGACCAUCAAGG | 4517 | UUUCUGCCAUUCCAAGAAG | 4552 | CCGCGAAGCUGUCCGGCCU | 4587 | GCAUAUUACCGGGGCCUUG |
| 4483 | CCAUCGAGACCAUCAAGGG | 4518 | UUCUGCCAUUCCAAGAAGA | 4553 | CGCGAAGCUGUCCGGCCUC | 4588 | CAUAUUACCGGGGCCUUGA |
| 4484 | CAUCGAGACCAUCAAGGGG | 4519 | UCUGCCAUUCCAAGAAGAA | 4554 | GCGAAGCUGUCCGGCCUCG | 4589 | AUAUUACCGGGGCCUUGAU |
| 4485 | AUCGAGACCAUCAAGGGGG | 4520 | CUGCCAUUCCAAGAAGAAA | 4555 | CGAAGCUGUCCGGCCUCGG | 4590 | UAUUACCGGGGCCUUGAUG |
| 4486 | UCGAGACCAUCAAGGGGGG | 4521 | UGCCAUUCCAAGAAGAAAU | 4556 | GAAGCUGUCCGGCCUCGGA | 4591 | AUUACCGGGGCCUUGAUGU |
| 4487 | CGAGACCAUCAAGGGGGGG | 4522 | GCCAUUCCAAGAAGAAAUG | 4557 | AAGCUGUCCGGCCUCGGAC | 4592 | UUACCGGGGCCUUGAUGUA |
| 4488 | GAGACCAUCAAGGGGGGGA | 4523 | CCAUUCCAAGAAGAAAUGU | 4558 | AGCUGUCCGGCCUCGGACU | 4593 | UACCGGGGCCUUGAUGUAU |
| 4489 | AGACCAUCAAGGGGGGGAG | 4524 | CAUUCCAAGAAGAAAUGUG | 4559 | GCUGUCCGGCCUCGGACUC | 4594 | ACCGGGGCCUUGAUGUAUC |
| 4490 | GACCAUCAAGGGGGGGAGG | 4525 | AUUCCAAGAAGAAAUGUGA | 4560 | CUGUCCGGCCUCGGACUCA | 4595 | CCGGGGCCUUGAUGUAUCC |
| 4491 | ACCAUCAAGGGGGGGAGGC | 4526 | UUCCAAGAAGAAAUGUGAU | 4561 | UGUCCGGCCUCGGACUCAA | 4596 | CGGGGCCUUGAUGUAUCCG |
| 4492 | CCAUCAAGGGGGGGAGGCA | 4527 | UCCAAGAAGAAAUGUGAUG | 4562 | GUCCGGCCUCGGACUCAAU | 4597 | GGGGCCUUGAUGUAUCCGU |
| 4493 | CAUCAAGGGGGGGAGGCAC | 4528 | CCAAGAAGAAAUGUGAUGA | 4563 | UCCGGCCUCGGACUCAAUG | 4598 | GGGCCUUGAUGUAUCCGUC |
| 4494 | AUCAAGGGGGGGAGGCACC | 4529 | CAAGAAGAAAUGUGAUGAG | 4564 | CCGGCCUCGGACUCAAUGC | 4599 | GGCCUUGAUGUAUCCGUCA |
| 4495 | UCAAGGGGGGGAGGCACCU | 4530 | AAGAAGAAAUGUGAUGAGC | 4565 | CGGCCUCGGACUCAAUGCU | 4600 | GCCUUGAUGUAUCCGUCAU |
| 4496 | CAAGGGGGGGAGGCACCUC | 4531 | AGAAGAAAUGUGAUGAGCU | 4566 | GGCCUCGGACUCAAUGCUG | 4601 | CCUUGAUGUAUCCGUCAUA |
| 4497 | AAGGGGGGGAGGCACCUCA | 4532 | GAAGAAAUGUGAUGAGCUC | 4567 | GCCUCGGACUCAAUGCUGU | 4602 | CUUGAUGUAUCCGUCAUAC |
| 4498 | AGGGGGGGAGGCACCUCAU | 4533 | AAGAAAUGUGAUGAGCUCG | 4568 | CCUCGGACUCAAUGCUGUA | 4603 | UUGAUGUAUCCGUCAUACC |
| 4499 | GGGGGGGAGGCACCUCAUU | 4534 | AGAAAUGUGAUGAGCUCGC | 4569 | CUCGGACUCAAUGCUGUAG | 4604 | UGAUGUAUCCGUCAUACCA |
| 4500 | GGGGGGAGGCACCUCAUUU | 4535 | GAAAUGUGAUGAGCUCGCC | 4570 | UCGGACUCAAUGCUGUAGC | 4605 | GAUGUAUCCGUCAUACCAA |
| 4501 | GGGGGAGGCACCUCAUUUU | 4536 | AAAUGUGAUGAGCUCGCCG | 4571 | CGGACUCAAUGCUGUAGCA | 4606 | AUGUAUCCGUCAUACCAAC |
| 4502 | GGGGAGGCACCUCAUUUUC | 4537 | AAUGUGAUGAGCUCGCCGC | 4572 | GGACUCAAUGCUGUAGCAU | 4607 | UGUAUCCGUCAUACCAACU |
| 4503 | GGGAGGCACCUCAUUUUCU | 4538 | AUGUGAUGAGCUCGCCGCG | 4573 | GACUCAAUGCUGUAGCAUA | 4608 | GUAUCCGUCAUACCAACUA |
| 4504 | GGAGGCACCUCAUUUUCUG | 4539 | UGUGAUGAGCUCGCCGCGA | 4574 | ACUCAAUGCUGUAGCAUAU | 4609 | UAUCCGUCAUACCAACUAG |
| 4505 | GAGGCACCUCAUUUUCUGC | 4540 | GUGAUGAGCUCGCCGCGAA | 4575 | CUCAAUGCUGUAGCAUAUU | 4610 | AUCCGUCAUACCAACUAGC |
| 4506 | AGGCACCUCAUUUUCUGCC | 4541 | UGAUGAGCUCGCCGCGAAG | 4576 | UCAAUGCUGUAGCAUAUUA | 4611 | UCCGUCAUACCAACUAGCG |
| 4507 | GGCACCUCAUUUUCUGCCA | 4542 | GAUGAGCUCGCCGCGAAGC | 4577 | CAAUGCUGUAGCAUAUUAC | 4612 | CCGUCAUACCAACUAGCGG |
| 4508 | GCACCUCAUUUUCUGCCAU | 4543 | AUGAGCUCGCCGCGAAGCU | 4578 | AAUGCUGUAGCAUAUUACC | 4613 | CGUCAUACCAACUAGCGGA |
| 4509 | CACCUCAUUUUCUGCCAUU | 4544 | UGAGCUCGCCGCGAAGCUG | 4579 | AUGCUGUAGCAUAUUACCG | 4614 | GUCAUACCAACUAGCGGAG |
| 4510 | ACCUCAUUUUCUGCCAUUC | 4545 | GAGCUCGCCGCGAAGCUGU | 4580 | UGCUGUAGCAUAUUACCGG | 4615 | UCAUACCAACUAGCGGAGA |
| 4511 | CCUCAUUUUCUGCCAUUCC | 4546 | AGCUCGCCGCGAAGCUGUC | 4581 | GCUGUAGCAUAUUACCGGG | 4616 | CAUACCAACUAGCGGAGAC |
| 4512 | CUCAUUUUCUGCCAUUCCA | 4547 | GCUCGCCGCGAAGCUGUCC | 4582 | CUGUAGCAUAUUACCGGGG | 4617 | AUACCAACUAGCGGAGACG |
| 4513 | UCAUUUUCUGCCAUUCCAA | 4548 | CUCGCCGCGAAGCUGUCCG | 4583 | UGUAGCAUAUUACCGGGGC | 4618 | UACCAACUAGCGGAGACGU |
| 4514 | CAUUUUCUGCCAUUCCAAG | 4549 | UCGCCGCGAAGCUGUCCGG | 4584 | GUAGCAUAUUACCGGGGCC | 4619 | ACCAACUAGCGGAGACGUC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4620 | CCAACUAGCGGAGACGUCA | 4655 | CGCUCUAAUGACGGGCUUU | 4690 | CAGUGAUCGACUGCAAUAC | 4725 | GUCGACUUCAGCCUGGACC |
| 4621 | CAACUAGCGGAGACGUCAU | 4656 | GCUCUAAUGACGGGCUUUA | 4691 | AGUGAUCGACUGCAAUACA | 4726 | UCGACUUCAGCCUGGACCC |
| 4622 | AACUAGCGGAGACGUCAUU | 4657 | CUCUAAUGACGGGCUUUAC | 4692 | GUGAUCGACUGCAAUACAU | 4727 | CGACUUCAGCCUGGACCCG |
| 4623 | ACUAGCGGAGACGUCAUUG | 4658 | UCUAAUGACGGGCUUUACC | 4693 | UGAUCGACUGCAAUACAUG | 4728 | GACUUCAGCCUGGACCCGA |
| 4624 | CUAGCGGAGACGUCAUUGU | 4659 | CUAAUGACGGGCUUUACCG | 4694 | GAUCGACUGCAAUACAUGU | 4729 | ACUUCAGCCUGGACCCGAC |
| 4625 | UAGCGGAGACGUCAUUGUC | 4660 | UAAUGACGGGCUUUACCGG | 4695 | AUCGACUGCAAUACAUGUG | 4730 | CUUCAGCCUGGACCCGACC |
| 4626 | AGCGGAGACGUCAUUGUCG | 4661 | AAUGACGGGCUUUACCGGC | 4696 | UCGACUGCAAUACAUGUGU | 4731 | UUCAGCCUGGACCCGACCU |
| 4627 | GCGGAGACGUCAUUGUCGU | 4662 | AUGACGGGCUUUACCGGCG | 4697 | CGACUGCAAUACAUGUGUC | 4732 | UCAGCCUGGACCCGACCUU |
| 4628 | CGGAGACGUCAUUGUCGUA | 4663 | UGACGGGCUUUACCGGCGA | 4698 | GACUGCAAUACAUGUGUCA | 4733 | CAGCCUGGACCCGACCUUC |
| 4629 | GGAGACGUCAUUGUCGUAG | 4664 | GACGGGCUUUACCGGCGAU | 4699 | ACUGCAAUACAUGUGUCAC | 4734 | AGCCUGGACCCGACCUUCA |
| 4630 | GAGACGUCAUUGUCGUAGC | 4665 | ACGGGCUUUACCGGCGAUU | 4700 | CUGCAAUACAUGUGUCACC | 4735 | GCCUGGACCCGACCUUCAC |
| 4631 | AGACGUCAUUGUCGUAGCA | 4666 | CGGGCUUUACCGGCGAUUU | 4701 | UGCAAUACAUGUGUCACCC | 4736 | CCUGGACCCGACCUUCACC |
| 4632 | GACGUCAUUGUCGUAGCAA | 4667 | GGGCUUUACCGGCGAUUUC | 4702 | GCAAUACAUGUGUCACCCA | 4737 | CUGGACCCGACCUUCACCA |
| 4633 | ACGUCAUUGUCGUAGCAAC | 4668 | GGCUUUACCGGCGAUUUCG | 4703 | CAAUACAUGUGUCACCCAG | 4738 | UGGACCCGACCUUCACCAU |
| 4634 | CGUCAUUGUCGUAGCAACG | 4669 | GCUUUACCGGCGAUUUCGA | 4704 | AAUACAUGUGUCACCCAGA | 4739 | GGACCCGACCUUCACCAUU |
| 4635 | GUCAUUGUCGUAGCAACGG | 4670 | CUUUACCGGCGAUUUCGAC | 4705 | AUACAUGUGUCACCCAGAC | 4740 | GACCCGACCUUCACCAUUG |
| 4636 | UCAUUGUCGUAGCAACGGA | 4671 | UUUACCGGCGAUUUCGACU | 4706 | UACAUGUGUCACCCAGACA | 4741 | ACCCGACCUUCACCAUUGA |
| 4637 | CAUUGUCGUAGCAACGGAC | 4672 | UUACCGGCGAUUUCGACUC | 4707 | ACAUGUGUCACCCAGACAG | 4742 | CCCGACCUUCACCAUUGAG |
| 4638 | AUUGUCGUAGCAACGGACG | 4673 | UACCGGCGAUUUCGACUCA | 4708 | CAUGUGUCACCCAGACAGU | 4743 | CCGACCUUCACCAUUGAGA |
| 4639 | UUGUCGUAGCAACGGACGC | 4674 | ACCGGCGAUUUCGACUCAG | 4709 | AUGUGUCACCCAGACAGUC | 4744 | CGACCUUCACCAUUGAGAC |
| 4640 | UGUCGUAGCAACGGACGCU | 4675 | CCGGCGAUUUCGACUCAGU | 4710 | UGUGUCACCCAGACAGUCG | 4745 | GACCUUCACCAUUGAGACG |
| 4641 | GUCGUAGCAACGGACGCUC | 4676 | CGGCGAUUUCGACUCAGUG | 4711 | GUGUCACCCAGACAGUCGA | 4746 | ACCUUCACCAUUGAGACGA |
| 4642 | UCGUAGCAACGGACGCUCU | 4677 | GGCGAUUUCGACUCAGUGA | 4712 | UGUCACCCAGACAGUCGAC | 4747 | CCUUCACCAUUGAGACGAC |
| 4643 | CGUAGCAACGGACGCUCUA | 4678 | GCGAUUUCGACUCAGUGAU | 4713 | GUCACCCAGACAGUCGACU | 4748 | CUUCACCAUUGAGACGACG |
| 4644 | GUAGCAACGGACGCUCUAA | 4679 | CGAUUUCGACUCAGUGAUC | 4714 | UCACCCAGACAGUCGACUU | 4749 | UUCACCAUUGAGACGACGA |
| 4645 | UAGCAACGGACGCUCUAAU | 4680 | GAUUUCGACUCAGUGAUCG | 4715 | CACCCAGACAGUCGACUUC | 4750 | UCACCAUUGAGACGACGAC |
| 4646 | AGCAACGGACGCUCUAAUG | 4681 | AUUUCGACUCAGUGAUCGA | 4716 | ACCCAGACAGUCGACUUCA | 4751 | CACCAUUGAGACGACGACC |
| 4647 | GCAACGGACGCUCUAAUGA | 4682 | UUUCGACUCAGUGAUCGAC | 4717 | CCCAGACAGUCGACUUCAG | 4752 | ACCAUUGAGACGACGACCG |
| 4648 | CAACGGACGCUCUAAUGAC | 4683 | UUCGACUCAGUGAUCGACU | 4718 | CCAGACAGUCGACUUCAGC | 4753 | CCAUUGAGACGACGACCGU |
| 4649 | AACGGACGCUCUAAUGACG | 4684 | UCGACUCAGUGAUCGACUG | 4719 | CAGACAGUCGACUUCAGCC | 4754 | CAUUGAGACGACGACCGUG |
| 4650 | ACGGACGCUCUAAUGACGG | 4685 | CGACUCAGUGAUCGACUGC | 4720 | AGACAGUCGACUUCAGCCU | 4755 | AUUGAGACGACGACCGUGC |
| 4651 | CGGACGCUCUAAUGACGGG | 4686 | GACUCAGUGAUCGACUGCA | 4721 | GACAGUCGACUUCAGCCUG | 4756 | UUGAGACGACGACCGUGCC |
| 4652 | GGACGCUCUAAUGACGGGC | 4687 | ACUCAGUGAUCGACUGCAA | 4722 | ACAGUCGACUUCAGCCUGG | 4757 | UGAGACGACGACCGUGCCA |
| 4653 | GACGCUCUAAUGACGGGCU | 4688 | CUCAGUGAUCGACUGCAAU | 4723 | CAGUCGACUUCAGCCUGGA | 4758 | GAGACGACGACCGUGCCAC |
| 4654 | ACGCUCUAAUGACGGGCUU | 4689 | UCAGUGAUCGACUGCAAUA | 4724 | AGUCGACUUCAGCCUGGAC | 4759 | AGACGACGACCGUGCCACA |

**FIG. 2 (page 85 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4760 | GACGACGACCGUGCCACAA | 4795 | CGCAGCGGCGAGGCAGGAC | 4830 | GGCAUUUACAGGUUUGUGA | 4865 | CUCGGGCAUGUUCGAUUCC |
| 4761 | ACGACGACCGUGCCACAAG | 4796 | GCAGCGGCGAGGCAGGACU | 4831 | GCAUUUACAGGUUUGUGAC | 4866 | UCGGGCAUGUUCGAUUCCU |
| 4762 | CGACGACCGUGCCACAAGA | 4797 | CAGCGGCGAGGCAGGACUG | 4832 | CAUUUACAGGUUUGUGACU | 4867 | CGGGCAUGUUCGAUUCCUC |
| 4763 | GACGACCGUGCCACAAGAC | 4798 | AGCGGCGAGGCAGGACUGG | 4833 | AUUUACAGGUUUGUGACUC | 4868 | GGGCAUGUUCGAUUCCUCG |
| 4764 | ACGACCGUGCCACAAGACG | 4799 | GCGGCGAGGCAGGACUGGU | 4834 | UUUACAGGUUUGUGACUCC | 4869 | GGCAUGUUCGAUUCCUCGG |
| 4765 | CGACCGUGCCACAAGACGC | 4800 | CGGCGAGGCAGGACUGGUA | 4835 | UUACAGGUUUGUGACUCCA | 4870 | GCAUGUUCGAUUCCUCGGU |
| 4766 | GACCGUGCCACAAGACGCG | 4801 | GGCGAGGCAGGACUGGUAG | 4836 | UACAGGUUUGUGACUCCAG | 4871 | CAUGUUCGAUUCCUCGGUU |
| 4767 | ACCGUGCCACAAGACGCGG | 4802 | GCGAGGCAGGACUGGUAGG | 4837 | ACAGGUUUGUGACUCCAGG | 4872 | AUGUUCGAUUCCUCGGUUC |
| 4768 | CCGUGCCACAAGACGCGGU | 4803 | CGAGGCAGGACUGGUAGGG | 4838 | CAGGUUUGUGACUCCAGGA | 4873 | UGUUCGAUUCCUCGGUUCU |
| 4769 | CGUGCCACAAGACGCGGUG | 4804 | GAGGCAGGACUGGUAGGGG | 4839 | AGGUUUGUGACUCCAGGAG | 4874 | GUUCGAUUCCUCGGUUCUG |
| 4770 | GUGCCACAAGACGCGGUGU | 4805 | AGGCAGGACUGGUAGGGGC | 4840 | GGUUUGUGACUCCAGGAGA | 4875 | UUCGAUUCCUCGGUUCUGU |
| 4771 | UGCCACAAGACGCGGUGUC | 4806 | GGCAGGACUGGUAGGGGCA | 4841 | GUUUGUGACUCCAGGAGAA | 4876 | UCGAUUCCUCGGUUCUGUG |
| 4772 | GCCACAAGACGCGGUGUCA | 4807 | GCAGGACUGGUAGGGGCAG | 4842 | UUUGUGACUCCAGGAGAAC | 4877 | CGAUUCCUCGGUUCUGUGC |
| 4773 | CCACAAGACGCGGUGUCAC | 4808 | CAGGACUGGUAGGGGCAGG | 4843 | UUGUGACUCCAGGAGAACG | 4878 | GAUUCCUCGGUUCUGUGCG |
| 4774 | CACAAGACGCGGUGUCACG | 4809 | AGGACUGGUAGGGGCAGGA | 4844 | UGUGACUCCAGGAGAACGG | 4879 | AUUCCUCGGUUCUGUGCGA |
| 4775 | ACAAGACGCGGUGUCACGC | 4810 | GGACUGGUAGGGGCAGGAU | 4845 | GUGACUCCAGGAGAACGGC | 4880 | UUCCUCGGUUCUGUGCGAG |
| 4776 | CAAGACGCGGUGUCACGCU | 4811 | GACUGGUAGGGGCAGGAUG | 4846 | UGACUCCAGGAGAACGGCC | 4881 | UCCUCGGUUCUGUGCGAGU |
| 4777 | AAGACGCGGUGUCACGCUC | 4812 | ACUGGUAGGGGCAGGAUGG | 4847 | GACUCCAGGAGAACGGCCC | 4882 | CCUCGGUUCUGUGCGAGUG |
| 4778 | AGACGCGGUGUCACGCUCG | 4813 | CUGGUAGGGGCAGGAUGGG | 4848 | ACUCCAGGAGAACGGCCCU | 4883 | CUCGGUUCUGUGCGAGUGC |
| 4779 | GACGCGGUGUCACGCUCGC | 4814 | UGGUAGGGGCAGGAUGGGC | 4849 | CUCCAGGAGAACGGCCCUC | 4884 | UCGGUUCUGUGCGAGUGCU |
| 4780 | ACGCGGUGUCACGCUCGCA | 4815 | GGUAGGGGCAGGAUGGGCA | 4850 | UCCAGGAGAACGGCCCUCG | 4885 | CGGUUCUGUGCGAGUGCUA |
| 4781 | CGCGGUGUCACGCUCGCAG | 4816 | GUAGGGGCAGGAUGGGCAU | 4851 | CCAGGAGAACGGCCCUCGG | 4886 | GGUUCUGUGCGAGUGCUAU |
| 4782 | GCGGUGUCACGCUCGCAGC | 4817 | UAGGGGCAGGAUGGGCAUU | 4852 | CAGGAGAACGGCCCUCGGG | 4887 | GUUCUGUGCGAGUGCUAUG |
| 4783 | CGGUGUCACGCUCGCAGCG | 4818 | AGGGGCAGGAUGGGCAUUU | 4853 | AGGAGAACGGCCCUCGGGC | 4888 | UUCUGUGCGAGUGCUAUGA |
| 4784 | GGUGUCACGCUCGCAGCGG | 4819 | GGGGCAGGAUGGGCAUUUA | 4854 | GGAGAACGGCCCUCGGGCA | 4889 | UCUGUGCGAGUGCUAUGAC |
| 4785 | GUGUCACGCUCGCAGCGGC | 4820 | GGGCAGGAUGGGCAUUUAC | 4855 | GAGAACGGCCCUCGGGCAU | 4890 | CUGUGCGAGUGCUAUGACG |
| 4786 | UGUCACGCUCGCAGCGGCG | 4821 | GGCAGGAUGGGCAUUUACA | 4856 | AGAACGGCCCUCGGGCAUG | 4891 | UGUGCGAGUGCUAUGACGC |
| 4787 | GUCACGCUCGCAGCGGCGA | 4822 | GCAGGAUGGGCAUUUACAG | 4857 | GAACGGCCCUCGGGCAUGU | 4892 | GUGCGAGUGCUAUGACGCG |
| 4788 | UCACGCUCGCAGCGGCGAG | 4823 | CAGGAUGGGCAUUUACAGG | 4858 | AACGGCCCUCGGGCAUGUU | 4893 | UGCGAGUGCUAUGACGCGG |
| 4789 | CACGCUCGCAGCGGCGAGG | 4824 | AGGAUGGGCAUUUACAGGU | 4859 | ACGGCCCUCGGGCAUGUUC | 4894 | GCGAGUGCUAUGACGCGGG |
| 4790 | ACGCUCGCAGCGGCGAGGC | 4825 | GGAUGGGCAUUUACAGGUU | 4860 | CGGCCCUCGGGCAUGUUCG | 4895 | CGAGUGCUAUGACGCGGGC |
| 4791 | CGCUCGCAGCGGCGAGGCA | 4826 | GAUGGGCAUUUACAGGUUU | 4861 | GGCCCUCGGGCAUGUUCGA | 4896 | GAGUGCUAUGACGCGGGCU |
| 4792 | GCUCGCAGCGGCGAGGCAG | 4827 | AUGGGCAUUUACAGGUUUG | 4862 | GCCCUCGGGCAUGUUCGAU | 4897 | AGUGCUAUGACGCGGGCUG |
| 4793 | CUCGCAGCGGCGAGGCAGG | 4828 | UGGGCAUUUACAGGUUUGU | 4863 | CCCUCGGGCAUGUUCGAUU | 4898 | GUGCUAUGACGCGGGCUGU |
| 4794 | UCGCAGCGGCGAGGCAGGA | 4829 | GGGCAUUUACAGGUUUGUG | 4864 | CCUCGGGCAUGUUCGAUUC | 4899 | UGCUAUGACGCGGGCUGUG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4900 | GCUAUGACGCGGGCUGUGC | 4935 | CCCGCCGAGACCUCAGUUA | 4970 | AAACACACCAGGGUUGCCC | 5005 | UGGAGUUCUGGGAGAGCGU |
| 4901 | CUAUGACGCGGGCUGUGCU | 4936 | CCGCCGAGACCUCAGUUAG | 4971 | AACACACCAGGGUUGCCCG | 5006 | GGAGUUCUGGGAGAGCGUC |
| 4902 | UAUGACGCGGGCUGUGCUU | 4937 | CGCCGAGACCUCAGUUAGG | 4972 | ACACACCAGGGUUGCCCGU | 5007 | GAGUUCUGGGAGAGCGUCU |
| 4903 | AUGACGCGGGCUGUGCUUG | 4938 | GCCGAGACCUCAGUUAGGU | 4973 | CACACCAGGGUUGCCCGUC | 5008 | AGUUCUGGGAGAGCGUCUU |
| 4904 | UGACGCGGGCUGUGCUUGG | 4939 | CCGAGACCUCAGUUAGGUU | 4974 | ACACCAGGGUUGCCCGUCU | 5009 | GUUCUGGGAGAGCGUCUUU |
| 4905 | GACGCGGGCUGUGCUUGGU | 4940 | CGAGACCUCAGUUAGGUUG | 4975 | CACCAGGGUUGCCCGUCUG | 5010 | UUCUGGGAGAGCGUCUUUA |
| 4906 | ACGCGGGCUGUGCUUGGUA | 4941 | GAGACCUCAGUUAGGUUGC | 4976 | ACCAGGGUUGCCCGUCUGC | 5011 | UCUGGGAGAGCGUCUUUAC |
| 4907 | CGCGGGCUGUGCUUGGUAC | 4942 | AGACCUCAGUUAGGUUGCG | 4977 | CCAGGGUUGCCCGUCUGCC | 5012 | CUGGGAGAGCGUCUUUACA |
| 4908 | GCGGGCUGUGCUUGGUACG | 4943 | GACCUCAGUUAGGUUGCGG | 4978 | CAGGGUUGCCCGUCUGCCA | 5013 | UGGGAGAGCGUCUUUACAG |
| 4909 | CGGGCUGUGCUUGGUACGA | 4944 | ACCUCAGUUAGGUUGCGGG | 4979 | AGGGUUGCCCGUCUGCCAG | 5014 | GGGAGAGCGUCUUUACAGG |
| 4910 | GGGCUGUGCUUGGUACGAG | 4945 | CCUCAGUUAGGUUGCGGGC | 4980 | GGGUUGCCCGUCUGCCAGG | 5015 | GGAGAGCGUCUUUACAGGC |
| 4911 | GGCUGUGCUUGGUACGAGC | 4946 | CUCAGUUAGGUUGCGGGCU | 4981 | GGUUGCCCGUCUGCCAGGA | 5016 | GAGAGCGUCUUUACAGGCC |
| 4912 | GCUGUGCUUGGUACGAGCU | 4947 | UCAGUUAGGUUGCGGGCUU | 4982 | GUUGCCCGUCUGCCAGGAC | 5017 | AGAGCGUCUUUACAGGCCU |
| 4913 | CUGUGCUUGGUACGAGCUC | 4948 | CAGUUAGGUUGCGGGCUUA | 4983 | UUGCCCGUCUGCCAGGACC | 5018 | GAGCGUCUUUACAGGCCUC |
| 4914 | UGUGCUUGGUACGAGCUCA | 4949 | AGUUAGGUUGCGGGCUUAC | 4984 | UGCCCGUCUGCCAGGACCA | 5019 | AGCGUCUUUACAGGCCUCA |
| 4915 | GUGCUUGGUACGAGCUCAC | 4950 | GUUAGGUUGCGGGCUUACC | 4985 | GCCCGUCUGCCAGGACCAU | 5020 | GCGUCUUUACAGGCCUCAC |
| 4916 | UGCUUGGUACGAGCUCACG | 4951 | UUAGGUUGCGGGCUUACCU | 4986 | CCCGUCUGCCAGGACCAUC | 5021 | CGUCUUUACAGGCCUCACC |
| 4917 | GCUUGGUACGAGCUCACGC | 4952 | UAGGUUGCGGGCUUACCUA | 4987 | CCGUCUGCCAGGACCAUCU | 5022 | GUCUUUACAGGCCUCACCC |
| 4918 | CUUGGUACGAGCUCACGCC | 4953 | AGGUUGCGGGCUUACCUAA | 4988 | CGUCUGCCAGGACCAUCUG | 5023 | UCUUUACAGGCCUCACCCA |
| 4919 | UUGGUACGAGCUCACGCCC | 4954 | GGUUGCGGGCUUACCUAAA | 4989 | GUCUGCCAGGACCAUCUGG | 5024 | CUUUACAGGCCUCACCCAC |
| 4920 | UGGUACGAGCUCACGCCCG | 4955 | GUUGCGGGCUUACCUAAAC | 4990 | UCUGCCAGGACCAUCUGGA | 5025 | UUUACAGGCCUCACCCACA |
| 4921 | GGUACGAGCUCACGCCCGC | 4956 | UUGCGGGCUUACCUAAACA | 4991 | CUGCCAGGACCAUCUGGAG | 5026 | UUACAGGCCUCACCCACAU |
| 4922 | GUACGAGCUCACGCCCGCC | 4957 | UGCGGGCUUACCUAAACAC | 4992 | UGCCAGGACCAUCUGGAGU | 5027 | UACAGGCCUCACCCACAUA |
| 4923 | UACGAGCUCACGCCCGCCG | 4958 | GCGGGCUUACCUAAACACA | 4993 | GCCAGGACCAUCUGGAGUU | 5028 | ACAGGCCUCACCCACAUAG |
| 4924 | ACGAGCUCACGCCCGCCGA | 4959 | CGGGCUUACCUAAACACAC | 4994 | CCAGGACCAUCUGGAGUUC | 5029 | CAGGCCUCACCCACAUAGA |
| 4925 | CGAGCUCACGCCCGCCGAG | 4960 | GGGCUUACCUAAACACACC | 4995 | CAGGACCAUCUGGAGUUCU | 5030 | AGGCCUCACCCACAUAGAC |
| 4926 | GAGCUCACGCCCGCCGAGA | 4961 | GGCUUACCUAAACACACCA | 4996 | AGGACCAUCUGGAGUUCUG | 5031 | GGCCUCACCCACAUAGACG |
| 4927 | AGCUCACGCCCGCCGAGAC | 4962 | GCUUACCUAAACACACCAG | 4997 | GGACCAUCUGGAGUUCUGG | 5032 | GCCUCACCCACAUAGACGC |
| 4928 | GCUCACGCCCGCCGAGACC | 4963 | CUUACCUAAACACACCAGG | 4998 | GACCAUCUGGAGUUCUGGG | 5033 | CCUCACCCACAUAGACGCC |
| 4929 | CUCACGCCCGCCGAGACCU | 4964 | UUACCUAAACACACCAGGG | 4999 | ACCAUCUGGAGUUCUGGGA | 5034 | CUCACCCACAUAGACGCCC |
| 4930 | UCACGCCCGCCGAGACCUC | 4965 | UACCUAAACACACCAGGGU | 5000 | CCAUCUGGAGUUCUGGGAG | 5035 | UCACCCACAUAGACGCCCA |
| 4931 | CACGCCCGCCGAGACCUCA | 4966 | ACCUAAACACACCAGGGUU | 5001 | CAUCUGGAGUUCUGGGAGA | 5036 | CACCCACAUAGACGCCCAU |
| 4932 | ACGCCCGCCGAGACCUCAG | 4967 | CCUAAACACACCAGGGUUG | 5002 | AUCUGGAGUUCUGGGAGAG | 5037 | ACCCACAUAGACGCCCAUU |
| 4933 | CGCCCGCCGAGACCUCAGU | 4968 | CUAAACACACCAGGGUUGC | 5003 | UCUGGAGUUCUGGGAGAGC | 5038 | CCCACAUAGACGCCCAUUU |
| 4934 | GCCCGCCGAGACCUCAGUU | 4969 | UAAACACACCAGGGUUGCC | 5004 | CUGGAGUUCUGGGAGAGCG | 5039 | CCACAUAGACGCCCAUUUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5040 | CACAUAGACGCCCAUUUCU | 5075 | GGCAGGAGACAACUUCCCC | 5110 | AGGCUACGGUGUGCGCCAG | 5145 | CCAUCGUGGGACCAAAUGU |
| 5041 | ACAUAGACGCCCAUUUCUU | 5076 | GCAGGAGACAACUUCCCCU | 5111 | GGCUACGGUGUGCGCCAGG | 5146 | CAUCGUGGGACCAAAUGUG |
| 5042 | CAUAGACGCCCAUUUCUUG | 5077 | CAGGAGACAACUUCCCCUA | 5112 | GCUACGGUGUGCGCCAGGG | 5147 | AUCGUGGGACCAAAUGUGG |
| 5043 | AUAGACGCCCAUUUCUUGU | 5078 | AGGAGACAACUUCCCCUAC | 5113 | CUACGGUGUGCGCCAGGGC | 5148 | UCGUGGGACCAAAUGUGGA |
| 5044 | UAGACGCCCAUUUCUUGUC | 5079 | GGAGACAACUUCCCCUACC | 5114 | UACGGUGUGCGCCAGGGCU | 5149 | CGUGGGACCAAAUGUGGAA |
| 5045 | AGACGCCCAUUUCUUGUCC | 5080 | GAGACAACUUCCCCUACCU | 5115 | ACGGUGUGCGCCAGGGCUC | 5150 | GUGGGACCAAAUGUGGAAG |
| 5046 | GACGCCCAUUUCUUGUCCC | 5081 | AGACAACUUCCCCUACCUG | 5116 | CGGUGUGCGCCAGGGCUCA | 5151 | UGGGACCAAAUGUGGAAGU |
| 5047 | ACGCCCAUUUCUUGUCCCA | 5082 | GACAACUUCCCCUACCUGG | 5117 | GGUGUGCGCCAGGGCUCAG | 5152 | GGGACCAAAUGUGGAAGUG |
| 5048 | CGCCCAUUUCUUGUCCCAG | 5083 | ACAACUUCCCCUACCUGGU | 5118 | GUGUGCGCCAGGGCUCAGG | 5153 | GGACCAAAUGUGGAAGUGU |
| 5049 | GCCCAUUUCUUGUCCCAGA | 5084 | CAACUUCCCCUACCUGGUA | 5119 | UGUGCGCCAGGGCUCAGGC | 5154 | GACCAAAUGUGGAAGUGUC |
| 5050 | CCCAUUUCUUGUCCCAGAC | 5085 | AACUUCCCCUACCUGGUAG | 5120 | GUGCGCCAGGGCUCAGGCU | 5155 | ACCAAAUGUGGAAGUGUCU |
| 5051 | CCAUUUCUUGUCCCAGACU | 5086 | ACUUCCCCUACCUGGUAGC | 5121 | UGCGCCAGGGCUCAGGCUC | 5156 | CCAAAUGUGGAAGUGUCUC |
| 5052 | CAUUUCUUGUCCCAGACUA | 5087 | CUUCCCCUACCUGGUAGCA | 5122 | GCGCCAGGGCUCAGGCUCC | 5157 | CAAAUGUGGAAGUGUCUCA |
| 5053 | AUUUCUUGUCCCAGACUAA | 5088 | UUCCCCUACCUGGUAGCAU | 5123 | CGCCAGGGCUCAGGCUCCA | 5158 | AAAUGUGGAAGUGUCUCAU |
| 5054 | UUUCUUGUCCCAGACUAAG | 5089 | UCCCCUACCUGGUAGCAUA | 5124 | GCCAGGGCUCAGGCUCCAC | 5159 | AAUGUGGAAGUGUCUCAUA |
| 5055 | UUCUUGUCCCAGACUAAGC | 5090 | CCCCUACCUGGUAGCAUAC | 5125 | CCAGGGCUCAGGCUCCACC | 5160 | AUGUGGAAGUGUCUCAUAC |
| 5056 | UCUUGUCCCAGACUAAGCA | 5091 | CCCUACCUGGUAGCAUACC | 5126 | CAGGGCUCAGGCUCCACCU | 5161 | UGUGGAAGUGUCUCAUACG |
| 5057 | CUUGUCCCAGACUAAGCAG | 5092 | CCUACCUGGUAGCAUACCA | 5127 | AGGGCUCAGGCUCCACCUC | 5162 | GUGGAAGUGUCUCAUACGG |
| 5058 | UUGUCCCAGACUAAGCAGG | 5093 | CUACCUGGUAGCAUACCAG | 5128 | GGGCUCAGGCUCCACCUCC | 5163 | UGGAAGUGUCUCAUACGGC |
| 5059 | UGUCCCAGACUAAGCAGGC | 5094 | UACCUGGUAGCAUACCAGG | 5129 | GGCUCAGGCUCCACCUCCA | 5164 | GGAAGUGUCUCAUACGGCU |
| 5060 | GUCCCAGACUAAGCAGGCA | 5095 | ACCUGGUAGCAUACCAGGC | 5130 | GCUCAGGCUCCACCUCCAU | 5165 | GAAGUGUCUCAUACGGCUA |
| 5061 | UCCCAGACUAAGCAGGCAG | 5096 | CCUGGUAGCAUACCAGGCU | 5131 | CUCAGGCUCCACCUCCAUC | 5166 | AAGUGUCUCAUACGGCUAA |
| 5062 | CCCAGACUAAGCAGGCAGG | 5097 | CUGGUAGCAUACCAGGCUA | 5132 | UCAGGCUCCACCUCCAUCG | 5167 | AGUGUCUCAUACGGCUAAA |
| 5063 | CCAGACUAAGCAGGCAGGA | 5098 | UGGUAGCAUACCAGGCUAC | 5133 | CAGGCUCCACCUCCAUCGU | 5168 | GUGUCUCAUACGGCUAAAG |
| 5064 | CAGACUAAGCAGGCAGGAG | 5099 | GGUAGCAUACCAGGCUACG | 5134 | AGGCUCCACCUCCAUCGUG | 5169 | UGUCUCAUACGGCUAAAGC |
| 5065 | AGACUAAGCAGGCAGGAGA | 5100 | GUAGCAUACCAGGCUACGG | 5135 | GGCUCCACCUCCAUCGUGG | 5170 | GUCUCAUACGGCUAAAGCC |
| 5066 | GACUAAGCAGGCAGGAGAC | 5101 | UAGCAUACCAGGCUACGGU | 5136 | GCUCCACCUCCAUCGUGGG | 5171 | UCUCAUACGGCUAAAGCCU |
| 5067 | ACUAAGCAGGCAGGAGACA | 5102 | AGCAUACCAGGCUACGGUG | 5137 | CUCCACCUCCAUCGUGGGA | 5172 | CUCAUACGGCUAAAGCCUA |
| 5068 | CUAAGCAGGCAGGAGACAA | 5103 | GCAUACCAGGCUACGGUGU | 5138 | UCCACCUCCAUCGUGGGAC | 5173 | UCAUACGGCUAAAGCCUAC |
| 5069 | UAAGCAGGCAGGAGACAAC | 5104 | CAUACCAGGCUACGGUGUG | 5139 | CCACCUCCAUCGUGGGACC | 5174 | CAUACGGCUAAAGCCUACG |
| 5070 | AAGCAGGCAGGAGACAACU | 5105 | AUACCAGGCUACGGUGUGC | 5140 | CACCUCCAUCGUGGGACCA | 5175 | AUACGGCUAAAGCCUACGC |
| 5071 | AGCAGGCAGGAGACAACUU | 5106 | UACCAGGCUACGGUGUGCG | 5141 | ACCUCCAUCGUGGGACCAA | 5176 | UACGGCUAAAGCCUACGCU |
| 5072 | GCAGGCAGGAGACAACUUC | 5107 | ACCAGGCUACGGUGUGCGC | 5142 | CCUCCAUCGUGGGACCAAA | 5177 | ACGGCUAAAGCCUACGCUG |
| 5073 | CAGGCAGGAGACAACUUCC | 5108 | CCAGGCUACGGUGUGCGCC | 5143 | CUCCAUCGUGGGACCAAAU | 5178 | CGGCUAAAGCCUACGCUGC |
| 5074 | AGGCAGGAGACAACUUCCC | 5109 | CAGGCUACGGUGUGCGCCA | 5144 | UCCAUCGUGGGACCAAAUG | 5179 | GGCUAAAGCCUACGCUGCA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5180 | GCUAAAGCCUACGCUGCAC | 5215 | UGUAUAGGCUGGGAGCCGU | 5250 | ACCACACACCCCAUAACCA | 5285 | CAUGUCGGCUGACCUGGAG |
| 5181 | CUAAAGCCUACGCUGCACG | 5216 | GUAUAGGCUGGGAGCCGUU | 5251 | CCACACACCCCAUAACCAA | 5286 | AUGUCGGCUGACCUGGAGG |
| 5182 | UAAAGCCUACGCUGCACGG | 5217 | UAUAGGCUGGGAGCCGUUC | 5252 | CACACACCCCAUAACCAAA | 5287 | UGUCGGCUGACCUGGAGGU |
| 5183 | AAAGCCUACGCUGCACGGG | 5218 | AUAGGCUGGGAGCCGUUCA | 5253 | ACACACCCCAUAACCAAAU | 5288 | GUCGGCUGACCUGGAGGUC |
| 5184 | AAGCCUACGCUGCACGGGC | 5219 | UAGGCUGGGAGCCGUUCAA | 5254 | CACACCCCAUAACCAAAUA | 5289 | UCGGCUGACCUGGAGGUCG |
| 5185 | AGCCUACGCUGCACGGGCC | 5220 | AGGCUGGGAGCCGUUCAAA | 5255 | ACACCCCAUAACCAAAUAC | 5290 | CGGCUGACCUGGAGGUCGU |
| 5186 | GCCUACGCUGCACGGGCCA | 5221 | GGCUGGGAGCCGUUCAAAA | 5256 | CACCCCAUAACCAAAUACA | 5291 | GGCUGACCUGGAGGUCGUC |
| 5187 | CCUACGCUGCACGGGCCAA | 5222 | GCUGGGAGCCGUUCAAAAC | 5257 | ACCCCAUAACCAAAUACAU | 5292 | GCUGACCUGGAGGUCGUCA |
| 5188 | CUACGCUGCACGGGCCAAC | 5223 | CUGGGAGCCGUUCAAAACG | 5258 | CCCCAUAACCAAAUACAUC | 5293 | CUGACCUGGAGGUCGUCAC |
| 5189 | UACGCUGCACGGGCCAACG | 5224 | UGGGAGCCGUUCAAAACGA | 5259 | CCCAUAACCAAAUACAUCA | 5294 | UGACCUGGAGGUCGUCACG |
| 5190 | ACGCUGCACGGGCCAACGC | 5225 | GGGAGCCGUUCAAAACGAG | 5260 | CCAUAACCAAAUACAUCAU | 5295 | GACCUGGAGGUCGUCACGA |
| 5191 | CGCUGCACGGGCCAACGCC | 5226 | GGAGCCGUUCAAAACGAGG | 5261 | CAUAACCAAAUACAUCAUG | 5296 | ACCUGGAGGUCGUCACGAG |
| 5192 | GCUGCACGGGCCAACGCCC | 5227 | GAGCCGUUCAAAACGAGGU | 5262 | AUAACCAAAUACAUCAUGG | 5297 | CCUGGAGGUCGUCACGAGC |
| 5193 | CUGCACGGGCCAACGCCCC | 5228 | AGCCGUUCAAAACGAGGUU | 5263 | UAACCAAAUACAUCAUGGC | 5298 | CUGGAGGUCGUCACGAGCA |
| 5194 | UGCACGGGCCAACGCCCCU | 5229 | GCCGUUCAAAACGAGGUUA | 5264 | AACCAAAUACAUCAUGGCA | 5299 | UGGAGGUCGUCACGAGCAC |
| 5195 | GCACGGGCCAACGCCCCUG | 5230 | CCGUUCAAAACGAGGUUAC | 5265 | ACCAAAUACAUCAUGGCAU | 5300 | GGAGGUCGUCACGAGCACC |
| 5196 | CACGGGCCAACGCCCCUGC | 5231 | CGUUCAAAACGAGGUUACU | 5266 | CCAAAUACAUCAUGGCAUG | 5301 | GAGGUCGUCACGAGCACCU |
| 5197 | ACGGGCCAACGCCCCUGCU | 5232 | GUUCAAAACGAGGUUACUA | 5267 | CAAAUACAUCAUGGCAUGC | 5302 | AGGUCGUCACGAGCACCUG |
| 5198 | CGGGCCAACGCCCCUGCUG | 5233 | UUCAAAACGAGGUUACUAC | 5268 | AAAUACAUCAUGGCAUGCA | 5303 | GGUCGUCACGAGCACCUGG |
| 5199 | GGGCCAACGCCCCUGCUGU | 5234 | UCAAAACGAGGUUACUACC | 5269 | AAUACAUCAUGGCAUGCAU | 5304 | GUCGUCACGAGCACCUGGG |
| 5200 | GGCCAACGCCCCUGCUGUA | 5235 | CAAAACGAGGUUACUACCA | 5270 | AUACAUCAUGGCAUGCAUG | 5305 | UCGUCACGAGCACCUGGGU |
| 5201 | GCCAACGCCCCUGCUGUAU | 5236 | AAAACGAGGUUACUACCAC | 5271 | UACAUCAUGGCAUGCAUGU | 5306 | CGUCACGAGCACCUGGGUG |
| 5202 | CCAACGCCCCUGCUGUAUA | 5237 | AAACGAGGUUACUACCACA | 5272 | ACAUCAUGGCAUGCAUGUC | 5307 | GUCACGAGCACCUGGGUGC |
| 5203 | CAACGCCCCUGCUGUAUAG | 5238 | AACGAGGUUACUACCACAC | 5273 | CAUCAUGGCAUGCAUGUCG | 5308 | UCACGAGCACCUGGGUGCU |
| 5204 | AACGCCCCUGCUGUAUAGG | 5239 | ACGAGGUUACUACCACACA | 5274 | AUCAUGGCAUGCAUGUCGG | 5309 | CACGAGCACCUGGGUGCUG |
| 5205 | ACGCCCCUGCUGUAUAGGC | 5240 | CGAGGUUACUACCACACAC | 5275 | UCAUGGCAUGCAUGUCGGC | 5310 | ACGAGCACCUGGGUGCUGG |
| 5206 | CGCCCCUGCUGUAUAGGCU | 5241 | GAGGUUACUACCACACACC | 5276 | CAUGGCAUGCAUGUCGGCU | 5311 | CGAGCACCUGGGUGCUGGU |
| 5207 | GCCCCUGCUGUAUAGGCUG | 5242 | AGGUUACUACCACACACCC | 5277 | AUGGCAUGCAUGUCGGCUG | 5312 | GAGCACCUGGGUGCUGGUA |
| 5208 | CCCCUGCUGUAUAGGCUGG | 5243 | GGUUACUACCACACACCCC | 5278 | UGGCAUGCAUGUCGGCUGA | 5313 | AGCACCUGGGUGCUGGUAG |
| 5209 | CCCUGCUGUAUAGGCUGGG | 5244 | GUUACUACCACACACCCCA | 5279 | GGCAUGCAUGUCGGCUGAC | 5314 | GCACCUGGGUGCUGGUAGG |
| 5210 | CCUGCUGUAUAGGCUGGGA | 5245 | UUACUACCACACACCCCAU | 5280 | GCAUGCAUGUCGGCUGACC | 5315 | CACCUGGGUGCUGGUAGGC |
| 5211 | CUGCUGUAUAGGCUGGGAG | 5246 | UACUACCACACACCCCAUA | 5281 | CAUGCAUGUCGGCUGACCU | 5316 | ACCUGGGUGCUGGUAGGCG |
| 5212 | UGCUGUAUAGGCUGGGAGC | 5247 | ACUACCACACACCCCAUAA | 5282 | AUGCAUGUCGGCUGACCUG | 5317 | CCUGGGUGCUGGUAGGCGG |
| 5213 | GCUGUAUAGGCUGGGAGCC | 5248 | CUACCACACACCCCAUAAC | 5283 | UGCAUGUCGGCUGACCUGG | 5318 | CUGGGUGCUGGUAGGCGGA |
| 5214 | CUGUAUAGGCUGGGAGCCG | 5249 | UACCACACACCCCAUAACC | 5284 | GCAUGUCGGCUGACCUGGA | 5319 | UGGGUGCUGGUAGGCGGAG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5320 | GGGUGCUGGUAGGCGGAGU | 5355 | GCGUAUUGCCUGACAACAG | 5390 | GGGCAGGAUCAUCUUGUCC | 5425 | UUCCCGACAGGGAAGUCCU |
| 5321 | GGUGCUGGUAGGCGGAGUC | 5356 | CGUAUUGCCUGACAACAGG | 5391 | GGCAGGAUCAUCUUGUCCG | 5426 | UCCCGACAGGGAAGUCCUU |
| 5322 | GUGCUGGUAGGCGGAGUCC | 5357 | GUAUUGCCUGACAACAGGC | 5392 | GCAGGAUCAUCUUGUCCGG | 5427 | CCCGACAGGGAAGUCCUUU |
| 5323 | UGCUGGUAGGCGGAGUCCU | 5358 | UAUUGCCUGACAACAGGCA | 5393 | CAGGAUCAUCUUGUCCGGA | 5428 | CCGACAGGGAAGUCCUUUA |
| 5324 | GCUGGUAGGCGGAGUCCUA | 5359 | AUUGCCUGACAACAGGCAG | 5394 | AGGAUCAUCUUGUCCGGAA | 5429 | CGACAGGGAAGUCCUUUAC |
| 5325 | CUGGUAGGCGGAGUCCUAG | 5360 | UUGCCUGACAACAGGCAGC | 5395 | GGAUCAUCUUGUCCGGAAA | 5430 | GACAGGGAAGUCCUUUACC |
| 5326 | UGGUAGGCGGAGUCCUAGC | 5361 | UGCCUGACAACAGGCAGCG | 5396 | GAUCAUCUUGUCCGGAAAG | 5431 | ACAGGGAAGUCCUUUACCG |
| 5327 | GGUAGGCGGAGUCCUAGCA | 5362 | GCCUGACAACAGGCAGCGU | 5397 | AUCAUCUUGUCCGGAAAGC | 5432 | CAGGGAAGUCCUUUACCGG |
| 5328 | GUAGGCGGAGUCCUAGCAG | 5363 | CCUGACAACAGGCAGCGUG | 5398 | UCAUCUUGUCCGGAAAGCC | 5433 | AGGGAAGUCCUUUACCGGG |
| 5329 | UAGGCGGAGUCCUAGCAGC | 5364 | CUGACAACAGGCAGCGUGG | 5399 | CAUCUUGUCCGGAAAGCCG | 5434 | GGGAAGUCCUUUACCGGGA |
| 5330 | AGGCGGAGUCCUAGCAGCU | 5365 | UGACAACAGGCAGCGUGGU | 5400 | AUCUUGUCCGGAAAGCCGG | 5435 | GGAAGUCCUUUACCGGGAG |
| 5331 | GGCGGAGUCCUAGCAGCUC | 5366 | GACAACAGGCAGCGUGGUC | 5401 | UCUUGUCCGGAAAGCCGGC | 5436 | GAAGUCCUUUACCGGGAGU |
| 5332 | GCGGAGUCCUAGCAGCUCU | 5367 | ACAACAGGCAGCGUGGUCA | 5402 | CUUGUCCGGAAAGCCGGCC | 5437 | AAGUCCUUUACCGGGAGUU |
| 5333 | CGGAGUCCUAGCAGCUCUG | 5368 | CAACAGGCAGCGUGGUCAU | 5403 | UUGUCCGGAAAGCCGGCCA | 5438 | AGUCCUUUACCGGGAGUUC |
| 5334 | GGAGUCCUAGCAGCUCUGG | 5369 | AACAGGCAGCGUGGUCAUU | 5404 | UGUCCGGAAAGCCGGCCAU | 5439 | GUCCUUUACCGGGAGUUCG |
| 5335 | GAGUCCUAGCAGCUCUGGC | 5370 | ACAGGCAGCGUGGUCAUUG | 5405 | GUCCGGAAAGCCGGCCAUC | 5440 | UCCUUUACCGGGAGUUCGA |
| 5336 | AGUCCUAGCAGCUCUGGCC | 5371 | CAGGCAGCGUGGUCAUUGU | 5406 | UCCGGAAAGCCGGCCAUCA | 5441 | CCUUUACCGGGAGUUCGAU |
| 5337 | GUCCUAGCAGCUCUGGCCG | 5372 | AGGCAGCGUGGUCAUUGUG | 5407 | CCGGAAAGCCGGCCAUCAU | 5442 | CUUUACCGGGAGUUCGAUG |
| 5338 | UCCUAGCAGCUCUGGCCGC | 5373 | GGCAGCGUGGUCAUUGUGG | 5408 | CGGAAAGCCGGCCAUCAUU | 5443 | UUUACCGGGAGUUCGAUGA |
| 5339 | CCUAGCAGCUCUGGCCGCG | 5374 | GCAGCGUGGUCAUUGUGGG | 5409 | GGAAAGCCGGCCAUCAUUC | 5444 | UUACCGGGAGUUCGAUGAG |
| 5340 | CUAGCAGCUCUGGCCGCGU | 5375 | CAGCGUGGUCAUUGUGGGC | 5410 | GAAAGCCGGCCAUCAUUCC | 5445 | UACCGGGAGUUCGAUGAGA |
| 5341 | UAGCAGCUCUGGCCGCGUA | 5376 | AGCGUGGUCAUUGUGGGCA | 5411 | AAAGCCGGCCAUCAUUCCC | 5446 | ACCGGGAGUUCGAUGAGAU |
| 5342 | AGCAGCUCUGGCCGCGUAU | 5377 | GCGUGGUCAUUGUGGGCAG | 5412 | AAGCCGGCCAUCAUUCCCG | 5447 | CCGGGAGUUCGAUGAGAUG |
| 5343 | GCAGCUCUGGCCGCGUAUU | 5378 | CGUGGUCAUUGUGGGCAGG | 5413 | AGCCGGCCAUCAUUCCCGA | 5448 | CGGGAGUUCGAUGAGAUGG |
| 5344 | CAGCUCUGGCCGCGUAUUG | 5379 | GUGGUCAUUGUGGGCAGGA | 5414 | GCCGGCCAUCAUUCCCGAC | 5449 | GGGAGUUCGAUGAGAUGGA |
| 5345 | AGCUCUGGCCGCGUAUUGC | 5380 | UGGUCAUUGUGGGCAGGAU | 5415 | CCGGCCAUCAUUCCCGACA | 5450 | GGAGUUCGAUGAGAUGGAA |
| 5346 | GCUCUGGCCGCGUAUUGCC | 5381 | GGUCAUUGUGGGCAGGAUC | 5416 | CGGCCAUCAUUCCCGACAG | 5451 | GAGUUCGAUGAGAUGGAAG |
| 5347 | CUCUGGCCGCGUAUUGCCU | 5382 | GUCAUUGUGGGCAGGAUCA | 5417 | GGCCAUCAUUCCCGACAGG | 5452 | AGUUCGAUGAGAUGGAAGA |
| 5348 | UCUGGCCGCGUAUUGCCUG | 5383 | UCAUUGUGGGCAGGAUCAU | 5418 | GCCAUCAUUCCCGACAGGG | 5453 | GUUCGAUGAGAUGGAAGAG |
| 5349 | CUGGCCGCGUAUUGCCUGA | 5384 | CAUUGUGGGCAGGAUCAUC | 5419 | CCAUCAUUCCCGACAGGGA | 5454 | UUCGAUGAGAUGGAAGAGU |
| 5350 | UGGCCGCGUAUUGCCUGAC | 5385 | AUUGUGGGCAGGAUCAUCU | 5420 | CAUCAUUCCCGACAGGGAA | 5455 | UCGAUGAGAUGGAAGAGUG |
| 5351 | GGCCGCGUAUUGCCUGACA | 5386 | UUGUGGGCAGGAUCAUCUU | 5421 | AUCAUUCCCGACAGGGAAG | 5456 | CGAUGAGAUGGAAGAGUGC |
| 5352 | GCCGCGUAUUGCCUGACAA | 5387 | UGUGGGCAGGAUCAUCUUG | 5422 | UCAUUCCCGACAGGGAAGU | 5457 | GAUGAGAUGGAAGAGUGCG |
| 5353 | CCGCGUAUUGCCUGACAAC | 5388 | GUGGGCAGGAUCAUCUUGU | 5423 | CAUUCCCGACAGGGAAGUC | 5458 | AUGAGAUGGAAGAGUGCGC |
| 5354 | CGCGUAUUGCCUGACAACA | 5389 | UGGGCAGGAUCAUCUUGUC | 5424 | AUUCCCGACAGGGAAGUCC | 5459 | UGAGAUGGAAGAGUGCGCC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5460 | GAGAUGGAAGAGUGCGCCU | 5495 | CGAACAGGGAAUGCAGCUC | 5530 | AGAAGGCAAUCGGGUUGCU | 5565 | CAAGCGGAGGCUGCUGCUC |
| 5461 | AGAUGGAAGAGUGCGCCUC | 5496 | GAACAGGGAAUGCAGCUCG | 5531 | GAAGGCAAUCGGGUUGCUG | 5566 | AAGCGGAGGCUGCUGCUCC |
| 5462 | GAUGGAAGAGUGCGCCUCA | 5497 | AACAGGGAAUGCAGCUCGC | 5532 | AAGGCAAUCGGGUUGCUGC | 5567 | AGCGGAGGCUGCUGCUCCC |
| 5463 | AUGGAAGAGUGCGCCUCAC | 5498 | ACAGGGAAUGCAGCUCGCC | 5533 | AGGCAAUCGGGUUGCUGCA | 5568 | GCGGAGGCUGCUGCUCCCG |
| 5464 | UGGAAGAGUGCGCCUCACA | 5499 | CAGGGAAUGCAGCUCGCCG | 5534 | GGCAAUCGGGUUGCUGCAA | 5569 | CGGAGGCUGCUGCUCCCGU |
| 5465 | GGAAGAGUGCGCCUCACAC | 5500 | AGGGAAUGCAGCUCGCCGA | 5535 | GCAAUCGGGUUGCUGCAAA | 5570 | GGAGGCUGCUGCUCCCGUG |
| 5466 | GAAGAGUGCGCCUCACACC | 5501 | GGGAAUGCAGCUCGCCGAA | 5536 | CAAUCGGGUUGCUGCAAAC | 5571 | GAGGCUGCUGCUCCCGUGG |
| 5467 | AAGAGUGCGCCUCACACCU | 5502 | GGAAUGCAGCUCGCCGAAC | 5537 | AAUCGGGUUGCUGCAAACA | 5572 | AGGCUGCUGCUCCCGUGGU |
| 5468 | AGAGUGCGCCUCACACCUC | 5503 | GAAUGCAGCUCGCCGAACA | 5538 | AUCGGGUUGCUGCAAACAG | 5573 | GGCUGCUGCUCCCGUGGUG |
| 5469 | GAGUGCGCCUCACACCUCC | 5504 | AAUGCAGCUCGCCGAACAA | 5539 | UCGGGUUGCUGCAAACAGC | 5574 | GCUGCUGCUCCCGUGGUGG |
| 5470 | AGUGCGCCUCACACCUCCC | 5505 | AUGCAGCUCGCCGAACAAU | 5540 | CGGGUUGCUGCAAACAGCC | 5575 | CUGCUGCUCCCGUGGUGGA |
| 5471 | GUGCGCCUCACACCUCCCU | 5506 | UGCAGCUCGCCGAACAAUU | 5541 | GGGUUGCUGCAAACAGCCA | 5576 | UGCUGCUCCCGUGGUGGAA |
| 5472 | UGCGCCUCACACCUCCCUU | 5507 | GCAGCUCGCCGAACAAUUC | 5542 | GGUUGCUGCAAACAGCCAC | 5577 | GCUGCUCCCGUGGUGGAAU |
| 5473 | GCGCCUCACACCUCCCUUA | 5508 | CAGCUCGCCGAACAAUUCA | 5543 | GUUGCUGCAAACAGCCACC | 5578 | CUGCUCCCGUGGUGGAAUC |
| 5474 | CGCCUCACACCUCCCUUAC | 5509 | AGCUCGCCGAACAAUUCAA | 5544 | UUGCUGCAAACAGCCACCA | 5579 | UGCUCCCGUGGUGGAAUCC |
| 5475 | GCCUCACACCUCCCUUACA | 5510 | GCUCGCCGAACAAUUCAAA | 5545 | UGCUGCAAACAGCCACCAA | 5580 | GCUCCCGUGGUGGAAUCCA |
| 5476 | CCUCACACCUCCCUUACAU | 5511 | CUCGCCGAACAAUUCAAAC | 5546 | GCUGCAAACAGCCACCAAG | 5581 | CUCCCGUGGUGGAAUCCAA |
| 5477 | CUCACACCUCCCUUACAUC | 5512 | UCGCCGAACAAUUCAAACA | 5547 | CUGCAAACAGCCACCAAGC | 5582 | UCCCGUGGUGGAAUCCAAG |
| 5478 | UCACACCUCCCUUACAUCG | 5513 | CGCCGAACAAUUCAAACAG | 5548 | UGCAAACAGCCACCAAGCA | 5583 | CCCGUGGUGGAAUCCAAGU |
| 5479 | CACACCUCCCUUACAUCGA | 5514 | GCCGAACAAUUCAAACAGA | 5549 | GCAAACAGCCACCAAGCAA | 5584 | CCGUGGUGGAAUCCAAGUG |
| 5480 | ACACCUCCCUUACAUCGAA | 5515 | CCGAACAAUUCAAACAGAA | 5550 | CAAACAGCCACCAAGCAAG | 5585 | CGUGGUGGAAUCCAAGUGG |
| 5481 | CACCUCCCUUACAUCGAAC | 5516 | CGAACAAUUCAAACAGAAG | 5551 | AAACAGCCACCAAGCAAGC | 5586 | GUGGUGGAAUCCAAGUGGC |
| 5482 | ACCUCCCUUACAUCGAACA | 5517 | GAACAAUUCAAACAGAAGG | 5552 | AACAGCCACCAAGCAAGCG | 5587 | UGGUGGAAUCCAAGUGGCG |
| 5483 | CCUCCCUUACAUCGAACAG | 5518 | AACAAUUCAAACAGAAGGC | 5553 | ACAGCCACCAAGCAAGCGG | 5588 | GGUGGAAUCCAAGUGGCGG |
| 5484 | CUCCCUUACAUCGAACAGG | 5519 | ACAAUUCAAACAGAAGGCA | 5554 | CAGCCACCAAGCAAGCGGA | 5589 | GUGGAAUCCAAGUGGCGGA |
| 5485 | UCCCUUACAUCGAACAGGG | 5520 | CAAUUCAAACAGAAGGCAA | 5555 | AGCCACCAAGCAAGCGGAG | 5590 | UGGAAUCCAAGUGGCGGAC |
| 5486 | CCCUUACAUCGAACAGGGA | 5521 | AAUUCAAACAGAAGGCAAU | 5556 | GCCACCAAGCAAGCGGAGG | 5591 | GGAAUCCAAGUGGCGGACC |
| 5487 | CCUUACAUCGAACAGGGAA | 5522 | AUUCAAACAGAAGGCAAUC | 5557 | CCACCAAGCAAGCGGAGGC | 5592 | GAAUCCAAGUGGCGGACCC |
| 5488 | CUUACAUCGAACAGGGAAU | 5523 | UUCAAACAGAAGGCAAUCG | 5558 | CACCAAGCAAGCGGAGGCU | 5593 | AAUCCAAGUGGCGGACCCU |
| 5489 | UUACAUCGAACAGGGAAUG | 5524 | UCAAACAGAAGGCAAUCGG | 5559 | ACCAAGCAAGCGGAGGCUG | 5594 | AUCCAAGUGGCGGACCCUC |
| 5490 | UACAUCGAACAGGGAAUGC | 5525 | CAAACAGAAGGCAAUCGGG | 5560 | CCAAGCAAGCGGAGGCUGC | 5595 | UCCAAGUGGCGGACCCUCG |
| 5491 | ACAUCGAACAGGGAAUGCA | 5526 | AAACAGAAGGCAAUCGGGU | 5561 | CAAGCAAGCGGAGGCUGCU | 5596 | CCAAGUGGCGGACCCUCGA |
| 5492 | CAUCGAACAGGGAAUGCAG | 5527 | AACAGAAGGCAAUCGGGUU | 5562 | AAGCAAGCGGAGGCUGCUG | 5597 | CAAGUGGCGGACCCUCGAA |
| 5493 | AUCGAACAGGGAAUGCAGC | 5528 | ACAGAAGGCAAUCGGGUUG | 5563 | AGCAAGCGGAGGCUGCUGC | 5598 | AAGUGGCGGACCCUCGAAG |
| 5494 | UCGAACAGGGAAUGCAGCU | 5529 | CAGAAGGCAAUCGGGUUGC | 5564 | GCAAGCGGAGGCUGCUGCU | 5599 | AGUGGCGGACCCUCGAAGC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5600 | GUGGCGGACCCUCGAAGCC | 5635 | UGUGGAAUUUCAUCAGCGG | 5670 | GGCUUGUCCACUCUGCCUG | 5705 | AUCACUGAUGGCAUUCACA |
| 5601 | UGGCGGACCCUCGAAGCCU | 5636 | GUGGAAUUUCAUCAGCGGG | 5671 | GCUUGUCCACUCUGCCUGG | 5706 | UCACUGAUGGCAUUCACAG |
| 5602 | GGCGGACCCUCGAAGCCUU | 5637 | UGGAAUUUCAUCAGCGGGA | 5672 | CUUGUCCACUCUGCCUGGC | 5707 | CACUGAUGGCAUUCACAGC |
| 5603 | GCGGACCCUCGAAGCCUUC | 5638 | GGAAUUUCAUCAGCGGGAU | 5673 | UUGUCCACUCUGCCUGGCA | 5708 | ACUGAUGGCAUUCACAGCC |
| 5604 | CGGACCCUCGAAGCCUUCU | 5639 | GAAUUUCAUCAGCGGGAUA | 5674 | UGUCCACUCUGCCUGGCAA | 5709 | CUGAUGGCAUUCACAGCCU |
| 5605 | GGACCCUCGAAGCCUUCUG | 5640 | AAUUUCAUCAGCGGGAUAC | 5675 | GUCCACUCUGCCUGGCAAC | 5710 | UGAUGGCAUUCACAGCCUC |
| 5606 | GACCCUCGAAGCCUUCUGG | 5641 | AUUUCAUCAGCGGGAUACA | 5676 | UCCACUCUGCCUGGCAACC | 5711 | GAUGGCAUUCACAGCCUCU |
| 5607 | ACCCUCGAAGCCUUCUGGG | 5642 | UUUCAUCAGCGGGAUACAA | 5677 | CCACUCUGCCUGGCAACCC | 5712 | AUGGCAUUCACAGCCUCUA |
| 5608 | CCCUCGAAGCCUUCUGGGC | 5643 | UUCAUCAGCGGGAUACAAU | 5678 | CACUCUGCCUGGCAACCCC | 5713 | UGGCAUUCACAGCCUCUAU |
| 5609 | CCUCGAAGCCUUCUGGGCG | 5644 | UCAUCAGCGGGAUACAAUA | 5679 | ACUCUGCCUGGCAACCCCG | 5714 | GGCAUUCACAGCCUCUAUC |
| 5610 | CUCGAAGCCUUCUGGGCGA | 5645 | CAUCAGCGGGAUACAAUAU | 5680 | CUCUGCCUGGCAACCCCGC | 5715 | GCAUUCACAGCCUCUAUCA |
| 5611 | UCGAAGCCUUCUGGGCGAA | 5646 | AUCAGCGGGAUACAAUAUU | 5681 | UCUGCCUGGCAACCCCGCG | 5716 | CAUUCACAGCCUCUAUCAC |
| 5612 | CGAAGCCUUCUGGGCGAAG | 5647 | UCAGCGGGAUACAAUAUUU | 5682 | CUGCCUGGCAACCCCGCGA | 5717 | AUUCACAGCCUCUAUCACC |
| 5613 | GAAGCCUUCUGGGCGAAGC | 5648 | CAGCGGGAUACAAUAUUUA | 5683 | UGCCUGGCAACCCCGCGAU | 5718 | UUCACAGCCUCUAUCACCA |
| 5614 | AAGCCUUCUGGGCGAAGCA | 5649 | AGCGGGAUACAAUAUUUAG | 5684 | GCCUGGCAACCCCGCGAUA | 5719 | UCACAGCCUCUAUCACCAG |
| 5615 | AGCCUUCUGGGCGAAGCAU | 5650 | GCGGGAUACAAUAUUUAGC | 5685 | CCUGGCAACCCCGCGAUAG | 5720 | CACAGCCUCUAUCACCAGC |
| 5616 | GCCUUCUGGGCGAAGCAUA | 5651 | CGGGAUACAAUAUUUAGCA | 5686 | CUGGCAACCCCGCGAUAGC | 5721 | ACAGCCUCUAUCACCAGCC |
| 5617 | CCUUCUGGGCGAAGCAUAU | 5652 | GGGAUACAAUAUUUAGCAG | 5687 | UGGCAACCCCGCGAUAGCA | 5722 | CAGCCUCUAUCACCAGCCC |
| 5618 | CUUCUGGGCGAAGCAUAUG | 5653 | GGAUACAAUAUUUAGCAGG | 5688 | GGCAACCCCGCGAUAGCAU | 5723 | AGCCUCUAUCACCAGCCCG |
| 5619 | UUCUGGGCGAAGCAUAUGU | 5654 | GAUACAAUAUUUAGCAGGC | 5689 | GCAACCCCGCGAUAGCAUC | 5724 | GCCUCUAUCACCAGCCCGC |
| 5620 | UCUGGGCGAAGCAUAUGUG | 5655 | AUACAAUAUUUAGCAGGCU | 5690 | CAACCCCGCGAUAGCAUCA | 5725 | CCUCUAUCACCAGCCCGCU |
| 5621 | CUGGGCGAAGCAUAUGUGG | 5656 | UACAAUAUUUAGCAGGCUU | 5691 | AACCCCGCGAUAGCAUCAC | 5726 | CUCUAUCACCAGCCCGCUC |
| 5622 | UGGGCGAAGCAUAUGUGGA | 5657 | ACAAUAUUUAGCAGGCUUG | 5692 | ACCCCGCGAUAGCAUCACU | 5727 | UCUAUCACCAGCCCGCUCA |
| 5623 | GGGCGAAGCAUAUGUGGAA | 5658 | CAAUAUUUAGCAGGCUUGU | 5693 | CCCCGCGAUAGCAUCACUG | 5728 | CUAUCACCAGCCCGCUCAC |
| 5624 | GGCGAAGCAUAUGUGGAAU | 5659 | AAUAUUUAGCAGGCUUGUC | 5694 | CCCGCGAUAGCAUCACUGA | 5729 | UAUCACCAGCCCGCUCACC |
| 5625 | GCGAAGCAUAUGUGGAAUU | 5660 | AUAUUUAGCAGGCUUGUCC | 5695 | CCGCGAUAGCAUCACUGAU | 5730 | AUCACCAGCCCGCUCACCA |
| 5626 | CGAAGCAUAUGUGGAAUUU | 5661 | UAUUUAGCAGGCUUGUCCA | 5696 | CGCGAUAGCAUCACUGAUG | 5731 | UCACCAGCCCGCUCACCAC |
| 5627 | GAAGCAUAUGUGGAAUUUC | 5662 | AUUUAGCAGGCUUGUCCAC | 5697 | GCGAUAGCAUCACUGAUGG | 5732 | CACCAGCCCGCUCACCACC |
| 5628 | AAGCAUAUGUGGAAUUUCA | 5663 | UUUAGCAGGCUUGUCCACU | 5698 | CGAUAGCAUCACUGAUGGC | 5733 | ACCAGCCCGCUCACCACCC |
| 5629 | AGCAUAUGUGGAAUUUCAU | 5664 | UUAGCAGGCUUGUCCACUC | 5699 | GAUAGCAUCACUGAUGGCA | 5734 | CCAGCCCGCUCACCACCCA |
| 5630 | GCAUAUGUGGAAUUUCAUC | 5665 | UAGCAGGCUUGUCCACUCU | 5700 | AUAGCAUCACUGAUGGCAU | 5735 | CAGCCCGCUCACCACCCAA |
| 5631 | CAUAUGUGGAAUUUCAUCA | 5666 | AGCAGGCUUGUCCACUCUG | 5701 | UAGCAUCACUGAUGGCAUU | 5736 | AGCCCGCUCACCACCCAAC |
| 5632 | AUAUGUGGAAUUUCAUCAG | 5667 | GCAGGCUUGUCCACUCUGC | 5702 | AGCAUCACUGAUGGCAUUC | 5737 | GCCCGCUCACCACCCAACA |
| 5633 | UAUGUGGAAUUUCAUCAGC | 5668 | CAGGCUUGUCCACUCUGCC | 5703 | GCAUCACUGAUGGCAUUCA | 5738 | CCCGCUCACCACCCAACAU |
| 5634 | AUGUGGAAUUUCAUCAGCG | 5669 | AGGCUUGUCCACUCUGCCU | 5704 | CAUCACUGAUGGCAUUCAC | 5739 | CCGCUCACCACCCAACAUA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5740 | CGCUCACCACCCAACAUAC | 5775 | CUGGGGGGAUGGGUGGCCG | 5810 | CAGCGCUGCUUCUGCUUUC | 5845 | CUGGAGCGGCUGUUGGCAG |
| 5741 | GCUCACCACCCAACAUACC | 5776 | UGGGGGGAUGGGUGGCCGC | 5811 | AGCGCUGCUUCUGCUUUCG | 5846 | UGGAGCGGCUGUUGGCAGC |
| 5742 | CUCACCACCCAACAUACCC | 5777 | GGGGGGAUGGGUGGCCGCC | 5812 | GCGCUGCUUCUGCUUUCGU | 5847 | GGAGCGGCUGUUGGCAGCA |
| 5743 | UCACCACCCAACAUACCCU | 5778 | GGGGGAUGGGUGGCCGCCC | 5813 | CGCUGCUUCUGCUUUCGUA | 5848 | GAGCGGCUGUUGGCAGCAU |
| 5744 | CACCACCCAACAUACCCUC | 5779 | GGGGAUGGGUGGCCGCCCA | 5814 | GCUGCUUCUGCUUUCGUAG | 5849 | AGCGGCUGUUGGCAGCAUA |
| 5745 | ACCACCCAACAUACCCUCC | 5780 | GGGAUGGGUGGCCGCCCAA | 5815 | CUGCUUCUGCUUUCGUAGG | 5850 | GCGGCUGUUGGCAGCAUAG |
| 5746 | CCACCCAACAUACCCUCCU | 5781 | GGAUGGGUGGCCGCCCAAC | 5816 | UGCUUCUGCUUUCGUAGGC | 5851 | CGGCUGUUGGCAGCAUAGG |
| 5747 | CACCCAACAUACCCUCCUG | 5782 | GAUGGGUGGCCGCCCAACU | 5817 | GCUUCUGCUUUCGUAGGCG | 5852 | GGCUGUUGGCAGCAUAGGC |
| 5748 | ACCCAACAUACCCUCCUGU | 5783 | AUGGGUGGCCGCCCAACUU | 5818 | CUUCUGCUUUCGUAGGCGC | 5853 | GCUGUUGGCAGCAUAGGCC |
| 5749 | CCCAACAUACCCUCCUGUU | 5784 | UGGGUGGCCGCCCAACUUG | 5819 | UUCUGCUUUCGUAGGCGCC | 5854 | CUGUUGGCAGCAUAGGCCU |
| 5750 | CCAACAUACCCUCCUGUUU | 5785 | GGGUGGCCGCCCAACUUGC | 5820 | UCUGCUUUCGUAGGCGCCG | 5855 | UGUUGGCAGCAUAGGCCUU |
| 5751 | CAACAUACCCUCCUGUUUA | 5786 | GGUGGCCGCCCAACUUGCU | 5821 | CUGCUUUCGUAGGCGCCGG | 5856 | GUUGGCAGCAUAGGCCUUG |
| 5752 | AACAUACCCUCCUGUUUAA | 5787 | GUGGCCGCCCAACUUGCUC | 5822 | UGCUUUCGUAGGCGCCGGC | 5857 | UUGGCAGCAUAGGCCUUGG |
| 5753 | ACAUACCCUCCUGUUUAAC | 5788 | UGGCCGCCCAACUUGCUCC | 5823 | GCUUUCGUAGGCGCCGGCA | 5858 | UGGCAGCAUAGGCCUUGGG |
| 5754 | CAUACCCUCCUGUUUAACA | 5789 | GGCCGCCCAACUUGCUCCU | 5824 | CUUUCGUAGGCGCCGGCAU | 5859 | GGCAGCAUAGGCCUUGGGA |
| 5755 | AUACCCUCCUGUUUAACAU | 5790 | GCCGCCCAACUUGCUCCUC | 5825 | UUUCGUAGGCGCCGGCAUC | 5860 | GCAGCAUAGGCCUUGGGAA |
| 5756 | UACCCUCCUGUUUAACAUC | 5791 | CCGCCCAACUUGCUCCUCC | 5826 | UUCGUAGGCGCCGGCAUCG | 5861 | CAGCAUAGGCCUUGGGAAG |
| 5757 | ACCCUCCUGUUUAACAUCC | 5792 | CGCCCAACUUGCUCCUCCC | 5827 | UCGUAGGCGCCGGCAUCGC | 5862 | AGCAUAGGCCUUGGGAAGG |
| 5758 | CCCUCCUGUUUAACAUCCU | 5793 | GCCCAACUUGCUCCUCCCA | 5828 | CGUAGGCGCCGGCAUCGCU | 5863 | GCAUAGGCCUUGGGAAGGU |
| 5759 | CCUCCUGUUUAACAUCCUG | 5794 | CCCAACUUGCUCCUCCCAG | 5829 | GUAGGCGCCGGCAUCGCUG | 5864 | CAUAGGCCUUGGGAAGGUG |
| 5760 | CUCCUGUUUAACAUCCUGG | 5795 | CCAACUUGCUCCUCCCAGC | 5830 | UAGGCGCCGGCAUCGCUGG | 5865 | AUAGGCCUUGGGAAGGUGC |
| 5761 | UCCUGUUUAACAUCCUGGG | 5796 | CAACUUGCUCCUCCCAGCG | 5831 | AGGCGCCGGCAUCGCUGGA | 5866 | UAGGCCUUGGGAAGGUGCU |
| 5762 | CCUGUUUAACAUCCUGGGG | 5797 | AACUUGCUCCUCCCAGCGC | 5832 | GGCGCCGGCAUCGCUGGAG | 5867 | AGGCCUUGGGAAGGUGCUU |
| 5763 | CUGUUUAACAUCCUGGGGG | 5798 | ACUUGCUCCUCCCAGCGCU | 5833 | GCGCCGGCAUCGCUGGAGC | 5868 | GGCCUUGGGAAGGUGCUUG |
| 5764 | UGUUUAACAUCCUGGGGGG | 5799 | CUUGCUCCUCCCAGCGCUG | 5834 | CGCCGGCAUCGCUGGAGCG | 5869 | GCCUUGGGAAGGUGCUUGU |
| 5765 | GUUUAACAUCCUGGGGGGA | 5800 | UUGCUCCUCCCAGCGCUGC | 5835 | GCCGGCAUCGCUGGAGCGG | 5870 | CCUUGGGAAGGUGCUUGUG |
| 5766 | UUUAACAUCCUGGGGGGAU | 5801 | UGCUCCUCCCAGCGCUGCU | 5836 | CCGGCAUCGCUGGAGCGGC | 5871 | CUUGGGAAGGUGCUUGUGG |
| 5767 | UUAACAUCCUGGGGGGAUG | 5802 | GCUCCUCCCAGCGCUGCUU | 5837 | CGGCAUCGCUGGAGCGGCU | 5872 | UUGGGAAGGUGCUUGUGGA |
| 5768 | UAACAUCCUGGGGGGAUGG | 5803 | CUCCUCCCAGCGCUGCUUC | 5838 | GGCAUCGCUGGAGCGGCUG | 5873 | UGGGAAGGUGCUUGUGGAU |
| 5769 | AACAUCCUGGGGGGAUGGG | 5804 | UCCUCCCAGCGCUGCUUCU | 5839 | GCAUCGCUGGAGCGGCUGU | 5874 | GGGAAGGUGCUUGUGGAUA |
| 5770 | ACAUCCUGGGGGGAUGGGU | 5805 | CCUCCCAGCGCUGCUUCUG | 5840 | CAUCGCUGGAGCGGCUGUU | 5875 | GGAAGGUGCUUGUGGAUAU |
| 5771 | CAUCCUGGGGGGAUGGGUG | 5806 | CUCCCAGCGCUGCUUCUGC | 5841 | AUCGCUGGAGCGGCUGUUG | 5876 | GAAGGUGCUUGUGGAUAUU |
| 5772 | AUCCUGGGGGGAUGGGUGG | 5807 | UCCCAGCGCUGCUUCUGCU | 5842 | UCGCUGGAGCGGCUGUUGG | 5877 | AAGGUGCUUGUGGAUAUUU |
| 5773 | UCCUGGGGGGAUGGGUGGC | 5808 | CCCAGCGCUGCUUCUGCUU | 5843 | CGCUGGAGCGGCUGUUGGC | 5878 | AGGUGCUUGUGGAUAUUUU |
| 5774 | CCUGGGGGGAUGGGUGGCC | 5809 | CCAGCGCUGCUUCUGCUUU | 5844 | GCUGGAGCGGCUGUUGGCA | 5879 | GGUGCUUGUGGAUAUUUUG |

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| | |
|---|---|
| 5880 | GUGCUUGUGGAUAUUUUGG |
| 5881 | UGCUUGUGGAUAUUUUGGC |
| 5882 | GCUUGUGGAUAUUUUGGCA |
| 5883 | CUUGUGGAUAUUUUGGCAG |
| 5884 | UUGUGGAUAUUUUGGCAGG |
| 5885 | UGUGGAUAUUUUGGCAGGU |
| 5886 | GUGGAUAUUUUGGCAGGUU |
| 5887 | UGGAUAUUUUGGCAGGUUA |
| 5888 | GGAUAUUUUGGCAGGUUAU |
| 5889 | GAUAUUUUGGCAGGUUAUG |
| 5890 | AUAUUUUGGCAGGUUAUGG |
| 5891 | UAUUUUGGCAGGUUAUGGA |
| 5892 | AUUUUGGCAGGUUAUGGAG |
| 5893 | UUUUGGCAGGUUAUGGAGC |
| 5894 | UUUGGCAGGUUAUGGAGCA |
| 5895 | UUGGCAGGUUAUGGAGCAG |
| 5896 | UGGCAGGUUAUGGAGCAGG |
| 5897 | GGCAGGUUAUGGAGCAGGG |
| 5898 | GCAGGUUAUGGAGCAGGGG |
| 5899 | CAGGUUAUGGAGCAGGGGU |
| 5900 | AGGUUAUGGAGCAGGGGUG |
| 5901 | GGUUAUGGAGCAGGGGUGG |
| 5902 | GUUAUGGAGCAGGGGUGGC |
| 5903 | UUAUGGAGCAGGGGUGGCA |
| 5904 | UAUGGAGCAGGGGUGGCAG |
| 5905 | AUGGAGCAGGGGUGGCAGG |
| 5906 | UGGAGCAGGGGUGGCAGGC |
| 5907 | GGAGCAGGGGUGGCAGGCG |
| 5908 | GAGCAGGGGUGGCAGGCGC |
| 5909 | AGCAGGGGUGGCAGGCGCG |
| 5910 | GCAGGGGUGGCAGGCGCGC |
| 5911 | CAGGGGUGGCAGGCGCGCU |
| 5912 | AGGGGUGGCAGGCGCGCUC |
| 5913 | GGGGUGGCAGGCGCGCUCG |
| 5914 | GGGUGGCAGGCGCGCUCGU |
| 5915 | GGUGGCAGGCGCGCUCGUG |
| 5916 | GUGGCAGGCGCGCUCGUGG |
| 5917 | UGGCAGGCGCGCUCGUGGC |
| 5918 | GGCAGGCGCGCUCGUGGCC |
| 5919 | GCAGGCGCGCUCGUGGCCU |
| 5920 | CAGGCGCGCUCGUGGCCUU |
| 5921 | AGGCGCGCUCGUGGCCUUU |
| 5922 | GGCGCGCUCGUGGCCUUUA |
| 5923 | GCGCGCUCGUGGCCUUUAA |
| 5924 | CGCGCUCGUGGCCUUUAAG |
| 5925 | GCGCUCGUGGCCUUUAAGG |
| 5926 | CGCUCGUGGCCUUUAAGGU |
| 5927 | GCUCGUGGCCUUUAAGGUC |
| 5928 | CUCGUGGCCUUUAAGGUCA |
| 5929 | UCGUGGCCUUUAAGGUCAU |
| 5930 | CGUGGCCUUUAAGGUCAUG |
| 5931 | GUGGCCUUUAAGGUCAUGA |
| 5932 | UGGCCUUUAAGGUCAUGAG |
| 5933 | GGCCUUUAAGGUCAUGAGC |
| 5934 | GCCUUUAAGGUCAUGAGCG |
| 5935 | CCUUUAAGGUCAUGAGCGG |
| 5936 | CUUUAAGGUCAUGAGCGGC |
| 5937 | UUUAAGGUCAUGAGCGGCG |
| 5938 | UUAAGGUCAUGAGCGGCGA |
| 5939 | UAAGGUCAUGAGCGGCGAG |
| 5940 | AAGGUCAUGAGCGGCGAGA |
| 5941 | AGGUCAUGAGCGGCGAGAU |
| 5942 | GGUCAUGAGCGGCGAGAUG |
| 5943 | GUCAUGAGCGGCGAGAUGC |
| 5944 | UCAUGAGCGGCGAGAUGCC |
| 5945 | CAUGAGCGGCGAGAUGCCC |
| 5946 | AUGAGCGGCGAGAUGCCCU |
| 5947 | UGAGCGGCGAGAUGCCCUC |
| 5948 | GAGCGGCGAGAUGCCCUCC |
| 5949 | AGCGGCGAGAUGCCCUCCA |
| 5950 | GCGGCGAGAUGCCCUCCAC |
| 5951 | CGGCGAGAUGCCCUCCACC |
| 5952 | GGCGAGAUGCCCUCCACCG |
| 5953 | GCGAGAUGCCCUCCACCGA |
| 5954 | CGAGAUGCCCUCCACCGAG |
| 5955 | GAGAUGCCCUCCACCGAGG |
| 5956 | AGAUGCCCUCCACCGAGGA |
| 5957 | GAUGCCCUCCACCGAGGAC |
| 5958 | AUGCCCUCCACCGAGGACC |
| 5959 | UGCCCUCCACCGAGGACCU |
| 5960 | GCCCUCCACCGAGGACCUG |
| 5961 | CCCUCCACCGAGGACCUGG |
| 5962 | CCUCCACCGAGGACCUGGU |
| 5963 | CUCCACCGAGGACCUGGUU |
| 5964 | UCCACCGAGGACCUGGUUA |
| 5965 | CCACCGAGGACCUGGUUAA |
| 5966 | CACCGAGGACCUGGUUAAC |
| 5967 | ACCGAGGACCUGGUUAACC |
| 5968 | CCGAGGACCUGGUUAACCU |
| 5969 | CGAGGACCUGGUUAACCUA |
| 5970 | GAGGACCUGGUUAACCUAC |
| 5971 | AGGACCUGGUUAACCUACU |
| 5972 | GGACCUGGUUAACCUACUC |
| 5973 | GACCUGGUUAACCUACUCC |
| 5974 | ACCUGGUUAACCUACUCCC |
| 5975 | CCUGGUUAACCUACUCCCU |
| 5976 | CUGGUUAACCUACUCCCUG |
| 5977 | UGGUUAACCUACUCCCUGC |
| 5978 | GGUUAACCUACUCCCUGCU |
| 5979 | GUUAACCUACUCCCUGCUA |
| 5980 | UUAACCUACUCCCUGCUAU |
| 5981 | UAACCUACUCCCUGCUAUC |
| 5982 | AACCUACUCCCUGCUAUCC |
| 5983 | ACCUACUCCCUGCUAUCCU |
| 5984 | CCUACUCCCUGCUAUCCUC |
| 5985 | CUACUCCCUGCUAUCCUCU |
| 5986 | UACUCCCUGCUAUCCUCUC |
| 5987 | ACUCCCUGCUAUCCUCUCC |
| 5988 | CUCCCUGCUAUCCUCUCCC |
| 5989 | UCCCUGCUAUCCUCUCCCC |
| 5990 | CCCUGCUAUCCUCUCCCCU |
| 5991 | CCUGCUAUCCUCUCCCCUG |
| 5992 | CUGCUAUCCUCUCCCCUGG |
| 5993 | UGCUAUCCUCUCCCCUGGC |
| 5994 | GCUAUCCUCUCCCCUGGCG |
| 5995 | CUAUCCUCUCCCCUGGCGC |
| 5996 | UAUCCUCUCCCCUGGCGCC |
| 5997 | AUCCUCUCCCCUGGCGCCC |
| 5998 | UCCUCUCCCCUGGCGCCCU |
| 5999 | CCUCUCCCCUGGCGCCCUA |
| 6000 | CUCUCCCCUGGCGCCCUAG |
| 6001 | UCUCCCCUGGCGCCCUAGU |
| 6002 | CUCCCCUGGCGCCCUAGUC |
| 6003 | UCCCCUGGCGCCCUAGUCG |
| 6004 | CCCCUGGCGCCCUAGUCGU |
| 6005 | CCCUGGCGCCCUAGUCGUC |
| 6006 | CCUGGCGCCCUAGUCGUCG |
| 6007 | CUGGCGCCCUAGUCGUCGG |
| 6008 | UGGCGCCCUAGUCGUCGGG |
| 6009 | GGCGCCCUAGUCGUCGGGG |
| 6010 | GCGCCCUAGUCGUCGGGGU |
| 6011 | CGCCCUAGUCGUCGGGGUC |
| 6012 | GCCCUAGUCGUCGGGGUCG |
| 6013 | CCCUAGUCGUCGGGGUCGU |
| 6014 | CCUAGUCGUCGGGGUCGUG |
| 6015 | CUAGUCGUCGGGGUCGUGU |
| 6016 | UAGUCGUCGGGGUCGUGUG |
| 6017 | AGUCGUCGGGGUCGUGUGC |
| 6018 | GUCGUCGGGGUCGUGUGCG |
| 6019 | UCGUCGGGGUCGUGUGCGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6020 | CGUCGGGGUCGUGUGCGCA | 6055 | ACGUGGGCCCAGGGGAGGG | 6090 | AACCGGCUGAUAGCGUUCG | 6125 | CGUCUCCCCCACGCACUAU |
| 6021 | GUCGGGGUCGUGUGCGCAG | 6056 | CGUGGGCCCAGGGGAGGGG | 6091 | ACCGGCUGAUAGCGUUCGC | 6126 | GUCUCCCCCACGCACUAUG |
| 6022 | UCGGGGUCGUGUGCGCAGC | 6057 | GUGGGCCCAGGGGAGGGGG | 6092 | CCGGCUGAUAGCGUUCGCU | 6127 | UCUCCCCCACGCACUAUGU |
| 6023 | CGGGGUCGUGUGCGCAGCG | 6058 | UGGGCCCAGGGGAGGGGGC | 6093 | CGGCUGAUAGCGUUCGCUU | 6128 | CUCCCCCACGCACUAUGUG |
| 6024 | GGGGUCGUGUGCGCAGCGA | 6059 | GGGCCCAGGGGAGGGGGCU | 6094 | GGCUGAUAGCGUUCGCUUC | 6129 | UCCCCCACGCACUAUGUGC |
| 6025 | GGGUCGUGUGCGCAGCGAU | 6060 | GGCCCAGGGGAGGGGGCUG | 6095 | GCUGAUAGCGUUCGCUUCG | 6130 | CCCCCACGCACUAUGUGCC |
| 6026 | GGUCGUGUGCGCAGCGAUA | 6061 | GCCCAGGGGAGGGGGCUGU | 6096 | CUGAUAGCGUUCGCUUCGC | 6131 | CCCCACGCACUAUGUGCCU |
| 6027 | GUCGUGUGCGCAGCGAUAC | 6062 | CCCAGGGGAGGGGGCUGUG | 6097 | UGAUAGCGUUCGCUUCGCG | 6132 | CCCACGCACUAUGUGCCUG |
| 6028 | UCGUGUGCGCAGCGAUACU | 6063 | CCAGGGGAGGGGGCUGUGC | 6098 | GAUAGCGUUCGCUUCGCGG | 6133 | CCACGCACUAUGUGCCUGA |
| 6029 | CGUGUGCGCAGCGAUACUG | 6064 | CAGGGGAGGGGGCUGUGCA | 6099 | AUAGCGUUCGCUUCGCGGG | 6134 | CACGCACUAUGUGCCUGAG |
| 6030 | GUGUGCGCAGCGAUACUGC | 6065 | AGGGGAGGGGGCUGUGCAG | 6100 | UAGCGUUCGCUUCGCGGGG | 6135 | ACGCACUAUGUGCCUGAGA |
| 6031 | UGUGCGCAGCGAUACUGCG | 6066 | GGGGAGGGGGCUGUGCAGU | 6101 | AGCGUUCGCUUCGCGGGGU | 6136 | CGCACUAUGUGCCUGAGAG |
| 6032 | GUGCGCAGCGAUACUGCGU | 6067 | GGGAGGGGGCUGUGCAGUG | 6102 | GCGUUCGCUUCGCGGGGUA | 6137 | GCACUAUGUGCCUGAGAGC |
| 6033 | UGCGCAGCGAUACUGCGUC | 6068 | GGAGGGGGCUGUGCAGUGG | 6103 | CGUUCGCUUCGCGGGGUAA | 6138 | CACUAUGUGCCUGAGAGCG |
| 6034 | GCGCAGCGAUACUGCGUCG | 6069 | GAGGGGGCUGUGCAGUGGA | 6104 | GUUCGCUUCGCGGGGUAAC | 6139 | ACUAUGUGCCUGAGAGCGA |
| 6035 | CGCAGCGAUACUGCGUCGG | 6070 | AGGGGGCUGUGCAGUGGAU | 6105 | UUCGCUUCGCGGGGUAACC | 6140 | CUAUGUGCCUGAGAGCGAC |
| 6036 | GCAGCGAUACUGCGUCGGC | 6071 | GGGGGCUGUGCAGUGGAUG | 6106 | UCGCUUCGCGGGGUAACCA | 6141 | UAUGUGCCUGAGAGCGACG |
| 6037 | CAGCGAUACUGCGUCGGCA | 6072 | GGGGCUGUGCAGUGGAUGA | 6107 | CGCUUCGCGGGGUAACCAC | 6142 | AUGUGCCUGAGAGCGACGC |
| 6038 | AGCGAUACUGCGUCGGCAC | 6073 | GGGCUGUGCAGUGGAUGAA | 6108 | GCUUCGCGGGGUAACCACG | 6143 | UGUGCCUGAGAGCGACGCU |
| 6039 | GCGAUACUGCGUCGGCACG | 6074 | GGCUGUGCAGUGGAUGAAC | 6109 | CUUCGCGGGGUAACCACGU | 6144 | GUGCCUGAGAGCGACGCUG |
| 6040 | CGAUACUGCGUCGGCACGU | 6075 | GCUGUGCAGUGGAUGAACC | 6110 | UUCGCGGGGUAACCACGUC | 6145 | UGCCUGAGAGCGACGCUGC |
| 6041 | GAUACUGCGUCGGCACGUG | 6076 | CUGUGCAGUGGAUGAACCG | 6111 | UCGCGGGGUAACCACGUCU | 6146 | GCCUGAGAGCGACGCUGCA |
| 6042 | AUACUGCGUCGGCACGUGG | 6077 | UGUGCAGUGGAUGAACCGG | 6112 | CGCGGGGUAACCACGUCUC | 6147 | CCUGAGAGCGACGCUGCAG |
| 6043 | UACUGCGUCGGCACGUGGG | 6078 | GUGCAGUGGAUGAACCGGC | 6113 | GCGGGGUAACCACGUCUCC | 6148 | CUGAGAGCGACGCUGCAGC |
| 6044 | ACUGCGUCGGCACGUGGGC | 6079 | UGCAGUGGAUGAACCGGCU | 6114 | CGGGGUAACCACGUCUCCC | 6149 | UGAGAGCGACGCUGCAGCA |
| 6045 | CUGCGUCGGCACGUGGGCC | 6080 | GCAGUGGAUGAACCGGCUG | 6115 | GGGGUAACCACGUCUCCCC | 6150 | GAGAGCGACGCUGCAGCAC |
| 6046 | UGCGUCGGCACGUGGGCCC | 6081 | CAGUGGAUGAACCGGCUGA | 6116 | GGGUAACCACGUCUCCCCC | 6151 | AGAGCGACGCUGCAGCACG |
| 6047 | GCGUCGGCACGUGGGCCCA | 6082 | AGUGGAUGAACCGGCUGAU | 6117 | GGUAACCACGUCUCCCCCA | 6152 | GAGCGACGCUGCAGCACGU |
| 6048 | CGUCGGCACGUGGGCCCAG | 6083 | GUGGAUGAACCGGCUGAUA | 6118 | GUAACCACGUCUCCCCCAC | 6153 | AGCGACGCUGCAGCACGUG |
| 6049 | GUCGGCACGUGGGCCCAGG | 6084 | UGGAUGAACCGGCUGAUAG | 6119 | UAACCACGUCUCCCCCACG | 6154 | GCGACGCUGCAGCACGUGU |
| 6050 | UCGGCACGUGGGCCCAGGG | 6085 | GGAUGAACCGGCUGAUAGC | 6120 | AACCACGUCUCCCCCACGC | 6155 | CGACGCUGCAGCACGUGUC |
| 6051 | CGGCACGUGGGCCCAGGGG | 6086 | GAUGAACCGGCUGAUAGCG | 6121 | ACCACGUCUCCCCCACGCA | 6156 | GACGCUGCAGCACGUGUCA |
| 6052 | GGCACGUGGGCCCAGGGGA | 6087 | AUGAACCGGCUGAUAGCGU | 6122 | CCACGUCUCCCCCACGCAC | 6157 | ACGCUGCAGCACGUGUCAC |
| 6053 | GCACGUGGGCCCAGGGGAG | 6088 | UGAACCGGCUGAUAGCGUU | 6123 | CACGUCUCCCCCACGCACU | 6158 | CGCUGCAGCACGUGUCACU |
| 6054 | CACGUGGGCCCAGGGGAGG | 6089 | GAACCGGCUGAUAGCGUUC | 6124 | ACGUCUCCCCCACGCACUA | 6159 | GCUGCAGCACGUGUCACUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6160 | CUGCAGCACGUGUCACUCA | 6195 | ACCAUCACUCAGCUGCUGA | 6230 | GAUCAACGAGGACUGCUCC | 6265 | CGUGGCUAAGAGAUGUUUG |
| 6161 | UGCAGCACGUGUCACUCAG | 6196 | CCAUCACUCAGCUGCUGAA | 6231 | AUCAACGAGGACUGCUCCA | 6266 | GUGGCUAAGAGAUGUUUGG |
| 6162 | GCAGCACGUGUCACUCAGA | 6197 | CAUCACUCAGCUGCUGAAG | 6232 | UCAACGAGGACUGCUCCAC | 6267 | UGGCUAAGAGAUGUUUGGG |
| 6163 | CAGCACGUGUCACUCAGAU | 6198 | AUCACUCAGCUGCUGAAGA | 6233 | CAACGAGGACUGCUCCACG | 6268 | GGCUAAGAGAUGUUUGGGA |
| 6164 | AGCACGUGUCACUCAGAUC | 6199 | UCACUCAGCUGCUGAAGAG | 6234 | AACGAGGACUGCUCCACGC | 6269 | GCUAAGAGAUGUUUGGGAU |
| 6165 | GCACGUGUCACUCAGAUCC | 6200 | CACUCAGCUGCUGAAGAGG | 6235 | ACGAGGACUGCUCCACGCC | 6270 | CUAAGAGAUGUUUGGGAUU |
| 6166 | CACGUGUCACUCAGAUCCU | 6201 | ACUCAGCUGCUGAAGAGGC | 6236 | CGAGGACUGCUCCACGCCA | 6271 | UAAGAGAUGUUUGGGAUUG |
| 6167 | ACGUGUCACUCAGAUCCUC | 6202 | CUCAGCUGCUGAAGAGGCU | 6237 | GAGGACUGCUCCACGCCAU | 6272 | AAGAGAUGUUUGGGAUUGG |
| 6168 | CGUGUCACUCAGAUCCUCU | 6203 | UCAGCUGCUGAAGAGGCUU | 6238 | AGGACUGCUCCACGCCAUG | 6273 | AGAGAUGUUUGGGAUUGGA |
| 6169 | GUGUCACUCAGAUCCUCUC | 6204 | CAGCUGCUGAAGAGGCUUC | 6239 | GGACUGCUCCACGCCAUGC | 6274 | GAGAUGUUUGGGAUUGGAU |
| 6170 | UGUCACUCAGAUCCUCUCU | 6205 | AGCUGCUGAAGAGGCUUCA | 6240 | GACUGCUCCACGCCAUGCU | 6275 | AGAUGUUUGGGAUUGGAUA |
| 6171 | GUCACUCAGAUCCUCUCUA | 6206 | GCUGCUGAAGAGGCUUCAC | 6241 | ACUGCUCCACGCCAUGCUC | 6276 | GAUGUUUGGGAUUGGAUAU |
| 6172 | UCACUCAGAUCCUCUCUAG | 6207 | CUGCUGAAGAGGCUUCACC | 6242 | CUGCUCCACGCCAUGCUCC | 6277 | AUGUUUGGGAUUGGAUAUG |
| 6173 | CACUCAGAUCCUCUCUAGU | 6208 | UGCUGAAGAGGCUUCACCA | 6243 | UGCUCCACGCCAUGCUCCG | 6278 | UGUUUGGGAUUGGAUAUGC |
| 6174 | ACUCAGAUCCUCUCUAGUC | 6209 | GCUGAAGAGGCUUCACCAG | 6244 | GCUCCACGCCAUGCUCCGG | 6279 | GUUUGGGAUUGGAUAUGCA |
| 6175 | CUCAGAUCCUCUCUAGUCU | 6210 | CUGAAGAGGCUUCACCAGU | 6245 | CUCCACGCCAUGCUCCGGC | 6280 | UUUGGGAUUGGAUAUGCAC |
| 6176 | UCAGAUCCUCUCUAGUCUU | 6211 | UGAAGAGGCUUCACCAGUG | 6246 | UCCACGCCAUGCUCCGGCU | 6281 | UUGGGAUUGGAUAUGCACG |
| 6177 | CAGAUCCUCUCUAGUCUUA | 6212 | GAAGAGGCUUCACCAGUGG | 6247 | CCACGCCAUGCUCCGGCUC | 6282 | UGGGAUUGGAUAUGCACGG |
| 6178 | AGAUCCUCUCUAGUCUUAC | 6213 | AAGAGGCUUCACCAGUGGA | 6248 | CACGCCAUGCUCCGGCUCG | 6283 | GGGAUUGGAUAUGCACGGU |
| 6179 | GAUCCUCUCUAGUCUUACC | 6214 | AGAGGCUUCACCAGUGGAU | 6249 | ACGCCAUGCUCCGGCUCGU | 6284 | GGAUUGGAUAUGCACGGUG |
| 6180 | AUCCUCUCUAGUCUUACCA | 6215 | GAGGCUUCACCAGUGGAUC | 6250 | CGCCAUGCUCCGGCUCGUG | 6285 | GAUUGGAUAUGCACGGUGU |
| 6181 | UCCUCUCUAGUCUUACCAU | 6216 | AGGCUUCACCAGUGGAUCA | 6251 | GCCAUGCUCCGGCUCGUGG | 6286 | AUUGGAUAUGCACGGUGUU |
| 6182 | CCUCUCUAGUCUUACCAUC | 6217 | GGCUUCACCAGUGGAUCAA | 6252 | CCAUGCUCCGGCUCGUGGC | 6287 | UUGGAUAUGCACGGUGUUG |
| 6183 | CUCUCUAGUCUUACCAUCA | 6218 | GCUUCACCAGUGGAUCAAC | 6253 | CAUGCUCCGGCUCGUGGCU | 6288 | UGGAUAUGCACGGUGUUGA |
| 6184 | UCUCUAGUCUUACCAUCAC | 6219 | CUUCACCAGUGGAUCAACG | 6254 | AUGCUCCGGCUCGUGGCUA | 6289 | GGAUAUGCACGGUGUUGAC |
| 6185 | CUCUAGUCUUACCAUCACU | 6220 | UUCACCAGUGGAUCAACGA | 6255 | UGCUCCGGCUCGUGGCUAA | 6290 | GAUAUGCACGGUGUUGACU |
| 6186 | UCUAGUCUUACCAUCACUC | 6221 | UCACCAGUGGAUCAACGAG | 6256 | GCUCCGGCUCGUGGCUAAG | 6291 | AUAUGCACGGUGUUGACUG |
| 6187 | CUAGUCUUACCAUCACUCA | 6222 | CACCAGUGGAUCAACGAGG | 6257 | CUCCGGCUCGUGGCUAAGA | 6292 | UAUGCACGGUGUUGACUGA |
| 6188 | UAGUCUUACCAUCACUCAG | 6223 | ACCAGUGGAUCAACGAGGA | 6258 | UCCGGCUCGUGGCUAAGAG | 6293 | AUGCACGGUGUUGACUGAU |
| 6189 | AGUCUUACCAUCACUCAGC | 6224 | CCAGUGGAUCAACGAGGAC | 6259 | CCGGCUCGUGGCUAAGAGA | 6294 | UGCACGGUGUUGACUGAUU |
| 6190 | GUCUUACCAUCACUCAGCU | 6225 | CAGUGGAUCAACGAGGACU | 6260 | CGGCUCGUGGCUAAGAGAU | 6295 | GCACGGUGUUGACUGAUUU |
| 6191 | UCUUACCAUCACUCAGCUG | 6226 | AGUGGAUCAACGAGGACUG | 6261 | GGCUCGUGGCUAAGAGAUG | 6296 | CACGGUGUUGACUGAUUUC |
| 6192 | CUUACCAUCACUCAGCUGC | 6227 | GUGGAUCAACGAGGACUGC | 6262 | GCUCGUGGCUAAGAGAUGU | 6297 | ACGGUGUUGACUGAUUUCA |
| 6193 | UUACCAUCACUCAGCUGCU | 6228 | UGGAUCAACGAGGACUGCU | 6263 | CUCGUGGCUAAGAGAUGUU | 6298 | CGGUGUUGACUGAUUUCAA |
| 6194 | UACCAUCACUCAGCUGCUG | 6229 | GGAUCAACGAGGACUGCUC | 6264 | UCGUGGCUAAGAGAUGUUU | 6299 | GGUGUUGACUGAUUUCAAG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6300 | GUGUUGACUGAUUUCAAGA | 6335 | GCUCCUGCCGCGAUUGCCG | 6370 | CAUGUCAACGUGGGUACAA | 6405 | GACGGCAUCAUGCAAACCA |
| 6301 | UGUUGACUGAUUUCAAGAC | 6336 | CUCCUGCCGCGAUUGCCGG | 6371 | AUGUCAACGUGGGUACAAG | 6406 | ACGGCAUCAUGCAAACCAC |
| 6302 | GUUGACUGAUUUCAAGACC | 6337 | UCCUGCCGCGAUUGCCGGG | 6372 | UGUCAACGUGGGUACAAGG | 6407 | CGGCAUCAUGCAAACCACC |
| 6303 | UUGACUGAUUUCAAGACCU | 6338 | CCUGCCGCGAUUGCCGGGA | 6373 | GUCAACGUGGGUACAAGGG | 6408 | GGCAUCAUGCAAACCACCU |
| 6304 | UGACUGAUUUCAAGACCUG | 6339 | CUGCCGCGAUUGCCGGGAG | 6374 | UCAACGUGGGUACAAGGGA | 6409 | GCAUCAUGCAAACCACCUG |
| 6305 | GACUGAUUUCAAGACCUGG | 6340 | UGCCGCGAUUGCCGGGAGU | 6375 | CAACGUGGGUACAAGGGAG | 6410 | CAUCAUGCAAACCACCUGC |
| 6306 | ACUGAUUUCAAGACCUGGC | 6341 | GCCGCGAUUGCCGGGAGUC | 6376 | AACGUGGGUACAAGGGAGU | 6411 | AUCAUGCAAACCACCUGCC |
| 6307 | CUGAUUUCAAGACCUGGCU | 6342 | CCGCGAUUGCCGGGAGUCC | 6377 | ACGUGGGUACAAGGGAGUC | 6412 | UCAUGCAAACCACCUGCCC |
| 6308 | UGAUUUCAAGACCUGGCUC | 6343 | CGCGAUUGCCGGGAGUCCC | 6378 | CGUGGGUACAAGGGAGUCU | 6413 | CAUGCAAACCACCUGCCCA |
| 6309 | GAUUUCAAGACCUGGCUCC | 6344 | GCGAUUGCCGGGAGUCCCC | 6379 | GUGGGUACAAGGGAGUCUG | 6414 | AUGCAAACCACCUGCCCAU |
| 6310 | AUUUCAAGACCUGGCUCCA | 6345 | CGAUUGCCGGGAGUCCCCU | 6380 | UGGGUACAAGGGAGUCUGG | 6415 | UGCAAACCACCUGCCCAUG |
| 6311 | UUUCAAGACCUGGCUCCAG | 6346 | GAUUGCCGGGAGUCCCCUU | 6381 | GGGUACAAGGGAGUCUGGC | 6416 | GCAAACCACCUGCCCAUGU |
| 6312 | UUCAAGACCUGGCUCCAGU | 6347 | AUUGCCGGGAGUCCCCUUC | 6382 | GGUACAAGGGAGUCUGGCG | 6417 | CAAACCACCUGCCCAUGUG |
| 6313 | UCAAGACCUGGCUCCAGUC | 6348 | UUGCCGGGAGUCCCCUUCU | 6383 | GUACAAGGGAGUCUGGCGG | 6418 | AAACCACCUGCCCAUGUGG |
| 6314 | CAAGACCUGGCUCCAGUCC | 6349 | UGCCGGGAGUCCCCUUCUU | 6384 | UACAAGGGAGUCUGGCGGG | 6419 | AACCACCUGCCCAUGUGGA |
| 6315 | AAGACCUGGCUCCAGUCCA | 6350 | GCCGGGAGUCCCCUUCUUC | 6385 | ACAAGGGAGUCUGGCGGGG | 6420 | ACCACCUGCCCAUGUGGAG |
| 6316 | AGACCUGGCUCCAGUCCAA | 6351 | CCGGGAGUCCCCUUCUUCU | 6386 | CAAGGGAGUCUGGCGGGGC | 6421 | CCACCUGCCCAUGUGGAGC |
| 6317 | GACCUGGCUCCAGUCCAAG | 6352 | CGGGAGUCCCCUUCUUCUC | 6387 | AAGGGAGUCUGGCGGGGCG | 6422 | CACCUGCCCAUGUGGAGCA |
| 6318 | ACCUGGCUCCAGUCCAAGC | 6353 | GGGAGUCCCCUUCUUCUCA | 6388 | AGGGAGUCUGGCGGGGCGA | 6423 | ACCUGCCCAUGUGGAGCAC |
| 6319 | CCUGGCUCCAGUCCAAGCU | 6354 | GGAGUCCCCUUCUUCUCAU | 6389 | GGGAGUCUGGCGGGGCGAC | 6424 | CCUGCCCAUGUGGAGCACA |
| 6320 | CUGGCUCCAGUCCAAGCUC | 6355 | GAGUCCCCUUCUUCUCAUG | 6390 | GGAGUCUGGCGGGGCGACG | 6425 | CUGCCCAUGUGGAGCACAG |
| 6321 | UGGCUCCAGUCCAAGCUCC | 6356 | AGUCCCCUUCUUCUCAUGU | 6391 | GAGUCUGGCGGGGCGACGG | 6426 | UGCCCAUGUGGAGCACAGA |
| 6322 | GGCUCCAGUCCAAGCUCCU | 6357 | GUCCCCUUCUUCUCAUGUC | 6392 | AGUCUGGCGGGGCGACGGC | 6427 | GCCCAUGUGGAGCACAGAU |
| 6323 | GCUCCAGUCCAAGCUCCUG | 6358 | UCCCCUUCUUCUCAUGUCA | 6393 | GUCUGGCGGGGCGACGGCA | 6428 | CCCAUGUGGAGCACAGAUC |
| 6324 | CUCCAGUCCAAGCUCCUGC | 6359 | CCCCUUCUUCUCAUGUCAA | 6394 | UCUGGCGGGGCGACGGCAU | 6429 | CCAUGUGGAGCACAGAUCA |
| 6325 | UCCAGUCCAAGCUCCUGCC | 6360 | CCCUUCUUCUCAUGUCAAC | 6395 | CUGGCGGGGCGACGGCAUC | 6430 | CAUGUGGAGCACAGAUCAC |
| 6326 | CCAGUCCAAGCUCCUGCCG | 6361 | CCUUCUUCUCAUGUCAACG | 6396 | UGGCGGGGCGACGGCAUCA | 6431 | AUGUGGAGCACAGAUCACC |
| 6327 | CAGUCCAAGCUCCUGCCGC | 6362 | CUUCUUCUCAUGUCAACGU | 6397 | GGCGGGGCGACGGCAUCAU | 6432 | UGUGGAGCACAGAUCACCG |
| 6328 | AGUCCAAGCUCCUGCCGCG | 6363 | UUCUUCUCAUGUCAACGUG | 6398 | GCGGGGCGACGGCAUCAUG | 6433 | GUGGAGCACAGAUCACCGG |
| 6329 | GUCCAAGCUCCUGCCGCGA | 6364 | UCUUCUCAUGUCAACGUGG | 6399 | CGGGGCGACGGCAUCAUGC | 6434 | UGGAGCACAGAUCACCGGA |
| 6330 | UCCAAGCUCCUGCCGCGAU | 6365 | CUUCUCAUGUCAACGUGGG | 6400 | GGGGCGACGGCAUCAUGCA | 6435 | GGAGCACAGAUCACCGGAC |
| 6331 | CCAAGCUCCUGCCGCGAUU | 6366 | UUCUCAUGUCAACGUGGGU | 6401 | GGGCGACGGCAUCAUGCAA | 6436 | GAGCACAGAUCACCGGACA |
| 6332 | CAAGCUCCUGCCGCGAUUG | 6367 | UCUCAUGUCAACGUGGGUA | 6402 | GGCGACGGCAUCAUGCAAA | 6437 | AGCACAGAUCACCGGACAU |
| 6333 | AAGCUCCUGCCGCGAUUGC | 6368 | CUCAUGUCAACGUGGGUAC | 6403 | GCGACGGCAUCAUGCAAAC | 6438 | GCACAGAUCACCGGACAUG |
| 6334 | AGCUCCUGCCGCGAUUGCC | 6369 | UCAUGUCAACGUGGGUACA | 6404 | CGACGGCAUCAUGCAAACC | 6439 | CACAGAUCACCGGACAUGU |



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| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6440 | ACAGAUCACCGGACAUGUG | 6475 | GGAUCGUGGGGCCUAGGAC | 6510 | CAUGGAACAUUCCCCAUUA | 6545 | CCCCUGCACGCCCUCCCCG |
| 6441 | CAGAUCACCGGACAUGUGA | 6476 | GAUCGUGGGGCCUAGGACC | 6511 | AUGGAACAUUCCCCAUUAA | 6546 | CCCUGCACGCCCUCCCCGG |
| 6442 | AGAUCACCGGACAUGUGAA | 6477 | AUCGUGGGGCCUAGGACCU | 6512 | UGGAACAUUCCCCAUUAAC | 6547 | CCUGCACGCCCUCCCCGGC |
| 6443 | GAUCACCGGACAUGUGAAA | 6478 | UCGUGGGGCCUAGGACCUG | 6513 | GGAACAUUCCCCAUUAACG | 6548 | CUGCACGCCCUCCCCGGCG |
| 6444 | AUCACCGGACAUGUGAAAA | 6479 | CGUGGGGCCUAGGACCUGU | 6514 | GAACAUUCCCCAUUAACGC | 6549 | UGCACGCCCUCCCCGGCGC |
| 6445 | UCACCGGACAUGUGAAAAA | 6480 | GUGGGGCCUAGGACCUGUA | 6515 | AACAUUCCCCAUUAACGCG | 6550 | GCACGCCCUCCCCGGCGCC |
| 6446 | CACCGGACAUGUGAAAAAC | 6481 | UGGGGCCUAGGACCUGUAG | 6516 | ACAUUCCCCAUUAACGCGU | 6551 | CACGCCCUCCCCGGCGCCA |
| 6447 | ACCGGACAUGUGAAAAACG | 6482 | GGGGCCUAGGACCUGUAGU | 6517 | CAUUCCCCAUUAACGCGUA | 6552 | ACGCCCUCCCCGGCGCCAA |
| 6448 | CCGGACAUGUGAAAAACGG | 6483 | GGGCCUAGGACCUGUAGUA | 6518 | AUUCCCCAUUAACGCGUAC | 6553 | CGCCCUCCCCGGCGCCAAA |
| 6449 | CGGACAUGUGAAAAACGGU | 6484 | GGCCUAGGACCUGUAGUAA | 6519 | UUCCCCAUUAACGCGUACA | 6554 | GCCCUCCCCGGCGCCAAAU |
| 6450 | GGACAUGUGAAAAACGGUU | 6485 | GCCUAGGACCUGUAGUAAC | 6520 | UCCCCAUUAACGCGUACAC | 6555 | CCCUCCCCGGCGCCAAAUU |
| 6451 | GACAUGUGAAAAACGGUUC | 6486 | CCUAGGACCUGUAGUAACA | 6521 | CCCCAUUAACGCGUACACC | 6556 | CCUCCCCGGCGCCAAAUUA |
| 6452 | ACAUGUGAAAAACGGUUCC | 6487 | CUAGGACCUGUAGUAACAC | 6522 | CCCAUUAACGCGUACACCA | 6557 | CUCCCCGGCGCCAAAUUAU |
| 6453 | CAUGUGAAAAACGGUUCCA | 6488 | UAGGACCUGUAGUAACACG | 6523 | CCAUUAACGCGUACACCAC | 6558 | UCCCCGGCGCCAAAUUAUU |
| 6454 | AUGUGAAAAACGGUUCCAU | 6489 | AGGACCUGUAGUAACACGU | 6524 | CAUUAACGCGUACACCACG | 6559 | CCCCGGCGCCAAAUUAUUC |
| 6455 | UGUGAAAAACGGUUCCAUG | 6490 | GGACCUGUAGUAACACGUG | 6525 | AUUAACGCGUACACCACGG | 6560 | CCCGGCGCCAAAUUAUUCU |
| 6456 | GUGAAAAACGGUUCCAUGA | 6491 | GACCUGUAGUAACACGUGG | 6526 | UUAACGCGUACACCACGGG | 6561 | CCGGCGCCAAAUUAUUCUA |
| 6457 | UGAAAAACGGUUCCAUGAG | 6492 | ACCUGUAGUAACACGUGGC | 6527 | UAACGCGUACACCACGGGC | 6562 | CGGCGCCAAAUUAUUCUAG |
| 6458 | GAAAAACGGUUCCAUGAGG | 6493 | CCUGUAGUAACACGUGGCA | 6528 | AACGCGUACACCACGGGCC | 6563 | GGCGCCAAAUUAUUCUAGG |
| 6459 | AAAAACGGUUCCAUGAGGA | 6494 | CUGUAGUAACACGUGGCAU | 6529 | ACGCGUACACCACGGGCCC | 6564 | GCGCCAAAUUAUUCUAGGG |
| 6460 | AAAACGGUUCCAUGAGGAU | 6495 | UGUAGUAACACGUGGCAUG | 6530 | CGCGUACACCACGGGCCCC | 6565 | CGCCAAAUUAUUCUAGGGC |
| 6461 | AAACGGUUCCAUGAGGAUC | 6496 | GUAGUAACACGUGGCAUGG | 6531 | GCGUACACCACGGGCCCCU | 6566 | GCCAAAUUAUUCUAGGGCG |
| 6462 | AACGGUUCCAUGAGGAUCG | 6497 | UAGUAACACGUGGCAUGGA | 6532 | CGUACACCACGGGCCCCUG | 6567 | CCAAAUUAUUCUAGGGCGC |
| 6463 | ACGGUUCCAUGAGGAUCGU | 6498 | AGUAACACGUGGCAUGGAA | 6533 | GUACACCACGGGCCCCUGC | 6568 | CAAAUUAUUCUAGGGCGCU |
| 6464 | CGGUUCCAUGAGGAUCGUG | 6499 | GUAACACGUGGCAUGGAAC | 6534 | UACACCACGGGCCCCUGCA | 6569 | AAAUUAUUCUAGGGCGCUG |
| 6465 | GGUUCCAUGAGGAUCGUGG | 6500 | UAACACGUGGCAUGGAACA | 6535 | ACACCACGGGCCCCUGCAC | 6570 | AAUUAUUCUAGGGCGCUGU |
| 6466 | GUUCCAUGAGGAUCGUGGG | 6501 | AACACGUGGCAUGGAACAU | 6536 | CACCACGGGCCCCUGCACG | 6571 | AUUAUUCUAGGGCGCUGUG |
| 6467 | UUCCAUGAGGAUCGUGGGG | 6502 | ACACGUGGCAUGGAACAUU | 6537 | ACCACGGGCCCCUGCACGC | 6572 | UUAUUCUAGGGCGCUGUGG |
| 6468 | UCCAUGAGGAUCGUGGGGC | 6503 | CACGUGGCAUGGAACAUUC | 6538 | CCACGGGCCCCUGCACGCC | 6573 | UAUUCUAGGGCGCUGUGGC |
| 6469 | CCAUGAGGAUCGUGGGGCC | 6504 | ACGUGGCAUGGAACAUUCC | 6539 | CACGGGCCCCUGCACGCCC | 6574 | AUUCUAGGGCGCUGUGGCG |
| 6470 | CAUGAGGAUCGUGGGGCCU | 6505 | CGUGGCAUGGAACAUUCCC | 6540 | ACGGGCCCCUGCACGCCCU | 6575 | UUCUAGGGCGCUGUGGCGG |
| 6471 | AUGAGGAUCGUGGGGCCUA | 6506 | GUGGCAUGGAACAUUCCCC | 6541 | CGGGCCCCUGCACGCCCUC | 6576 | UCUAGGGCGCUGUGGCGGG |
| 6472 | UGAGGAUCGUGGGGCCUAG | 6507 | UGGCAUGGAACAUUCCCCA | 6542 | GGGCCCCUGCACGCCCUCC | 6577 | CUAGGGCGCUGUGGCGGGU |
| 6473 | GAGGAUCGUGGGGCCUAGG | 6508 | GGCAUGGAACAUUCCCCAU | 6543 | GGCCCCUGCACGCCCUCCC | 6578 | UAGGGCGCUGUGGCGGGUG |
| 6474 | AGGAUCGUGGGGCCUAGGA | 6509 | GCAUGGAACAUUCCCCAUU | 6544 | GCCCCUGCACGCCCUCCCC | 6579 | AGGGCGCUGUGGCGGGUGG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6580 | GGGCGCUGUGGCGGGUGGC | 6615 | GAGGUUACGCGGGUGGGGG | 6650 | GGGCAUGACCACUGACAAC | 6685 | AGGUUCCGGCCCCCGAAUU |
| 6581 | GGCGCUGUGGCGGGUGGCU | 6616 | AGGUUACGCGGGUGGGGGA | 6651 | GGCAUGACCACUGACAACG | 6686 | GGUUCCGGCCCCCGAAUUC |
| 6582 | GCGCUGUGGCGGGUGGCUG | 6617 | GGUUACGCGGGUGGGGGAU | 6652 | GCAUGACCACUGACAACGU | 6687 | GUUCCGGCCCCCGAAUUCU |
| 6583 | CGCUGUGGCGGGUGGCUGC | 6618 | GUUACGCGGGUGGGGGAUU | 6653 | CAUGACCACUGACAACGUA | 6688 | UUCCGGCCCCCGAAUUCUU |
| 6584 | GCUGUGGCGGGUGGCUGCU | 6619 | UUACGCGGGUGGGGGAUUU | 6654 | AUGACCACUGACAACGUAA | 6689 | UCCGGCCCCCGAAUUCUUC |
| 6585 | CUGUGGCGGGUGGCUGCUG | 6620 | UACGCGGGUGGGGGAUUUC | 6655 | UGACCACUGACAACGUAAA | 6690 | CCGGCCCCCGAAUUCUUCA |
| 6586 | UGUGGCGGGUGGCUGCUGA | 6621 | ACGCGGGUGGGGGAUUUCC | 6656 | GACCACUGACAACGUAAAG | 6691 | CGGCCCCCGAAUUCUUCAC |
| 6587 | GUGGCGGGUGGCUGCUGAG | 6622 | CGCGGGUGGGGGAUUUCCA | 6657 | ACCACUGACAACGUAAAGU | 6692 | GGCCCCCGAAUUCUUCACA |
| 6588 | UGGCGGGUGGCUGCUGAGG | 6623 | GCGGGUGGGGGAUUUCCAC | 6658 | CCACUGACAACGUAAAGUG | 6693 | GCCCCCGAAUUCUUCACAG |
| 6589 | GGCGGGUGGCUGCUGAGGA | 6624 | CGGGUGGGGGAUUUCCACU | 6659 | CACUGACAACGUAAAGUGC | 6694 | CCCCCGAAUUCUUCACAGA |
| 6590 | GCGGGUGGCUGCUGAGGAG | 6625 | GGGUGGGGGAUUUCCACUA | 6660 | ACUGACAACGUAAAGUGCC | 6695 | CCCCGAAUUCUUCACAGAA |
| 6591 | CGGGUGGCUGCUGAGGAGU | 6626 | GGUGGGGGAUUUCCACUAC | 6661 | CUGACAACGUAAAGUGCCC | 6696 | CCCGAAUUCUUCACAGAAG |
| 6592 | GGGUGGCUGCUGAGGAGUA | 6627 | GUGGGGGAUUUCCACUACG | 6662 | UGACAACGUAAAGUGCCCG | 6697 | CCGAAUUCUUCACAGAAGU |
| 6593 | GGUGGCUGCUGAGGAGUAC | 6628 | UGGGGGAUUUCCACUACGU | 6663 | GACAACGUAAAGUGCCCGU | 6698 | CGAAUUCUUCACAGAAGUG |
| 6594 | GUGGCUGCUGAGGAGUACG | 6629 | GGGGGAUUUCCACUACGUG | 6664 | ACAACGUAAAGUGCCCGUG | 6699 | GAAUUCUUCACAGAAGUGG |
| 6595 | UGGCUGCUGAGGAGUACGU | 6630 | GGGGAUUUCCACUACGUGA | 6665 | CAACGUAAAGUGCCCGUGU | 6700 | AAUUCUUCACAGAAGUGGA |
| 6596 | GGCUGCUGAGGAGUACGUG | 6631 | GGGAUUUCCACUACGUGAC | 6666 | AACGUAAAGUGCCCGUGUC | 6701 | AUUCUUCACAGAAGUGGAU |
| 6597 | GCUGCUGAGGAGUACGUGG | 6632 | GGAUUUCCACUACGUGACG | 6667 | ACGUAAAGUGCCCGUGUCA | 6702 | UUCUUCACAGAAGUGGAUG |
| 6598 | CUGCUGAGGAGUACGUGGA | 6633 | GAUUUCCACUACGUGACGG | 6668 | CGUAAAGUGCCCGUGUCAG | 6703 | UCUUCACAGAAGUGGAUGG |
| 6599 | UGCUGAGGAGUACGUGGAG | 6634 | AUUUCCACUACGUGACGGG | 6669 | GUAAAGUGCCCGUGUCAGG | 6704 | CUUCACAGAAGUGGAUGGG |
| 6600 | GCUGAGGAGUACGUGGAGG | 6635 | UUUCCACUACGUGACGGGC | 6670 | UAAAGUGCCCGUGUCAGGU | 6705 | UUCACAGAAGUGGAUGGGG |
| 6601 | CUGAGGAGUACGUGGAGGU | 6636 | UUCCACUACGUGACGGGCA | 6671 | AAAGUGCCCGUGUCAGGUU | 6706 | UCACAGAAGUGGAUGGGGU |
| 6602 | UGAGGAGUACGUGGAGGUU | 6637 | UCCACUACGUGACGGGCAU | 6672 | AAGUGCCCGUGUCAGGUUC | 6707 | CACAGAAGUGGAUGGGGUG |
| 6603 | GAGGAGUACGUGGAGGUUA | 6638 | CCACUACGUGACGGGCAUG | 6673 | AGUGCCCGUGUCAGGUUCC | 6708 | ACAGAAGUGGAUGGGGUGC |
| 6604 | AGGAGUACGUGGAGGUUAC | 6639 | CACUACGUGACGGGCAUGA | 6674 | GUGCCCGUGUCAGGUUCCG | 6709 | CAGAAGUGGAUGGGGUGCG |
| 6605 | GGAGUACGUGGAGGUUACG | 6640 | ACUACGUGACGGGCAUGAC | 6675 | UGCCCGUGUCAGGUUCCGG | 6710 | AGAAGUGGAUGGGGUGCGG |
| 6606 | GAGUACGUGGAGGUUACGC | 6641 | CUACGUGACGGGCAUGACC | 6676 | GCCCGUGUCAGGUUCCGGC | 6711 | GAAGUGGAUGGGGUGCGGU |
| 6607 | AGUACGUGGAGGUUACGCG | 6642 | UACGUGACGGGCAUGACCA | 6677 | CCCGUGUCAGGUUCCGGCC | 6712 | AAGUGGAUGGGGUGCGGUU |
| 6608 | GUACGUGGAGGUUACGCGG | 6643 | ACGUGACGGGCAUGACCAC | 6678 | CCGUGUCAGGUUCCGGCCC | 6713 | AGUGGAUGGGGUGCGGUUG |
| 6609 | UACGUGGAGGUUACGCGGG | 6644 | CGUGACGGGCAUGACCACU | 6679 | CGUGUCAGGUUCCGGCCCC | 6714 | GUGGAUGGGGUGCGGUUGC |
| 6610 | ACGUGGAGGUUACGCGGGU | 6645 | GUGACGGGCAUGACCACUG | 6680 | GUGUCAGGUUCCGGCCCCC | 6715 | UGGAUGGGGUGCGGUUGCA |
| 6611 | CGUGGAGGUUACGCGGGUG | 6646 | UGACGGGCAUGACCACUGA | 6681 | UGUCAGGUUCCGGCCCCCG | 6716 | GGAUGGGGUGCGGUUGCAC |
| 6612 | GUGGAGGUUACGCGGGUGG | 6647 | GACGGGCAUGACCACUGAC | 6682 | GUCAGGUUCCGGCCCCCGA | 6717 | GAUGGGGUGCGGUUGCACA |
| 6613 | UGGAGGUUACGCGGGUGGG | 6648 | ACGGGCAUGACCACUGACA | 6683 | UCAGGUUCCGGCCCCCGAA | 6718 | AUGGGGUGCGGUUGCACAG |
| 6614 | GGAGGUUACGCGGGUGGGG | 6649 | CGGGCAUGACCACUGACAA | 6684 | CAGGUUCCGGCCCCCGAAU | 6719 | UGGGGUGCGGUUGCACAGG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6720 | GGGGUGCGGUUGCACAGGU | 6755 | ACCCCUCCUACGGGAGGAG | 6790 | GGCUCAAUCAAUACCUGGU | 6825 | UGCGAGCCCGAACCGGACG |
| 6721 | GGGUGCGGUUGCACAGGUA | 6756 | CCCCUCCUACGGGAGGAGG | 6791 | GCUCAAUCAAUACCUGGUU | 6826 | GCGAGCCCGAACCGGACGU |
| 6722 | GGUGCGGUUGCACAGGUAC | 6757 | CCCUCCUACGGGAGGAGGU | 6792 | CUCAAUCAAUACCUGGUUG | 6827 | CGAGCCCGAACCGGACGUA |
| 6723 | GUGCGGUUGCACAGGUACG | 6758 | CCUCCUACGGGAGGAGGUC | 6793 | UCAAUCAAUACCUGGUUGG | 6828 | GAGCCCGAACCGGACGUAG |
| 6724 | UGCGGUUGCACAGGUACGC | 6759 | CUCCUACGGGAGGAGGUCA | 6794 | CAAUCAAUACCUGGUUGGG | 6829 | AGCCCGAACCGGACGUAGC |
| 6725 | GCGGUUGCACAGGUACGCU | 6760 | UCCUACGGGAGGAGGUCAC | 6795 | AAUCAAUACCUGGUUGGGU | 6830 | GCCCGAACCGGACGUAGCA |
| 6726 | CGGUUGCACAGGUACGCUC | 6761 | CCUACGGGAGGAGGUCACA | 6796 | AUCAAUACCUGGUUGGGUC | 6831 | CCCGAACCGGACGUAGCAG |
| 6727 | GGUUGCACAGGUACGCUCC | 6762 | CUACGGGAGGAGGUCACAU | 6797 | UCAAUACCUGGUUGGGUCA | 6832 | CCGAACCGGACGUAGCAGU |
| 6728 | GUUGCACAGGUACGCUCCA | 6763 | UACGGGAGGAGGUCACAUU | 6798 | CAAUACCUGGUUGGGUCAC | 6833 | CGAACCGGACGUAGCAGUG |
| 6729 | UUGCACAGGUACGCUCCAG | 6764 | ACGGGAGGAGGUCACAUUC | 6799 | AAUACCUGGUUGGGUCACA | 6834 | GAACCGGACGUAGCAGUGC |
| 6730 | UGCACAGGUACGCUCCAGC | 6765 | CGGGAGGAGGUCACAUUCC | 6800 | AUACCUGGUUGGGUCACAG | 6835 | AACCGGACGUAGCAGUGCU |
| 6731 | GCACAGGUACGCUCCAGCG | 6766 | GGGAGGAGGUCACAUUCCU | 6801 | UACCUGGUUGGGUCACAGC | 6836 | ACCGGACGUAGCAGUGCUC |
| 6732 | CACAGGUACGCUCCAGCGU | 6767 | GGAGGAGGUCACAUUCCUG | 6802 | ACCUGGUUGGGUCACAGCU | 6837 | CCGGACGUAGCAGUGCUCA |
| 6733 | ACAGGUACGCUCCAGCGUG | 6768 | GAGGAGGUCACAUUCCUGG | 6803 | CCUGGUUGGGUCACAGCUC | 6838 | CGGACGUAGCAGUGCUCAC |
| 6734 | CAGGUACGCUCCAGCGUGC | 6769 | AGGAGGUCACAUUCCUGGU | 6804 | CUGGUUGGGUCACAGCUCC | 6839 | GGACGUAGCAGUGCUCACU |
| 6735 | AGGUACGCUCCAGCGUGCA | 6770 | GGAGGUCACAUUCCUGGUC | 6805 | UGGUUGGGUCACAGCUCCC | 6840 | GACGUAGCAGUGCUCACUU |
| 6736 | GGUACGCUCCAGCGUGCAA | 6771 | GAGGUCACAUUCCUGGUCG | 6806 | GGUUGGGUCACAGCUCCCA | 6841 | ACGUAGCAGUGCUCACUUC |
| 6737 | GUACGCUCCAGCGUGCAAA | 6772 | AGGUCACAUUCCUGGUCGG | 6807 | GUUGGGUCACAGCUCCCAU | 6842 | CGUAGCAGUGCUCACUUCC |
| 6738 | UACGCUCCAGCGUGCAAAC | 6773 | GGUCACAUUCCUGGUCGGG | 6808 | UUGGGUCACAGCUCCCAUG | 6843 | GUAGCAGUGCUCACUUCCA |
| 6739 | ACGCUCCAGCGUGCAAACC | 6774 | GUCACAUUCCUGGUCGGGC | 6809 | UGGGUCACAGCUCCCAUGC | 6844 | UAGCAGUGCUCACUUCCAU |
| 6740 | CGCUCCAGCGUGCAAACCC | 6775 | UCACAUUCCUGGUCGGGCU | 6810 | GGGUCACAGCUCCCAUGCG | 6845 | AGCAGUGCUCACUUCCAUG |
| 6741 | GCUCCAGCGUGCAAACCCC | 6776 | CACAUUCCUGGUCGGGCUC | 6811 | GGUCACAGCUCCCAUGCGA | 6846 | GCAGUGCUCACUUCCAUGC |
| 6742 | CUCCAGCGUGCAAACCCCU | 6777 | ACAUUCCUGGUCGGGCUCA | 6812 | GUCACAGCUCCCAUGCGAG | 6847 | CAGUGCUCACUUCCAUGCU |
| 6743 | UCCAGCGUGCAAACCCCUC | 6778 | CAUUCCUGGUCGGGCUCAA | 6813 | UCACAGCUCCCAUGCGAGC | 6848 | AGUGCUCACUUCCAUGCUC |
| 6744 | CCAGCGUGCAAACCCCUCC | 6779 | AUUCCUGGUCGGGCUCAAU | 6814 | CACAGCUCCCAUGCGAGCC | 6849 | GUGCUCACUUCCAUGCUCA |
| 6745 | CAGCGUGCAAACCCCUCCU | 6780 | UUCCUGGUCGGGCUCAAUC | 6815 | ACAGCUCCCAUGCGAGCCC | 6850 | UGCUCACUUCCAUGCUCAC |
| 6746 | AGCGUGCAAACCCCUCCUA | 6781 | UCCUGGUCGGGCUCAAUCA | 6816 | CAGCUCCCAUGCGAGCCCG | 6851 | GCUCACUUCCAUGCUCACC |
| 6747 | GCGUGCAAACCCCUCCUAC | 6782 | CCUGGUCGGGCUCAAUCAA | 6817 | AGCUCCCAUGCGAGCCCGA | 6852 | CUCACUUCCAUGCUCACCG |
| 6748 | CGUGCAAACCCCUCCUACG | 6783 | CUGGUCGGGCUCAAUCAAU | 6818 | GCUCCCAUGCGAGCCCGAA | 6853 | UCACUUCCAUGCUCACCGA |
| 6749 | GUGCAAACCCCUCCUACGG | 6784 | UGGUCGGGCUCAAUCAAUA | 6819 | CUCCCAUGCGAGCCCGAAC | 6854 | CACUUCCAUGCUCACCGAC |
| 6750 | UGCAAACCCCUCCUACGGG | 6785 | GGUCGGGCUCAAUCAAUAC | 6820 | UCCCAUGCGAGCCCGAACC | 6855 | ACUUCCAUGCUCACCGACC |
| 6751 | GCAAACCCCUCCUACGGGA | 6786 | GUCGGGCUCAAUCAAUACC | 6821 | CCCAUGCGAGCCCGAACCG | 6856 | CUUCCAUGCUCACCGACCC |
| 6752 | CAAACCCCUCCUACGGGAG | 6787 | UCGGGCUCAAUCAAUACCU | 6822 | CCAUGCGAGCCCGAACCGG | 6857 | UUCCAUGCUCACCGACCCC |
| 6753 | AAACCCCUCCUACGGGAGG | 6788 | CGGGCUCAAUCAAUACCUG | 6823 | CAUGCGAGCCCGAACCGGA | 6858 | UCCAUGCUCACCGACCCCU |
| 6754 | AACCCCUCCUACGGGAGGA | 6789 | GGGCUCAAUCAAUACCUGG | 6824 | AUGCGAGCCCGAACCGGAC | 6859 | CCAUGCUCACCGACCCCUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6860 | CAUGCUCACCGACCCCUCC | 6895 | CGGCUAAGCGUAGGCUGGC | 6930 | UCCUUGGCCAGCUCAUCAG | 6965 | GCCUUCCUUGAAGGCAACA |
| 6861 | AUGCUCACCGACCCCUCCC | 6896 | GGCUAAGCGUAGGCUGGCC | 6931 | CCUUGGCCAGCUCAUCAGC | 6966 | CCUUCCUUGAAGGCAACAU |
| 6862 | UGCUCACCGACCCCUCCCA | 6897 | GCUAAGCGUAGGCUGGCCA | 6932 | CUUGGCCAGCUCAUCAGCU | 6967 | CUUCCUUGAAGGCAACAUG |
| 6863 | GCUCACCGACCCCUCCCAC | 6898 | CUAAGCGUAGGCUGGCCAG | 6933 | UUGGCCAGCUCAUCAGCUA | 6968 | UUCCUUGAAGGCAACAUGC |
| 6864 | CUCACCGACCCCUCCCACA | 6899 | UAAGCGUAGGCUGGCCAGG | 6934 | UGGCCAGCUCAUCAGCUAG | 6969 | UCCUUGAAGGCAACAUGCA |
| 6865 | UCACCGACCCCUCCCACAU | 6900 | AAGCGUAGGCUGGCCAGGG | 6935 | GGCCAGCUCAUCAGCUAGC | 6970 | CCUUGAAGGCAACAUGCAC |
| 6866 | CACCGACCCCUCCCACAUU | 6901 | AGCGUAGGCUGGCCAGGGG | 6936 | GCCAGCUCAUCAGCUAGCC | 6971 | CUUGAAGGCAACAUGCACU |
| 6867 | ACCGACCCCUCCCACAUUA | 6902 | GCGUAGGCUGGCCAGGGGA | 6937 | CCAGCUCAUCAGCUAGCCA | 6972 | UUGAAGGCAACAUGCACUA |
| 6868 | CCGACCCCUCCCACAUUAC | 6903 | CGUAGGCUGGCCAGGGGAU | 6938 | CAGCUCAUCAGCUAGCCAG | 6973 | UGAAGGCAACAUGCACUAC |
| 6869 | CGACCCCUCCCACAUUACG | 6904 | GUAGGCUGGCCAGGGGAUC | 6939 | AGCUCAUCAGCUAGCCAGC | 6974 | GAAGGCAACAUGCACUACC |
| 6870 | GACCCCUCCCACAUUACGG | 6905 | UAGGCUGGCCAGGGGAUCU | 6940 | GCUCAUCAGCUAGCCAGCU | 6975 | AAGGCAACAUGCACUACCC |
| 6871 | ACCCCUCCCACAUUACGGC | 6906 | AGGCUGGCCAGGGGAUCUC | 6941 | CUCAUCAGCUAGCCAGCUG | 6976 | AGGCAACAUGCACUACCCG |
| 6872 | CCCCUCCCACAUUACGGCG | 6907 | GGCUGGCCAGGGGAUCUCC | 6942 | UCAUCAGCUAGCCAGCUGU | 6977 | GGCAACAUGCACUACCCGU |
| 6873 | CCCUCCCACAUUACGGCGG | 6908 | GCUGGCCAGGGGAUCUCCC | 6943 | CAUCAGCUAGCCAGCUGUC | 6978 | GCAACAUGCACUACCCGUC |
| 6874 | CCUCCCACAUUACGGCGGA | 6909 | CUGGCCAGGGGAUCUCCCC | 6944 | AUCAGCUAGCCAGCUGUCU | 6979 | CAACAUGCACUACCCGUCA |
| 6875 | CUCCCACAUUACGGCGGAG | 6910 | UGGCCAGGGGAUCUCCCCC | 6945 | UCAGCUAGCCAGCUGUCUG | 6980 | AACAUGCACUACCCGUCAU |
| 6876 | UCCCACAUUACGGCGGAGA | 6911 | GGCCAGGGGAUCUCCCCCC | 6946 | CAGCUAGCCAGCUGUCUGC | 6981 | ACAUGCACUACCCGUCAUG |
| 6877 | CCCACAUUACGGCGGAGAC | 6912 | GCCAGGGGAUCUCCCCCCU | 6947 | AGCUAGCCAGCUGUCUGCG | 6982 | CAUGCACUACCCGUCAUGA |
| 6878 | CCACAUUACGGCGGAGACG | 6913 | CCAGGGGAUCUCCCCCCUC | 6948 | GCUAGCCAGCUGUCUGCGC | 6983 | AUGCACUACCCGUCAUGAC |
| 6879 | CACAUUACGGCGGAGACGG | 6914 | CAGGGGAUCUCCCCCCUCC | 6949 | CUAGCCAGCUGUCUGCGCC | 6984 | UGCACUACCCGUCAUGACU |
| 6880 | ACAUUACGGCGGAGACGGC | 6915 | AGGGGAUCUCCCCCCUCCU | 6950 | UAGCCAGCUGUCUGCGCCU | 6985 | GCACUACCCGUCAUGACUC |
| 6881 | CAUUACGGCGGAGACGGCU | 6916 | GGGGAUCUCCCCCCUCCUU | 6951 | AGCCAGCUGUCUGCGCCUU | 6986 | CACUACCCGUCAUGACUCC |
| 6882 | AUUACGGCGGAGACGGCUA | 6917 | GGGAUCUCCCCCCUCCUUG | 6952 | GCCAGCUGUCUGCGCCUUC | 6987 | ACUACCCGUCAUGACUCCC |
| 6883 | UUACGGCGGAGACGGCUAA | 6918 | GGAUCUCCCCCCUCCUUGG | 6953 | CCAGCUGUCUGCGCCUUCC | 6988 | CUACCCGUCAUGACUCCCC |
| 6884 | UACGGCGGAGACGGCUAAG | 6919 | GAUCUCCCCCCUCCUUGGC | 6954 | CAGCUGUCUGCGCCUUCCU | 6989 | UACCCGUCAUGACUCCCCG |
| 6885 | ACGGCGGAGACGGCUAAGC | 6920 | AUCUCCCCCCUCCUUGGCC | 6955 | AGCUGUCUGCGCCUUCCUU | 6990 | ACCCGUCAUGACUCCCCGG |
| 6886 | CGGCGGAGACGGCUAAGCG | 6921 | UCUCCCCCCUCCUUGGCCA | 6956 | GCUGUCUGCGCCUUCCUUG | 6991 | CCCGUCAUGACUCCCCGGA |
| 6887 | GGCGGAGACGGCUAAGCGU | 6922 | CUCCCCCCUCCUUGGCCAG | 6957 | CUGUCUGCGCCUUCCUUGA | 6992 | CCGUCAUGACUCCCCGGAC |
| 6888 | GCGGAGACGGCUAAGCGUA | 6923 | UCCCCCCUCCUUGGCCAGC | 6958 | UGUCUGCGCCUUCCUUGAA | 6993 | CGUCAUGACUCCCCGGACG |
| 6889 | CGGAGACGGCUAAGCGUAG | 6924 | CCCCCCUCCUUGGCCAGCU | 6959 | GUCUGCGCCUUCCUUGAAG | 6994 | GUCAUGACUCCCCGGACGC |
| 6890 | GGAGACGGCUAAGCGUAGG | 6925 | CCCCCUCCUUGGCCAGCUC | 6960 | UCUGCGCCUUCCUUGAAGG | 6995 | UCAUGACUCCCCGGACGCU |
| 6891 | GAGACGGCUAAGCGUAGGC | 6926 | CCCCUCCUUGGCCAGCUCA | 6961 | CUGCGCCUUCCUUGAAGGC | 6996 | CAUGACUCCCCGGACGCUG |
| 6892 | AGACGGCUAAGCGUAGGCU | 6927 | CCCUCCUUGGCCAGCUCAU | 6962 | UGCGCCUUCCUUGAAGGCA | 6997 | AUGACUCCCCGGACGCUGA |
| 6893 | GACGGCUAAGCGUAGGCUG | 6928 | CCUCCUUGGCCAGCUCAUC | 6963 | GCGCCUUCCUUGAAGGCAA | 6998 | UGACUCCCCGGACGCUGAC |
| 6894 | ACGGCUAAGCGUAGGCUGG | 6929 | CUCCUUGGCCAGCUCAUCA | 6964 | CGCCUUCCUUGAAGGCAAC | 6999 | GACUCCCCGGACGCUGACC |

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| | |
|---|---|
| 7000 | ACUCCCCGGACGCUGACCU |
| 7001 | CUCCCCGGACGCUGACCUC |
| 7002 | UCCCCGGACGCUGACCUCA |
| 7003 | CCCCGGACGCUGACCUCAU |
| 7004 | CCCGGACGCUGACCUCAUC |
| 7005 | CCGGACGCUGACCUCAUCG |
| 7006 | CGGACGCUGACCUCAUCGA |
| 7007 | GGACGCUGACCUCAUCGAG |
| 7008 | GACGCUGACCUCAUCGAGG |
| 7009 | ACGCUGACCUCAUCGAGGC |
| 7010 | CGCUGACCUCAUCGAGGCC |
| 7011 | GCUGACCUCAUCGAGGCCA |
| 7012 | CUGACCUCAUCGAGGCCAA |
| 7013 | UGACCUCAUCGAGGCCAAC |
| 7014 | GACCUCAUCGAGGCCAACC |
| 7015 | ACCUCAUCGAGGCCAACCU |
| 7016 | CCUCAUCGAGGCCAACCUC |
| 7017 | CUCAUCGAGGCCAACCUCC |
| 7018 | UCAUCGAGGCCAACCUCCU |
| 7019 | CAUCGAGGCCAACCUCCUG |
| 7020 | AUCGAGGCCAACCUCCUGU |
| 7021 | UCGAGGCCAACCUCCUGUG |
| 7022 | CGAGGCCAACCUCCUGUGG |
| 7023 | GAGGCCAACCUCCUGUGGC |
| 7024 | AGGCCAACCUCCUGUGGCG |
| 7025 | GGCCAACCUCCUGUGGCGG |
| 7026 | GCCAACCUCCUGUGGCGGC |
| 7027 | CCAACCUCCUGUGGCGGCA |
| 7028 | CAACCUCCUGUGGCGGCAG |
| 7029 | AACCUCCUGUGGCGGCAGG |
| 7030 | ACCUCCUGUGGCGGCAGGA |
| 7031 | CCUCCUGUGGCGGCAGGAG |
| 7032 | CUCCUGUGGCGGCAGGAGA |
| 7033 | UCCUGUGGCGGCAGGAGAU |
| 7034 | CCUGUGGCGGCAGGAGAUG |
| 7035 | CUGUGGCGGCAGGAGAUGG |
| 7036 | UGUGGCGGCAGGAGAUGGG |
| 7037 | GUGGCGGCAGGAGAUGGGC |
| 7038 | UGGCGGCAGGAGAUGGGCG |
| 7039 | GGCGGCAGGAGAUGGGCGG |
| 7040 | GCGGCAGGAGAUGGGCGGG |
| 7041 | CGGCAGGAGAUGGGCGGGA |
| 7042 | GGCAGGAGAUGGGCGGGAA |
| 7043 | GCAGGAGAUGGGCGGGAAC |
| 7044 | CAGGAGAUGGGCGGGAACA |
| 7045 | AGGAGAUGGGCGGGAACAU |
| 7046 | GGAGAUGGGCGGGAACAUC |
| 7047 | GAGAUGGGCGGGAACAUCA |
| 7048 | AGAUGGGCGGGAACAUCAC |
| 7049 | GAUGGGCGGGAACAUCACC |
| 7050 | AUGGGCGGGAACAUCACCC |
| 7051 | UGGGCGGGAACAUCACCCG |
| 7052 | GGGCGGGAACAUCACCCGC |
| 7053 | GGCGGGAACAUCACCCGCG |
| 7054 | GCGGGAACAUCACCCGCGU |
| 7055 | CGGGAACAUCACCCGCGUG |
| 7056 | GGGAACAUCACCCGCGUGG |
| 7057 | GGAACAUCACCCGCGUGGA |
| 7058 | GAACAUCACCCGCGUGGAG |
| 7059 | AACAUCACCCGCGUGGAGU |
| 7060 | ACAUCACCCGCGUGGAGUC |
| 7061 | CAUCACCCGCGUGGAGUCA |
| 7062 | AUCACCCGCGUGGAGUCAG |
| 7063 | UCACCCGCGUGGAGUCAGA |
| 7064 | CACCCGCGUGGAGUCAGAA |
| 7065 | ACCCGCGUGGAGUCAGAAA |
| 7066 | CCCGCGUGGAGUCAGAAAA |
| 7067 | CCGCGUGGAGUCAGAAAAU |
| 7068 | CGCGUGGAGUCAGAAAAUA |
| 7069 | GCGUGGAGUCAGAAAAUAA |
| 7070 | CGUGGAGUCAGAAAAUAAG |
| 7071 | GUGGAGUCAGAAAAUAAGG |
| 7072 | UGGAGUCAGAAAAUAAGGU |
| 7073 | GGAGUCAGAAAAUAAGGUA |
| 7074 | GAGUCAGAAAAUAAGGUAG |
| 7075 | AGUCAGAAAAUAAGGUAGU |
| 7076 | GUCAGAAAAUAAGGUAGUA |
| 7077 | UCAGAAAAUAAGGUAGUAA |
| 7078 | CAGAAAAUAAGGUAGUAAU |
| 7079 | AGAAAAUAAGGUAGUAAUU |
| 7080 | GAAAAUAAGGUAGUAAUUU |
| 7081 | AAAAUAAGGUAGUAAUUUU |
| 7082 | AAAUAAGGUAGUAAUUUUG |
| 7083 | AAUAAGGUAGUAAUUUUGG |
| 7084 | AUAAGGUAGUAAUUUUGGA |
| 7085 | UAAGGUAGUAAUUUUGGAC |
| 7086 | AAGGUAGUAAUUUUGGACU |
| 7087 | AGGUAGUAAUUUUGGACUC |
| 7088 | GGUAGUAAUUUUGGACUCU |
| 7089 | GUAGUAAUUUUGGACUCUU |
| 7090 | UAGUAAUUUUGGACUCUUU |
| 7091 | AGUAAUUUUGGACUCUUUC |
| 7092 | GUAAUUUUGGACUCUUUCG |
| 7093 | UAAUUUUGGACUCUUUCGA |
| 7094 | AAUUUUGGACUCUUUCGAG |
| 7095 | AUUUUGGACUCUUUCGAGC |
| 7096 | UUUUGGACUCUUUCGAGCC |
| 7097 | UUUGGACUCUUUCGAGCCG |
| 7098 | UUGGACUCUUUCGAGCCGC |
| 7099 | UGGACUCUUUCGAGCCGCU |
| 7100 | GGACUCUUUCGAGCCGCUC |
| 7101 | GACUCUUUCGAGCCGCUCC |
| 7102 | ACUCUUUCGAGCCGCUCCA |
| 7103 | CUCUUUCGAGCCGCUCCAA |
| 7104 | UCUUUCGAGCCGCUCCAAG |
| 7105 | CUUUCGAGCCGCUCCAAGC |
| 7106 | UUUCGAGCCGCUCCAAGCG |
| 7107 | UUCGAGCCGCUCCAAGCGG |
| 7108 | UCGAGCCGCUCCAAGCGGA |
| 7109 | CGAGCCGCUCCAAGCGGAG |
| 7110 | GAGCCGCUCCAAGCGGAGG |
| 7111 | AGCCGCUCCAAGCGGAGGA |
| 7112 | GCCGCUCCAAGCGGAGGAG |
| 7113 | CCGCUCCAAGCGGAGGAGG |
| 7114 | CGCUCCAAGCGGAGGAGGA |
| 7115 | GCUCCAAGCGGAGGAGGAU |
| 7116 | CUCCAAGCGGAGGAGGAUG |
| 7117 | UCCAAGCGGAGGAGGAUGA |
| 7118 | CCAAGCGGAGGAGGAUGAG |
| 7119 | CAAGCGGAGGAGGAUGAGA |
| 7120 | AAGCGGAGGAGGAUGAGAG |
| 7121 | AGCGGAGGAGGAUGAGAGG |
| 7122 | GCGGAGGAGGAUGAGAGGG |
| 7123 | CGGAGGAGGAUGAGAGGGA |
| 7124 | GGAGGAGGAUGAGAGGGAA |
| 7125 | GAGGAGGAUGAGAGGGAAG |
| 7126 | AGGAGGAUGAGAGGGAAGU |
| 7127 | GGAGGAUGAGAGGGAAGUA |
| 7128 | GAGGAUGAGAGGGAAGUAU |
| 7129 | AGGAUGAGAGGGAAGUAUC |
| 7130 | GGAUGAGAGGGAAGUAUCC |
| 7131 | GAUGAGAGGGAAGUAUCCG |
| 7132 | AUGAGAGGGAAGUAUCCGU |
| 7133 | UGAGAGGGAAGUAUCCGUU |
| 7134 | GAGAGGGAAGUAUCCGUUC |
| 7135 | AGAGGGAAGUAUCCGUUCC |
| 7136 | GAGGGAAGUAUCCGUUCCG |
| 7137 | AGGGAAGUAUCCGUUCCGG |
| 7138 | GGGAAGUAUCCGUUCCGGC |
| 7139 | GGAAGUAUCCGUUCCGGCG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7140 | GAAGUAUCCGUUCCGGCGG | 7175 | CAGGAAAUUCCCUCGAGCG | 7210 | GCCCGGAUUACAACCCUCC | 7245 | AAGGACCCGGACUACGUCC |
| 7141 | AAGUAUCCGUUCCGGCGGA | 7176 | AGGAAAUUCCCUCGAGCGA | 7211 | CCCGGAUUACAACCCUCCA | 7246 | AGGACCCGGACUACGUCCC |
| 7142 | AGUAUCCGUUCCGGCGGAG | 7177 | GGAAAUUCCCUCGAGCGAU | 7212 | CCGGAUUACAACCCUCCAC | 7247 | GGACCCGGACUACGUCCCU |
| 7143 | GUAUCCGUUCCGGCGGAGA | 7178 | GAAAUUCCCUCGAGCGAUG | 7213 | CGGAUUACAACCCUCCACU | 7248 | GACCCGGACUACGUCCCUC |
| 7144 | UAUCCGUUCCGGCGGAGAU | 7179 | AAAUUCCCUCGAGCGAUGC | 7214 | GGAUUACAACCCUCCACUG | 7249 | ACCCGGACUACGUCCCUCC |
| 7145 | AUCCGUUCCGGCGGAGAUC | 7180 | AAUUCCCUCGAGCGAUGCC | 7215 | GAUUACAACCCUCCACUGU | 7250 | CCCGGACUACGUCCCUCCA |
| 7146 | UCCGUUCCGGCGGAGAUCC | 7181 | AUUCCCUCGAGCGAUGCCC | 7216 | AUUACAACCCUCCACUGUU | 7251 | CCGGACUACGUCCCUCCAG |
| 7147 | CCGUUCCGGCGGAGAUCCU | 7182 | UUCCCUCGAGCGAUGCCCA | 7217 | UUACAACCCUCCACUGUUA | 7252 | CGGACUACGUCCCUCCAGU |
| 7148 | CGUUCCGGCGGAGAUCCUG | 7183 | UCCCUCGAGCGAUGCCCAU | 7218 | UACAACCCUCCACUGUUAG | 7253 | GGACUACGUCCCUCCAGUG |
| 7149 | GUUCCGGCGGAGAUCCUGC | 7184 | CCCUCGAGCGAUGCCCAUA | 7219 | ACAACCCUCCACUGUUAGA | 7254 | GACUACGUCCCUCCAGUGG |
| 7150 | UUCCGGCGGAGAUCCUGCG | 7185 | CCUCGAGCGAUGCCCAUAU | 7220 | CAACCCUCCACUGUUAGAG | 7255 | ACUACGUCCCUCCAGUGGU |
| 7151 | UCCGGCGGAGAUCCUGCGG | 7186 | CUCGAGCGAUGCCCAUAUG | 7221 | AACCCUCCACUGUUAGAGU | 7256 | CUACGUCCCUCCAGUGGUA |
| 7152 | CCGGCGGAGAUCCUGCGGA | 7187 | UCGAGCGAUGCCCAUAUGG | 7222 | ACCCUCCACUGUUAGAGUC | 7257 | UACGUCCCUCCAGUGGUAC |
| 7153 | CGGCGGAGAUCCUGCGGAG | 7188 | CGAGCGAUGCCCAUAUGGG | 7223 | CCCUCCACUGUUAGAGUCC | 7258 | ACGUCCCUCCAGUGGUACA |
| 7154 | GGCGGAGAUCCUGCGGAGG | 7189 | GAGCGAUGCCCAUAUGGGC | 7224 | CCUCCACUGUUAGAGUCCU | 7259 | CGUCCCUCCAGUGGUACAC |
| 7155 | GCGGAGAUCCUGCGGAGGU | 7190 | AGCGAUGCCCAUAUGGGCA | 7225 | CUCCACUGUUAGAGUCCUG | 7260 | GUCCCUCCAGUGGUACACG |
| 7156 | CGGAGAUCCUGCGGAGGUC | 7191 | GCGAUGCCCAUAUGGGCAC | 7226 | UCCACUGUUAGAGUCCUGG | 7261 | UCCCUCCAGUGGUACACGG |
| 7157 | GGAGAUCCUGCGGAGGUCC | 7192 | CGAUGCCCAUAUGGGCACG | 7227 | CCACUGUUAGAGUCCUGGA | 7262 | CCCUCCAGUGGUACACGGG |
| 7158 | GAGAUCCUGCGGAGGUCCA | 7193 | GAUGCCCAUAUGGGCACGC | 7228 | CACUGUUAGAGUCCUGGAA | 7263 | CCUCCAGUGGUACACGGGU |
| 7159 | AGAUCCUGCGGAGGUCCAG | 7194 | AUGCCCAUAUGGGCACGCC | 7229 | ACUGUUAGAGUCCUGGAAG | 7264 | CUCCAGUGGUACACGGGUG |
| 7160 | GAUCCUGCGGAGGUCCAGG | 7195 | UGCCCAUAUGGGCACGCCC | 7230 | CUGUUAGAGUCCUGGAAGG | 7265 | UCCAGUGGUACACGGGUGU |
| 7161 | AUCCUGCGGAGGUCCAGGA | 7196 | GCCCAUAUGGGCACGCCCG | 7231 | UGUUAGAGUCCUGGAAGGA | 7266 | CCAGUGGUACACGGGUGUC |
| 7162 | UCCUGCGGAGGUCCAGGAA | 7197 | CCCAUAUGGGCACGCCCGG | 7232 | GUUAGAGUCCUGGAAGGAC | 7267 | CAGUGGUACACGGGUGUCC |
| 7163 | CCUGCGGAGGUCCAGGAAA | 7198 | CCAUAUGGGCACGCCCGGA | 7233 | UUAGAGUCCUGGAAGGACC | 7268 | AGUGGUACACGGGUGUCCA |
| 7164 | CUGCGGAGGUCCAGGAAAU | 7199 | CAUAUGGGCACGCCCGGAU | 7234 | UAGAGUCCUGGAAGGACCC | 7269 | GUGGUACACGGGUGUCCAU |
| 7165 | UGCGGAGGUCCAGGAAAUU | 7200 | AUAUGGGCACGCCCGGAUU | 7235 | AGAGUCCUGGAAGGACCCG | 7270 | UGGUACACGGGUGUCCAUU |
| 7166 | GCGGAGGUCCAGGAAAUUC | 7201 | UAUGGGCACGCCCGGAUUA | 7236 | GAGUCCUGGAAGGACCCGG | 7271 | GGUACACGGGUGUCCAUUG |
| 7167 | CGGAGGUCCAGGAAAUUCC | 7202 | AUGGGCACGCCCGGAUUAC | 7237 | AGUCCUGGAAGGACCCGGA | 7272 | GUACACGGGUGUCCAUUGC |
| 7168 | GGAGGUCCAGGAAAUUCCC | 7203 | UGGGCACGCCCGGAUUACA | 7238 | GUCCUGGAAGGACCCGGAC | 7273 | UACACGGGUGUCCAUUGCC |
| 7169 | GAGGUCCAGGAAAUUCCCU | 7204 | GGGCACGCCCGGAUUACAA | 7239 | UCCUGGAAGGACCCGGACU | 7274 | ACACGGGUGUCCAUUGCCG |
| 7170 | AGGUCCAGGAAAUUCCCUC | 7205 | GGCACGCCCGGAUUACAAC | 7240 | CCUGGAAGGACCCGGACUA | 7275 | CACGGGUGUCCAUUGCCGC |
| 7171 | GGUCCAGGAAAUUCCCUCG | 7206 | GCACGCCCGGAUUACAACC | 7241 | CUGGAAGGACCCGGACUAC | 7276 | ACGGGUGUCCAUUGCCGCC |
| 7172 | GUCCAGGAAAUUCCCUCGA | 7207 | CACGCCCGGAUUACAACCC | 7242 | UGGAAGGACCCGGACUACG | 7277 | CGGGUGUCCAUUGCCGCCU |
| 7173 | UCCAGGAAAUUCCCUCGAG | 7208 | ACGCCCGGAUUACAACCCU | 7243 | GGAAGGACCCGGACUACGU | 7278 | GGGUGUCCAUUGCCGCCUG |
| 7174 | CCAGGAAAUUCCCUCGAGC | 7209 | CGCCCGGAUUACAACCCUC | 7244 | GAAGGACCCGGACUACGUC | 7279 | GGUGUCCAUUGCCGCCUGC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7280 | GUGUCCAUUGCCGCCUGCC | 7315 | CACCUCCACGGAGGAAGAG | 7350 | GAAUCUACCGUGUCUUCUG | 7385 | CACAAAGACCUUCGGCAGC |
| 7281 | UGUCCAUUGCCGCCUGCCA | 7316 | ACCUCCACGGAGGAAGAGG | 7351 | AAUCUACCGUGUCUUCUGC | 7386 | ACAAAGACCUUCGGCAGCU |
| 7282 | GUCCAUUGCCGCCUGCCAA | 7317 | CCUCCACGGAGGAAGAGGA | 7352 | AUCUACCGUGUCUUCUGCC | 7387 | CAAAGACCUUCGGCAGCUC |
| 7283 | UCCAUUGCCGCCUGCCAAG | 7318 | CUCCACGGAGGAAGAGGAC | 7353 | UCUACCGUGUCUUCUGCCU | 7388 | AAAGACCUUCGGCAGCUCC |
| 7284 | CCAUUGCCGCCUGCCAAGG | 7319 | UCCACGGAGGAAGAGGACG | 7354 | CUACCGUGUCUUCUGCCUU | 7389 | AAGACCUUCGGCAGCUCCG |
| 7285 | CAUUGCCGCCUGCCAAGGC | 7320 | CCACGGAGGAAGAGGACGG | 7355 | UACCGUGUCUUCUGCCUUG | 7390 | AGACCUUCGGCAGCUCCGA |
| 7286 | AUUGCCGCCUGCCAAGGCC | 7321 | CACGGAGGAAGAGGACGGU | 7356 | ACCGUGUCUUCUGCCUUGG | 7391 | GACCUUCGGCAGCUCCGAA |
| 7287 | UUGCCGCCUGCCAAGGCCC | 7322 | ACGGAGGAAGAGGACGGUU | 7357 | CCGUGUCUUCUGCCUUGGC | 7392 | ACCUUCGGCAGCUCCGAAU |
| 7288 | UGCCGCCUGCCAAGGCCCC | 7323 | CGGAGGAAGAGGACGGUUG | 7358 | CGUGUCUUCUGCCUUGGCG | 7393 | CCUUCGGCAGCUCCGAAUC |
| 7289 | GCCGCCUGCCAAGGCCCCU | 7324 | GGAGGAAGAGGACGGUUGU | 7359 | GUGUCUUCUGCCUUGGCGG | 7394 | CUUCGGCAGCUCCGAAUCG |
| 7290 | CCGCCUGCCAAGGCCCCUC | 7325 | GAGGAAGAGGACGGUUGUC | 7360 | UGUCUUCUGCCUUGGCGGA | 7395 | UUCGGCAGCUCCGAAUCGU |
| 7291 | CGCCUGCCAAGGCCCCUCC | 7326 | AGGAAGAGGACGGUUGUCC | 7361 | GUCUUCUGCCUUGGCGGAG | 7396 | UCGGCAGCUCCGAAUCGUC |
| 7292 | GCCUGCCAAGGCCCCUCCG | 7327 | GGAAGAGGACGGUUGUCCU | 7362 | UCUUCUGCCUUGGCGGAGC | 7397 | CGGCAGCUCCGAAUCGUCG |
| 7293 | CCUGCCAAGGCCCCUCCGA | 7328 | GAAGAGGACGGUUGUCCUG | 7363 | CUUCUGCCUUGGCGGAGCU | 7398 | GGCAGCUCCGAAUCGUCGG |
| 7294 | CUGCCAAGGCCCCUCCGAU | 7329 | AAGAGGACGGUUGUCCUGU | 7364 | UUCUGCCUUGGCGGAGCUC | 7399 | GCAGCUCCGAAUCGUCGGC |
| 7295 | UGCCAAGGCCCCUCCGAUA | 7330 | AGAGGACGGUUGUCCUGUC | 7365 | UCUGCCUUGGCGGAGCUCG | 7400 | CAGCUCCGAAUCGUCGGCC |
| 7296 | GCCAAGGCCCCUCCGAUAC | 7331 | GAGGACGGUUGUCCUGUCA | 7366 | CUGCCUUGGCGGAGCUCGC | 7401 | AGCUCCGAAUCGUCGGCCG |
| 7297 | CCAAGGCCCCUCCGAUACC | 7332 | AGGACGGUUGUCCUGUCAG | 7367 | UGCCUUGGCGGAGCUCGCC | 7402 | GCUCCGAAUCGUCGGCCGU |
| 7298 | CAAGGCCCCUCCGAUACCA | 7333 | GGACGGUUGUCCUGUCAGA | 7368 | GCCUUGGCGGAGCUCGCCA | 7403 | CUCCGAAUCGUCGGCCGUC |
| 7299 | AAGGCCCCUCCGAUACCAC | 7334 | GACGGUUGUCCUGUCAGAA | 7369 | CCUUGGCGGAGCUCGCCAC | 7404 | UCCGAAUCGUCGGCCGUCG |
| 7300 | AGGCCCCUCCGAUACCACC | 7335 | ACGGUUGUCCUGUCAGAAU | 7370 | CUUGGCGGAGCUCGCCACA | 7405 | CCGAAUCGUCGGCCGUCGA |
| 7301 | GGCCCCUCCGAUACCACCU | 7336 | CGGUUGUCCUGUCAGAAUC | 7371 | UUGGCGGAGCUCGCCACAA | 7406 | CGAAUCGUCGGCCGUCGAC |
| 7302 | GCCCCUCCGAUACCACCUC | 7337 | GGUUGUCCUGUCAGAAUCU | 7372 | UGGCGGAGCUCGCCACAAA | 7407 | GAAUCGUCGGCCGUCGACA |
| 7303 | CCCCUCCGAUACCACCUCC | 7338 | GUUGUCCUGUCAGAAUCUA | 7373 | GGCGGAGCUCGCCACAAAG | 7408 | AAUCGUCGGCCGUCGACAG |
| 7304 | CCCUCCGAUACCACCUCCA | 7339 | UUGUCCUGUCAGAAUCUAC | 7374 | GCGGAGCUCGCCACAAAGA | 7409 | AUCGUCGGCCGUCGACAGC |
| 7305 | CCUCCGAUACCACCUCCAC | 7340 | UGUCCUGUCAGAAUCUACC | 7375 | CGGAGCUCGCCACAAAGAC | 7410 | UCGUCGGCCGUCGACAGCG |
| 7306 | CUCCGAUACCACCUCCACG | 7341 | GUCCUGUCAGAAUCUACCG | 7376 | GGAGCUCGCCACAAAGACC | 7411 | CGUCGGCCGUCGACAGCGG |
| 7307 | UCCGAUACCACCUCCACGG | 7342 | UCCUGUCAGAAUCUACCGU | 7377 | GAGCUCGCCACAAAGACCU | 7412 | GUCGGCCGUCGACAGCGGC |
| 7308 | CCGAUACCACCUCCACGGA | 7343 | CCUGUCAGAAUCUACCGUG | 7378 | AGCUCGCCACAAAGACCUU | 7413 | UCGGCCGUCGACAGCGGCA |
| 7309 | CGAUACCACCUCCACGGAG | 7344 | CUGUCAGAAUCUACCGUGU | 7379 | GCUCGCCACAAAGACCUUC | 7414 | CGGCCGUCGACAGCGGCAC |
| 7310 | GAUACCACCUCCACGGAGG | 7345 | UGUCAGAAUCUACCGUGUC | 7380 | CUCGCCACAAAGACCUUCG | 7415 | GGCCGUCGACAGCGGCACG |
| 7311 | AUACCACCUCCACGGAGGA | 7346 | GUCAGAAUCUACCGUGUCU | 7381 | UCGCCACAAAGACCUUCGG | 7416 | GCCGUCGACAGCGGCACGG |
| 7312 | UACCACCUCCACGGAGGAA | 7347 | UCAGAAUCUACCGUGUCUU | 7382 | CGCCACAAAGACCUUCGGC | 7417 | CCGUCGACAGCGGCACGGC |
| 7313 | ACCACCUCCACGGAGGAAG | 7348 | CAGAAUCUACCGUGUCUUC | 7383 | GCCACAAAGACCUUCGGCA | 7418 | CGUCGACAGCGGCACGGCA |
| 7314 | CCACCUCCACGGAGGAAGA | 7349 | AGAAUCUACCGUGUCUUCU | 7384 | CCACAAAGACCUUCGGCAG | 7419 | GUCGACAGCGGCACGGCAA |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7420 | UCGACAGCGGCACGGCAAC | 7455 | CCCUCCGACGACGGCGACG | 7490 | GUCGUACUCCUCCAUGCCC | 7525 | CGGGGGAUCCCGAUCUCAG |
| 7421 | CGACAGCGGCACGGCAACG | 7456 | CCUCCGACGACGGCGACGC | 7491 | UCGUACUCCUCCAUGCCCC | 7526 | GGGGGAUCCCGAUCUCAGC |
| 7422 | GACAGCGGCACGGCAACGG | 7457 | CUCCGACGACGGCGACGCG | 7492 | CGUACUCCUCCAUGCCCCC | 7527 | GGGGAUCCCGAUCUCAGCG |
| 7423 | ACAGCGGCACGGCAACGGC | 7458 | UCCGACGACGGCGACGCGG | 7493 | GUACUCCUCCAUGCCCCCC | 7528 | GGGAUCCCGAUCUCAGCGA |
| 7424 | CAGCGGCACGGCAACGGCC | 7459 | CCGACGACGGCGACGCGGG | 7494 | UACUCCUCCAUGCCCCCCC | 7529 | GGAUCCCGAUCUCAGCGAC |
| 7425 | AGCGGCACGGCAACGGCCU | 7460 | CGACGACGGCGACGCGGGA | 7495 | ACUCCUCCAUGCCCCCCCU | 7530 | GAUCCCGAUCUCAGCGACG |
| 7426 | GCGGCACGGCAACGGCCUC | 7461 | GACGACGGCGACGCGGGAU | 7496 | CUCCUCCAUGCCCCCCCUU | 7531 | AUCCCGAUCUCAGCGACGG |
| 7427 | CGGCACGGCAACGGCCUCU | 7462 | ACGACGGCGACGCGGGAUC | 7497 | UCCUCCAUGCCCCCCCUUG | 7532 | UCCCGAUCUCAGCGACGGG |
| 7428 | GGCACGGCAACGGCCUCUC | 7463 | CGACGGCGACGCGGGAUCC | 7498 | CCUCCAUGCCCCCCCUUGA | 7533 | CCCGAUCUCAGCGACGGGU |
| 7429 | GCACGGCAACGGCCUCUCC | 7464 | GACGGCGACGCGGGAUCCG | 7499 | CUCCAUGCCCCCCCUUGAG | 7534 | CCGAUCUCAGCGACGGGUC |
| 7430 | CACGGCAACGGCCUCUCCU | 7465 | ACGGCGACGCGGGAUCCGA | 7500 | UCCAUGCCCCCCCUUGAGG | 7535 | CGAUCUCAGCGACGGGUCU |
| 7431 | ACGGCAACGGCCUCUCCUG | 7466 | CGGCGACGCGGGAUCCGAC | 7501 | CCAUGCCCCCCCUUGAGGG | 7536 | GAUCUCAGCGACGGGUCUU |
| 7432 | CGGCAACGGCCUCUCCUGA | 7467 | GGCGACGCGGGAUCCGACG | 7502 | CAUGCCCCCCCUUGAGGGG | 7537 | AUCUCAGCGACGGGUCUUG |
| 7433 | GGCAACGGCCUCUCCUGAC | 7468 | GCGACGCGGGAUCCGACGU | 7503 | AUGCCCCCCCUUGAGGGGG | 7538 | UCUCAGCGACGGGUCUUGG |
| 7434 | GCAACGGCCUCUCCUGACC | 7469 | CGACGCGGGAUCCGACGUU | 7504 | UGCCCCCCCUUGAGGGGGA | 7539 | CUCAGCGACGGGUCUUGGU |
| 7435 | CAACGGCCUCUCCUGACCA | 7470 | GACGCGGGAUCCGACGUUG | 7505 | GCCCCCCCUUGAGGGGGAG | 7540 | UCAGCGACGGGUCUUGGUC |
| 7436 | AACGGCCUCUCCUGACCAG | 7471 | ACGCGGGAUCCGACGUUGA | 7506 | CCCCCCCUUGAGGGGGAGC | 7541 | CAGCGACGGGUCUUGGUCU |
| 7437 | ACGGCCUCUCCUGACCAGC | 7472 | CGCGGGAUCCGACGUUGAG | 7507 | CCCCCCUUGAGGGGGAGCC | 7542 | AGCGACGGGUCUUGGUCUA |
| 7438 | CGGCCUCUCCUGACCAGCC | 7473 | GCGGGAUCCGACGUUGAGU | 7508 | CCCCCUUGAGGGGGAGCCG | 7543 | GCGACGGGUCUUGGUCUAC |
| 7439 | GGCCUCUCCUGACCAGCCC | 7474 | CGGGAUCCGACGUUGAGUC | 7509 | CCCCUUGAGGGGGAGCCGG | 7544 | CGACGGGUCUUGGUCUACC |
| 7440 | GCCUCUCCUGACCAGCCCU | 7475 | GGGAUCCGACGUUGAGUCG | 7510 | CCCUUGAGGGGGAGCCGGG | 7545 | GACGGGUCUUGGUCUACCG |
| 7441 | CCUCUCCUGACCAGCCCUC | 7476 | GGAUCCGACGUUGAGUCGU | 7511 | CCUUGAGGGGGAGCCGGGG | 7546 | ACGGGUCUUGGUCUACCGU |
| 7442 | CUCUCCUGACCAGCCCUCC | 7477 | GAUCCGACGUUGAGUCGUA | 7512 | CUUGAGGGGGAGCCGGGGG | 7547 | CGGGUCUUGGUCUACCGUA |
| 7443 | UCUCCUGACCAGCCCUCCG | 7478 | AUCCGACGUUGAGUCGUAC | 7513 | UUGAGGGGGAGCCGGGGGA | 7548 | GGGUCUUGGUCUACCGUAA |
| 7444 | CUCCUGACCAGCCCUCCGA | 7479 | UCCGACGUUGAGUCGUACU | 7514 | UGAGGGGGAGCCGGGGGAU | 7549 | GGUCUUGGUCUACCGUAAG |
| 7445 | UCCUGACCAGCCCUCCGAC | 7480 | CCGACGUUGAGUCGUACUC | 7515 | GAGGGGGAGCCGGGGGAUC | 7550 | GUCUUGGUCUACCGUAAGC |
| 7446 | CCUGACCAGCCCUCCGACG | 7481 | CGACGUUGAGUCGUACUCC | 7516 | AGGGGGAGCCGGGGGAUCC | 7551 | UCUUGGUCUACCGUAAGCG |
| 7447 | CUGACCAGCCCUCCGACGA | 7482 | GACGUUGAGUCGUACUCCU | 7517 | GGGGGAGCCGGGGGAUCCC | 7552 | CUUGGUCUACCGUAAGCGA |
| 7448 | UGACCAGCCCUCCGACGAC | 7483 | ACGUUGAGUCGUACUCCUC | 7518 | GGGGAGCCGGGGGAUCCCG | 7553 | UUGGUCUACCGUAAGCGAG |
| 7449 | GACCAGCCCUCCGACGACG | 7484 | CGUUGAGUCGUACUCCUCC | 7519 | GGGAGCCGGGGGAUCCCGA | 7554 | UGGUCUACCGUAAGCGAGG |
| 7450 | ACCAGCCCUCCGACGACGG | 7485 | GUUGAGUCGUACUCCUCCA | 7520 | GGAGCCGGGGGAUCCCGAU | 7555 | GGUCUACCGUAAGCGAGGA |
| 7451 | CCAGCCCUCCGACGACGGC | 7486 | UUGAGUCGUACUCCUCCAU | 7521 | GAGCCGGGGGAUCCCGAUC | 7556 | GUCUACCGUAAGCGAGGAG |
| 7452 | CAGCCCUCCGACGACGGCG | 7487 | UGAGUCGUACUCCUCCAUG | 7522 | AGCCGGGGGAUCCCGAUCU | 7557 | UCUACCGUAAGCGAGGAGG |
| 7453 | AGCCCUCCGACGACGGCGA | 7488 | GAGUCGUACUCCUCCAUGC | 7523 | GCCGGGGGAUCCCGAUCUC | 7558 | CUACCGUAAGCGAGGAGGC |
| 7454 | GCCCUCCGACGACGGCGAC | 7489 | AGUCGUACUCCUCCAUGCC | 7524 | CCGGGGGAUCCCGAUCUCA | 7559 | UACCGUAAGCGAGGAGGCU |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7560 | ACCGUAAGCGAGGAGGCUA | 7595 | CUGCUCGAUGUCCUACACA | 7630 | UCACGCCAUGCGCUGCGGA | 7665 | AUCAAUGCACUGAGCAACU |
| 7561 | CCGUAAGCGAGGAGGCUAG | 7596 | UGCUCGAUGUCCUACACAU | 7631 | CACGCCAUGCGCUGCGGAG | 7666 | UCAAUGCACUGAGCAACUC |
| 7562 | CGUAAGCGAGGAGGCUAGU | 7597 | GCUCGAUGUCCUACACAUG | 7632 | ACGCCAUGCGCUGCGGAGG | 7667 | CAAUGCACUGAGCAACUCU |
| 7563 | GUAAGCGAGGAGGCUAGUG | 7598 | CUCGAUGUCCUACACAUGG | 7633 | CGCCAUGCGCUGCGGAGGA | 7668 | AAUGCACUGAGCAACUCUU |
| 7564 | UAAGCGAGGAGGCUAGUGA | 7599 | UCGAUGUCCUACACAUGGA | 7634 | GCCAUGCGCUGCGGAGGAA | 7669 | AUGCACUGAGCAACUCUUU |
| 7565 | AAGCGAGGAGGCUAGUGAG | 7600 | CGAUGUCCUACACAUGGAC | 7635 | CCAUGCGCUGCGGAGGAAA | 7670 | UGCACUGAGCAACUCUUUG |
| 7566 | AGCGAGGAGGCUAGUGAGG | 7601 | GAUGUCCUACACAUGGACA | 7636 | CAUGCGCUGCGGAGGAAAC | 7671 | GCACUGAGCAACUCUUUGC |
| 7567 | GCGAGGAGGCUAGUGAGGA | 7602 | AUGUCCUACACAUGGACAG | 7637 | AUGCGCUGCGGAGGAAACC | 7672 | CACUGAGCAACUCUUUGCU |
| 7568 | CGAGGAGGCUAGUGAGGAC | 7603 | UGUCCUACACAUGGACAGG | 7638 | UGCGCUGCGGAGGAAACCA | 7673 | ACUGAGCAACUCUUUGCUC |
| 7569 | GAGGAGGCUAGUGAGGACG | 7604 | GUCCUACACAUGGACAGGC | 7639 | GCGCUGCGGAGGAAACCAA | 7674 | CUGAGCAACUCUUUGCUCC |
| 7570 | AGGAGGCUAGUGAGGACGU | 7605 | UCCUACACAUGGACAGGCG | 7640 | CGCUGCGGAGGAAACCAAG | 7675 | UGAGCAACUCUUUGCUCCG |
| 7571 | GGAGGCUAGUGAGGACGUC | 7606 | CCUACACAUGGACAGGCGC | 7641 | GCUGCGGAGGAAACCAAGC | 7676 | GAGCAACUCUUUGCUCCGU |
| 7572 | GAGGCUAGUGAGGACGUCG | 7607 | CUACACAUGGACAGGCGCC | 7642 | CUGCGGAGGAAACCAAGCU | 7677 | AGCAACUCUUUGCUCCGUC |
| 7573 | AGGCUAGUGAGGACGUCGU | 7608 | UACACAUGGACAGGCGCCC | 7643 | UGCGGAGGAAACCAAGCUG | 7678 | GCAACUCUUUGCUCCGUCA |
| 7574 | GGCUAGUGAGGACGUCGUC | 7609 | ACACAUGGACAGGCGCCCU | 7644 | GCGGAGGAAACCAAGCUGC | 7679 | CAACUCUUUGCUCCGUCAC |
| 7575 | GCUAGUGAGGACGUCGUCU | 7610 | CACAUGGACAGGCGCCCUG | 7645 | CGGAGGAAACCAAGCUGCC | 7680 | AACUCUUUGCUCCGUCACC |
| 7576 | CUAGUGAGGACGUCGUCUG | 7611 | ACAUGGACAGGCGCCCUGA | 7646 | GGAGGAAACCAAGCUGCCC | 7681 | ACUCUUUGCUCCGUCACCA |
| 7577 | UAGUGAGGACGUCGUCUGC | 7612 | CAUGGACAGGCGCCCUGAU | 7647 | GAGGAAACCAAGCUGCCCA | 7682 | CUCUUUGCUCCGUCACCAC |
| 7578 | AGUGAGGACGUCGUCUGCU | 7613 | AUGGACAGGCGCCCUGAUC | 7648 | AGGAAACCAAGCUGCCCAU | 7683 | UCUUUGCUCCGUCACCACA |
| 7579 | GUGAGGACGUCGUCUGCUG | 7614 | UGGACAGGCGCCCUGAUCA | 7649 | GGAAACCAAGCUGCCCAUC | 7684 | CUUUGCUCCGUCACCACAA |
| 7580 | UGAGGACGUCGUCUGCUGC | 7615 | GGACAGGCGCCCUGAUCAC | 7650 | GAAACCAAGCUGCCCAUCA | 7685 | UUUGCUCCGUCACCACAAC |
| 7581 | GAGGACGUCGUCUGCUGCU | 7616 | GACAGGCGCCCUGAUCACG | 7651 | AAACCAAGCUGCCCAUCAA | 7686 | UUGCUCCGUCACCACAACU |
| 7582 | AGGACGUCGUCUGCUGCUC | 7617 | ACAGGCGCCCUGAUCACGC | 7652 | AACCAAGCUGCCCAUCAAU | 7687 | UGCUCCGUCACCACAACUU |
| 7583 | GGACGUCGUCUGCUGCUCG | 7618 | CAGGCGCCCUGAUCACGCC | 7653 | ACCAAGCUGCCCAUCAAUG | 7688 | GCUCCGUCACCACAACUUG |
| 7584 | GACGUCGUCUGCUGCUCGA | 7619 | AGGCGCCCUGAUCACGCCA | 7654 | CCAAGCUGCCCAUCAAUGC | 7689 | CUCCGUCACCACAACUUGG |
| 7585 | ACGUCGUCUGCUGCUCGAU | 7620 | GGCGCCCUGAUCACGCCAU | 7655 | CAAGCUGCCCAUCAAUGCA | 7690 | UCCGUCACCACAACUUGGU |
| 7586 | CGUCGUCUGCUGCUCGAUG | 7621 | GCGCCCUGAUCACGCCAUG | 7656 | AAGCUGCCCAUCAAUGCAC | 7691 | CCGUCACCACAACUUGGUC |
| 7587 | GUCGUCUGCUGCUCGAUGU | 7622 | CGCCCUGAUCACGCCAUGC | 7657 | AGCUGCCCAUCAAUGCACU | 7692 | CGUCACCACAACUUGGUCU |
| 7588 | UCGUCUGCUGCUCGAUGUC | 7623 | GCCCUGAUCACGCCAUGCG | 7658 | GCUGCCCAUCAAUGCACUG | 7693 | GUCACCACAACUUGGUCUA |
| 7589 | CGUCUGCUGCUCGAUGUCC | 7624 | CCCUGAUCACGCCAUGCGC | 7659 | CUGCCCAUCAAUGCACUGA | 7694 | UCACCACAACUUGGUCUAU |
| 7590 | GUCUGCUGCUCGAUGUCCU | 7625 | CCUGAUCACGCCAUGCGCU | 7660 | UGCCCAUCAAUGCACUGAG | 7695 | CACCACAACUUGGUCUAUG |
| 7591 | UCUGCUGCUCGAUGUCCUA | 7626 | CUGAUCACGCCAUGCGCUG | 7661 | GCCCAUCAAUGCACUGAGC | 7696 | ACCACAACUUGGUCUAUGC |
| 7592 | CUGCUGCUCGAUGUCCUAC | 7627 | UGAUCACGCCAUGCGCUGC | 7662 | CCCAUCAAUGCACUGAGCA | 7697 | CCACAACUUGGUCUAUGCU |
| 7593 | UGCUGCUCGAUGUCCUACA | 7628 | GAUCACGCCAUGCGCUGCG | 7663 | CCAUCAAUGCACUGAGCAA | 7698 | CACAACUUGGUCUAUGCUA |
| 7594 | GCUGCUCGAUGUCCUACAC | 7629 | AUCACGCCAUGCGCUGCGG | 7664 | CAUCAAUGCACUGAGCAAC | 7699 | ACAACUUGGUCUAUGCUAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7700 | CAACUUGGUCUAUGCUACA | 7735 | GCCUGCGGCAGAAGAAGGU | 7770 | CAGGUCCUGGACGACCACU | 7805 | GGAGAUGAAGGCGAAGGCG |
| 7701 | AACUUGGUCUAUGCUACAA | 7736 | CCUGCGGCAGAAGAAGGUC | 7771 | AGGUCCUGGACGACCACUA | 7806 | GAGAUGAAGGCGAAGGCGU |
| 7702 | ACUUGGUCUAUGCUACAAC | 7737 | CUGCGGCAGAAGAAGGUCA | 7772 | GGUCCUGGACGACCACUAC | 7807 | AGAUGAAGGCGAAGGCGUC |
| 7703 | CUUGGUCUAUGCUACAACA | 7738 | UGCGGCAGAAGAAGGUCAC | 7773 | GUCCUGGACGACCACUACC | 7808 | GAUGAAGGCGAAGGCGUCC |
| 7704 | UUGGUCUAUGCUACAACAU | 7739 | GCGGCAGAAGAAGGUCACC | 7774 | UCCUGGACGACCACUACCG | 7809 | AUGAAGGCGAAGGCGUCCA |
| 7705 | UGGUCUAUGCUACAACAUC | 7740 | CGGCAGAAGAAGGUCACCU | 7775 | CCUGGACGACCACUACCGG | 7810 | UGAAGGCGAAGGCGUCCAC |
| 7706 | GGUCUAUGCUACAACAUCU | 7741 | GGCAGAAGAAGGUCACCUU | 7776 | CUGGACGACCACUACCGGG | 7811 | GAAGGCGAAGGCGUCCACA |
| 7707 | GUCUAUGCUACAACAUCUC | 7742 | GCAGAAGAAGGUCACCUUU | 7777 | UGGACGACCACUACCGGGA | 7812 | AAGGCGAAGGCGUCCACAG |
| 7708 | UCUAUGCUACAACAUCUCG | 7743 | CAGAAGAAGGUCACCUUUG | 7778 | GGACGACCACUACCGGGAC | 7813 | AGGCGAAGGCGUCCACAGU |
| 7709 | CUAUGCUACAACAUCUCGC | 7744 | AGAAGAAGGUCACCUUUGA | 7779 | GACGACCACUACCGGGACG | 7814 | GGCGAAGGCGUCCACAGUU |
| 7710 | UAUGCUACAACAUCUCGCA | 7745 | GAAGAAGGUCACCUUUGAC | 7780 | ACGACCACUACCGGGACGU | 7815 | GCGAAGGCGUCCACAGUUA |
| 7711 | AUGCUACAACAUCUCGCAG | 7746 | AAGAAGGUCACCUUUGACA | 7781 | CGACCACUACCGGGACGUG | 7816 | CGAAGGCGUCCACAGUUAA |
| 7712 | UGCUACAACAUCUCGCAGC | 7747 | AGAAGGUCACCUUUGACAG | 7782 | GACCACUACCGGGACGUGC | 7817 | GAAGGCGUCCACAGUUAAG |
| 7713 | GCUACAACAUCUCGCAGCG | 7748 | GAAGGUCACCUUUGACAGA | 7783 | ACCACUACCGGGACGUGCU | 7818 | AAGGCGUCCACAGUUAAGG |
| 7714 | CUACAACAUCUCGCAGCGC | 7749 | AAGGUCACCUUUGACAGAC | 7784 | CCACUACCGGGACGUGCUC | 7819 | AGGCGUCCACAGUUAAGGC |
| 7715 | UACAACAUCUCGCAGCGCA | 7750 | AGGUCACCUUUGACAGACU | 7785 | CACUACCGGGACGUGCUCA | 7820 | GGCGUCCACAGUUAAGGCU |
| 7716 | ACAACAUCUCGCAGCGCAA | 7751 | GGUCACCUUUGACAGACUG | 7786 | ACUACCGGGACGUGCUCAA | 7821 | GCGUCCACAGUUAAGGCUA |
| 7717 | CAACAUCUCGCAGCGCAAG | 7752 | GUCACCUUUGACAGACUGC | 7787 | CUACCGGGACGUGCUCAAG | 7822 | CGUCCACAGUUAAGGCUAA |
| 7718 | AACAUCUCGCAGCGCAAGC | 7753 | UCACCUUUGACAGACUGCA | 7788 | UACCGGGACGUGCUCAAGG | 7823 | GUCCACAGUUAAGGCUAAA |
| 7719 | ACAUCUCGCAGCGCAAGCC | 7754 | CACCUUUGACAGACUGCAG | 7789 | ACCGGGACGUGCUCAAGGA | 7824 | UCCACAGUUAAGGCUAAAC |
| 7720 | CAUCUCGCAGCGCAAGCCU | 7755 | ACCUUUGACAGACUGCAGG | 7790 | CCGGGACGUGCUCAAGGAG | 7825 | CCACAGUUAAGGCUAAACU |
| 7721 | AUCUCGCAGCGCAAGCCUG | 7756 | CCUUUGACAGACUGCAGGU | 7791 | CGGGACGUGCUCAAGGAGA | 7826 | CACAGUUAAGGCUAAACUU |
| 7722 | UCUCGCAGCGCAAGCCUGC | 7757 | CUUUGACAGACUGCAGGUC | 7792 | GGGACGUGCUCAAGGAGAU | 7827 | ACAGUUAAGGCUAAACUUC |
| 7723 | CUCGCAGCGCAAGCCUGCG | 7758 | UUUGACAGACUGCAGGUCC | 7793 | GGACGUGCUCAAGGAGAUG | 7828 | CAGUUAAGGCUAAACUUCU |
| 7724 | UCGCAGCGCAAGCCUGCGG | 7759 | UUGACAGACUGCAGGUCCU | 7794 | GACGUGCUCAAGGAGAUGA | 7829 | AGUUAAGGCUAAACUUCUA |
| 7725 | CGCAGCGCAAGCCUGCGGC | 7760 | UGACAGACUGCAGGUCCUG | 7795 | ACGUGCUCAAGGAGAUGAA | 7830 | GUUAAGGCUAAACUUCUAU |
| 7726 | GCAGCGCAAGCCUGCGGCA | 7761 | GACAGACUGCAGGUCCUGG | 7796 | CGUGCUCAAGGAGAUGAAG | 7831 | UUAAGGCUAAACUUCUAUC |
| 7727 | CAGCGCAAGCCUGCGGCAG | 7762 | ACAGACUGCAGGUCCUGGA | 7797 | GUGCUCAAGGAGAUGAAGG | 7832 | UAAGGCUAAACUUCUAUCC |
| 7728 | AGCGCAAGCCUGCGGCAGA | 7763 | CAGACUGCAGGUCCUGGAC | 7798 | UGCUCAAGGAGAUGAAGGC | 7833 | AAGGCUAAACUUCUAUCCG |
| 7729 | GCGCAAGCCUGCGGCAGAA | 7764 | AGACUGCAGGUCCUGGACG | 7799 | GCUCAAGGAGAUGAAGGCG | 7834 | AGGCUAAACUUCUAUCCGU |
| 7730 | CGCAAGCCUGCGGCAGAAG | 7765 | GACUGCAGGUCCUGGACGA | 7800 | CUCAAGGAGAUGAAGGCGA | 7835 | GGCUAAACUUCUAUCCGUG |
| 7731 | GCAAGCCUGCGGCAGAAGA | 7766 | ACUGCAGGUCCUGGACGAC | 7801 | UCAAGGAGAUGAAGGCGAA | 7836 | GCUAAACUUCUAUCCGUGG |
| 7732 | CAAGCCUGCGGCAGAAGAA | 7767 | CUGCAGGUCCUGGACGACC | 7802 | CAAGGAGAUGAAGGCGAAG | 7837 | CUAAACUUCUAUCCGUGGA |
| 7733 | AAGCCUGCGGCAGAAGAAG | 7768 | UGCAGGUCCUGGACGACCA | 7803 | AAGGAGAUGAAGGCGAAGG | 7838 | UAAACUUCUAUCCGUGGAG |
| 7734 | AGCCUGCGGCAGAAGAAGG | 7769 | GCAGGUCCUGGACGACCAC | 7804 | AGGAGAUGAAGGCGAAGGC | 7839 | AAACUUCUAUCCGUGGAGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7840 | AACUUCUAUCCGUGGAGGA | 7875 | CCCCCACAUUCGGCCAGAU | 7910 | GGCAAAGGACGUCCGGAAC | 7945 | UUAACCACAUCCGCUCCGU |
| 7841 | ACUUCUAUCCGUGGAGGAA | 7876 | CCCCACAUUCGGCCAGAUC | 7911 | GCAAAGGACGUCCGGAACC | 7946 | UAACCACAUCCGCUCCGUG |
| 7842 | CUUCUAUCCGUGGAGGAAG | 7877 | CCCACAUUCGGCCAGAUCU | 7912 | CAAAGGACGUCCGGAACCU | 7947 | AACCACAUCCGCUCCGUGU |
| 7843 | UUCUAUCCGUGGAGGAAGC | 7878 | CCACAUUCGGCCAGAUCUA | 7913 | AAAGGACGUCCGGAACCUA | 7948 | ACCACAUCCGCUCCGUGUG |
| 7844 | UCUAUCCGUGGAGGAAGCC | 7879 | CACAUUCGGCCAGAUCUAA | 7914 | AAGGACGUCCGGAACCUAU | 7949 | CCACAUCCGCUCCGUGUGG |
| 7845 | CUAUCCGUGGAGGAAGCCU | 7880 | ACAUUCGGCCAGAUCUAAA | 7915 | AGGACGUCCGGAACCUAUC | 7950 | CACAUCCGCUCCGUGUGGA |
| 7846 | UAUCCGUGGAGGAAGCCUG | 7881 | CAUUCGGCCAGAUCUAAAU | 7916 | GGACGUCCGGAACCUAUCC | 7951 | ACAUCCGCUCCGUGUGGAA |
| 7847 | AUCCGUGGAGGAAGCCUGU | 7882 | AUUCGGCCAGAUCUAAAUU | 7917 | GACGUCCGGAACCUAUCCA | 7952 | CAUCCGCUCCGUGUGGAAG |
| 7848 | UCCGUGGAGGAAGCCUGUA | 7883 | UUCGGCCAGAUCUAAAUUU | 7918 | ACGUCCGGAACCUAUCCAG | 7953 | AUCCGCUCCGUGUGGAAGG |
| 7849 | CCGUGGAGGAAGCCUGUAA | 7884 | UCGGCCAGAUCUAAAUUUG | 7919 | CGUCCGGAACCUAUCCAGC | 7954 | UCCGCUCCGUGUGGAAGGA |
| 7850 | CGUGGAGGAAGCCUGUAAG | 7885 | CGGCCAGAUCUAAAUUUGG | 7920 | GUCCGGAACCUAUCCAGCA | 7955 | CCGCUCCGUGUGGAAGGAC |
| 7851 | GUGGAGGAAGCCUGUAAGC | 7886 | GGCCAGAUCUAAAUUUGGC | 7921 | UCCGGAACCUAUCCAGCAA | 7956 | CGCUCCGUGUGGAAGGACU |
| 7852 | UGGAGGAAGCCUGUAAGCU | 7887 | GCCAGAUCUAAAUUUGGCU | 7922 | CCGGAACCUAUCCAGCAAG | 7957 | GCUCCGUGUGGAAGGACUU |
| 7853 | GGAGGAAGCCUGUAAGCUG | 7888 | CCAGAUCUAAAUUUGGCUA | 7923 | CGGAACCUAUCCAGCAAGG | 7958 | CUCCGUGUGGAAGGACUUG |
| 7854 | GAGGAAGCCUGUAAGCUGA | 7889 | CAGAUCUAAAUUUGGCUAU | 7924 | GGAACCUAUCCAGCAAGGC | 7959 | UCCGUGUGGAAGGACUUGC |
| 7855 | AGGAAGCCUGUAAGCUGAC | 7890 | AGAUCUAAAUUUGGCUAUG | 7925 | GAACCUAUCCAGCAAGGCC | 7960 | CCGUGUGGAAGGACUUGCU |
| 7856 | GGAAGCCUGUAAGCUGACG | 7891 | GAUCUAAAUUUGGCUAUGG | 7926 | AACCUAUCCAGCAAGGCCG | 7961 | CGUGUGGAAGGACUUGCUG |
| 7857 | GAAGCCUGUAAGCUGACGC | 7892 | AUCUAAAUUUGGCUAUGGG | 7927 | ACCUAUCCAGCAAGGCCGU | 7962 | GUGUGGAAGGACUUGCUGG |
| 7858 | AAGCCUGUAAGCUGACGCC | 7893 | UCUAAAUUUGGCUAUGGGG | 7928 | CCUAUCCAGCAAGGCCGUU | 7963 | UGUGGAAGGACUUGCUGGA |
| 7859 | AGCCUGUAAGCUGACGCCC | 7894 | CUAAAUUUGGCUAUGGGGC | 7929 | CUAUCCAGCAAGGCCGUUA | 7964 | GUGGAAGGACUUGCUGGAA |
| 7860 | GCCUGUAAGCUGACGCCCC | 7895 | UAAAUUUGGCUAUGGGGCA | 7930 | UAUCCAGCAAGGCCGUUAA | 7965 | UGGAAGGACUUGCUGGAAG |
| 7861 | CCUGUAAGCUGACGCCCCC | 7896 | AAAUUUGGCUAUGGGGCAA | 7931 | AUCCAGCAAGGCCGUUAAC | 7966 | GGAAGGACUUGCUGGAAGA |
| 7862 | CUGUAAGCUGACGCCCCCA | 7897 | AAUUUGGCUAUGGGGCAAA | 7932 | UCCAGCAAGGCCGUUAACC | 7967 | GAAGGACUUGCUGGAAGAC |
| 7863 | UGUAAGCUGACGCCCCCAC | 7898 | AUUUGGCUAUGGGGCAAAG | 7933 | CCAGCAAGGCCGUUAACCA | 7968 | AAGGACUUGCUGGAAGACA |
| 7864 | GUAAGCUGACGCCCCCACA | 7899 | UUUGGCUAUGGGGCAAAGG | 7934 | CAGCAAGGCCGUUAACCAC | 7969 | AGGACUUGCUGGAAGACAC |
| 7865 | UAAGCUGACGCCCCCACAU | 7900 | UUGGCUAUGGGGCAAAGGA | 7935 | AGCAAGGCCGUUAACCACA | 7970 | GGACUUGCUGGAAGACACU |
| 7866 | AAGCUGACGCCCCCACAUU | 7901 | UGGCUAUGGGGCAAAGGAC | 7936 | GCAAGGCCGUUAACCACAU | 7971 | GACUUGCUGGAAGACACUG |
| 7867 | AGCUGACGCCCCCACAUUC | 7902 | GGCUAUGGGGCAAAGGACG | 7937 | CAAGGCCGUUAACCACAUC | 7972 | ACUUGCUGGAAGACACUGA |
| 7868 | GCUGACGCCCCCACAUUCG | 7903 | GCUAUGGGGCAAAGGACGU | 7938 | AAGGCCGUUAACCACAUCC | 7973 | CUUGCUGGAAGACACUGAG |
| 7869 | CUGACGCCCCCACAUUCGG | 7904 | CUAUGGGGCAAAGGACGUC | 7939 | AGGCCGUUAACCACAUCCG | 7974 | UUGCUGGAAGACACUGAGA |
| 7870 | UGACGCCCCCACAUUCGGC | 7905 | UAUGGGGCAAAGGACGUCC | 7940 | GGCCGUUAACCACAUCCGC | 7975 | UGCUGGAAGACACUGAGAC |
| 7871 | GACGCCCCCACAUUCGGCC | 7906 | AUGGGGCAAAGGACGUCCG | 7941 | GCCGUUAACCACAUCCGCU | 7976 | GCUGGAAGACACUGAGACA |
| 7872 | ACGCCCCCACAUUCGGCCA | 7907 | UGGGGCAAAGGACGUCCGG | 7942 | CCGUUAACCACAUCCGCUC | 7977 | CUGGAAGACACUGAGACAC |
| 7873 | CGCCCCCACAUUCGGCCAG | 7908 | GGGGCAAAGGACGUCCGGA | 7943 | CGUUAACCACAUCCGCUCC | 7978 | UGGAAGACACUGAGACACC |
| 7874 | GCCCCCACAUUCGGCCAGA | 7909 | GGGCAAAGGACGUCCGGAA | 7944 | GUUAACCACAUCCGCUCCG | 7979 | GGAAGACACUGAGACACCA |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7980 | GAAGACACUGAGACACCAA | 8015 | GGCAAAAAAUGAGGUUUUC | 8050 | AGGGGGGCCGCAAGCCAGC | 8085 | CCAGAUUUGGGGGUUCGUG |
| 7981 | AAGACACUGAGACACCAAU | 8016 | GCAAAAAAUGAGGUUUUCU | 8051 | GGGGGGCCGCAAGCCAGCU | 8086 | CAGAUUUGGGGGUUCGUGU |
| 7982 | AGACACUGAGACACCAAUU | 8017 | CAAAAAAUGAGGUUUUCUG | 8052 | GGGGGCCGCAAGCCAGCUC | 8087 | AGAUUUGGGGGUUCGUGUG |
| 7983 | GACACUGAGACACCAAUUG | 8018 | AAAAAAUGAGGUUUUCUGC | 8053 | GGGGCCGCAAGCCAGCUCG | 8088 | GAUUUGGGGGUUCGUGUGU |
| 7984 | ACACUGAGACACCAAUUGA | 8019 | AAAAAUGAGGUUUUCUGCG | 8054 | GGGCCGCAAGCCAGCUCGC | 8089 | AUUUGGGGGUUCGUGUGUG |
| 7985 | CACUGAGACACCAAUUGAC | 8020 | AAAAUGAGGUUUUCUGCGU | 8055 | GGCCGCAAGCCAGCUCGCC | 8090 | UUUGGGGGUUCGUGUGUGC |
| 7986 | ACUGAGACACCAAUUGACA | 8021 | AAAUGAGGUUUUCUGCGUC | 8056 | GCCGCAAGCCAGCUCGCCU | 8091 | UUGGGGGUUCGUGUGUGCG |
| 7987 | CUGAGACACCAAUUGACAC | 8022 | AAUGAGGUUUUCUGCGUCC | 8057 | CCGCAAGCCAGCUCGCCUU | 8092 | UGGGGGUUCGUGUGUGCGA |
| 7988 | UGAGACACCAAUUGACACC | 8023 | AUGAGGUUUUCUGCGUCCA | 8058 | CGCAAGCCAGCUCGCCUUA | 8093 | GGGGGUUCGUGUGUGCGAG |
| 7989 | GAGACACCAAUUGACACCA | 8024 | UGAGGUUUUCUGCGUCCAA | 8059 | GCAAGCCAGCUCGCCUUAU | 8094 | GGGGUUCGUGUGUGCGAGA |
| 7990 | AGACACCAAUUGACACCAC | 8025 | GAGGUUUUCUGCGUCCAAC | 8060 | CAAGCCAGCUCGCCUUAUC | 8095 | GGGUUCGUGUGUGCGAGAA |
| 7991 | GACACCAAUUGACACCACC | 8026 | AGGUUUUCUGCGUCCAACC | 8061 | AAGCCAGCUCGCCUUAUCG | 8096 | GGUUCGUGUGUGCGAGAAA |
| 7992 | ACACCAAUUGACACCACCA | 8027 | GGUUUUCUGCGUCCAACCA | 8062 | AGCCAGCUCGCCUUAUCGU | 8097 | GUUCGUGUGUGCGAGAAAA |
| 7993 | CACCAAUUGACACCACCAU | 8028 | GUUUUCUGCGUCCAACCAG | 8063 | GCCAGCUCGCCUUAUCGUA | 8098 | UUCGUGUGUGCGAGAAAAU |
| 7994 | ACCAAUUGACACCACCAUC | 8029 | UUUUCUGCGUCCAACCAGA | 8064 | CCAGCUCGCCUUAUCGUAU | 8099 | UCGUGUGUGCGAGAAAAUG |
| 7995 | CCAAUUGACACCACCAUCA | 8030 | UUUCUGCGUCCAACCAGAG | 8065 | CAGCUCGCCUUAUCGUAUU | 8100 | CGUGUGUGCGAGAAAAUGG |
| 7996 | CAAUUGACACCACCAUCAU | 8031 | UUCUGCGUCCAACCAGAGA | 8066 | AGCUCGCCUUAUCGUAUUC | 8101 | GUGUGUGCGAGAAAAUGGC |
| 7997 | AAUUGACACCACCAUCAUG | 8032 | UCUGCGUCCAACCAGAGAA | 8067 | GCUCGCCUUAUCGUAUUCC | 8102 | UGUGUGCGAGAAAAUGGCC |
| 7998 | AUUGACACCACCAUCAUGG | 8033 | CUGCGUCCAACCAGAGAAG | 8068 | CUCGCCUUAUCGUAUUCCC | 8103 | GUGUGCGAGAAAAUGGCCC |
| 7999 | UUGACACCACCAUCAUGGC | 8034 | UGCGUCCAACCAGAGAAGG | 8069 | UCGCCUUAUCGUAUUCCCA | 8104 | UGUGCGAGAAAAUGGCCCU |
| 8000 | UGACACCACCAUCAUGGCA | 8035 | GCGUCCAACCAGAGAAGGG | 8070 | CGCCUUAUCGUAUUCCCAG | 8105 | GUGCGAGAAAAUGGCCCUU |
| 8001 | GACACCACCAUCAUGGCAA | 8036 | CGUCCAACCAGAGAAGGGG | 8071 | GCCUUAUCGUAUUCCCAGA | 8106 | UGCGAGAAAAUGGCCCUUU |
| 8002 | ACACCACCAUCAUGGCAAA | 8037 | GUCCAACCAGAGAAGGGGG | 8072 | CCUUAUCGUAUUCCCAGAU | 8107 | GCGAGAAAAUGGCCCUUUA |
| 8003 | CACCACCAUCAUGGCAAAA | 8038 | UCCAACCAGAGAAGGGGGG | 8073 | CUUAUCGUAUUCCCAGAUU | 8108 | CGAGAAAAUGGCCCUUUAC |
| 8004 | ACCACCAUCAUGGCAAAAA | 8039 | CCAACCAGAGAAGGGGGGC | 8074 | UUAUCGUAUUCCCAGAUUU | 8109 | GAGAAAAUGGCCCUUUACG |
| 8005 | CCACCAUCAUGGCAAAAAA | 8040 | CAACCAGAGAAGGGGGGCC | 8075 | UAUCGUAUUCCCAGAUUUG | 8110 | AGAAAAUGGCCCUUUACGA |
| 8006 | CACCAUCAUGGCAAAAAAU | 8041 | AACCAGAGAAGGGGGGCCG | 8076 | AUCGUAUUCCCAGAUUUGG | 8111 | GAAAAUGGCCCUUUACGAU |
| 8007 | ACCAUCAUGGCAAAAAAUG | 8042 | ACCAGAGAAGGGGGGCCGC | 8077 | UCGUAUUCCCAGAUUUGGG | 8112 | AAAAUGGCCCUUUACGAUG |
| 8008 | CCAUCAUGGCAAAAAAUGA | 8043 | CCAGAGAAGGGGGGCCGCA | 8078 | CGUAUUCCCAGAUUUGGGG | 8113 | AAAUGGCCCUUUACGAUGU |
| 8009 | CAUCAUGGCAAAAAAUGAG | 8044 | CAGAGAAGGGGGGCCGCAA | 8079 | GUAUUCCCAGAUUUGGGGG | 8114 | AAUGGCCCUUUACGAUGUG |
| 8010 | AUCAUGGCAAAAAAUGAGG | 8045 | AGAGAAGGGGGGCCGCAAG | 8080 | UAUUCCCAGAUUUGGGGGU | 8115 | AUGGCCCUUUACGAUGUGG |
| 8011 | UCAUGGCAAAAAAUGAGGU | 8046 | GAGAAGGGGGGCCGCAAGC | 8081 | AUUCCCAGAUUUGGGGGUU | 8116 | UGGCCCUUUACGAUGUGGU |
| 8012 | CAUGGCAAAAAAUGAGGUU | 8047 | AGAAGGGGGGCCGCAAGCC | 8082 | UUCCCAGAUUUGGGGGUUC | 8117 | GGCCCUUUACGAUGUGGUC |
| 8013 | AUGGCAAAAAAUGAGGUUU | 8048 | GAAGGGGGGCCGCAAGCCA | 8083 | UCCCAGAUUUGGGGGUUCG | 8118 | GCCCUUUACGAUGUGGUCU |
| 8014 | UGGCAAAAAAUGAGGUUUU | 8049 | AAGGGGGGCCGCAAGCCAG | 8084 | CCCAGAUUUGGGGGUUCGU | 8119 | CCCUUUACGAUGUGGUCUC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8120 | CCUUUACGAUGUGGUCUCC | 8155 | UGAUGGGCUCUUCAUACGG | 8190 | GGACAGCGGGUCGAGUUCC | 8225 | AGCGAAGAAAUGCCCUAUG |
| 8121 | CUUUACGAUGUGGUCUCCA | 8156 | GAUGGGCUCUUCAUACGGA | 8191 | GACAGCGGGUCGAGUUCCU | 8226 | GCGAAGAAAUGCCCUAUGG |
| 8122 | UUUACGAUGUGGUCUCCAC | 8157 | AUGGGCUCUUCAUACGGAU | 8192 | ACAGCGGGUCGAGUUCCUG | 8227 | CGAAGAAAUGCCCUAUGGG |
| 8123 | UUACGAUGUGGUCUCCACC | 8158 | UGGGCUCUUCAUACGGAUU | 8193 | CAGCGGGUCGAGUUCCUGG | 8228 | GAAGAAAUGCCCUAUGGGC |
| 8124 | UACGAUGUGGUCUCCACCC | 8159 | GGGCUCUUCAUACGGAUUC | 8194 | AGCGGGUCGAGUUCCUGGU | 8229 | AAGAAAUGCCCUAUGGGCU |
| 8125 | ACGAUGUGGUCUCCACCCU | 8160 | GGCUCUUCAUACGGAUUCC | 8195 | GCGGGUCGAGUUCCUGGUG | 8230 | AGAAAUGCCCUAUGGGCUU |
| 8126 | CGAUGUGGUCUCCACCCUC | 8161 | GCUCUUCAUACGGAUUCCA | 8196 | CGGGUCGAGUUCCUGGUGA | 8231 | GAAAUGCCCUAUGGGCUUC |
| 8127 | GAUGUGGUCUCCACCCUCC | 8162 | CUCUUCAUACGGAUUCCAA | 8197 | GGGUCGAGUUCCUGGUGAA | 8232 | AAAUGCCCUAUGGGCUUCG |
| 8128 | AUGUGGUCUCCACCCUCCC | 8163 | UCUUCAUACGGAUUCCAAU | 8198 | GGUCGAGUUCCUGGUGAAU | 8233 | AAUGCCCUAUGGGCUUCGC |
| 8129 | UGUGGUCUCCACCCUCCCU | 8164 | CUUCAUACGGAUUCCAAUA | 8199 | GUCGAGUUCCUGGUGAAUG | 8234 | AUGCCCUAUGGGCUUCGCA |
| 8130 | GUGGUCUCCACCCUCCCUC | 8165 | UUCAUACGGAUUCCAAUAC | 8200 | UCGAGUUCCUGGUGAAUGC | 8235 | UGCCCUAUGGGCUUCGCAU |
| 8131 | UGGUCUCCACCCUCCCUCA | 8166 | UCAUACGGAUUCCAAUACU | 8201 | CGAGUUCCUGGUGAAUGCC | 8236 | GCCCUAUGGGCUUCGCAUA |
| 8132 | GGUCUCCACCCUCCCUCAG | 8167 | CAUACGGAUUCCAAUACUC | 8202 | GAGUUCCUGGUGAAUGCCU | 8237 | CCCUAUGGGCUUCGCAUAU |
| 8133 | GUCUCCACCCUCCCUCAGG | 8168 | AUACGGAUUCCAAUACUCU | 8203 | AGUUCCUGGUGAAUGCCUG | 8238 | CCUAUGGGCUUCGCAUAUG |
| 8134 | UCUCCACCCUCCCUCAGGC | 8169 | UACGGAUUCCAAUACUCUC | 8204 | GUUCCUGGUGAAUGCCUGG | 8239 | CUAUGGGCUUCGCAUAUGA |
| 8135 | CUCCACCCUCCCUCAGGCC | 8170 | ACGGAUUCCAAUACUCUCC | 8205 | UUCCUGGUGAAUGCCUGGA | 8240 | UAUGGGCUUCGCAUAUGAC |
| 8136 | UCCACCCUCCCUCAGGCCG | 8171 | CGGAUUCCAAUACUCUCCU | 8206 | UCCUGGUGAAUGCCUGGAA | 8241 | AUGGGCUUCGCAUAUGACA |
| 8137 | CCACCCUCCCUCAGGCCGU | 8172 | GGAUUCCAAUACUCUCCUG | 8207 | CCUGGUGAAUGCCUGGAAA | 8242 | UGGGCUUCGCAUAUGACAC |
| 8138 | CACCCUCCCUCAGGCCGUG | 8173 | GAUUCCAAUACUCUCCUGG | 8208 | CUGGUGAAUGCCUGGAAAG | 8243 | GGGCUUCGCAUAUGACACC |
| 8139 | ACCCUCCCUCAGGCCGUGA | 8174 | AUUCCAAUACUCUCCUGGA | 8209 | UGGUGAAUGCCUGGAAAGC | 8244 | GGCUUCGCAUAUGACACCC |
| 8140 | CCCUCCCUCAGGCCGUGAU | 8175 | UUCCAAUACUCUCCUGGAC | 8210 | GGUGAAUGCCUGGAAAGCG | 8245 | GCUUCGCAUAUGACACCCG |
| 8141 | CCUCCCUCAGGCCGUGAUG | 8176 | UCCAAUACUCUCCUGGACA | 8211 | GUGAAUGCCUGGAAAGCGA | 8246 | CUUCGCAUAUGACACCCGC |
| 8142 | CUCCCUCAGGCCGUGAUGG | 8177 | CCAAUACUCUCCUGGACAG | 8212 | UGAAUGCCUGGAAAGCGAA | 8247 | UUCGCAUAUGACACCCGCU |
| 8143 | UCCCUCAGGCCGUGAUGGG | 8178 | CAAUACUCUCCUGGACAGC | 8213 | GAAUGCCUGGAAAGCGAAG | 8248 | UCGCAUAUGACACCCGCUG |
| 8144 | CCCUCAGGCCGUGAUGGGC | 8179 | AAUACUCUCCUGGACAGCG | 8214 | AAUGCCUGGAAAGCGAAGA | 8249 | CGCAUAUGACACCCGCUGU |
| 8145 | CCUCAGGCCGUGAUGGGCU | 8180 | AUACUCUCCUGGACAGCGG | 8215 | AUGCCUGGAAAGCGAAGAA | 8250 | GCAUAUGACACCCGCUGUU |
| 8146 | CUCAGGCCGUGAUGGGCUC | 8181 | UACUCUCCUGGACAGCGGG | 8216 | UGCCUGGAAAGCGAAGAAA | 8251 | CAUAUGACACCCGCUGUUU |
| 8147 | UCAGGCCGUGAUGGGCUCU | 8182 | ACUCUCCUGGACAGCGGGU | 8217 | GCCUGGAAAGCGAAGAAAU | 8252 | AUAUGACACCCGCUGUUUU |
| 8148 | CAGGCCGUGAUGGGCUCUU | 8183 | CUCUCCUGGACAGCGGGUC | 8218 | CCUGGAAAGCGAAGAAAUG | 8253 | UAUGACACCCGCUGUUUUG |
| 8149 | AGGCCGUGAUGGGCUCUUC | 8184 | UCUCCUGGACAGCGGGUCG | 8219 | CUGGAAAGCGAAGAAAUGC | 8254 | AUGACACCCGCUGUUUUGA |
| 8150 | GGCCGUGAUGGGCUCUUCA | 8185 | CUCCUGGACAGCGGGUCGA | 8220 | UGGAAAGCGAAGAAAUGCC | 8255 | UGACACCCGCUGUUUUGAC |
| 8151 | GCCGUGAUGGGCUCUUCAU | 8186 | UCCUGGACAGCGGGUCGAG | 8221 | GGAAAGCGAAGAAAUGCCC | 8256 | GACACCCGCUGUUUUGACU |
| 8152 | CCGUGAUGGGCUCUUCAUA | 8187 | CCUGGACAGCGGGUCGAGU | 8222 | GAAAGCGAAGAAAUGCCCU | 8257 | ACACCCGCUGUUUUGACUC |
| 8153 | CGUGAUGGGCUCUUCAUAC | 8188 | CUGGACAGCGGGUCGAGUU | 8223 | AAAGCGAAGAAAUGCCCUA | 8258 | CACCCGCUGUUUUGACUCA |
| 8154 | GUGAUGGGCUCUUCAUACG | 8189 | UGGACAGCGGGUCGAGUUC | 8224 | AAGCGAAGAAAUGCCCUAU | 8259 | ACCCGCUGUUUUGACUCAA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8260 | CCCGCUGUUUUGACUCAAC | 8295 | AUCCGUGUUGAGGAGUCAA | 8330 | CUUGGCCCCCGAAGCCAGA | 8365 | UCACAGAGCGGCUUUACAU |
| 8261 | CCGCUGUUUUGACUCAACG | 8296 | UCCGUGUUGAGGAGUCAAU | 8331 | UUGGCCCCCGAAGCCAGAC | 8366 | CACAGAGCGGCUUUACAUC |
| 8262 | CGCUGUUUUGACUCAACGG | 8297 | CCGUGUUGAGGAGUCAAUC | 8332 | UGGCCCCCGAAGCCAGACA | 8367 | ACAGAGCGGCUUUACAUCG |
| 8263 | GCUGUUUUGACUCAACGGU | 8298 | CGUGUUGAGGAGUCAAUCU | 8333 | GGCCCCCGAAGCCAGACAG | 8368 | CAGAGCGGCUUUACAUCGG |
| 8264 | CUGUUUUGACUCAACGGUC | 8299 | GUGUUGAGGAGUCAAUCUA | 8334 | GCCCCCGAAGCCAGACAGG | 8369 | AGAGCGGCUUUACAUCGGG |
| 8265 | UGUUUUGACUCAACGGUCA | 8300 | UGUUGAGGAGUCAAUCUAC | 8335 | CCCCCGAAGCCAGACAGGC | 8370 | GAGCGGCUUUACAUCGGGG |
| 8266 | GUUUUGACUCAACGGUCAC | 8301 | GUUGAGGAGUCAAUCUACC | 8336 | CCCCGAAGCCAGACAGGCC | 8371 | AGCGGCUUUACAUCGGGGG |
| 8267 | UUUUGACUCAACGGUCACU | 8302 | UUGAGGAGUCAAUCUACCA | 8337 | CCCGAAGCCAGACAGGCCA | 8372 | GCGGCUUUACAUCGGGGGC |
| 8268 | UUUGACUCAACGGUCACUG | 8303 | UGAGGAGUCAAUCUACCAA | 8338 | CCGAAGCCAGACAGGCCAU | 8373 | CGGCUUUACAUCGGGGGCC |
| 8269 | UUGACUCAACGGUCACUGA | 8304 | GAGGAGUCAAUCUACCAAU | 8339 | CGAAGCCAGACAGGCCAUA | 8374 | GGCUUUACAUCGGGGGCCC |
| 8270 | UGACUCAACGGUCACUGAG | 8305 | AGGAGUCAAUCUACCAAUG | 8340 | GAAGCCAGACAGGCCAUAA | 8375 | GCUUUACAUCGGGGGCCCC |
| 8271 | GACUCAACGGUCACUGAGA | 8306 | GGAGUCAAUCUACCAAUGU | 8341 | AAGCCAGACAGGCCAUAAG | 8376 | CUUUACAUCGGGGGCCCCC |
| 8272 | ACUCAACGGUCACUGAGAA | 8307 | GAGUCAAUCUACCAAUGUU | 8342 | AGCCAGACAGGCCAUAAGG | 8377 | UUUACAUCGGGGGCCCCCU |
| 8273 | CUCAACGGUCACUGAGAAU | 8308 | AGUCAAUCUACCAAUGUUG | 8343 | GCCAGACAGGCCAUAAGGU | 8378 | UUACAUCGGGGGCCCCCUG |
| 8274 | UCAACGGUCACUGAGAAUG | 8309 | GUCAAUCUACCAAUGUUGU | 8344 | CCAGACAGGCCAUAAGGUC | 8379 | UACAUCGGGGGCCCCCUGA |
| 8275 | CAACGGUCACUGAGAAUGA | 8310 | UCAAUCUACCAAUGUUGUG | 8345 | CAGACAGGCCAUAAGGUCG | 8380 | ACAUCGGGGGCCCCCUGAC |
| 8276 | AACGGUCACUGAGAAUGAC | 8311 | CAAUCUACCAAUGUUGUGA | 8346 | AGACAGGCCAUAAGGUCGC | 8381 | CAUCGGGGGCCCCCUGACU |
| 8277 | ACGGUCACUGAGAAUGACA | 8312 | AAUCUACCAAUGUUGUGAC | 8347 | GACAGGCCAUAAGGUCGCU | 8382 | AUCGGGGGCCCCCUGACUA |
| 8278 | CGGUCACUGAGAAUGACAU | 8313 | AUCUACCAAUGUUGUGACU | 8348 | ACAGGCCAUAAGGUCGCUC | 8383 | UCGGGGGCCCCCUGACUAA |
| 8279 | GGUCACUGAGAAUGACAUC | 8314 | UCUACCAAUGUUGUGACUU | 8349 | CAGGCCAUAAGGUCGCUCA | 8384 | CGGGGGCCCCCUGACUAAU |
| 8280 | GUCACUGAGAAUGACAUCC | 8315 | CUACCAAUGUUGUGACUUG | 8350 | AGGCCAUAAGGUCGCUCAC | 8385 | GGGGGCCCCCUGACUAAUU |
| 8281 | UCACUGAGAAUGACAUCCG | 8316 | UACCAAUGUUGUGACUUGG | 8351 | GGCCAUAAGGUCGCUCACA | 8386 | GGGGCCCCCUGACUAAUUC |
| 8282 | CACUGAGAAUGACAUCCGU | 8317 | ACCAAUGUUGUGACUUGGC | 8352 | GCCAUAAGGUCGCUCACAG | 8387 | GGGCCCCCUGACUAAUUCU |
| 8283 | ACUGAGAAUGACAUCCGUG | 8318 | CCAAUGUUGUGACUUGGCC | 8353 | CCAUAAGGUCGCUCACAGA | 8388 | GGCCCCCUGACUAAUUCUA |
| 8284 | CUGAGAAUGACAUCCGUGU | 8319 | CAAUGUUGUGACUUGGCCC | 8354 | CAUAAGGUCGCUCACAGAG | 8389 | GCCCCCUGACUAAUUCUAA |
| 8285 | UGAGAAUGACAUCCGUGUU | 8320 | AAUGUUGUGACUUGGCCCC | 8355 | AUAAGGUCGCUCACAGAGC | 8390 | CCCCCUGACUAAUUCUAAA |
| 8286 | GAGAAUGACAUCCGUGUUG | 8321 | AUGUUGUGACUUGGCCCCC | 8356 | UAAGGUCGCUCACAGAGCG | 8391 | CCCCUGACUAAUUCUAAAG |
| 8287 | AGAAUGACAUCCGUGUUGA | 8322 | UGUUGUGACUUGGCCCCCG | 8357 | AAGGUCGCUCACAGAGCGG | 8392 | CCCUGACUAAUUCUAAAGG |
| 8288 | GAAUGACAUCCGUGUUGAG | 8323 | GUUGUGACUUGGCCCCCGA | 8358 | AGGUCGCUCACAGAGCGGC | 8393 | CCUGACUAAUUCUAAAGGG |
| 8289 | AAUGACAUCCGUGUUGAGG | 8324 | UUGUGACUUGGCCCCCGAA | 8359 | GGUCGCUCACAGAGCGGCU | 8394 | CUGACUAAUUCUAAAGGGC |
| 8290 | AUGACAUCCGUGUUGAGGA | 8325 | UGUGACUUGGCCCCCGAAG | 8360 | GUCGCUCACAGAGCGGCUU | 8395 | UGACUAAUUCUAAAGGGCA |
| 8291 | UGACAUCCGUGUUGAGGAG | 8326 | GUGACUUGGCCCCCGAAGC | 8361 | UCGCUCACAGAGCGGCUUU | 8396 | GACUAAUUCUAAAGGGCAG |
| 8292 | GACAUCCGUGUUGAGGAGU | 8327 | UGACUUGGCCCCCGAAGCC | 8362 | CGCUCACAGAGCGGCUUUA | 8397 | ACUAAUUCUAAAGGGCAGA |
| 8293 | ACAUCCGUGUUGAGGAGUC | 8328 | GACUUGGCCCCCGAAGCCA | 8363 | GCUCACAGAGCGGCUUUAC | 8398 | CUAAUUCUAAAGGGCAGAA |
| 8294 | CAUCCGUGUUGAGGAGUCA | 8329 | ACUUGGCCCCCGAAGCCAG | 8364 | CUCACAGAGCGGCUUUACA | 8399 | UAAUUCUAAAGGGCAGAAC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8400 | AAUUCUAAAGGGCAGAACU | 8435 | CCGCGCGAGCGGUGUACUG | 8470 | AUACCCUCACAUGUUACUU | 8505 | UGUCGAGCUGCGAAGCUCC |
| 8401 | AUUCUAAAGGGCAGAACUG | 8436 | CGCGCGAGCGGUGUACUGA | 8471 | UACCCUCACAUGUUACUUG | 8506 | GUCGAGCUGCGAAGCUCCA |
| 8402 | UUCUAAAGGGCAGAACUGC | 8437 | GCGCGAGCGGUGUACUGAC | 8472 | ACCCUCACAUGUUACUUGA | 8507 | UCGAGCUGCGAAGCUCCAG |
| 8403 | UCUAAAGGGCAGAACUGCG | 8438 | CGCGAGCGGUGUACUGACG | 8473 | CCCUCACAUGUUACUUGAA | 8508 | CGAGCUGCGAAGCUCCAGG |
| 8404 | CUAAAGGGCAGAACUGCGG | 8439 | GCGAGCGGUGUACUGACGA | 8474 | CCUCACAUGUUACUUGAAG | 8509 | GAGCUGCGAAGCUCCAGGA |
| 8405 | UAAAGGGCAGAACUGCGGC | 8440 | CGAGCGGUGUACUGACGAC | 8475 | CUCACAUGUUACUUGAAGG | 8510 | AGCUGCGAAGCUCCAGGAC |
| 8406 | AAAGGGCAGAACUGCGGCU | 8441 | GAGCGGUGUACUGACGACC | 8476 | UCACAUGUUACUUGAAGGC | 8511 | GCUGCGAAGCUCCAGGACU |
| 8407 | AAGGGCAGAACUGCGGCUA | 8442 | AGCGGUGUACUGACGACCA | 8477 | CACAUGUUACUUGAAGGCC | 8512 | CUGCGAAGCUCCAGGACUG |
| 8408 | AGGGCAGAACUGCGGCUAU | 8443 | GCGGUGUACUGACGACCAG | 8478 | ACAUGUUACUUGAAGGCCG | 8513 | UGCGAAGCUCCAGGACUGC |
| 8409 | GGGCAGAACUGCGGCUAUC | 8444 | CGGUGUACUGACGACCAGC | 8479 | CAUGUUACUUGAAGGCCGC | 8514 | GCGAAGCUCCAGGACUGCA |
| 8410 | GGCAGAACUGCGGCUAUCG | 8445 | GGUGUACUGACGACCAGCU | 8480 | AUGUUACUUGAAGGCCGCU | 8515 | CGAAGCUCCAGGACUGCAC |
| 8411 | GCAGAACUGCGGCUAUCGC | 8446 | GUGUACUGACGACCAGCUG | 8481 | UGUUACUUGAAGGCCGCUG | 8516 | GAAGCUCCAGGACUGCACG |
| 8412 | CAGAACUGCGGCUAUCGCC | 8447 | UGUACUGACGACCAGCUGC | 8482 | GUUACUUGAAGGCCGCUGC | 8517 | AAGCUCCAGGACUGCACGA |
| 8413 | AGAACUGCGGCUAUCGCCG | 8448 | GUACUGACGACCAGCUGCG | 8483 | UUACUUGAAGGCCGCUGCG | 8518 | AGCUCCAGGACUGCACGAU |
| 8414 | GAACUGCGGCUAUCGCCGG | 8449 | UACUGACGACCAGCUGCGG | 8484 | UACUUGAAGGCCGCUGCGG | 8519 | GCUCCAGGACUGCACGAUG |
| 8415 | AACUGCGGCUAUCGCCGGU | 8450 | ACUGACGACCAGCUGCGGU | 8485 | ACUUGAAGGCCGCUGCGGC | 8520 | CUCCAGGACUGCACGAUGC |
| 8416 | ACUGCGGCUAUCGCCGGUG | 8451 | CUGACGACCAGCUGCGGUA | 8486 | CUUGAAGGCCGCUGCGGCC | 8521 | UCCAGGACUGCACGAUGCU |
| 8417 | CUGCGGCUAUCGCCGGUGC | 8452 | UGACGACCAGCUGCGGUAA | 8487 | UUGAAGGCCGCUGCGGCCU | 8522 | CCAGGACUGCACGAUGCUC |
| 8418 | UGCGGCUAUCGCCGGUGCC | 8453 | GACGACCAGCUGCGGUAAU | 8488 | UGAAGGCCGCUGCGGCCUG | 8523 | CAGGACUGCACGAUGCUCG |
| 8419 | GCGGCUAUCGCCGGUGCCG | 8454 | ACGACCAGCUGCGGUAAUA | 8489 | GAAGGCCGCUGCGGCCUGU | 8524 | AGGACUGCACGAUGCUCGU |
| 8420 | CGGCUAUCGCCGGUGCCGC | 8455 | CGACCAGCUGCGGUAAUAC | 8490 | AAGGCCGCUGCGGCCUGUC | 8525 | GGACUGCACGAUGCUCGUA |
| 8421 | GGCUAUCGCCGGUGCCGCG | 8456 | GACCAGCUGCGGUAAUACC | 8491 | AGGCCGCUGCGGCCUGUCG | 8526 | GACUGCACGAUGCUCGUAU |
| 8422 | GCUAUCGCCGGUGCCGCGC | 8457 | ACCAGCUGCGGUAAUACCC | 8492 | GGCCGCUGCGGCCUGUCGA | 8527 | ACUGCACGAUGCUCGUAUG |
| 8423 | CUAUCGCCGGUGCCGCGCG | 8458 | CCAGCUGCGGUAAUACCCU | 8493 | GCCGCUGCGGCCUGUCGAG | 8528 | CUGCACGAUGCUCGUAUGC |
| 8424 | UAUCGCCGGUGCCGCGCGA | 8459 | CAGCUGCGGUAAUACCCUC | 8494 | CCGCUGCGGCCUGUCGAGC | 8529 | UGCACGAUGCUCGUAUGCG |
| 8425 | AUCGCCGGUGCCGCGCGAG | 8460 | AGCUGCGGUAAUACCCUCA | 8495 | CGCUGCGGCCUGUCGAGCU | 8530 | GCACGAUGCUCGUAUGCGG |
| 8426 | UCGCCGGUGCCGCGCGAGC | 8461 | GCUGCGGUAAUACCCUCAC | 8496 | GCUGCGGCCUGUCGAGCUG | 8531 | CACGAUGCUCGUAUGCGGA |
| 8427 | CGCCGGUGCCGCGCGAGCG | 8462 | CUGCGGUAAUACCCUCACA | 8497 | CUGCGGCCUGUCGAGCUGC | 8532 | ACGAUGCUCGUAUGCGGAG |
| 8428 | GCCGGUGCCGCGCGAGCGG | 8463 | UGCGGUAAUACCCUCACAU | 8498 | UGCGGCCUGUCGAGCUGCG | 8533 | CGAUGCUCGUAUGCGGAGA |
| 8429 | CCGGUGCCGCGCGAGCGGU | 8464 | GCGGUAAUACCCUCACAUG | 8499 | GCGGCCUGUCGAGCUGCGA | 8534 | GAUGCUCGUAUGCGGAGAC |
| 8430 | CGGUGCCGCGCGAGCGGUG | 8465 | CGGUAAUACCCUCACAUGU | 8500 | CGGCCUGUCGAGCUGCGAA | 8535 | AUGCUCGUAUGCGGAGACG |
| 8431 | GGUGCCGCGCGAGCGGUGU | 8466 | GGUAAUACCCUCACAUGUU | 8501 | GGCCUGUCGAGCUGCGAAG | 8536 | UGCUCGUAUGCGGAGACGA |
| 8432 | GUGCCGCGCGAGCGGUGUA | 8467 | GUAAUACCCUCACAUGUUA | 8502 | GCCUGUCGAGCUGCGAAGC | 8537 | GCUCGUAUGCGGAGACGAC |
| 8433 | UGCCGCGCGAGCGGUGUAC | 8468 | UAAUACCCUCACAUGUUAC | 8503 | CCUGUCGAGCUGCGAAGCU | 8538 | CUCGUAUGCGGAGACGACC |
| 8434 | GCCGCGCGAGCGGUGUACU | 8469 | AAUACCCUCACAUGUUACU | 8504 | CUGUCGAGCUGCGAAGCUC | 8539 | UCGUAUGCGGAGACGACCU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8540 | CGUAUGCGGAGACGACCUU | 8575 | GCGCGGGGACCCAAGAGGA | 8610 | GCCUUCACGGAGGCUAUGA | 8645 | CCCUGGGGACCCGCCCAAA |
| 8541 | GUAUGCGGAGACGACCUUG | 8576 | CGCGGGGACCCAAGAGGAC | 8611 | CCUUCACGGAGGCUAUGAC | 8646 | CCUGGGGACCCGCCCAAAC |
| 8542 | UAUGCGGAGACGACCUUGU | 8577 | GCGGGGACCCAAGAGGACG | 8612 | CUUCACGGAGGCUAUGACU | 8647 | CUGGGGACCCGCCCAAACC |
| 8543 | AUGCGGAGACGACCUUGUC | 8578 | CGGGGACCCAAGAGGACGA | 8613 | UUCACGGAGGCUAUGACUA | 8648 | UGGGGACCCGCCCAAACCA |
| 8544 | UGCGGAGACGACCUUGUCG | 8579 | GGGGACCCAAGAGGACGAG | 8614 | UCACGGAGGCUAUGACUAG | 8649 | GGGGACCCGCCCAAACCAG |
| 8545 | GCGGAGACGACCUUGUCGU | 8580 | GGGACCCAAGAGGACGAGG | 8615 | CACGGAGGCUAUGACUAGA | 8650 | GGGACCCGCCCAAACCAGA |
| 8546 | CGGAGACGACCUUGUCGUU | 8581 | GGACCCAAGAGGACGAGGC | 8616 | ACGGAGGCUAUGACUAGAU | 8651 | GGACCCGCCCAAACCAGAA |
| 8547 | GGAGACGACCUUGUCGUUA | 8582 | GACCCAAGAGGACGAGGCG | 8617 | CGGAGGCUAUGACUAGAUA | 8652 | GACCCGCCCAAACCAGAAU |
| 8548 | GAGACGACCUUGUCGUUAU | 8583 | ACCCAAGAGGACGAGGCGA | 8618 | GGAGGCUAUGACUAGAUAC | 8653 | ACCCGCCCAAACCAGAAUA |
| 8549 | AGACGACCUUGUCGUUAUC | 8584 | CCCAAGAGGACGAGGCGAG | 8619 | GAGGCUAUGACUAGAUACU | 8654 | CCCGCCCAAACCAGAAUAC |
| 8550 | GACGACCUUGUCGUUAUCU | 8585 | CCAAGAGGACGAGGCGAGC | 8620 | AGGCUAUGACUAGAUACUC | 8655 | CCGCCCAAACCAGAAUACG |
| 8551 | ACGACCUUGUCGUUAUCUG | 8586 | CAAGAGGACGAGGCGAGCC | 8621 | GGCUAUGACUAGAUACUCU | 8656 | CGCCCAAACCAGAAUACGA |
| 8552 | CGACCUUGUCGUUAUCUGU | 8587 | AAGAGGACGAGGCGAGCCU | 8622 | GCUAUGACUAGAUACUCUG | 8657 | GCCCAAACCAGAAUACGAC |
| 8553 | GACCUUGUCGUUAUCUGUG | 8588 | AGAGGACGAGGCGAGCCUA | 8623 | CUAUGACUAGAUACUCUGC | 8658 | CCCAAACCAGAAUACGACU |
| 8554 | ACCUUGUCGUUAUCUGUGA | 8589 | GAGGACGAGGCGAGCCUAC | 8624 | UAUGACUAGAUACUCUGCC | 8659 | CCAAACCAGAAUACGACUU |
| 8555 | CCUUGUCGUUAUCUGUGAA | 8590 | AGGACGAGGCGAGCCUACG | 8625 | AUGACUAGAUACUCUGCCC | 8660 | CAAACCAGAAUACGACUUG |
| 8556 | CUUGUCGUUAUCUGUGAAA | 8591 | GGACGAGGCGAGCCUACGG | 8626 | UGACUAGAUACUCUGCCCC | 8661 | AAACCAGAAUACGACUUGG |
| 8557 | UUGUCGUUAUCUGUGAAAG | 8592 | GACGAGGCGAGCCUACGGG | 8627 | GACUAGAUACUCUGCCCCC | 8662 | AACCAGAAUACGACUUGGA |
| 8558 | UGUCGUUAUCUGUGAAAGC | 8593 | ACGAGGCGAGCCUACGGGC | 8628 | ACUAGAUACUCUGCCCCCC | 8663 | ACCAGAAUACGACUUGGAG |
| 8559 | GUCGUUAUCUGUGAAAGCG | 8594 | CGAGGCGAGCCUACGGGCC | 8629 | CUAGAUACUCUGCCCCCCC | 8664 | CCAGAAUACGACUUGGAGU |
| 8560 | UCGUUAUCUGUGAAAGCGC | 8595 | GAGGCGAGCCUACGGGCCU | 8630 | UAGAUACUCUGCCCCCCCU | 8665 | CAGAAUACGACUUGGAGUU |
| 8561 | CGUUAUCUGUGAAAGCGCG | 8596 | AGGCGAGCCUACGGGCCUU | 8631 | AGAUACUCUGCCCCCCCUG | 8666 | AGAAUACGACUUGGAGUUG |
| 8562 | GUUAUCUGUGAAAGCGCGG | 8597 | GGCGAGCCUACGGGCCUUC | 8632 | GAUACUCUGCCCCCCCUGG | 8667 | GAAUACGACUUGGAGUUGA |
| 8563 | UUAUCUGUGAAAGCGCGGG | 8598 | GCGAGCCUACGGGCCUUCA | 8633 | AUACUCUGCCCCCCCUGGG | 8668 | AAUACGACUUGGAGUUGAU |
| 8564 | UAUCUGUGAAAGCGCGGGG | 8599 | CGAGCCUACGGGCCUUCAC | 8634 | UACUCUGCCCCCCCUGGGG | 8669 | AUACGACUUGGAGUUGAUA |
| 8565 | AUCUGUGAAAGCGCGGGGA | 8600 | GAGCCUACGGGCCUUCACG | 8635 | ACUCUGCCCCCCCUGGGGA | 8670 | UACGACUUGGAGUUGAUAA |
| 8566 | UCUGUGAAAGCGCGGGGAC | 8601 | AGCCUACGGGCCUUCACGG | 8636 | CUCUGCCCCCCCUGGGGAC | 8671 | ACGACUUGGAGUUGAUAAC |
| 8567 | CUGUGAAAGCGCGGGGACC | 8602 | GCCUACGGGCCUUCACGGA | 8637 | UCUGCCCCCCCUGGGGACC | 8672 | CGACUUGGAGUUGAUAACA |
| 8568 | UGUGAAAGCGCGGGGACCC | 8603 | CCUACGGGCCUUCACGGAG | 8638 | CUGCCCCCCCUGGGGACCC | 8673 | GACUUGGAGUUGAUAACAU |
| 8569 | GUGAAAGCGCGGGGACCCA | 8604 | CUACGGGCCUUCACGGAGG | 8639 | UGCCCCCCCUGGGGACCCG | 8674 | ACUUGGAGUUGAUAACAUC |
| 8570 | UGAAAGCGCGGGGACCCAA | 8605 | UACGGGCCUUCACGGAGGC | 8640 | GCCCCCCCUGGGGACCCGC | 8675 | CUUGGAGUUGAUAACAUCA |
| 8571 | GAAAGCGCGGGGACCCAAG | 8606 | ACGGGCCUUCACGGAGGCU | 8641 | CCCCCCCUGGGGACCCGCC | 8676 | UUGGAGUUGAUAACAUCAU |
| 8572 | AAAGCGCGGGGACCCAAGA | 8607 | CGGGCCUUCACGGAGGCUA | 8642 | CCCCCCUGGGGACCCGCCC | 8677 | UGGAGUUGAUAACAUCAUG |
| 8573 | AAGCGCGGGGACCCAAGAG | 8608 | GGGCCUUCACGGAGGCUAU | 8643 | CCCCCUGGGGACCCGCCCA | 8678 | GGAGUUGAUAACAUCAUGC |
| 8574 | AGCGCGGGGACCCAAGAGG | 8609 | GGCCUUCACGGAGGCUAUG | 8644 | CCCCUGGGGACCCGCCCAA | 8679 | GAGUUGAUAACAUCAUGCU |

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| | |
|---|---|
| 8680 | AGUUGAUAACAUCAUGCUC |
| 8681 | GUUGAUAACAUCAUGCUCC |
| 8682 | UUGAUAACAUCAUGCUCCU |
| 8683 | UGAUAACAUCAUGCUCCUC |
| 8684 | GAUAACAUCAUGCUCCUCC |
| 8685 | AUAACAUCAUGCUCCUCCA |
| 8686 | UAACAUCAUGCUCCUCCAA |
| 8687 | AACAUCAUGCUCCUCCAAU |
| 8688 | ACAUCAUGCUCCUCCAAUG |
| 8689 | CAUCAUGCUCCUCCAAUGU |
| 8690 | AUCAUGCUCCUCCAAUGUG |
| 8691 | UCAUGCUCCUCCAAUGUGU |
| 8692 | CAUGCUCCUCCAAUGUGUC |
| 8693 | AUGCUCCUCCAAUGUGUCA |
| 8694 | UGCUCCUCCAAUGUGUCAG |
| 8695 | GCUCCUCCAAUGUGUCAGU |
| 8696 | CUCCUCCAAUGUGUCAGUC |
| 8697 | UCCUCCAAUGUGUCAGUCG |
| 8698 | CCUCCAAUGUGUCAGUCGC |
| 8699 | CUCCAAUGUGUCAGUCGCG |
| 8700 | UCCAAUGUGUCAGUCGCGC |
| 8701 | CCAAUGUGUCAGUCGCGCA |
| 8702 | CAAUGUGUCAGUCGCGCAC |
| 8703 | AAUGUGUCAGUCGCGCACG |
| 8704 | AUGUGUCAGUCGCGCACGA |
| 8705 | UGUGUCAGUCGCGCACGAU |
| 8706 | GUGUCAGUCGCGCACGAUG |
| 8707 | UGUCAGUCGCGCACGAUGC |
| 8708 | GUCAGUCGCGCACGAUGCA |
| 8709 | UCAGUCGCGCACGAUGCAU |
| 8710 | CAGUCGCGCACGAUGCAUC |
| 8711 | AGUCGCGCACGAUGCAUCU |
| 8712 | GUCGCGCACGAUGCAUCUG |
| 8713 | UCGCGCACGAUGCAUCUGG |
| 8714 | CGCGCACGAUGCAUCUGGC |
| 8715 | GCGCACGAUGCAUCUGGCA |
| 8716 | CGCACGAUGCAUCUGGCAA |
| 8717 | GCACGAUGCAUCUGGCAAA |
| 8718 | CACGAUGCAUCUGGCAAAA |
| 8719 | ACGAUGCAUCUGGCAAAAG |
| 8720 | CGAUGCAUCUGGCAAAAGG |
| 8721 | GAUGCAUCUGGCAAAAGGG |
| 8722 | AUGCAUCUGGCAAAAGGGU |
| 8723 | UGCAUCUGGCAAAAGGGUG |
| 8724 | GCAUCUGGCAAAAGGGUGU |
| 8725 | CAUCUGGCAAAAGGGUGUA |
| 8726 | AUCUGGCAAAAGGGUGUAC |
| 8727 | UCUGGCAAAAGGGUGUACU |
| 8728 | CUGGCAAAAGGGUGUACUA |
| 8729 | UGGCAAAAGGGUGUACUAU |
| 8730 | GGCAAAAGGGUGUACUAUC |
| 8731 | GCAAAAGGGUGUACUAUCU |
| 8732 | CAAAAGGGUGUACUAUCUC |
| 8733 | AAAAGGGUGUACUAUCUCA |
| 8734 | AAAGGGUGUACUAUCUCAC |
| 8735 | AAGGGUGUACUAUCUCACC |
| 8736 | AGGGUGUACUAUCUCACCC |
| 8737 | GGGUGUACUAUCUCACCCG |
| 8738 | GGUGUACUAUCUCACCCGU |
| 8739 | GUGUACUAUCUCACCCGUG |
| 8740 | UGUACUAUCUCACCCGUGA |
| 8741 | GUACUAUCUCACCCGUGAC |
| 8742 | UACUAUCUCACCCGUGACC |
| 8743 | ACUAUCUCACCCGUGACCC |
| 8744 | CUAUCUCACCCGUGACCCC |
| 8745 | UAUCUCACCCGUGACCCCA |
| 8746 | AUCUCACCCGUGACCCCAC |
| 8747 | UCUCACCCGUGACCCCACC |
| 8748 | CUCACCCGUGACCCCACCA |
| 8749 | UCACCCGUGACCCCACCAC |
| 8750 | CACCCGUGACCCCACCACC |
| 8751 | ACCCGUGACCCCACCACCC |
| 8752 | CCCGUGACCCCACCACCCC |
| 8753 | CCGUGACCCCACCACCCCC |
| 8754 | CGUGACCCCACCACCCCCC |
| 8755 | GUGACCCCACCACCCCCCU |
| 8756 | UGACCCCACCACCCCCCUU |
| 8757 | GACCCCACCACCCCCCUUG |
| 8758 | ACCCCACCACCCCCCUUGC |
| 8759 | CCCCACCACCCCCCUUGCG |
| 8760 | CCCACCACCCCCCUUGCGC |
| 8761 | CCACCACCCCCCUUGCGCG |
| 8762 | CACCACCCCCCUUGCGCGG |
| 8763 | ACCACCCCCCUUGCGCGGG |
| 8764 | CCACCCCCCUUGCGCGGGC |
| 8765 | CACCCCCCUUGCGCGGGCU |
| 8766 | ACCCCCCUUGCGCGGGCUG |
| 8767 | CCCCCCUUGCGCGGGCUGC |
| 8768 | CCCCCUUGCGCGGGCUGCG |
| 8769 | CCCCUUGCGCGGGCUGCGU |
| 8770 | CCCUUGCGCGGGCUGCGUG |
| 8771 | CCUUGCGCGGGCUGCGUGG |
| 8772 | CUUGCGCGGGCUGCGUGGG |
| 8773 | UUGCGCGGGCUGCGUGGGA |
| 8774 | UGCGCGGGCUGCGUGGGAG |
| 8775 | GCGCGGGCUGCGUGGGAGA |
| 8776 | CGCGGGCUGCGUGGGAGAC |
| 8777 | GCGGGCUGCGUGGGAGACA |
| 8778 | CGGGCUGCGUGGGAGACAG |
| 8779 | GGGCUGCGUGGGAGACAGC |
| 8780 | GGCUGCGUGGGAGACAGCU |
| 8781 | GCUGCGUGGGAGACAGCUA |
| 8782 | CUGCGUGGGAGACAGCUAG |
| 8783 | UGCGUGGGAGACAGCUAGA |
| 8784 | GCGUGGGAGACAGCUAGAC |
| 8785 | CGUGGGAGACAGCUAGACA |
| 8786 | GUGGGAGACAGCUAGACAC |
| 8787 | UGGGAGACAGCUAGACACA |
| 8788 | GGGAGACAGCUAGACACAC |
| 8789 | GGAGACAGCUAGACACACU |
| 8790 | GAGACAGCUAGACACACUC |
| 8791 | AGACAGCUAGACACACUCC |
| 8792 | GACAGCUAGACACACUCCA |
| 8793 | ACAGCUAGACACACUCCAG |
| 8794 | CAGCUAGACACACUCCAGU |
| 8795 | AGCUAGACACACUCCAGUC |
| 8796 | GCUAGACACACUCCAGUCA |
| 8797 | CUAGACACACUCCAGUCAA |
| 8798 | UAGACACACUCCAGUCAAU |
| 8799 | AGACACACUCCAGUCAAUU |
| 8800 | GACACACUCCAGUCAAUUC |
| 8801 | ACACACUCCAGUCAAUUCC |
| 8802 | CACACUCCAGUCAAUUCCU |
| 8803 | ACACUCCAGUCAAUUCCUG |
| 8804 | CACUCCAGUCAAUUCCUGG |
| 8805 | ACUCCAGUCAAUUCCUGGC |
| 8806 | CUCCAGUCAAUUCCUGGCU |
| 8807 | UCCAGUCAAUUCCUGGCUA |
| 8808 | CCAGUCAAUUCCUGGCUAG |
| 8809 | CAGUCAAUUCCUGGCUAGG |
| 8810 | AGUCAAUUCCUGGCUAGGC |
| 8811 | GUCAAUUCCUGGCUAGGCA |
| 8812 | UCAAUUCCUGGCUAGGCAA |
| 8813 | CAAUUCCUGGCUAGGCAAC |
| 8814 | AAUUCCUGGCUAGGCAACA |
| 8815 | AUUCCUGGCUAGGCAACAU |
| 8816 | UUCCUGGCUAGGCAACAUC |
| 8817 | UCCUGGCUAGGCAACAUCA |
| 8818 | CCUGGCUAGGCAACAUCAU |
| 8819 | CUGGCUAGGCAACAUCAUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8820 | UGGCUAGGCAACAUCAUCA | 8855 | GUGGGCAAGGAUGAUCCUG | 8890 | CCAUCCUUCUAGCUCAGGA | 8925 | CUAGAUUGUCAGAUCUACG |
| 8821 | GGCUAGGCAACAUCAUCAU | 8856 | UGGGCAAGGAUGAUCCUGA | 8891 | CAUCCUUCUAGCUCAGGAA | 8926 | UAGAUUGUCAGAUCUACGG |
| 8822 | GCUAGGCAACAUCAUCAUG | 8857 | GGGCAAGGAUGAUCCUGAU | 8892 | AUCCUUCUAGCUCAGGAAC | 8927 | AGAUUGUCAGAUCUACGGG |
| 8823 | CUAGGCAACAUCAUCAUGU | 8858 | GGCAAGGAUGAUCCUGAUG | 8893 | UCCUUCUAGCUCAGGAACA | 8928 | GAUUGUCAGAUCUACGGGG |
| 8824 | UAGGCAACAUCAUCAUGUA | 8859 | GCAAGGAUGAUCCUGAUGA | 8894 | CCUUCUAGCUCAGGAACAA | 8929 | AUUGUCAGAUCUACGGGGC |
| 8825 | AGGCAACAUCAUCAUGUAU | 8860 | CAAGGAUGAUCCUGAUGAC | 8895 | CUUCUAGCUCAGGAACAAC | 8930 | UUGUCAGAUCUACGGGGCC |
| 8826 | GGCAACAUCAUCAUGUAUG | 8861 | AAGGAUGAUCCUGAUGACU | 8896 | UUCUAGCUCAGGAACAACU | 8931 | UGUCAGAUCUACGGGGCCU |
| 8827 | GCAACAUCAUCAUGUAUGC | 8862 | AGGAUGAUCCUGAUGACUC | 8897 | UCUAGCUCAGGAACAACUU | 8932 | GUCAGAUCUACGGGGCCUG |
| 8828 | CAACAUCAUCAUGUAUGCG | 8863 | GGAUGAUCCUGAUGACUCA | 8898 | CUAGCUCAGGAACAACUUG | 8933 | UCAGAUCUACGGGGCCUGU |
| 8829 | AACAUCAUCAUGUAUGCGC | 8864 | GAUGAUCCUGAUGACUCAU | 8899 | UAGCUCAGGAACAACUUGA | 8934 | CAGAUCUACGGGGCCUGUU |
| 8830 | ACAUCAUCAUGUAUGCGCC | 8865 | AUGAUCCUGAUGACUCAUU | 8900 | AGCUCAGGAACAACUUGAA | 8935 | AGAUCUACGGGGCCUGUUA |
| 8831 | CAUCAUCAUGUAUGCGCCC | 8866 | UGAUCCUGAUGACUCAUUU | 8901 | GCUCAGGAACAACUUGAAA | 8936 | GAUCUACGGGGCCUGUUAC |
| 8832 | AUCAUCAUGUAUGCGCCCA | 8867 | GAUCCUGAUGACUCAUUUC | 8902 | CUCAGGAACAACUUGAAAA | 8937 | AUCUACGGGGCCUGUUACU |
| 8833 | UCAUCAUGUAUGCGCCCAC | 8868 | AUCCUGAUGACUCAUUUCU | 8903 | UCAGGAACAACUUGAAAAA | 8938 | UCUACGGGGCCUGUUACUC |
| 8834 | CAUCAUGUAUGCGCCCACC | 8869 | UCCUGAUGACUCAUUUCUU | 8904 | CAGGAACAACUUGAAAAAG | 8939 | CUACGGGGCCUGUUACUCC |
| 8835 | AUCAUGUAUGCGCCCACCU | 8870 | CCUGAUGACUCAUUUCUUC | 8905 | AGGAACAACUUGAAAAAGC | 8940 | UACGGGGCCUGUUACUCCA |
| 8836 | UCAUGUAUGCGCCCACCUU | 8871 | CUGAUGACUCAUUUCUUCU | 8906 | GGAACAACUUGAAAAAGCC | 8941 | ACGGGGCCUGUUACUCCAU |
| 8837 | CAUGUAUGCGCCCACCUUG | 8872 | UGAUGACUCAUUUCUUCUC | 8907 | GAACAACUUGAAAAAGCCC | 8942 | CGGGGCCUGUUACUCCAUU |
| 8838 | AUGUAUGCGCCCACCUUGU | 8873 | GAUGACUCAUUUCUUCUCC | 8908 | AACAACUUGAAAAAGCCCU | 8943 | GGGGCCUGUUACUCCAUUG |
| 8839 | UGUAUGCGCCCACCUUGUG | 8874 | AUGACUCAUUUCUUCUCCA | 8909 | ACAACUUGAAAAAGCCCUA | 8944 | GGGCCUGUUACUCCAUUGA |
| 8840 | GUAUGCGCCCACCUUGUGG | 8875 | UGACUCAUUUCUUCUCCAU | 8910 | CAACUUGAAAAAGCCCUAG | 8945 | GGCCUGUUACUCCAUUGAG |
| 8841 | UAUGCGCCCACCUUGUGGG | 8876 | GACUCAUUUCUUCUCCAUC | 8911 | AACUUGAAAAAGCCCUAGA | 8946 | GCCUGUUACUCCAUUGAGC |
| 8842 | AUGCGCCCACCUUGUGGGC | 8877 | ACUCAUUUCUUCUCCAUCC | 8912 | ACUUGAAAAAGCCCUAGAU | 8947 | CCUGUUACUCCAUUGAGCC |
| 8843 | UGCGCCCACCUUGUGGGCA | 8878 | CUCAUUUCUUCUCCAUCCU | 8913 | CUUGAAAAAGCCCUAGAUU | 8948 | CUGUUACUCCAUUGAGCCA |
| 8844 | GCGCCCACCUUGUGGGCAA | 8879 | UCAUUUCUUCUCCAUCCUU | 8914 | UUGAAAAAGCCCUAGAUUG | 8949 | UGUUACUCCAUUGAGCCAC |
| 8845 | CGCCCACCUUGUGGGCAAG | 8880 | CAUUUCUUCUCCAUCCUUC | 8915 | UGAAAAAGCCCUAGAUUGU | 8950 | GUUACUCCAUUGAGCCACU |
| 8846 | GCCCACCUUGUGGGCAAGG | 8881 | AUUUCUUCUCCAUCCUUCU | 8916 | GAAAAAGCCCUAGAUUGUC | 8951 | UUACUCCAUUGAGCCACUU |
| 8847 | CCCACCUUGUGGGCAAGGA | 8882 | UUUCUUCUCCAUCCUUCUA | 8917 | AAAAAGCCCUAGAUUGUCA | 8952 | UACUCCAUUGAGCCACUUG |
| 8848 | CCACCUUGUGGGCAAGGAU | 8883 | UUCUUCUCCAUCCUUCUAG | 8918 | AAAAGCCCUAGAUUGUCAG | 8953 | ACUCCAUUGAGCCACUUGA |
| 8849 | CACCUUGUGGGCAAGGAUG | 8884 | UCUUCUCCAUCCUUCUAGC | 8919 | AAAGCCCUAGAUUGUCAGA | 8954 | CUCCAUUGAGCCACUUGAC |
| 8850 | ACCUUGUGGGCAAGGAUGA | 8885 | CUUCUCCAUCCUUCUAGCU | 8920 | AAGCCCUAGAUUGUCAGAU | 8955 | UCCAUUGAGCCACUUGACC |
| 8851 | CCUUGUGGGCAAGGAUGAU | 8886 | UUCUCCAUCCUUCUAGCUC | 8921 | AGCCCUAGAUUGUCAGAUC | 8956 | CCAUUGAGCCACUUGACCU |
| 8852 | CUUGUGGGCAAGGAUGAUC | 8887 | UCUCCAUCCUUCUAGCUCA | 8922 | GCCCUAGAUUGUCAGAUCU | 8957 | CAUUGAGCCACUUGACCUA |
| 8853 | UUGUGGGCAAGGAUGAUCC | 8888 | CUCCAUCCUUCUAGCUCAG | 8923 | CCCUAGAUUGUCAGAUCUA | 8958 | AUUGAGCCACUUGACCUAC |
| 8854 | UGUGGGCAAGGAUGAUCCU | 8889 | UCCAUCCUUCUAGCUCAGG | 8924 | CCUAGAUUGUCAGAUCUAC | 8959 | UUGAGCCACUUGACCUACC |



**FIG. 2 (page 115 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8960 | UGAGCCACUUGACCUACCU | 8995 | UCCAUGGCCUUAGCGCAUU | 9030 | UCUCCAGGUGAGAUCAAUA | 9065 | CAGGAAACUUGGGGUACCG |
| 8961 | GAGCCACUUGACCUACCUC | 8996 | CCAUGGCCUUAGCGCAUUU | 9031 | CUCCAGGUGAGAUCAAUAG | 9066 | AGGAAACUUGGGGUACCGC |
| 8962 | AGCCACUUGACCUACCUCA | 8997 | CAUGGCCUUAGCGCAUUUU | 9032 | UCCAGGUGAGAUCAAUAGG | 9067 | GGAAACUUGGGGUACCGCC |
| 8963 | GCCACUUGACCUACCUCAG | 8998 | AUGGCCUUAGCGCAUUUUC | 9033 | CCAGGUGAGAUCAAUAGGG | 9068 | GAAACUUGGGGUACCGCCC |
| 8964 | CCACUUGACCUACCUCAGA | 8999 | UGGCCUUAGCGCAUUUUCA | 9034 | CAGGUGAGAUCAAUAGGGU | 9069 | AAACUUGGGGUACCGCCCU |
| 8965 | CACUUGACCUACCUCAGAU | 9000 | GGCCUUAGCGCAUUUUCAC | 9035 | AGGUGAGAUCAAUAGGGUG | 9070 | AACUUGGGGUACCGCCCUU |
| 8966 | ACUUGACCUACCUCAGAUC | 9001 | GCCUUAGCGCAUUUUCACU | 9036 | GGUGAGAUCAAUAGGGUGG | 9071 | ACUUGGGGUACCGCCCUUG |
| 8967 | CUUGACCUACCUCAGAUCA | 9002 | CCUUAGCGCAUUUUCACUC | 9037 | GUGAGAUCAAUAGGGUGGC | 9072 | CUUGGGGUACCGCCCUUGC |
| 8968 | UUGACCUACCUCAGAUCAU | 9003 | CUUAGCGCAUUUUCACUCC | 9038 | UGAGAUCAAUAGGGUGGCU | 9073 | UUGGGGUACCGCCCUUGCG |
| 8969 | UGACCUACCUCAGAUCAUU | 9004 | UUAGCGCAUUUUCACUCCA | 9039 | GAGAUCAAUAGGGUGGCUU | 9074 | UGGGGUACCGCCCUUGCGA |
| 8970 | GACCUACCUCAGAUCAUUC | 9005 | UAGCGCAUUUUCACUCCAU | 9040 | AGAUCAAUAGGGUGGCUUC | 9075 | GGGGUACCGCCCUUGCGAG |
| 8971 | ACCUACCUCAGAUCAUUCA | 9006 | AGCGCAUUUUCACUCCAUA | 9041 | GAUCAAUAGGGUGGCUUCA | 9076 | GGGUACCGCCCUUGCGAGU |
| 8972 | CCUACCUCAGAUCAUUCAA | 9007 | GCGCAUUUUCACUCCAUAG | 9042 | AUCAAUAGGGUGGCUUCAU | 9077 | GGUACCGCCCUUGCGAGUC |
| 8973 | CUACCUCAGAUCAUUCAAC | 9008 | CGCAUUUUCACUCCAUAGU | 9043 | UCAAUAGGGUGGCUUCAUG | 9078 | GUACCGCCCUUGCGAGUCU |
| 8974 | UACCUCAGAUCAUUCAACG | 9009 | GCAUUUUCACUCCAUAGUU | 9044 | CAAUAGGGUGGCUUCAUGC | 9079 | UACCGCCCUUGCGAGUCUG |
| 8975 | ACCUCAGAUCAUUCAACGA | 9010 | CAUUUUCACUCCAUAGUUA | 9045 | AAUAGGGUGGCUUCAUGCC | 9080 | ACCGCCCUUGCGAGUCUGG |
| 8976 | CCUCAGAUCAUUCAACGAC | 9011 | AUUUUCACUCCAUAGUUAC | 9046 | AUAGGGUGGCUUCAUGCCU | 9081 | CCGCCCUUGCGAGUCUGGA |
| 8977 | CUCAGAUCAUUCAACGACU | 9012 | UUUUCACUCCAUAGUUACU | 9047 | UAGGGUGGCUUCAUGCCUC | 9082 | CGCCCUUGCGAGUCUGGAG |
| 8978 | UCAGAUCAUUCAACGACUC | 9013 | UUUCACUCCAUAGUUACUC | 9048 | AGGGUGGCUUCAUGCCUCA | 9083 | GCCCUUGCGAGUCUGGAGA |
| 8979 | CAGAUCAUUCAACGACUCC | 9014 | UUCACUCCAUAGUUACUCU | 9049 | GGGUGGCUUCAUGCCUCAG | 9084 | CCCUUGCGAGUCUGGAGAC |
| 8980 | AGAUCAUUCAACGACUCCA | 9015 | UCACUCCAUAGUUACUCUC | 9050 | GGUGGCUUCAUGCCUCAGG | 9085 | CCUUGCGAGUCUGGAGACA |
| 8981 | GAUCAUUCAACGACUCCAU | 9016 | CACUCCAUAGUUACUCUCC | 9051 | GUGGCUUCAUGCCUCAGGA | 9086 | CUUGCGAGUCUGGAGACAU |
| 8982 | AUCAUUCAACGACUCCAUG | 9017 | ACUCCAUAGUUACUCUCCA | 9052 | UGGCUUCAUGCCUCAGGAA | 9087 | UUGCGAGUCUGGAGACAUC |
| 8983 | UCAUUCAACGACUCCAUGG | 9018 | CUCCAUAGUUACUCUCCAG | 9053 | GGCUUCAUGCCUCAGGAAA | 9088 | UGCGAGUCUGGAGACAUCG |
| 8984 | CAUUCAACGACUCCAUGGC | 9019 | UCCAUAGUUACUCUCCAGG | 9054 | GCUUCAUGCCUCAGGAAAC | 9089 | GCGAGUCUGGAGACAUCGG |
| 8985 | AUUCAACGACUCCAUGGCC | 9020 | CCAUAGUUACUCUCCAGGU | 9055 | CUUCAUGCCUCAGGAAACU | 9090 | CGAGUCUGGAGACAUCGGG |
| 8986 | UUCAACGACUCCAUGGCCU | 9021 | CAUAGUUACUCUCCAGGUG | 9056 | UUCAUGCCUCAGGAAACUU | 9091 | GAGUCUGGAGACAUCGGGC |
| 8987 | UCAACGACUCCAUGGCCUU | 9022 | AUAGUUACUCUCCAGGUGA | 9057 | UCAUGCCUCAGGAAACUUG | 9092 | AGUCUGGAGACAUCGGGCC |
| 8988 | CAACGACUCCAUGGCCUUA | 9023 | UAGUUACUCUCCAGGUGAG | 9058 | CAUGCCUCAGGAAACUUGG | 9093 | GUCUGGAGACAUCGGGCCA |
| 8989 | AACGACUCCAUGGCCUUAG | 9024 | AGUUACUCUCCAGGUGAGA | 9059 | AUGCCUCAGGAAACUUGGG | 9094 | UCUGGAGACAUCGGGCCAG |
| 8990 | ACGACUCCAUGGCCUUAGC | 9025 | GUUACUCUCCAGGUGAGAU | 9060 | UGCCUCAGGAAACUUGGGG | 9095 | CUGGAGACAUCGGGCCAGA |
| 8991 | CGACUCCAUGGCCUUAGCG | 9026 | UUACUCUCCAGGUGAGAUC | 9061 | GCCUCAGGAAACUUGGGGU | 9096 | UGGAGACAUCGGGCCAGAA |
| 8992 | GACUCCAUGGCCUUAGCGC | 9027 | UACUCUCCAGGUGAGAUCA | 9062 | CCUCAGGAAACUUGGGGUA | 9097 | GGAGACAUCGGGCCAGAAG |
| 8993 | ACUCCAUGGCCUUAGCGCA | 9028 | ACUCUCCAGGUGAGAUCAA | 9063 | CUCAGGAAACUUGGGGUAC | 9098 | GAGACAUCGGGCCAGAAGU |
| 8994 | CUCCAUGGCCUUAGCGCAU | 9029 | CUCUCCAGGUGAGAUCAAU | 9064 | UCAGGAAACUUGGGGUACC | 9099 | AGACAUCGGGCCAGAAGUG |

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| | |
|---|---|
| 9100 | GACAUCGGGCCAGAAGUGU |
| 9101 | ACAUCGGGCCAGAAGUGUC |
| 9102 | CAUCGGGCCAGAAGUGUCC |
| 9103 | AUCGGGCCAGAAGUGUCCG |
| 9104 | UCGGGCCAGAAGUGUCCGC |
| 9105 | CGGGCCAGAAGUGUCCGCG |
| 9106 | GGGCCAGAAGUGUCCGCGC |
| 9107 | GGCCAGAAGUGUCCGCGCU |
| 9108 | GCCAGAAGUGUCCGCGCUA |
| 9109 | CCAGAAGUGUCCGCGCUAG |
| 9110 | CAGAAGUGUCCGCGCUAGG |
| 9111 | AGAAGUGUCCGCGCUAGGC |
| 9112 | GAAGUGUCCGCGCUAGGCU |
| 9113 | AAGUGUCCGCGCUAGGCUA |
| 9114 | AGUGUCCGCGCUAGGCUAC |
| 9115 | GUGUCCGCGCUAGGCUACU |
| 9116 | UGUCCGCGCUAGGCUACUG |
| 9117 | GUCCGCGCUAGGCUACUGU |
| 9118 | UCCGCGCUAGGCUACUGUC |
| 9119 | CCGCGCUAGGCUACUGUCC |
| 9120 | CGCGCUAGGCUACUGUCCC |
| 9121 | GCGCUAGGCUACUGUCCCA |
| 9122 | CGCUAGGCUACUGUCCCAG |
| 9123 | GCUAGGCUACUGUCCCAGG |
| 9124 | CUAGGCUACUGUCCCAGGG |
| 9125 | UAGGCUACUGUCCCAGGGG |
| 9126 | AGGCUACUGUCCCAGGGGG |
| 9127 | GGCUACUGUCCCAGGGGGG |
| 9128 | GCUACUGUCCCAGGGGGGG |
| 9129 | CUACUGUCCCAGGGGGGGA |
| 9130 | UACUGUCCCAGGGGGGGAG |
| 9131 | ACUGUCCCAGGGGGGGAGG |
| 9132 | CUGUCCCAGGGGGGGAGGG |
| 9133 | UGUCCCAGGGGGGGAGGGC |
| 9134 | GUCCCAGGGGGGGAGGGCU |
| 9135 | UCCCAGGGGGGGAGGGCUG |
| 9136 | CCCAGGGGGGGAGGGCUGC |
| 9137 | CCAGGGGGGGAGGGCUGCC |
| 9138 | CAGGGGGGGAGGGCUGCCA |
| 9139 | AGGGGGGGAGGGCUGCCAC |
| 9140 | GGGGGGGAGGGCUGCCACU |
| 9141 | GGGGGGAGGGCUGCCACUU |
| 9142 | GGGGGAGGGCUGCCACUUG |
| 9143 | GGGGAGGGCUGCCACUUGU |
| 9144 | GGGAGGGCUGCCACUUGUG |
| 9145 | GGAGGGCUGCCACUUGUGG |
| 9146 | GAGGGCUGCCACUUGUGGC |
| 9147 | AGGGCUGCCACUUGUGGCA |
| 9148 | GGGCUGCCACUUGUGGCAA |
| 9149 | GGCUGCCACUUGUGGCAAG |
| 9150 | GCUGCCACUUGUGGCAAGU |
| 9151 | CUGCCACUUGUGGCAAGUA |
| 9152 | UGCCACUUGUGGCAAGUAC |
| 9153 | GCCACUUGUGGCAAGUACC |
| 9154 | CCACUUGUGGCAAGUACCU |
| 9155 | CACUUGUGGCAAGUACCUC |
| 9156 | ACUUGUGGCAAGUACCUCU |
| 9157 | CUUGUGGCAAGUACCUCUU |
| 9158 | UUGUGGCAAGUACCUCUUC |
| 9159 | UGUGGCAAGUACCUCUUCA |
| 9160 | GUGGCAAGUACCUCUUCAA |
| 9161 | UGGCAAGUACCUCUUCAAC |
| 9162 | GGCAAGUACCUCUUCAACU |
| 9163 | GCAAGUACCUCUUCAACUG |
| 9164 | CAAGUACCUCUUCAACUGG |
| 9165 | AAGUACCUCUUCAACUGGG |
| 9166 | AGUACCUCUUCAACUGGGC |
| 9167 | GUACCUCUUCAACUGGGCA |
| 9168 | UACCUCUUCAACUGGGCAG |
| 9169 | ACCUCUUCAACUGGGCAGU |
| 9170 | CCUCUUCAACUGGGCAGUA |
| 9171 | CUCUUCAACUGGGCAGUAA |
| 9172 | UCUUCAACUGGGCAGUAAG |
| 9173 | CUUCAACUGGGCAGUAAGG |
| 9174 | UUCAACUGGGCAGUAAGGA |
| 9175 | UCAACUGGGCAGUAAGGAC |
| 9176 | CAACUGGGCAGUAAGGACC |
| 9177 | AACUGGGCAGUAAGGACCA |
| 9178 | ACUGGGCAGUAAGGACCAA |
| 9179 | CUGGGCAGUAAGGACCAAG |
| 9180 | UGGGCAGUAAGGACCAAGC |
| 9181 | GGGCAGUAAGGACCAAGCU |
| 9182 | GGCAGUAAGGACCAAGCUC |
| 9183 | GCAGUAAGGACCAAGCUCA |
| 9184 | CAGUAAGGACCAAGCUCAA |
| 9185 | AGUAAGGACCAAGCUCAAA |
| 9186 | GUAAGGACCAAGCUCAAAC |
| 9187 | UAAGGACCAAGCUCAAACU |
| 9188 | AAGGACCAAGCUCAAACUC |
| 9189 | AGGACCAAGCUCAAACUCA |
| 9190 | GGACCAAGCUCAAACUCAC |
| 9191 | GACCAAGCUCAAACUCACU |
| 9192 | ACCAAGCUCAAACUCACUC |
| 9193 | CCAAGCUCAAACUCACUCC |
| 9194 | CAAGCUCAAACUCACUCCA |
| 9195 | AAGCUCAAACUCACUCCAA |
| 9196 | AGCUCAAACUCACUCCAAU |
| 9197 | GCUCAAACUCACUCCAAUC |
| 9198 | CUCAAACUCACUCCAAUCC |
| 9199 | UCAAACUCACUCCAAUCCC |
| 9200 | CAAACUCACUCCAAUCCCG |
| 9201 | AAACUCACUCCAAUCCCGG |
| 9202 | AACUCACUCCAAUCCCGGC |
| 9203 | ACUCACUCCAAUCCCGGCU |
| 9204 | CUCACUCCAAUCCCGGCUG |
| 9205 | UCACUCCAAUCCCGGCUGC |
| 9206 | CACUCCAAUCCCGGCUGCG |
| 9207 | ACUCCAAUCCCGGCUGCGU |
| 9208 | CUCCAAUCCCGGCUGCGUC |
| 9209 | UCCAAUCCCGGCUGCGUCC |
| 9210 | CCAAUCCCGGCUGCGUCCC |
| 9211 | CAAUCCCGGCUGCGUCCCA |
| 9212 | AAUCCCGGCUGCGUCCCAG |
| 9213 | AUCCCGGCUGCGUCCCAGU |
| 9214 | UCCCGGCUGCGUCCCAGUU |
| 9215 | CCCGGCUGCGUCCCAGUUG |
| 9216 | CCGGCUGCGUCCCAGUUGG |
| 9217 | CGGCUGCGUCCCAGUUGGA |
| 9218 | GGCUGCGUCCCAGUUGGAU |
| 9219 | GCUGCGUCCCAGUUGGAUU |
| 9220 | CUGCGUCCCAGUUGGAUUU |
| 9221 | UGCGUCCCAGUUGGAUUUA |
| 9222 | GCGUCCCAGUUGGAUUUAU |
| 9223 | CGUCCCAGUUGGAUUUAUC |
| 9224 | GUCCCAGUUGGAUUUAUCC |
| 9225 | UCCCAGUUGGAUUUAUCCA |
| 9226 | CCCAGUUGGAUUUAUCCAG |
| 9227 | CCAGUUGGAUUUAUCCAGC |
| 9228 | CAGUUGGAUUUAUCCAGCU |
| 9229 | AGUUGGAUUUAUCCAGCUG |
| 9230 | GUUGGAUUUAUCCAGCUGG |
| 9231 | UUGGAUUUAUCCAGCUGGU |
| 9232 | UGGAUUUAUCCAGCUGGUU |
| 9233 | GGAUUUAUCCAGCUGGUUC |
| 9234 | GAUUUAUCCAGCUGGUUCG |
| 9235 | AUUUAUCCAGCUGGUUCGU |
| 9236 | UUUAUCCAGCUGGUUCGUU |
| 9237 | UUAUCCAGCUGGUUCGUUG |
| 9238 | UAUCCAGCUGGUUCGUUGC |
| 9239 | AUCCAGCUGGUUCGUUGCU |

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| | |
|---|---|
| 9240 | UCCAGCUGGUUCGUUGCUG |
| 9241 | CCAGCUGGUUCGUUGCUGG |
| 9242 | CAGCUGGUUCGUUGCUGGU |
| 9243 | AGCUGGUUCGUUGCUGGUU |
| 9244 | GCUGGUUCGUUGCUGGUUA |
| 9245 | CUGGUUCGUUGCUGGUUAC |
| 9246 | UGGUUCGUUGCUGGUUACA |
| 9247 | GGUUCGUUGCUGGUUACAG |
| 9248 | GUUCGUUGCUGGUUACAGC |
| 9249 | UUCGUUGCUGGUUACAGCG |
| 9250 | UCGUUGCUGGUUACAGCGG |
| 9251 | CGUUGCUGGUUACAGCGGG |
| 9252 | GUUGCUGGUUACAGCGGGG |
| 9253 | UUGCUGGUUACAGCGGGGG |
| 9254 | UGCUGGUUACAGCGGGGGA |
| 9255 | GCUGGUUACAGCGGGGGAG |
| 9256 | CUGGUUACAGCGGGGGAGA |
| 9257 | UGGUUACAGCGGGGGAGAC |
| 9258 | GGUUACAGCGGGGGAGACA |
| 9259 | GUUACAGCGGGGGAGACAU |
| 9260 | UUACAGCGGGGGAGACAUA |
| 9261 | UACAGCGGGGGAGACAUAU |
| 9262 | ACAGCGGGGGAGACAUAUA |
| 9263 | CAGCGGGGGAGACAUAUAU |
| 9264 | AGCGGGGGAGACAUAUAUC |
| 9265 | GCGGGGGAGACAUAUAUCA |
| 9266 | CGGGGGAGACAUAUAUCAC |
| 9267 | GGGGGAGACAUAUAUCACA |
| 9268 | GGGGAGACAUAUAUCACAG |
| 9269 | GGGAGACAUAUAUCACAGC |
| 9270 | GGAGACAUAUAUCACAGCC |
| 9271 | GAGACAUAUAUCACAGCCU |
| 9272 | AGACAUAUAUCACAGCCUG |
| 9273 | GACAUAUAUCACAGCCUGU |
| 9274 | ACAUAUAUCACAGCCUGUC |
| 9275 | CAUAUAUCACAGCCUGUCU |
| 9276 | AUAUAUCACAGCCUGUCUC |
| 9277 | UAUAUCACAGCCUGUCUCG |
| 9278 | AUAUCACAGCCUGUCUCGU |
| 9279 | UAUCACAGCCUGUCUCGUG |
| 9280 | AUCACAGCCUGUCUCGUGC |
| 9281 | UCACAGCCUGUCUCGUGCC |
| 9282 | CACAGCCUGUCUCGUGCCC |
| 9283 | ACAGCCUGUCUCGUGCCCG |
| 9284 | CAGCCUGUCUCGUGCCCGA |
| 9285 | AGCCUGUCUCGUGCCCGAC |
| 9286 | GCCUGUCUCGUGCCCGACC |
| 9287 | CCUGUCUCGUGCCCGACCC |
| 9288 | CUGUCUCGUGCCCGACCCC |
| 9289 | UGUCUCGUGCCCGACCCCG |
| 9290 | GUCUCGUGCCCGACCCCGC |
| 9291 | UCUCGUGCCCGACCCCGCU |
| 9292 | CUCGUGCCCGACCCCGCUG |
| 9293 | UCGUGCCCGACCCCGCUGG |
| 9294 | CGUGCCCGACCCCGCUGGU |
| 9295 | GUGCCCGACCCCGCUGGUU |
| 9296 | UGCCCGACCCCGCUGGUUC |
| 9297 | GCCCGACCCCGCUGGUUCA |
| 9298 | CCCGACCCCGCUGGUUCAU |
| 9299 | CCGACCCCGCUGGUUCAUG |
| 9300 | CGACCCCGCUGGUUCAUGU |
| 9301 | GACCCCGCUGGUUCAUGUG |
| 9302 | ACCCCGCUGGUUCAUGUGG |
| 9303 | CCCCGCUGGUUCAUGUGGU |
| 9304 | CCCGCUGGUUCAUGUGGUG |
| 9305 | CCGCUGGUUCAUGUGGUGC |
| 9306 | CGCUGGUUCAUGUGGUGCC |
| 9307 | GCUGGUUCAUGUGGUGCCU |
| 9308 | CUGGUUCAUGUGGUGCCUA |
| 9309 | UGGUUCAUGUGGUGCCUAC |
| 9310 | GGUUCAUGUGGUGCCUACU |
| 9311 | GUUCAUGUGGUGCCUACUC |
| 9312 | UUCAUGUGGUGCCUACUCC |
| 9313 | UCAUGUGGUGCCUACUCCU |
| 9314 | CAUGUGGUGCCUACUCCUA |
| 9315 | AUGUGGUGCCUACUCCUAC |
| 9316 | UGUGGUGCCUACUCCUACU |
| 9317 | GUGGUGCCUACUCCUACUU |
| 9318 | UGGUGCCUACUCCUACUUU |
| 9319 | GGUGCCUACUCCUACUUUC |
| 9320 | GUGCCUACUCCUACUUUCU |
| 9321 | UGCCUACUCCUACUUUCUG |
| 9322 | GCCUACUCCUACUUUCUGU |
| 9323 | CCUACUCCUACUUUCUGUA |
| 9324 | CUACUCCUACUUUCUGUAG |
| 9325 | UACUCCUACUUUCUGUAGG |
| 9326 | ACUCCUACUUUCUGUAGGG |
| 9327 | CUCCUACUUUCUGUAGGGG |
| 9328 | UCCUACUUUCUGUAGGGGU |
| 9329 | CCUACUUUCUGUAGGGGUA |
| 9330 | CUACUUUCUGUAGGGGUAG |
| 9331 | UACUUUCUGUAGGGGUAGG |
| 9332 | ACUUUCUGUAGGGGUAGGC |
| 9333 | CUUUCUGUAGGGGUAGGCA |
| 9334 | UUUCUGUAGGGGUAGGCAU |
| 9335 | UUCUGUAGGGGUAGGCAUC |
| 9336 | UCUGUAGGGGUAGGCAUCU |
| 9337 | CUGUAGGGGUAGGCAUCUA |
| 9338 | UGUAGGGGUAGGCAUCUAU |
| 9339 | GUAGGGGUAGGCAUCUAUC |
| 9340 | UAGGGGUAGGCAUCUAUCU |
| 9341 | AGGGGUAGGCAUCUAUCUA |
| 9342 | GGGGUAGGCAUCUAUCUAC |
| 9343 | GGGUAGGCAUCUAUCUACU |
| 9344 | GGUAGGCAUCUAUCUACUC |
| 9345 | GUAGGCAUCUAUCUACUCC |
| 9346 | UAGGCAUCUAUCUACUCCC |
| 9347 | AGGCAUCUAUCUACUCCCC |
| 9348 | GGCAUCUAUCUACUCCCCA |
| 9349 | GCAUCUAUCUACUCCCCAA |
| 9350 | CAUCUAUCUACUCCCCAAC |
| 9351 | AUCUAUCUACUCCCCAACC |
| 9352 | UCUAUCUACUCCCCAACCG |
| 9353 | CUAUCUACUCCCCAACCGA |
| 9354 | UAUCUACUCCCCAACCGAU |
| 9355 | AUCUACUCCCCAACCGAUG |
| 9356 | UCUACUCCCCAACCGAUGA |
| 9357 | CUACUCCCCAACCGAUGAA |
| 9358 | UACUCCCCAACCGAUGAAC |
| 9359 | ACUCCCCAACCGAUGAACG |
| 9360 | CUCCCCAACCGAUGAACGG |
| 9361 | UCCCCAACCGAUGAACGGG |
| 9362 | CCCCAACCGAUGAACGGGG |
| 9363 | CCCAACCGAUGAACGGGGA |
| 9364 | CCAACCGAUGAACGGGGAG |
| 9365 | CAACCGAUGAACGGGGAGC |
| 9366 | AACCGAUGAACGGGGAGCU |
| 9367 | ACCGAUGAACGGGGAGCUA |
| 9368 | CCGAUGAACGGGGAGCUAA |
| 9369 | CGAUGAACGGGGAGCUAAA |
| 9370 | GAUGAACGGGGAGCUAAAC |
| 9371 | AUGAACGGGGAGCUAAACA |
| 9372 | UGAACGGGGAGCUAAACAC |
| 9373 | GAACGGGGAGCUAAACACU |
| 9374 | AACGGGGAGCUAAACACUC |
| 9375 | ACGGGGAGCUAAACACUCC |
| 9376 | CGGGGAGCUAAACACUCCA |
| 9377 | GGGGAGCUAAACACUCCAG |
| 9378 | GGGAGCUAAACACUCCAGG |
| 9379 | GGAGCUAAACACUCCAGGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9380 | GAGCUAAACACUCCAGGCC | 9415 | UUUUUCCCUUUUUUUUUUU | 9450 | UUUUUUUUUUUUUUUUUUU | 9485 | CUUUUUUUCCUUUUCUUUC |
| 9381 | AGCUAAACACUCCAGGCCA | 9416 | UUUUCCCUUUUUUUUUUUC | 9451 | UUUUUUUUUUUUUUUUUUC | 9486 | UUUUUUUCCUUUUCUUUCC |
| 9382 | GCUAAACACUCCAGGCCAA | 9417 | UUUCCCUUUUUUUUUUUCU | 9452 | UUUUUUUUUUUUUUUUUCU | 9487 | UUUUUUCCUUUUCUUUCCU |
| 9383 | CUAAACACUCCAGGCCAAU | 9418 | UUCCCUUUUUUUUUUUCUU | 9453 | UUUUUUUUUUUUUUUUCUC | 9488 | UUUUUCCUUUUCUUUCCUU |
| 9384 | UAAACACUCCAGGCCAAUA | 9419 | UCCCUUUUUUUUUUUCUUU | 9454 | UUUUUUUUUUUUUUUCUCC | 9489 | UUUUCCUUUUCUUUCCUUU |
| 9385 | AAACACUCCAGGCCAAUAG | 9420 | CCCUUUUUUUUUUUCUUUU | 9455 | UUUUUUUUUUUUUUCUCCU | 9490 | UUUCCUUUUCUUUCCUUUG |
| 9386 | AACACUCCAGGCCAAUAGG | 9421 | CCUUUUUUUUUUUCUUUUU | 9456 | UUUUUUUUUUUUUCUCCUU | 9491 | UUCCUUUUCUUUCCUUUGG |
| 9387 | ACACUCCAGGCCAAUAGGC | 9422 | CUUUUUUUUUUUCUUUUUU | 9457 | UUUUUUUUUUUUCUCCUUU | 9492 | UCCUUUUCUUUCCUUUGGU |
| 9388 | CACUCCAGGCCAAUAGGCC | 9423 | UUUUUUUUUUUCUUUUUUU | 9458 | UUUUUUUUUUUCUCCUUUU | 9493 | CCUUUUCUUUCCUUUGGUG |
| 9389 | ACUCCAGGCCAAUAGGCCA | 9424 | UUUUUUUUUUCUUUUUUUU | 9459 | UUUUUUUUUUCUCCUUUUU | 9494 | CUUUUCUUUCCUUUGGUGG |
| 9390 | CUCCAGGCCAAUAGGCCAU | 9425 | UUUUUUUUUCUUUUUUUUU | 9460 | UUUUUUUUUCUCCUUUUUU | 9495 | UUUUCUUUCCUUUGGUGGC |
| 9391 | UCCAGGCCAAUAGGCCAUC | 9426 | UUUUUUUUCUUUUUUUUUU | 9461 | UUUUUUUUCUCCUUUUUUU | 9496 | UUUCUUUCCUUUGGUGGCU |
| 9392 | CCAGGCCAAUAGGCCAUCC | 9427 | UUUUUUUCUUUUUUUUUUU | 9462 | UUUUUUUCUCCUUUUUUUU | 9497 | UUCUUUCCUUUGGUGGCUC |
| 9393 | CAGGCCAAUAGGCCAUCCU | 9428 | UUUUUUCUUUUUUUUUUUU | 9463 | UUUUUUCUCCUUUUUUUUU | 9498 | UCUUUCCUUUGGUGGCUCC |
| 9394 | AGGCCAAUAGGCCAUCCUG | 9429 | UUUUUCUUUUUUUUUUUUU | 9464 | UUUUUCUCCUUUUUUUUUC | 9499 | CUUUCCUUUGGUGGCUCCA |
| 9395 | GGCCAAUAGGCCAUCCUGU | 9430 | UUUUCUUUUUUUUUUUUUU | 9465 | UUUUCUCCUUUUUUUUUCC | 9500 | UUUCCUUUGGUGGCUCCAU |
| 9396 | GCCAAUAGGCCAUCCUGUU | 9431 | UUUCUUUUUUUUUUUUUUU | 9466 | UUUCUCCUUUUUUUUUCCU | 9501 | UUCCUUUGGUGGCUCCAUC |
| 9397 | CCAAUAGGCCAUCCUGUUU | 9432 | UUCUUUUUUUUUUUUUUUU | 9467 | UUCUCCUUUUUUUUUCCUC | 9502 | UCCUUUGGUGGCUCCAUCU |
| 9398 | CAAUAGGCCAUCCUGUUUU | 9433 | UCUUUUUUUUUUUUUUUUU | 9468 | UCUCCUUUUUUUUUCCUCU | 9503 | CCUUUGGUGGCUCCAUCUU |
| 9399 | AAUAGGCCAUCCUGUUUUU | 9434 | CUUUUUUUUUUUUUUUUUU | 9469 | CUCCUUUUUUUUUCCUCUU | 9504 | CUUUGGUGGCUCCAUCUUA |
| 9400 | AUAGGCCAUCCUGUUUUUU | 9435 | UUUUUUUUUUUUUUUUUUU | 9470 | UCCUUUUUUUUUCCUCUUU | 9505 | UUUGGUGGCUCCAUCUUAG |
| 9401 | UAGGCCAUCCUGUUUUUUU | 9436 | UUUUUUUUUUUUUUUUUUU | 9471 | CCUUUUUUUUUCCUCUUUU | 9506 | UUGGUGGCUCCAUCUUAGC |
| 9402 | AGGCCAUCCUGUUUUUUUC | 9437 | UUUUUUUUUUUUUUUUUUU | 9472 | CUUUUUUUUUCCUCUUUUU | 9507 | UGGUGGCUCCAUCUUAGCC |
| 9403 | GGCCAUCCUGUUUUUUUCC | 9438 | UUUUUUUUUUUUUUUUUUU | 9473 | UUUUUUUUUCCUCUUUUUU | 9508 | GGUGGCUCCAUCUUAGCCC |
| 9404 | GCCAUCCUGUUUUUUUCCC | 9439 | UUUUUUUUUUUUUUUUUUU | 9474 | UUUUUUUUCCUCUUUUUUU | 9509 | GUGGCUCCAUCUUAGCCCU |
| 9405 | CCAUCCUGUUUUUUUCCCU | 9440 | UUUUUUUUUUUUUUUUUUU | 9475 | UUUUUUUCCUCUUUUUUUC | 9510 | UGGCUCCAUCUUAGCCCUA |
| 9406 | CAUCCUGUUUUUUUCCCUU | 9441 | UUUUUUUUUUUUUUUUUUU | 9476 | UUUUUUCCUCUUUUUUUCC | 9511 | GGCUCCAUCUUAGCCCUAG |
| 9407 | AUCCUGUUUUUUUCCCUUU | 9442 | UUUUUUUUUUUUUUUUUUU | 9477 | UUUUUCCUCUUUUUUUCCU | 9512 | GCUCCAUCUUAGCCCUAGU |
| 9408 | UCCUGUUUUUUUCCCUUUU | 9443 | UUUUUUUUUUUUUUUUUUU | 9478 | UUUUCCUCUUUUUUUCCUU | 9513 | CUCCAUCUUAGCCCUAGUC |
| 9409 | CCUGUUUUUUUCCCUUUUU | 9444 | UUUUUUUUUUUUUUUUUUU | 9479 | UUUCCUCUUUUUUUCCUUU | 9514 | UCCAUCUUAGCCCUAGUCA |
| 9410 | CUGUUUUUUUCCCUUUUUU | 9445 | UUUUUUUUUUUUUUUUUUU | 9480 | UUCCUCUUUUUUUCCUUUU | 9515 | CCAUCUUAGCCCUAGUCAC |
| 9411 | UGUUUUUUUCCCUUUUUUU | 9446 | UUUUUUUUUUUUUUUUUUU | 9481 | UCCUCUUUUUUUCCUUUUC | 9516 | CAUCUUAGCCCUAGUCACG |
| 9412 | GUUUUUUUCCCUUUUUUUU | 9447 | UUUUUUUUUUUUUUUUUUU | 9482 | CCUCUUUUUUUCCUUUUCU | 9517 | AUCUUAGCCCUAGUCACGG |
| 9413 | UUUUUUUCCCUUUUUUUUU | 9448 | UUUUUUUUUUUUUUUUUUU | 9483 | CUCUUUUUUUCCUUUUCUU | 9518 | UCUUAGCCCUAGUCACGGC |
| 9414 | UUUUUUCCCUUUUUUUUUU | 9449 | UUUUUUUUUUUUUUUUUUU | 9484 | UCUUUUUUUCCUUUUCUUU | 9519 | CUUAGCCCUAGUCACGGCU |

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| | |
|---|---|
| 9520 | UUAGCCCUAGUCACGGCUA |
| 9521 | UAGCCCUAGUCACGGCUAG |
| 9522 | AGCCCUAGUCACGGCUAGC |
| 9523 | GCCCUAGUCACGGCUAGCU |
| 9524 | CCCUAGUCACGGCUAGCUG |
| 9525 | CCUAGUCACGGCUAGCUGU |
| 9526 | CUAGUCACGGCUAGCUGUG |
| 9527 | UAGUCACGGCUAGCUGUGA |
| 9528 | AGUCACGGCUAGCUGUGAA |
| 9529 | GUCACGGCUAGCUGUGAAA |
| 9530 | UCACGGCUAGCUGUGAAAG |
| 9531 | CACGGCUAGCUGUGAAAGG |
| 9532 | ACGGCUAGCUGUGAAAGGU |
| 9533 | CGGCUAGCUGUGAAAGGUC |
| 9534 | GGCUAGCUGUGAAAGGUCC |
| 9535 | GCUAGCUGUGAAAGGUCCG |
| 9536 | CUAGCUGUGAAAGGUCCGU |
| 9537 | UAGCUGUGAAAGGUCCGUG |
| 9538 | AGCUGUGAAAGGUCCGUGA |
| 9539 | GCUGUGAAAGGUCCGUGAG |
| 9540 | CUGUGAAAGGUCCGUGAGC |
| 9541 | UGUGAAAGGUCCGUGAGCC |
| 9542 | GUGAAAGGUCCGUGAGCCG |
| 9543 | UGAAAGGUCCGUGAGCCGC |
| 9544 | GAAAGGUCCGUGAGCCGCU |
| 9545 | AAAGGUCCGUGAGCCGCUU |
| 9546 | AAGGUCCGUGAGCCGCUUG |
| 9547 | AGGUCCGUGAGCCGCUUGA |
| 9548 | GGUCCGUGAGCCGCUUGAC |
| 9549 | GUCCGUGAGCCGCUUGACU |
| 9550 | UCCGUGAGCCGCUUGACUG |
| 9551 | CCGUGAGCCGCUUGACUGC |
| 9552 | CGUGAGCCGCUUGACUGCA |
| 9553 | GUGAGCCGCUUGACUGCAG |
| 9554 | UGAGCCGCUUGACUGCAGA |
| 9555 | GAGCCGCUUGACUGCAGAG |
| 9556 | AGCCGCUUGACUGCAGAGA |
| 9557 | GCCGCUUGACUGCAGAGAG |
| 9558 | CCGCUUGACUGCAGAGAGU |
| 9559 | CGCUUGACUGCAGAGAGUG |
| 9560 | GCUUGACUGCAGAGAGUGC |
| 9561 | CUUGACUGCAGAGAGUGCU |
| 9562 | UUGACUGCAGAGAGUGCUG |
| 9563 | UGACUGCAGAGAGUGCUGA |
| 9564 | GACUGCAGAGAGUGCUGAU |
| 9565 | ACUGCAGAGAGUGCUGAUA |
| 9566 | CUGCAGAGAGUGCUGAUAC |
| 9567 | UGCAGAGAGUGCUGAUACU |
| 9568 | GCAGAGAGUGCUGAUACUG |
| 9569 | CAGAGAGUGCUGAUACUGG |
| 9570 | AGAGAGUGCUGAUACUGGC |
| 9571 | GAGAGUGCUGAUACUGGCC |
| 9572 | AGAGUGCUGAUACUGGCCU |
| 9573 | GAGUGCUGAUACUGGCCUC |
| 9574 | AGUGCUGAUACUGGCCUCU |
| 9575 | GUGCUGAUACUGGCCUCUC |
| 9576 | UGCUGAUACUGGCCUCUCU |
| 9577 | GCUGAUACUGGCCUCUCUG |
| 9578 | CUGAUACUGGCCUCUCUGC |
| 9579 | UGAUACUGGCCUCUCUGCA |
| 9580 | GAUACUGGCCUCUCUGCAG |
| 9581 | AUACUGGCCUCUCUGCAGA |
| 9582 | UACUGGCCUCUCUGCAGAU |
| 9583 | ACUGGCCUCUCUGCAGAUC |
| 9584 | CUGGCCUCUCUGCAGAUCA |
| 9585 | UGGCCUCUCUGCAGAUCAA |
| 9586 | GGCCUCUCUGCAGAUCAAG |
| 9587 | GCCUCUCUGCAGAUCAAGU |

**FIG. 2 (page 120 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | ACCCGCCCCUAAUAGGGGC | 44 | CUGUGAGGAACUACUGUCU | 87 | GCGUUAGUAUGAGUGUCGU | 130 | GGGAGAGCCAUAGUGGUCU |
| 2 | CCCGCCCCUAAUAGGGGCG | 45 | UGUGAGGAACUACUGUCUU | 88 | CGUUAGUAUGAGUGUCGUA | 131 | GGAGAGCCAUAGUGGUCUG |
| 3 | CCGCCCCUAAUAGGGGCGA | 46 | GUGAGGAACUACUGUCUUC | 89 | GUUAGUAUGAGUGUCGUAC | 132 | GAGAGCCAUAGUGGUCUGC |
| 4 | CGCCCCUAAUAGGGGCGAC | 47 | UGAGGAACUACUGUCUUCA | 90 | UUAGUAUGAGUGUCGUACA | 133 | AGAGCCAUAGUGGUCUGCG |
| 5 | GCCCCUAAUAGGGGCGACA | 48 | GAGGAACUACUGUCUUCAC | 91 | UAGUAUGAGUGUCGUACAG | 134 | GAGCCAUAGUGGUCUGCGG |
| 6 | CCCCUAAUAGGGGCGACAC | 49 | AGGAACUACUGUCUUCACG | 92 | AGUAUGAGUGUCGUACAGC | 135 | AGCCAUAGUGGUCUGCGGA |
| 7 | CCCUAAUAGGGGCGACACU | 50 | GGAACUACUGUCUUCACGC | 93 | GUAUGAGUGUCGUACAGCC | 136 | GCCAUAGUGGUCUGCGGAA |
| 8 | CCUAAUAGGGGCGACACUC | 51 | GAACUACUGUCUUCACGCA | 94 | UAUGAGUGUCGUACAGCCU | 137 | CCAUAGUGGUCUGCGGAAC |
| 9 | CUAAUAGGGGCGACACUCC | 52 | AACUACUGUCUUCACGCAG | 95 | AUGAGUGUCGUACAGCCUC | 138 | CAUAGUGGUCUGCGGAACC |
| 10 | UAAUAGGGGCGACACUCCG | 53 | ACUACUGUCUUCACGCAGA | 96 | UGAGUGUCGUACAGCCUCC | 139 | AUAGUGGUCUGCGGAACCG |
| 11 | AAUAGGGGCGACACUCCGC | 54 | CUACUGUCUUCACGCAGAA | 97 | GAGUGUCGUACAGCCUCCA | 140 | UAGUGGUCUGCGGAACCGG |
| 12 | AUAGGGGCGACACUCCGCC | 55 | UACUGUCUUCACGCAGAAA | 98 | AGUGUCGUACAGCCUCCAG | 141 | AGUGGUCUGCGGAACCGGU |
| 13 | UAGGGGCGACACUCCGCCA | 56 | ACUGUCUUCACGCAGAAAG | 99 | GUGUCGUACAGCCUCCAGG | 142 | GUGGUCUGCGGAACCGGUG |
| 14 | AGGGGCGACACUCCGCCAU | 57 | CUGUCUUCACGCAGAAAGC | 100 | UGUCGUACAGCCUCCAGGC | 143 | UGGUCUGCGGAACCGGUGA |
| 15 | GGGGCGACACUCCGCCAUG | 58 | UGUCUUCACGCAGAAAGCG | 101 | GUCGUACAGCCUCCAGGCC | 144 | GGUCUGCGGAACCGGUGAG |
| 16 | GGGCGACACUCCGCCAUGA | 59 | GUCUUCACGCAGAAAGCGU | 102 | UCGUACAGCCUCCAGGCCC | 145 | GUCUGCGGAACCGGUGAGU |
| 17 | GGCGACACUCCGCCAUGAA | 60 | UCUUCACGCAGAAAGCGUC | 103 | CGUACAGCCUCCAGGCCCC | 146 | UCUGCGGAACCGGUGAGUA |
| 18 | GCGACACUCCGCCAUGAAU | 61 | CUUCACGCAGAAAGCGUCU | 104 | GUACAGCCUCCAGGCCCCC | 147 | CUGCGGAACCGGUGAGUAC |
| 19 | CGACACUCCGCCAUGAAUC | 62 | UUCACGCAGAAAGCGUCUA | 105 | UACAGCCUCCAGGCCCCCC | 148 | UGCGGAACCGGUGAGUACA |
| 20 | GACACUCCGCCAUGAAUCA | 63 | UCACGCAGAAAGCGUCUAG | 106 | ACAGCCUCCAGGCCCCCCC | 149 | GCGGAACCGGUGAGUACAC |
| 21 | ACACUCCGCCAUGAAUCAC | 64 | CACGCAGAAAGCGUCUAGC | 107 | CAGCCUCCAGGCCCCCCCC | 150 | CGGAACCGGUGAGUACACC |
| 22 | CACUCCGCCAUGAAUCACU | 65 | ACGCAGAAAGCGUCUAGCC | 108 | AGCCUCCAGGCCCCCCCCU | 151 | GGAACCGGUGAGUACACCG |
| 23 | ACUCCGCCAUGAAUCACUC | 66 | CGCAGAAAGCGUCUAGCCA | 109 | GCCUCCAGGCCCCCCCCUC | 152 | GAACCGGUGAGUACACCGG |
| 24 | CUCCGCCAUGAAUCACUCC | 67 | GCAGAAAGCGUCUAGCCAU | 110 | CCUCCAGGCCCCCCCCUCC | 153 | AACCGGUGAGUACACCGGA |
| 25 | UCCGCCAUGAAUCACUCCC | 68 | CAGAAAGCGUCUAGCCAUG | 111 | CUCCAGGCCCCCCCCUCCC | 154 | ACCGGUGAGUACACCGGAA |
| 26 | CCGCCAUGAAUCACUCCCC | 69 | AGAAAGCGUCUAGCCAUGG | 112 | UCCAGGCCCCCCCCUCCCG | 155 | CCGGUGAGUACACCGGAAU |
| 27 | CGCCAUGAAUCACUCCCCU | 70 | GAAAGCGUCUAGCCAUGGC | 113 | CCAGGCCCCCCCCUCCCGG | 156 | CGGUGAGUACACCGGAAUU |
| 28 | GCCAUGAAUCACUCCCCUG | 71 | AAAGCGUCUAGCCAUGGCG | 114 | CAGGCCCCCCCCUCCCGGG | 157 | GGUGAGUACACCGGAAUUG |
| 29 | CCAUGAAUCACUCCCCUGU | 72 | AAGCGUCUAGCCAUGGCGU | 115 | AGGCCCCCCCCUCCCGGGA | 158 | GUGAGUACACCGGAAUUGC |
| 30 | CAUGAAUCACUCCCCUGUG | 73 | AGCGUCUAGCCAUGGCGUU | 116 | GGCCCCCCCCUCCCGGGAG | 159 | UGAGUACACCGGAAUUGCC |
| 31 | AUGAAUCACUCCCCUGUGA | 74 | GCGUCUAGCCAUGGCGUUA | 117 | GCCCCCCCCUCCCGGGAGA | 160 | GAGUACACCGGAAUUGCCG |
| 32 | UGAAUCACUCCCCUGUGAG | 75 | CGUCUAGCCAUGGCGUUAG | 118 | CCCCCCCCUCCCGGGAGAG | 161 | AGUACACCGGAAUUGCCGG |
| 33 | GAAUCACUCCCCUGUGAGG | 76 | GUCUAGCCAUGGCGUUAGU | 119 | CCCCCCCUCCCGGGAGAGC | 162 | GUACACCGGAAUUGCCGGG |
| 34 | AAUCACUCCCCUGUGAGGA | 77 | UCUAGCCAUGGCGUUAGUA | 120 | CCCCCCUCCCGGGAGAGCC | 163 | UACACCGGAAUUGCCGGGA |
| 35 | AUCACUCCCCUGUGAGGAA | 78 | CUAGCCAUGGCGUUAGUAU | 121 | CCCCCUCCCGGGAGAGCCA | 164 | ACACCGGAAUUGCCGGGAA |
| 36 | UCACUCCCCUGUGAGGAAC | 79 | UAGCCAUGGCGUUAGUAUG | 122 | CCCCUCCCGGGAGAGCCAU | 165 | CACCGGAAUUGCCGGGAAG |
| 37 | CACUCCCCUGUGAGGAACU | 80 | AGCCAUGGCGUUAGUAUGA | 123 | CCCUCCCGGGAGAGCCAUA | 166 | ACCGGAAUUGCCGGGAAGA |
| 38 | ACUCCCCUGUGAGGAACUA | 81 | GCCAUGGCGUUAGUAUGAG | 124 | CCUCCCGGGAGAGCCAUAG | 167 | CCGGAAUUGCCGGGAAGAC |
| 39 | CUCCCCUGUGAGGAACUAC | 82 | CCAUGGCGUUAGUAUGAGU | 125 | CUCCCGGGAGAGCCAUAGU | 168 | CGGAAUUGCCGGGAAGACU |
| 40 | UCCCCUGUGAGGAACUACU | 83 | CAUGGCGUUAGUAUGAGUG | 126 | UCCCGGGAGAGCCAUAGUG | 169 | GGAAUUGCCGGGAAGACUG |
| 41 | CCCCUGUGAGGAACUACUG | 84 | AUGGCGUUAGUAUGAGUGU | 127 | CCCGGGAGAGCCAUAGUGG | 170 | GAAUUGCCGGGAAGACUGG |
| 42 | CCCUGUGAGGAACUACUGU | 85 | UGGCGUUAGUAUGAGUGUC | 128 | CCGGGAGAGCCAUAGUGGU | 171 | AAUUGCCGGGAAGACUGGG |
| 43 | CCUGUGAGGAACUACUGUC | 86 | GGCGUUAGUAUGAGUGUCG | 129 | CGGGAGAGCCAUAGUGGUC | 172 | AUUGCCGGGAAGACUGGGU |

**FIG. 3 (page 121 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 173 | UUGCCGGGAAGACUGGGUC | 216 | GCCCGGCCAUUUGGGCGUG | 259 | AGCGUUGGGUUGCGAAAGG | 302 | GCUUGCGAGUGCCCCGGGA |
| 174 | UGCCGGGAAGACUGGGUCC | 217 | CCCGGCCAUUUGGGCGUGC | 260 | GCGUUGGGUUGCGAAAGGC | 303 | CUUGCGAGUGCCCCGGGAG |
| 175 | GCCGGGAAGACUGGGUCCU | 218 | CCGGCCAUUUGGGCGUGCC | 261 | CGUUGGGUUGCGAAAGGCC | 304 | UUGCGAGUGCCCCGGGAGG |
| 176 | CCGGGAAGACUGGGUCCUU | 219 | CGGCCAUUUGGGCGUGCCC | 262 | GUUGGGUUGCGAAAGGCCU | 305 | UGCGAGUGCCCCGGGAGGU |
| 177 | CGGGAAGACUGGGUCCUUU | 220 | GGCCAUUUGGGCGUGCCCC | 263 | UUGGGUUGCGAAAGGCCUU | 306 | GCGAGUGCCCCGGGAGGUC |
| 178 | GGGAAGACUGGGUCCUUUC | 221 | GCCAUUUGGGCGUGCCCCC | 264 | UGGGUUGCGAAAGGCCUUG | 307 | CGAGUGCCCCGGGAGGUCU |
| 179 | GGAAGACUGGGUCCUUUCU | 222 | CCAUUUGGGCGUGCCCCCG | 265 | GGGUUGCGAAAGGCCUUGU | 308 | GAGUGCCCCGGGAGGUCUC |
| 180 | GAAGACUGGGUCCUUUCUU | 223 | CAUUUGGGCGUGCCCCCGC | 266 | GGUUGCGAAAGGCCUUGUG | 309 | AGUGCCCCGGGAGGUCUCG |
| 181 | AAGACUGGGUCCUUUCUUG | 224 | AUUUGGGCGUGCCCCCGCA | 267 | GUUGCGAAAGGCCUUGUGG | 310 | GUGCCCCGGGAGGUCUCGU |
| 182 | AGACUGGGUCCUUUCUUGG | 225 | UUUGGGCGUGCCCCCGCAA | 268 | UUGCGAAAGGCCUUGUGGU | 311 | UGCCCCGGGAGGUCUCGUA |
| 183 | GACUGGGUCCUUUCUUGGA | 226 | UUGGGCGUGCCCCCGCAAG | 269 | UGCGAAAGGCCUUGUGGUA | 312 | GCCCCGGGAGGUCUCGUAG |
| 184 | ACUGGGUCCUUUCUUGGAU | 227 | UGGGCGUGCCCCCGCAAGA | 270 | GCGAAAGGCCUUGUGGUAC | 313 | CCCCGGGAGGUCUCGUAGA |
| 185 | CUGGGUCCUUUCUUGGAUA | 228 | GGGCGUGCCCCCGCAAGAC | 271 | CGAAAGGCCUUGUGGUACU | 314 | CCCGGGAGGUCUCGUAGAC |
| 186 | UGGGUCCUUUCUUGGAUAA | 229 | GGCGUGCCCCCGCAAGACU | 272 | GAAAGGCCUUGUGGUACUG | 315 | CCGGGAGGUCUCGUAGACC |
| 187 | GGGUCCUUUCUUGGAUAAA | 230 | GCGUGCCCCCGCAAGACUG | 273 | AAAGGCCUUGUGGUACUGC | 316 | CGGGAGGUCUCGUAGACCG |
| 188 | GGUCCUUUCUUGGAUAAAC | 231 | CGUGCCCCCGCAAGACUGC | 274 | AAGGCCUUGUGGUACUGCC | 317 | GGGAGGUCUCGUAGACCGU |
| 189 | GUCCUUUCUUGGAUAAACC | 232 | GUGCCCCCGCAAGACUGCU | 275 | AGGCCUUGUGGUACUGCCU | 318 | GGAGGUCUCGUAGACCGUG |
| 190 | UCCUUUCUUGGAUAAACCC | 233 | UGCCCCCGCAAGACUGCUA | 276 | GGCCUUGUGGUACUGCCUG | 319 | GAGGUCUCGUAGACCGUGC |
| 191 | CCUUUCUUGGAUAAACCCA | 234 | GCCCCCGCAAGACUGCUAG | 277 | GCCUUGUGGUACUGCCUGA | 320 | AGGUCUCGUAGACCGUGCA |
| 192 | CUUUCUUGGAUAAACCCAC | 235 | CCCCCGCAAGACUGCUAGC | 278 | CCUUGUGGUACUGCCUGAU | 321 | GGUCUCGUAGACCGUGCAC |
| 193 | UUUCUUGGAUAAACCCACU | 236 | CCCCGCAAGACUGCUAGCC | 279 | CUUGUGGUACUGCCUGAUA | 322 | GUCUCGUAGACCGUGCACC |
| 194 | UUCUUGGAUAAACCCACUC | 237 | CCCGCAAGACUGCUAGCCG | 280 | UUGUGGUACUGCCUGAUAG | 323 | UCUCGUAGACCGUGCACCA |
| 195 | UCUUGGAUAAACCCACUCU | 238 | CCGCAAGACUGCUAGCCGA | 281 | UGUGGUACUGCCUGAUAGG | 324 | CUCGUAGACCGUGCACCAU |
| 196 | CUUGGAUAAACCCACUCUA | 239 | CGCAAGACUGCUAGCCGAG | 282 | GUGGUACUGCCUGAUAGGG | 325 | UCGUAGACCGUGCACCAUG |
| 197 | UUGGAUAAACCCACUCUAU | 240 | GCAAGACUGCUAGCCGAGU | 283 | UGGUACUGCCUGAUAGGGU | 326 | CGUAGACCGUGCACCAUGA |
| 198 | UGGAUAAACCCACUCUAUG | 241 | CAAGACUGCUAGCCGAGUA | 284 | GGUACUGCCUGAUAGGGUG | 327 | GUAGACCGUGCACCAUGAG |
| 199 | GGAUAAACCCACUCUAUGC | 242 | AAGACUGCUAGCCGAGUAG | 285 | GUACUGCCUGAUAGGGUGC | 328 | UAGACCGUGCACCAUGAGC |
| 200 | GAUAAACCCACUCUAUGCC | 243 | AGACUGCUAGCCGAGUAGC | 286 | UACUGCCUGAUAGGGUGCU | 329 | AGACCGUGCACCAUGAGCA |
| 201 | AUAAACCCACUCUAUGCCC | 244 | GACUGCUAGCCGAGUAGCG | 287 | ACUGCCUGAUAGGGUGCUU | 330 | GACCGUGCACCAUGAGCAC |
| 202 | UAAACCCACUCUAUGCCCG | 245 | ACUGCUAGCCGAGUAGCGU | 288 | CUGCCUGAUAGGGUGCUUG | 331 | ACCGUGCACCAUGAGCACA |
| 203 | AAACCCACUCUAUGCCCGG | 246 | CUGCUAGCCGAGUAGCGUU | 289 | UGCCUGAUAGGGUGCUUGC | 332 | CCGUGCACCAUGAGCACAA |
| 204 | AACCCACUCUAUGCCCGGC | 247 | UGCUAGCCGAGUAGCGUUG | 290 | GCCUGAUAGGGUGCUUGCG | 333 | CGUGCACCAUGAGCACAAA |
| 205 | ACCCACUCUAUGCCCGGCC | 248 | GCUAGCCGAGUAGCGUUGG | 291 | CCUGAUAGGGUGCUUGCGA | 334 | GUGCACCAUGAGCACAAAU |
| 206 | CCCACUCUAUGCCCGGCCA | 249 | CUAGCCGAGUAGCGUUGGG | 292 | CUGAUAGGGUGCUUGCGAG | 335 | UGCACCAUGAGCACAAAUC |
| 207 | CCACUCUAUGCCCGGCCAU | 250 | UAGCCGAGUAGCGUUGGGU | 293 | UGAUAGGGUGCUUGCGAGU | 336 | GCACCAUGAGCACAAAUCC |
| 208 | CACUCUAUGCCCGGCCAUU | 251 | AGCCGAGUAGCGUUGGGUU | 294 | GAUAGGGUGCUUGCGAGUG | 337 | CACCAUGAGCACAAAUCCU |
| 209 | ACUCUAUGCCCGGCCAUUU | 252 | GCCGAGUAGCGUUGGGUUG | 295 | AUAGGGUGCUUGCGAGUGC | 338 | ACCAUGAGCACAAAUCCUA |
| 210 | CUCUAUGCCCGGCCAUUUG | 253 | CCGAGUAGCGUUGGGUUGC | 296 | UAGGGUGCUUGCGAGUGCC | 339 | CCAUGAGCACAAAUCCUAA |
| 211 | UCUAUGCCCGGCCAUUUGG | 254 | CGAGUAGCGUUGGGUUGCG | 297 | AGGGUGCUUGCGAGUGCCC | 340 | CAUGAGCACAAAUCCUAAA |
| 212 | CUAUGCCCGGCCAUUUGGG | 255 | GAGUAGCGUUGGGUUGCGA | 298 | GGGUGCUUGCGAGUGCCCC | 341 | AUGAGCACAAAUCCUAAAC |
| 213 | UAUGCCCGGCCAUUUGGGC | 256 | AGUAGCGUUGGGUUGCGAA | 299 | GGUGCUUGCGAGUGCCCCG | 342 | UGAGCACAAAUCCUAAACC |
| 214 | AUGCCCGGCCAUUUGGGCG | 257 | GUAGCGUUGGGUUGCGAAA | 300 | GUGCUUGCGAGUGCCCCGG | 343 | GAGCACAAAUCCUAAACCU |
| 215 | UGCCCGGCCAUUUGGGCGU | 258 | UAGCGUUGGGUUGCGAAAG | 301 | UGCUUGCGAGUGCCCCGGG | 344 | AGCACAAAUCCUAAACCUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 345 | GCACAAAUCCUAAACCUCA | 388 | CCGUCGCCCACAAGACGUU | 431 | GUUGGCGGAGUAUACUUGU | 474 | GUGUGCGCGCGACAAGGAA |
| 346 | CACAAAUCCUAAACCUCAA | 389 | CGUCGCCCACAAGACGUUA | 432 | UUGGCGGAGUAUACUUGUU | 475 | UGUGCGCGCGACAAGGAAG |
| 347 | ACAAAUCCUAAACCUCAAA | 390 | GUCGCCCACAAGACGUUAA | 433 | UGGCGGAGUAUACUUGUUG | 476 | GUGCGCGCGACAAGGAAGA |
| 348 | CAAAUCCUAAACCUCAAAG | 391 | UCGCCCACAAGACGUUAAG | 434 | GGCGGAGUAUACUUGUUGC | 477 | UGCGCGCGACAAGGAAGAC |
| 349 | AAAUCCUAAACCUCAAAGA | 392 | CGCCCACAAGACGUUAAGU | 435 | GCGGAGUAUACUUGUUGCC | 478 | GCGCGCGACAAGGAAGACU |
| 350 | AAUCCUAAACCUCAAAGAA | 393 | GCCCACAAGACGUUAAGUU | 436 | CGGAGUAUACUUGUUGCCG | 479 | CGCGCGACAAGGAAGACUU |
| 351 | AUCCUAAACCUCAAAGAAA | 394 | CCCACAAGACGUUAAGUUU | 437 | GGAGUAUACUUGUUGCCGC | 480 | GCGCGACAAGGAAGACUUC |
| 352 | UCCUAAACCUCAAAGAAAA | 395 | CCACAAGACGUUAAGUUUC | 438 | GAGUAUACUUGUUGCCGCG | 481 | CGCGACAAGGAAGACUUCG |
| 353 | CCUAAACCUCAAAGAAAAA | 396 | CACAAGACGUUAAGUUUCC | 439 | AGUAUACUUGUUGCCGCGC | 482 | GCGACAAGGAAGACUUCGG |
| 354 | CUAAACCUCAAAGAAAAAC | 397 | ACAAGACGUUAAGUUUCCG | 440 | GUAUACUUGUUGCCGCGCA | 483 | CGACAAGGAAGACUUCGGA |
| 355 | UAAACCUCAAAGAAAAACC | 398 | CAAGACGUUAAGUUUCCGG | 441 | UAUACUUGUUGCCGCGCAG | 484 | GACAAGGAAGACUUCGGAG |
| 356 | AAACCUCAAAGAAAAACCA | 399 | AAGACGUUAAGUUUCCGGG | 442 | AUACUUGUUGCCGCGCAGG | 485 | ACAAGGAAGACUUCGGAGC |
| 357 | AACCUCAAAGAAAAACCAA | 400 | AGACGUUAAGUUUCCGGGC | 443 | UACUUGUUGCCGCGCAGGG | 486 | CAAGGAAGACUUCGGAGCG |
| 358 | ACCUCAAAGAAAAACCAAA | 401 | GACGUUAAGUUUCCGGGCG | 444 | ACUUGUUGCCGCGCAGGGG | 487 | AAGGAAGACUUCGGAGCGG |
| 359 | CCUCAAAGAAAAACCAAAA | 402 | ACGUUAAGUUUCCGGGCGG | 445 | CUUGUUGCCGCGCAGGGGC | 488 | AGGAAGACUUCGGAGCGGU |
| 360 | CUCAAAGAAAAACCAAAAG | 403 | CGUUAAGUUUCCGGGCGGC | 446 | UUGUUGCCGCGCAGGGGCC | 489 | GGAAGACUUCGGAGCGGUC |
| 361 | UCAAAGAAAAACCAAAAGA | 404 | GUUAAGUUUCCGGGCGGCG | 447 | UGUUGCCGCGCAGGGGCCC | 490 | GAAGACUUCGGAGCGGUCC |
| 362 | CAAAGAAAAACCAAAAGAA | 405 | UUAAGUUUCCGGGCGGCGG | 448 | GUUGCCGCGCAGGGGCCCC | 491 | AAGACUUCGGAGCGGUCCC |
| 363 | AAAGAAAAACCAAAAGAAA | 406 | UAAGUUUCCGGGCGGCGGC | 449 | UUGCCGCGCAGGGGCCCCA | 492 | AGACUUCGGAGCGGUCCCA |
| 364 | AAGAAAAACCAAAAGAAAC | 407 | AAGUUUCCGGGCGGCGGCC | 450 | UGCCGCGCAGGGGCCCCAG | 493 | GACUUCGGAGCGGUCCCAG |
| 365 | AGAAAAACCAAAAGAAACA | 408 | AGUUUCCGGGCGGCGGCCA | 451 | GCCGCGCAGGGGCCCCAGG | 494 | ACUUCGGAGCGGUCCCAGC |
| 366 | GAAAAACCAAAAGAAACAC | 409 | GUUUCCGGGCGGCGGCCAG | 452 | CCGCGCAGGGGCCCCAGGU | 495 | CUUCGGAGCGGUCCCAGCC |
| 367 | AAAAACCAAAAGAAACACC | 410 | UUUCCGGGCGGCGGCCAGA | 453 | CGCGCAGGGGCCCCAGGUU | 496 | UUCGGAGCGGUCCCAGCCA |
| 368 | AAAACCAAAAGAAACACCA | 411 | UUCCGGGCGGCGGCCAGAU | 454 | GCGCAGGGGCCCCAGGUUG | 497 | UCGGAGCGGUCCCAGCCAC |
| 369 | AAACCAAAAGAAACACCAA | 412 | UCCGGGCGGCGGCCAGAUC | 455 | CGCAGGGGCCCCAGGUUGG | 498 | CGGAGCGGUCCCAGCCACG |
| 370 | AACCAAAAGAAACACCAAC | 413 | CCGGGCGGCGGCCAGAUCG | 456 | GCAGGGGCCCCAGGUUGGG | 499 | GGAGCGGUCCCAGCCACGU |
| 371 | ACCAAAAGAAACACCAACC | 414 | CGGGCGGCGGCCAGAUCGU | 457 | CAGGGGCCCCAGGUUGGGU | 500 | GAGCGGUCCCAGCCACGUG |
| 372 | CCAAAAGAAACACCAACCG | 415 | GGGCGGCGGCCAGAUCGUU | 458 | AGGGGCCCCAGGUUGGGUG | 501 | AGCGGUCCCAGCCACGUGG |
| 373 | CAAAAGAAACACCAACCGU | 416 | GGCGGCGGCCAGAUCGUUG | 459 | GGGGCCCCAGGUUGGGUGU | 502 | GCGGUCCCAGCCACGUGGA |
| 374 | AAAAGAAACACCAACCGUC | 417 | GCGGCGGCCAGAUCGUUGG | 460 | GGGCCCCAGGUUGGGUGUG | 503 | CGGUCCCAGCCACGUGGAA |
| 375 | AAAGAAACACCAACCGUCG | 418 | CGGCGGCCAGAUCGUUGGC | 461 | GGCCCCAGGUUGGGUGUGC | 504 | GGUCCCAGCCACGUGGAAG |
| 376 | AAGAAACACCAACCGUCGC | 419 | GGCGGCCAGAUCGUUGGCG | 462 | GCCCCAGGUUGGGUGUGCG | 505 | GUCCCAGCCACGUGGAAGG |
| 377 | AGAAACACCAACCGUCGCC | 420 | GCGGCCAGAUCGUUGGCGG | 463 | CCCCAGGUUGGGUGUGCGC | 506 | UCCCAGCCACGUGGAAGGC |
| 378 | GAAACACCAACCGUCGCCC | 421 | CGGCCAGAUCGUUGGCGGA | 464 | CCCAGGUUGGGUGUGCGCG | 507 | CCCAGCCACGUGGAAGGCG |
| 379 | AAACACCAACCGUCGCCCA | 422 | GGCCAGAUCGUUGGCGGAG | 465 | CCAGGUUGGGUGUGCGCGC | 508 | CCAGCCACGUGGAAGGCGC |
| 380 | AACACCAACCGUCGCCCAC | 423 | GCCAGAUCGUUGGCGGAGU | 466 | CAGGUUGGGUGUGCGCGCG | 509 | CAGCCACGUGGAAGGCGCC |
| 381 | ACACCAACCGUCGCCCACA | 424 | CCAGAUCGUUGGCGGAGUA | 467 | AGGUUGGGUGUGCGCGCGA | 510 | AGCCACGUGGAAGGCGCCA |
| 382 | CACCAACCGUCGCCCACAA | 425 | CAGAUCGUUGGCGGAGUAU | 468 | GGUUGGGUGUGCGCGCGAC | 511 | GCCACGUGGAAGGCGCCAG |
| 383 | ACCAACCGUCGCCCACAAG | 426 | AGAUCGUUGGCGGAGUAUA | 469 | GUUGGGUGUGCGCGCGACA | 512 | CCACGUGGAAGGCGCCAGC |
| 384 | CCAACCGUCGCCCACAAGA | 427 | GAUCGUUGGCGGAGUAUAC | 470 | UUGGGUGUGCGCGCGACAA | 513 | CACGUGGAAGGCGCCAGCC |
| 385 | CAACCGUCGCCCACAAGAC | 428 | AUCGUUGGCGGAGUAUACU | 471 | UGGGUGUGCGCGCGACAAG | 514 | ACGUGGAAGGCGCCAGCCC |
| 386 | AACCGUCGCCCACAAGACG | 429 | UCGUUGGCGGAGUAUACUU | 472 | GGGUGUGCGCGCGACAAGG | 515 | CGUGGAAGGCGCCAGCCCA |
| 387 | ACCGUCGCCCACAAGACGU | 430 | CGUUGGCGGAGUAUACUUG | 473 | GGUGUGCGCGCGACAAGGA | 516 | GUGGAAGGCGCCAGCCCAU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 517 | UGGAAGGCGCCAGCCCAUC | 560 | AAAUCCUGGGGAAAACCAG | 603 | AUGAGGGACUCGGCUGGGC | 646 | UUCCCGUCCCUCUUGGGGC |
| 518 | GGAAGGCGCCAGCCCAUCC | 561 | AAUCCUGGGGAAAACCAGG | 604 | UGAGGGACUCGGCUGGGCA | 647 | UCCCGUCCCUCUUGGGGCC |
| 519 | GAAGGCGCCAGCCCAUCCC | 562 | AUCCUGGGGAAAACCAGGA | 605 | GAGGGACUCGGCUGGGCAG | 648 | CCCGUCCCUCUUGGGGCCC |
| 520 | AAGGCGCCAGCCCAUCCCU | 563 | UCCUGGGGAAAACCAGGAU | 606 | AGGGACUCGGCUGGGCAGG | 649 | CCGUCCCUCUUGGGGCCCC |
| 521 | AGGCGCCAGCCCAUCCCUA | 564 | CCUGGGGAAAACCAGGAUA | 607 | GGGACUCGGCUGGGCAGGA | 650 | CGUCCCUCUUGGGGCCCCA |
| 522 | GGCGCCAGCCCAUCCCUAA | 565 | CUGGGGAAAACCAGGAUAC | 608 | GGACUCGGCUGGGCAGGAU | 651 | GUCCCUCUUGGGGCCCCAA |
| 523 | GCGCCAGCCCAUCCCUAAA | 566 | UGGGGAAAACCAGGAUACC | 609 | GACUCGGCUGGGCAGGAUG | 652 | UCCCUCUUGGGGCCCCAAU |
| 524 | CGCCAGCCCAUCCCUAAAG | 567 | GGGGAAAACCAGGAUACCC | 610 | ACUCGGCUGGGCAGGAUGG | 653 | CCCUCUUGGGGCCCCAAUG |
| 525 | GCCAGCCCAUCCCUAAAGA | 568 | GGGAAAACCAGGAUACCCC | 611 | CUCGGCUGGGCAGGAUGGC | 654 | CCUCUUGGGGCCCCAAUGA |
| 526 | CCAGCCCAUCCCUAAAGAU | 569 | GGAAAACCAGGAUACCCCU | 612 | UCGGCUGGGCAGGAUGGCU | 655 | CUCUUGGGGCCCCAAUGAC |
| 527 | CAGCCCAUCCCUAAAGAUC | 570 | GAAAACCAGGAUACCCCUG | 613 | CGGCUGGGCAGGAUGGCUC | 656 | UCUUGGGGCCCCAAUGACC |
| 528 | AGCCCAUCCCUAAAGAUCG | 571 | AAAACCAGGAUACCCCUGG | 614 | GGCUGGGCAGGAUGGCUCC | 657 | CUUGGGGCCCCAAUGACCC |
| 529 | GCCCAUCCCUAAAGAUCGG | 572 | AAACCAGGAUACCCCUGGC | 615 | GCUGGGCAGGAUGGCUCCU | 658 | UUGGGGCCCCAAUGACCCC |
| 530 | CCCAUCCCUAAAGAUCGGC | 573 | AACCAGGAUACCCCUGGCC | 616 | CUGGGCAGGAUGGCUCCUG | 659 | UGGGGCCCCAAUGACCCCC |
| 531 | CCAUCCCUAAAGAUCGGCG | 574 | ACCAGGAUACCCCUGGCCC | 617 | UGGGCAGGAUGGCUCCUGU | 660 | GGGGCCCCAAUGACCCCCG |
| 532 | CAUCCCUAAAGAUCGGCGC | 575 | CCAGGAUACCCCUGGCCCC | 618 | GGGCAGGAUGGCUCCUGUC | 661 | GGGCCCCAAUGACCCCCGG |
| 533 | AUCCCUAAAGAUCGGCGCU | 576 | CAGGAUACCCCUGGCCCCU | 619 | GGCAGGAUGGCUCCUGUCC | 662 | GGCCCCAAUGACCCCCGGC |
| 534 | UCCCUAAAGAUCGGCGCUC | 577 | AGGAUACCCCUGGCCCCUA | 620 | GCAGGAUGGCUCCUGUCCC | 663 | GCCCCAAUGACCCCCGGCA |
| 535 | CCCUAAAGAUCGGCGCUCC | 578 | GGAUACCCCUGGCCCCUAU | 621 | CAGGAUGGCUCCUGUCCCC | 664 | CCCCAAUGACCCCCGGCAU |
| 536 | CCUAAAGAUCGGCGCUCCA | 579 | GAUACCCCUGGCCCCUAUA | 622 | AGGAUGGCUCCUGUCCCCC | 665 | CCCAAUGACCCCCGGCAUA |
| 537 | CUAAAGAUCGGCGCUCCAC | 580 | AUACCCCUGGCCCCUAUAC | 623 | GGAUGGCUCCUGUCCCCCC | 666 | CCAAUGACCCCCGGCAUAG |
| 538 | UAAAGAUCGGCGCUCCACU | 581 | UACCCCUGGCCCCUAUACG | 624 | GAUGGCUCCUGUCCCCCCG | 667 | CAAUGACCCCCGGCAUAGG |
| 539 | AAAGAUCGGCGCUCCACUG | 582 | ACCCCUGGCCCCUAUACGG | 625 | AUGGCUCCUGUCCCCCCGA | 668 | AAUGACCCCCGGCAUAGGU |
| 540 | AAGAUCGGCGCUCCACUGG | 583 | CCCCUGGCCCCUAUACGGG | 626 | UGGCUCCUGUCCCCCCGAG | 669 | AUGACCCCCGGCAUAGGUC |
| 541 | AGAUCGGCGCUCCACUGGC | 584 | CCCUGGCCCCUAUACGGGA | 627 | GGCUCCUGUCCCCCCGAGG | 670 | UGACCCCCGGCAUAGGUCG |
| 542 | GAUCGGCGCUCCACUGGCA | 585 | CCUGGCCCCUAUACGGGAA | 628 | GCUCCUGUCCCCCCGAGGU | 671 | GACCCCCGGCAUAGGUCGC |
| 543 | AUCGGCGCUCCACUGGCAA | 586 | CUGGCCCCUAUACGGGAAU | 629 | CUCCUGUCCCCCCGAGGUU | 672 | ACCCCCGGCAUAGGUCGCG |
| 544 | UCGGCGCUCCACUGGCAAA | 587 | UGGCCCCUAUACGGGAAUG | 630 | UCCUGUCCCCCCGAGGUUC | 673 | CCCCCGGCAUAGGUCGCGC |
| 545 | CGGCGCUCCACUGGCAAAU | 588 | GGCCCCUAUACGGGAAUGA | 631 | CCUGUCCCCCCGAGGUUCC | 674 | CCCCGGCAUAGGUCGCGCA |
| 546 | GGCGCUCCACUGGCAAAUC | 589 | GCCCCUAUACGGGAAUGAG | 632 | CUGUCCCCCCGAGGUUCCC | 675 | CCCGGCAUAGGUCGCGCAA |
| 547 | GCGCUCCACUGGCAAAUCC | 590 | CCCCUAUACGGGAAUGAGG | 633 | UGUCCCCCCGAGGUUCCCG | 676 | CCGGCAUAGGUCGCGCAAC |
| 548 | CGCUCCACUGGCAAAUCCU | 591 | CCCUAUACGGGAAUGAGGG | 634 | GUCCCCCCGAGGUUCCCGU | 677 | CGGCAUAGGUCGCGCAACG |
| 549 | GCUCCACUGGCAAAUCCUG | 592 | CCUAUACGGGAAUGAGGGA | 635 | UCCCCCCGAGGUUCCCGUC | 678 | GGCAUAGGUCGCGCAACGU |
| 550 | CUCCACUGGCAAAUCCUGG | 593 | CUAUACGGGAAUGAGGGAC | 636 | CCCCCCGAGGUUCCCGUCC | 679 | GCAUAGGUCGCGCAACGUG |
| 551 | UCCACUGGCAAAUCCUGGG | 594 | UAUACGGGAAUGAGGGACU | 637 | CCCCCGAGGUUCCCGUCCC | 680 | CAUAGGUCGCGCAACGUGG |
| 552 | CCACUGGCAAAUCCUGGGG | 595 | AUACGGGAAUGAGGGACUC | 638 | CCCCGAGGUUCCCGUCCCU | 681 | AUAGGUCGCGCAACGUGGG |
| 553 | CACUGGCAAAUCCUGGGGA | 596 | UACGGGAAUGAGGGACUCG | 639 | CCCGAGGUUCCCGUCCCUC | 682 | UAGGUCGCGCAACGUGGGU |
| 554 | ACUGGCAAAUCCUGGGGAA | 597 | ACGGGAAUGAGGGACUCGG | 640 | CCGAGGUUCCCGUCCCUCU | 683 | AGGUCGCGCAACGUGGGUA |
| 555 | CUGGCAAAUCCUGGGGAAA | 598 | CGGGAAUGAGGGACUCGGC | 641 | CGAGGUUCCCGUCCCUCUU | 684 | GGUCGCGCAACGUGGGUAA |
| 556 | UGGCAAAUCCUGGGGAAAA | 599 | GGGAAUGAGGGACUCGGCU | 642 | GAGGUUCCCGUCCCUCUUG | 685 | GUCGCGCAACGUGGGUAAG |
| 557 | GGCAAAUCCUGGGGAAAAC | 600 | GGAAUGAGGGACUCGGCUG | 643 | AGGUUCCCGUCCCUCUUGG | 686 | UCGCGCAACGUGGGUAAGG |
| 558 | GCAAAUCCUGGGGAAAACC | 601 | GAAUGAGGGACUCGGCUGG | 644 | GGUUCCCGUCCCUCUUGGG | 687 | CGCGCAACGUGGGUAAGGU |
| 559 | CAAAUCCUGGGGAAAACCA | 602 | AAUGAGGGACUCGGCUGGG | 645 | GUUCCCGUCCCUCUUGGGG | 688 | GCGCAACGUGGGUAAGGUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 689 | CGCAACGUGGGUAAGGUCA | 732 | CCGACCUCAUGGGGUACAU | 775 | CGGCGUCGCCAGAGCUCUC | 818 | GACGGGGUUAAUUUUGCAA |
| 690 | GCAACGUGGGUAAGGUCAU | 733 | CGACCUCAUGGGGUACAUC | 776 | GGCGUCGCCAGAGCUCUCG | 819 | ACGGGGUUAAUUUUGCAAC |
| 691 | CAACGUGGGUAAGGUCAUC | 734 | GACCUCAUGGGGUACAUCC | 777 | GCGUCGCCAGAGCUCUCGC | 820 | CGGGGUUAAUUUUGCAACA |
| 692 | AACGUGGGUAAGGUCAUCG | 735 | ACCUCAUGGGGUACAUCCC | 778 | CGUCGCCAGAGCUCUCGCG | 821 | GGGGUUAAUUUUGCAACAG |
| 693 | ACGUGGGUAAGGUCAUCGA | 736 | CCUCAUGGGGUACAUCCCU | 779 | GUCGCCAGAGCUCUCGCGC | 822 | GGGUUAAUUUUGCAACAGG |
| 694 | CGUGGGUAAGGUCAUCGAU | 737 | CUCAUGGGGUACAUCCCUG | 780 | UCGCCAGAGCUCUCGCGCA | 823 | GGUUAAUUUUGCAACAGGG |
| 695 | GUGGGUAAGGUCAUCGAUA | 738 | UCAUGGGGUACAUCCCUGU | 781 | CGCCAGAGCUCUCGCGCAU | 824 | GUUAAUUUUGCAACAGGGA |
| 696 | UGGGUAAGGUCAUCGAUAC | 739 | CAUGGGGUACAUCCCUGUC | 782 | GCCAGAGCUCUCGCGCAUG | 825 | UUAAUUUUGCAACAGGGAA |
| 697 | GGGUAAGGUCAUCGAUACC | 740 | AUGGGGUACAUCCCUGUCG | 783 | CCAGAGCUCUCGCGCAUGG | 826 | UAAUUUUGCAACAGGGAAC |
| 698 | GGUAAGGUCAUCGAUACCC | 741 | UGGGGUACAUCCCUGUCGU | 784 | CAGAGCUCUCGCGCAUGGC | 827 | AAUUUUGCAACAGGGAACU |
| 699 | GUAAGGUCAUCGAUACCCU | 742 | GGGGUACAUCCCUGUCGUG | 785 | AGAGCUCUCGCGCAUGGCG | 828 | AUUUUGCAACAGGGAACUU |
| 700 | UAAGGUCAUCGAUACCCUA | 743 | GGGUACAUCCCUGUCGUGG | 786 | GAGCUCUCGCGCAUGGCGU | 829 | UUUUGCAACAGGGAACUUA |
| 701 | AAGGUCAUCGAUACCCUAA | 744 | GGUACAUCCCUGUCGUGGG | 787 | AGCUCUCGCGCAUGGCGUG | 830 | UUUGCAACAGGGAACUUAC |
| 702 | AGGUCAUCGAUACCCUAAC | 745 | GUACAUCCCUGUCGUGGGC | 788 | GCUCUCGCGCAUGGCGUGA | 831 | UUGCAACAGGGAACUUACC |
| 703 | GGUCAUCGAUACCCUAACG | 746 | UACAUCCCUGUCGUGGGCG | 789 | CUCUCGCGCAUGGCGUGAG | 832 | UGCAACAGGGAACUUACCC |
| 704 | GUCAUCGAUACCCUAACGU | 747 | ACAUCCCUGUCGUGGGCGC | 790 | UCUCGCGCAUGGCGUGAGA | 833 | GCAACAGGGAACUUACCCG |
| 705 | UCAUCGAUACCCUAACGUG | 748 | CAUCCCUGUCGUGGGCGCC | 791 | CUCGCGCAUGGCGUGAGAG | 834 | CAACAGGGAACUUACCCGG |
| 706 | CAUCGAUACCCUAACGUGC | 749 | AUCCCUGUCGUGGGCGCCC | 792 | UCGCGCAUGGCGUGAGAGU | 835 | AACAGGGAACUUACCCGGU |
| 707 | AUCGAUACCCUAACGUGCG | 750 | UCCCUGUCGUGGGCGCCCC | 793 | CGCGCAUGGCGUGAGAGUC | 836 | ACAGGGAACUUACCCGGUU |
| 708 | UCGAUACCCUAACGUGCGG | 751 | CCCUGUCGUGGGCGCCCCG | 794 | GCGCAUGGCGUGAGAGUCC | 837 | CAGGGAACUUACCCGGUUG |
| 709 | CGAUACCCUAACGUGCGGC | 752 | CCUGUCGUGGGCGCCCCGC | 795 | CGCAUGGCGUGAGAGUCCU | 838 | AGGGAACUUACCCGGUUGC |
| 710 | GAUACCCUAACGUGCGGCU | 753 | CUGUCGUGGGCGCCCCGCU | 796 | GCAUGGCGUGAGAGUCCUG | 839 | GGGAACUUACCCGGUUGCU |
| 711 | AUACCCUAACGUGCGGCUU | 754 | UGUCGUGGGCGCCCCGCUC | 797 | CAUGGCGUGAGAGUCCUGG | 840 | GGAACUUACCCGGUUGCUC |
| 712 | UACCCUAACGUGCGGCUUU | 755 | GUCGUGGGCGCCCCGCUCG | 798 | AUGGCGUGAGAGUCCUGGA | 841 | GAACUUACCCGGUUGCUCC |
| 713 | ACCCUAACGUGCGGCUUUG | 756 | UCGUGGGCGCCCCGCUCGG | 799 | UGGCGUGAGAGUCCUGGAG | 842 | AACUUACCCGGUUGCUCCU |
| 714 | CCCUAACGUGCGGCUUUGC | 757 | CGUGGGCGCCCCGCUCGGC | 800 | GGCGUGAGAGUCCUGGAGG | 843 | ACUUACCCGGUUGCUCCUU |
| 715 | CCUAACGUGCGGCUUUGCC | 758 | GUGGGCGCCCCGCUCGGCG | 801 | GCGUGAGAGUCCUGGAGGA | 844 | CUUACCCGGUUGCUCCUUU |
| 716 | CUAACGUGCGGCUUUGCCG | 759 | UGGGCGCCCCGCUCGGCGG | 802 | CGUGAGAGUCCUGGAGGAC | 845 | UUACCCGGUUGCUCCUUUU |
| 717 | UAACGUGCGGCUUUGCCGA | 760 | GGGCGCCCCGCUCGGCGGC | 803 | GUGAGAGUCCUGGAGGACG | 846 | UACCCGGUUGCUCCUUUUC |
| 718 | AACGUGCGGCUUUGCCGAC | 761 | GGCGCCCCGCUCGGCGGCG | 804 | UGAGAGUCCUGGAGGACGG | 847 | ACCCGGUUGCUCCUUUUCU |
| 719 | ACGUGCGGCUUUGCCGACC | 762 | GCGCCCCGCUCGGCGGCGU | 805 | GAGAGUCCUGGAGGACGGG | 848 | CCCGGUUGCUCCUUUUCUA |
| 720 | CGUGCGGCUUUGCCGACCU | 763 | CGCCCCGCUCGGCGGCGUC | 806 | AGAGUCCUGGAGGACGGGG | 849 | CCGGUUGCUCCUUUUCUAU |
| 721 | GUGCGGCUUUGCCGACCUC | 764 | GCCCCGCUCGGCGGCGUCG | 807 | GAGUCCUGGAGGACGGGGU | 850 | CGGUUGCUCCUUUUCUAUC |
| 722 | UGCGGCUUUGCCGACCUCA | 765 | CCCCGCUCGGCGGCGUCGC | 808 | AGUCCUGGAGGACGGGGUU | 851 | GGUUGCUCCUUUUCUAUCU |
| 723 | GCGGCUUUGCCGACCUCAU | 766 | CCCGCUCGGCGGCGUCGCC | 809 | GUCCUGGAGGACGGGGUUA | 852 | GUUGCUCCUUUUCUAUCUU |
| 724 | CGGCUUUGCCGACCUCAUG | 767 | CCGCUCGGCGGCGUCGCCA | 810 | UCCUGGAGGACGGGGUUAA | 853 | UUGCUCCUUUUCUAUCUUC |
| 725 | GGCUUUGCCGACCUCAUGG | 768 | CGCUCGGCGGCGUCGCCAG | 811 | CCUGGAGGACGGGGUUAAU | 854 | UGCUCCUUUUCUAUCUUCU |
| 726 | GCUUUGCCGACCUCAUGGG | 769 | GCUCGGCGGCGUCGCCAGA | 812 | CUGGAGGACGGGGUUAAUU | 855 | GCUCCUUUUCUAUCUUCUU |
| 727 | CUUUGCCGACCUCAUGGGG | 770 | CUCGGCGGCGUCGCCAGAG | 813 | UGGAGGACGGGGUUAAUUU | 856 | CUCCUUUUCUAUCUUCUUG |
| 728 | UUUGCCGACCUCAUGGGGU | 771 | UCGGCGGCGUCGCCAGAGC | 814 | GGAGGACGGGGUUAAUUUU | 857 | UCCUUUUCUAUCUUCUUGC |
| 729 | UUGCCGACCUCAUGGGGUA | 772 | CGGCGGCGUCGCCAGAGCU | 815 | GAGGACGGGGUUAAUUUUG | 858 | CCUUUUCUAUCUUCUUGCU |
| 730 | UGCCGACCUCAUGGGGUAC | 773 | GGCGGCGUCGCCAGAGCUC | 816 | AGGACGGGGUUAAUUUUGC | 859 | CUUUUCUAUCUUCUUGCUG |
| 731 | GCCGACCUCAUGGGGUACA | 774 | GCGGCGUCGCCAGAGCUCU | 817 | GGACGGGGUUAAUUUUGCA | 860 | UUUUCUAUCUUCUUGCUGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 861 | UUUCUAUCUUCUUGCUGGC | 904 | GGUCUCCGCUGCCGAAGUG | 947 | GUGACUAACGACUGCACCA | 990 | AGGCUGCUGUCCUCCACGU |
| 862 | UUCUAUCUUCUUGCUGGCC | 905 | GUCUCCGCUGCCGAAGUGA | 948 | UGACUAACGACUGCACCAA | 991 | GGCUGCUGUCCUCCACGUC |
| 863 | UCUAUCUUCUUGCUGGCCC | 906 | UCUCCGCUGCCGAAGUGAA | 949 | GACUAACGACUGCACCAAU | 992 | GCUGCUGUCCUCCACGUCC |
| 864 | CUAUCUUCUUGCUGGCCCU | 907 | CUCCGCUGCCGAAGUGAAG | 950 | ACUAACGACUGCACCAAUG | 993 | CUGCUGUCCUCCACGUCCC |
| 865 | UAUCUUCUUGCUGGCCCUG | 908 | UCCGCUGCCGAAGUGAAGA | 951 | CUAACGACUGCACCAAUGA | 994 | UGCUGUCCUCCACGUCCCC |
| 866 | AUCUUCUUGCUGGCCCUGC | 909 | CCGCUGCCGAAGUGAAGAA | 952 | UAACGACUGCACCAAUGAC | 995 | GCUGUCCUCCACGUCCCCG |
| 867 | UCUUCUUGCUGGCCCUGCU | 910 | CGCUGCCGAAGUGAAGAAC | 953 | AACGACUGCACCAAUGACA | 996 | CUGUCCUCCACGUCCCCGG |
| 868 | CUUCUUGCUGGCCCUGCUG | 911 | GCUGCCGAAGUGAAGAACA | 954 | ACGACUGCACCAAUGACAG | 997 | UGUCCUCCACGUCCCCGGG |
| 869 | UUCUUGCUGGCCCUGCUGU | 912 | CUGCCGAAGUGAAGAACAU | 955 | CGACUGCACCAAUGACAGC | 998 | GUCCUCCACGUCCCCGGGU |
| 870 | UCUUGCUGGCCCUGCUGUC | 913 | UGCCGAAGUGAAGAACAUC | 956 | GACUGCACCAAUGACAGCA | 999 | UCCUCCACGUCCCCGGGUG |
| 871 | CUUGCUGGCCCUGCUGUCC | 914 | GCCGAAGUGAAGAACAUCA | 957 | ACUGCACCAAUGACAGCAU | 1000 | CCUCCACGUCCCCGGGUGC |
| 872 | UUGCUGGCCCUGCUGUCCU | 915 | CCGAAGUGAAGAACAUCAG | 958 | CUGCACCAAUGACAGCAUU | 1001 | CUCCACGUCCCCGGGUGCG |
| 873 | UGCUGGCCCUGCUGUCCUG | 916 | CGAAGUGAAGAACAUCAGU | 959 | UGCACCAAUGACAGCAUUA | 1002 | UCCACGUCCCCGGGUGCGU |
| 874 | GCUGGCCCUGCUGUCCUGC | 917 | GAAGUGAAGAACAUCAGUA | 960 | GCACCAAUGACAGCAUUAC | 1003 | CCACGUCCCCGGGUGCGUC |
| 875 | CUGGCCCUGCUGUCCUGCA | 918 | AAGUGAAGAACAUCAGUAC | 961 | CACCAAUGACAGCAUUACC | 1004 | CACGUCCCCGGGUGCGUCC |
| 876 | UGGCCCUGCUGUCCUGCAU | 919 | AGUGAAGAACAUCAGUACC | 962 | ACCAAUGACAGCAUUACCU | 1005 | ACGUCCCCGGGUGCGUCCC |
| 877 | GGCCCUGCUGUCCUGCAUC | 920 | GUGAAGAACAUCAGUACCG | 963 | CCAAUGACAGCAUUACCUG | 1006 | CGUCCCCGGGUGCGUCCCG |
| 878 | GCCCUGCUGUCCUGCAUCA | 921 | UGAAGAACAUCAGUACCGG | 964 | CAAUGACAGCAUUACCUGG | 1007 | GUCCCCGGGUGCGUCCCGU |
| 879 | CCCUGCUGUCCUGCAUCAC | 922 | GAAGAACAUCAGUACCGGC | 965 | AAUGACAGCAUUACCUGGC | 1008 | UCCCCGGGUGCGUCCCGUG |
| 880 | CCUGCUGUCCUGCAUCACC | 923 | AAGAACAUCAGUACCGGCU | 966 | AUGACAGCAUUACCUGGCA | 1009 | CCCCGGGUGCGUCCCGUGC |
| 881 | CUGCUGUCCUGCAUCACCA | 924 | AGAACAUCAGUACCGGCUA | 967 | UGACAGCAUUACCUGGCAG | 1010 | CCCGGGUGCGUCCCGUGCG |
| 882 | UGCUGUCCUGCAUCACCAC | 925 | GAACAUCAGUACCGGCUAC | 968 | GACAGCAUUACCUGGCAGC | 1011 | CCGGGUGCGUCCCGUGCGA |
| 883 | GCUGUCCUGCAUCACCACC | 926 | AACAUCAGUACCGGCUACA | 969 | ACAGCAUUACCUGGCAGCU | 1012 | CGGGUGCGUCCCGUGCGAG |
| 884 | CUGUCCUGCAUCACCACCC | 927 | ACAUCAGUACCGGCUACAU | 970 | CAGCAUUACCUGGCAGCUC | 1013 | GGGUGCGUCCCGUGCGAGA |
| 885 | UGUCCUGCAUCACCACCCC | 928 | CAUCAGUACCGGCUACAUG | 971 | AGCAUUACCUGGCAGCUCC | 1014 | GGUGCGUCCCGUGCGAGAA |
| 886 | GUCCUGCAUCACCACCCCG | 929 | AUCAGUACCGGCUACAUGG | 972 | GCAUUACCUGGCAGCUCCA | 1015 | GUGCGUCCCGUGCGAGAAA |
| 887 | UCCUGCAUCACCACCCCGG | 930 | UCAGUACCGGCUACAUGGU | 973 | CAUUACCUGGCAGCUCCAG | 1016 | UGCGUCCCGUGCGAGAAAG |
| 888 | CCUGCAUCACCACCCCGGU | 931 | CAGUACCGGCUACAUGGUG | 974 | AUUACCUGGCAGCUCCAGG | 1017 | GCGUCCCGUGCGAGAAAGU |
| 889 | CUGCAUCACCACCCCGGUC | 932 | AGUACCGGCUACAUGGUGA | 975 | UUACCUGGCAGCUCCAGGC | 1018 | CGUCCCGUGCGAGAAAGUG |
| 890 | UGCAUCACCACCCCGGUCU | 933 | GUACCGGCUACAUGGUGAC | 976 | UACCUGGCAGCUCCAGGCU | 1019 | GUCCCGUGCGAGAAAGUGG |
| 891 | GCAUCACCACCCCGGUCUC | 934 | UACCGGCUACAUGGUGACU | 977 | ACCUGGCAGCUCCAGGCUG | 1020 | UCCCGUGCGAGAAAGUGGG |
| 892 | CAUCACCACCCCGGUCUCC | 935 | ACCGGCUACAUGGUGACUA | 978 | CCUGGCAGCUCCAGGCUGC | 1021 | CCCGUGCGAGAAAGUGGGG |
| 893 | AUCACCACCCCGGUCUCCG | 936 | CCGGCUACAUGGUGACUAA | 979 | CUGGCAGCUCCAGGCUGCU | 1022 | CCGUGCGAGAAAGUGGGGA |
| 894 | UCACCACCCCGGUCUCCGC | 937 | CGGCUACAUGGUGACUAAC | 980 | UGGCAGCUCCAGGCUGCUG | 1023 | CGUGCGAGAAAGUGGGGAA |
| 895 | CACCACCCCGGUCUCCGCU | 938 | GGCUACAUGGUGACUAACG | 981 | GGCAGCUCCAGGCUGCUGU | 1024 | GUGCGAGAAAGUGGGGAAU |
| 896 | ACCACCCCGGUCUCCGCUG | 939 | GCUACAUGGUGACUAACGA | 982 | GCAGCUCCAGGCUGCUGUC | 1025 | UGCGAGAAAGUGGGGAAUG |
| 897 | CCACCCCGGUCUCCGCUGC | 940 | CUACAUGGUGACUAACGAC | 983 | CAGCUCCAGGCUGCUGUCC | 1026 | GCGAGAAAGUGGGGAAUGC |
| 898 | CACCCCGGUCUCCGCUGCC | 941 | UACAUGGUGACUAACGACU | 984 | AGCUCCAGGCUGCUGUCCU | 1027 | CGAGAAAGUGGGGAAUGCA |
| 899 | ACCCCGGUCUCCGCUGCCG | 942 | ACAUGGUGACUAACGACUG | 985 | GCUCCAGGCUGCUGUCCUC | 1028 | GAGAAAGUGGGGAAUGCAU |
| 900 | CCCCGGUCUCCGCUGCCGA | 943 | CAUGGUGACUAACGACUGC | 986 | CUCCAGGCUGCUGUCCUCC | 1029 | AGAAAGUGGGGAAUGCAUC |
| 901 | CCCGGUCUCCGCUGCCGAA | 944 | AUGGUGACUAACGACUGCA | 987 | UCCAGGCUGCUGUCCUCCA | 1030 | GAAAGUGGGGAAUGCAUCU |
| 902 | CCGGUCUCCGCUGCCGAAG | 945 | UGGUGACUAACGACUGCAC | 988 | CCAGGCUGCUGUCCUCCAC | 1031 | AAAGUGGGGAAUGCAUCUC |
| 903 | CGGUCUCCGCUGCCGAAGU | 946 | GGUGACUAACGACUGCACC | 989 | CAGGCUGCUGUCCUCCACG | 1032 | AAGUGGGGAAUGCAUCUCA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1033 | AGUGGGGAAUGCAUCUCAG | 1076 | GUGGCCGUGCAGCGGCCCG | 1119 | CGCACAUCGACAUGGUUGU | 1162 | CCUCUACGUGGGGGACCUC |
| 1034 | GUGGGGAAUGCAUCUCAGU | 1077 | UGGCCGUGCAGCGGCCCGG | 1120 | GCACAUCGACAUGGUUGUG | 1163 | CUCUACGUGGGGGACCUCU |
| 1035 | UGGGGAAUGCAUCUCAGUG | 1078 | GGCCGUGCAGCGGCCCGGC | 1121 | CACAUCGACAUGGUUGUGA | 1164 | UCUACGUGGGGGACCUCUG |
| 1036 | GGGGAAUGCAUCUCAGUGC | 1079 | GCCGUGCAGCGGCCCGGCG | 1122 | ACAUCGACAUGGUUGUGAU | 1165 | CUACGUGGGGGACCUCUGC |
| 1037 | GGGAAUGCAUCUCAGUGCU | 1080 | CCGUGCAGCGGCCCGGCGC | 1123 | CAUCGACAUGGUUGUGAUG | 1166 | UACGUGGGGGACCUCUGCG |
| 1038 | GGAAUGCAUCUCAGUGCUG | 1081 | CGUGCAGCGGCCCGGCGCC | 1124 | AUCGACAUGGUUGUGAUGU | 1167 | ACGUGGGGGACCUCUGCGG |
| 1039 | GAAUGCAUCUCAGUGCUGG | 1082 | GUGCAGCGGCCCGGCGCCC | 1125 | UCGACAUGGUUGUGAUGUC | 1168 | CGUGGGGGACCUCUGCGGU |
| 1040 | AAUGCAUCUCAGUGCUGGA | 1083 | UGCAGCGGCCCGGCGCCCU | 1126 | CGACAUGGUUGUGAUGUCC | 1169 | GUGGGGGACCUCUGCGGUG |
| 1041 | AUGCAUCUCAGUGCUGGAU | 1084 | GCAGCGGCCCGGCGCCCUC | 1127 | GACAUGGUUGUGAUGUCCG | 1170 | UGGGGGACCUCUGCGGUGG |
| 1042 | UGCAUCUCAGUGCUGGAUA | 1085 | CAGCGGCCCGGCGCCCUCA | 1128 | ACAUGGUUGUGAUGUCCGC | 1171 | GGGGGACCUCUGCGGUGGG |
| 1043 | GCAUCUCAGUGCUGGAUAC | 1086 | AGCGGCCCGGCGCCCUCAC | 1129 | CAUGGUUGUGAUGUCCGCC | 1172 | GGGGACCUCUGCGGUGGGG |
| 1044 | CAUCUCAGUGCUGGAUACC | 1087 | GCGGCCCGGCGCCCUCACG | 1130 | AUGGUUGUGAUGUCCGCCA | 1173 | GGGACCUCUGCGGUGGGGU |
| 1045 | AUCUCAGUGCUGGAUACCG | 1088 | CGGCCCGGCGCCCUCACGC | 1131 | UGGUUGUGAUGUCCGCCAC | 1174 | GGACCUCUGCGGUGGGGUG |
| 1046 | UCUCAGUGCUGGAUACCGG | 1089 | GGCCCGGCGCCCUCACGCA | 1132 | GGUUGUGAUGUCCGCCACG | 1175 | GACCUCUGCGGUGGGGUGA |
| 1047 | CUCAGUGCUGGAUACCGGU | 1090 | GCCCGGCGCCCUCACGCAG | 1133 | GUUGUGAUGUCCGCCACGC | 1176 | ACCUCUGCGGUGGGGUGAU |
| 1048 | UCAGUGCUGGAUACCGGUC | 1091 | CCCGGCGCCCUCACGCAGG | 1134 | UUGUGAUGUCCGCCACGCU | 1177 | CCUCUGCGGUGGGGUGAUG |
| 1049 | CAGUGCUGGAUACCGGUCU | 1092 | CCGGCGCCCUCACGCAGGG | 1135 | UGUGAUGUCCGCCACGCUC | 1178 | CUCUGCGGUGGGGUGAUGC |
| 1050 | AGUGCUGGAUACCGGUCUC | 1093 | CGGCGCCCUCACGCAGGGC | 1136 | GUGAUGUCCGCCACGCUCU | 1179 | UCUGCGGUGGGGUGAUGCU |
| 1051 | GUGCUGGAUACCGGUCUCA | 1094 | GGCGCCCUCACGCAGGGCU | 1137 | UGAUGUCCGCCACGCUCUG | 1180 | CUGCGGUGGGGUGAUGCUC |
| 1052 | UGCUGGAUACCGGUCUCAC | 1095 | GCGCCCUCACGCAGGGCUU | 1138 | GAUGUCCGCCACGCUCUGC | 1181 | UGCGGUGGGGUGAUGCUCG |
| 1053 | GCUGGAUACCGGUCUCACC | 1096 | CGCCCUCACGCAGGGCUUG | 1139 | AUGUCCGCCACGCUCUGCU | 1182 | GCGGUGGGGUGAUGCUCGC |
| 1054 | CUGGAUACCGGUCUCACCG | 1097 | GCCCUCACGCAGGGCUUGC | 1140 | UGUCCGCCACGCUCUGCUC | 1183 | CGGUGGGGUGAUGCUCGCA |
| 1055 | UGGAUACCGGUCUCACCGA | 1098 | CCCUCACGCAGGGCUUGCG | 1141 | GUCCGCCACGCUCUGCUCU | 1184 | GGUGGGGUGAUGCUCGCAG |
| 1056 | GGAUACCGGUCUCACCGAA | 1099 | CCUCACGCAGGGCUUGCGG | 1142 | UCCGCCACGCUCUGCUCUG | 1185 | GUGGGGUGAUGCUCGCAGC |
| 1057 | GAUACCGGUCUCACCGAAU | 1100 | CUCACGCAGGGCUUGCGGA | 1143 | CCGCCACGCUCUGCUCUGC | 1186 | UGGGGUGAUGCUCGCAGCC |
| 1058 | AUACCGGUCUCACCGAAUG | 1101 | UCACGCAGGGCUUGCGGAC | 1144 | CGCCACGCUCUGCUCUGCC | 1187 | GGGGUGAUGCUCGCAGCCC |
| 1059 | UACCGGUCUCACCGAAUGU | 1102 | CACGCAGGGCUUGCGGACG | 1145 | GCCACGCUCUGCUCUGCCC | 1188 | GGGUGAUGCUCGCAGCCCA |
| 1060 | ACCGGUCUCACCGAAUGUG | 1103 | ACGCAGGGCUUGCGGACGC | 1146 | CCACGCUCUGCUCUGCCCU | 1189 | GGUGAUGCUCGCAGCCCAA |
| 1061 | CCGGUCUCACCGAAUGUGG | 1104 | CGCAGGGCUUGCGGACGCA | 1147 | CACGCUCUGCUCUGCCCUC | 1190 | GUGAUGCUCGCAGCCCAAA |
| 1062 | CGGUCUCACCGAAUGUGGC | 1105 | GCAGGGCUUGCGGACGCAC | 1148 | ACGCUCUGCUCUGCCCUCU | 1191 | UGAUGCUCGCAGCCCAAAU |
| 1063 | GGUCUCACCGAAUGUGGCC | 1106 | CAGGGCUUGCGGACGCACA | 1149 | CGCUCUGCUCUGCCCUCUA | 1192 | GAUGCUCGCAGCCCAAAUG |
| 1064 | GUCUCACCGAAUGUGGCCG | 1107 | AGGGCUUGCGGACGCACAU | 1150 | GCUCUGCUCUGCCCUCUAC | 1193 | AUGCUCGCAGCCCAAAUGU |
| 1065 | UCUCACCGAAUGUGGCCGU | 1108 | GGGCUUGCGGACGCACAUC | 1151 | CUCUGCUCUGCCCUCUACG | 1194 | UGCUCGCAGCCCAAAUGUU |
| 1066 | CUCACCGAAUGUGGCCGUG | 1109 | GGCUUGCGGACGCACAUCG | 1152 | UCUGCUCUGCCCUCUACGU | 1195 | GCUCGCAGCCCAAAUGUUC |
| 1067 | UCACCGAAUGUGGCCGUGC | 1110 | GCUUGCGGACGCACAUCGA | 1153 | CUGCUCUGCCCUCUACGUG | 1196 | CUCGCAGCCCAAAUGUUCA |
| 1068 | CACCGAAUGUGGCCGUGCA | 1111 | CUUGCGGACGCACAUCGAC | 1154 | UGCUCUGCCCUCUACGUGG | 1197 | UCGCAGCCCAAAUGUUCAU |
| 1069 | ACCGAAUGUGGCCGUGCAG | 1112 | UUGCGGACGCACAUCGACA | 1155 | GCUCUGCCCUCUACGUGGG | 1198 | CGCAGCCCAAAUGUUCAUU |
| 1070 | CCGAAUGUGGCCGUGCAGC | 1113 | UGCGGACGCACAUCGACAU | 1156 | CUCUGCCCUCUACGUGGGG | 1199 | GCAGCCCAAAUGUUCAUUG |
| 1071 | CGAAUGUGGCCGUGCAGCG | 1114 | GCGGACGCACAUCGACAUG | 1157 | UCUGCCCUCUACGUGGGGG | 1200 | CAGCCCAAAUGUUCAUUGU |
| 1072 | GAAUGUGGCCGUGCAGCGG | 1115 | CGGACGCACAUCGACAUGG | 1158 | CUGCCCUCUACGUGGGGGA | 1201 | AGCCCAAAUGUUCAUUGUC |
| 1073 | AAUGUGGCCGUGCAGCGGC | 1116 | GGACGCACAUCGACAUGGU | 1159 | UGCCCUCUACGUGGGGGAC | 1202 | GCCCAAAUGUUCAUUGUCU |
| 1074 | AUGUGGCCGUGCAGCGGCC | 1117 | GACGCACAUCGACAUGGUU | 1160 | GCCCUCUACGUGGGGGACC | 1203 | CCCAAAUGUUCAUUGUCUC |
| 1075 | UGUGGCCGUGCAGCGGCCC | 1118 | ACGCACAUCGACAUGGUUG | 1161 | CCCUCUACGUGGGGGACCU | 1204 | CCAAAUGUUCAUUGUCUCG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1205 | CAAAUGUUCAUUGUCUCGC | 1248 | ACUGCAAUUGCUCCAUCUA | 1291 | CAUGGCAUGGGACAUGAUG | 1334 | AUGAUCUUGGCGUACGCGA |
| 1206 | AAAUGUUCAUUGUCUCGCC | 1249 | CUGCAAUUGCUCCAUCUAC | 1292 | AUGGCAUGGGACAUGAUGA | 1335 | UGAUCUUGGCGUACGCGAU |
| 1207 | AAUGUUCAUUGUCUCGCCG | 1250 | UGCAAUUGCUCCAUCUACC | 1293 | UGGCAUGGGACAUGAUGAU | 1336 | GAUCUUGGCGUACGCGAUG |
| 1208 | AUGUUCAUUGUCUCGCCGC | 1251 | GCAAUUGCUCCAUCUACCC | 1294 | GGCAUGGGACAUGAUGAUG | 1337 | AUCUUGGCGUACGCGAUGC |
| 1209 | UGUUCAUUGUCUCGCCGCA | 1252 | CAAUUGCUCCAUCUACCCU | 1295 | GCAUGGGACAUGAUGAUGA | 1338 | UCUUGGCGUACGCGAUGCG |
| 1210 | GUUCAUUGUCUCGCCGCAG | 1253 | AAUUGCUCCAUCUACCCUG | 1296 | CAUGGGACAUGAUGAUGAA | 1339 | CUUGGCGUACGCGAUGCGU |
| 1211 | UUCAUUGUCUCGCCGCAGC | 1254 | AUUGCUCCAUCUACCCUGG | 1297 | AUGGGACAUGAUGAUGAAC | 1340 | UUGGCGUACGCGAUGCGUG |
| 1212 | UCAUUGUCUCGCCGCAGCA | 1255 | UUGCUCCAUCUACCCUGGU | 1298 | UGGGACAUGAUGAUGAACU | 1341 | UGGCGUACGCGAUGCGUGU |
| 1213 | CAUUGUCUCGCCGCAGCAC | 1256 | UGCUCCAUCUACCCUGGUA | 1299 | GGGACAUGAUGAUGAACUG | 1342 | GGCGUACGCGAUGCGUGUC |
| 1214 | AUUGUCUCGCCGCAGCACC | 1257 | GCUCCAUCUACCCUGGUAC | 1300 | GGACAUGAUGAUGAACUGG | 1343 | GCGUACGCGAUGCGUGUCC |
| 1215 | UUGUCUCGCCGCAGCACCA | 1258 | CUCCAUCUACCCUGGUACC | 1301 | GACAUGAUGAUGAACUGGU | 1344 | CGUACGCGAUGCGUGUCCC |
| 1216 | UGUCUCGCCGCAGCACCAC | 1259 | UCCAUCUACCCUGGUACCA | 1302 | ACAUGAUGAUGAACUGGUC | 1345 | GUACGCGAUGCGUGUCCCC |
| 1217 | GUCUCGCCGCAGCACCACU | 1260 | CCAUCUACCCUGGUACCAU | 1303 | CAUGAUGAUGAACUGGUCG | 1346 | UACGCGAUGCGUGUCCCCG |
| 1218 | UCUCGCCGCAGCACCACUG | 1261 | CAUCUACCCUGGUACCAUC | 1304 | AUGAUGAUGAACUGGUCGC | 1347 | ACGCGAUGCGUGUCCCCGA |
| 1219 | CUCGCCGCAGCACCACUGG | 1262 | AUCUACCCUGGUACCAUCA | 1305 | UGAUGAUGAACUGGUCGCC | 1348 | CGCGAUGCGUGUCCCCGAG |
| 1220 | UCGCCGCAGCACCACUGGU | 1263 | UCUACCCUGGUACCAUCAC | 1306 | GAUGAUGAACUGGUCGCCC | 1349 | GCGAUGCGUGUCCCCGAGG |
| 1221 | CGCCGCAGCACCACUGGUU | 1264 | CUACCCUGGUACCAUCACU | 1307 | AUGAUGAACUGGUCGCCCA | 1350 | CGAUGCGUGUCCCCGAGGU |
| 1222 | GCCGCAGCACCACUGGUUU | 1265 | UACCCUGGUACCAUCACUG | 1308 | UGAUGAACUGGUCGCCCAC | 1351 | GAUGCGUGUCCCCGAGGUC |
| 1223 | CCGCAGCACCACUGGUUUG | 1266 | ACCCUGGUACCAUCACUGG | 1309 | GAUGAACUGGUCGCCCACG | 1352 | AUGCGUGUCCCCGAGGUCA |
| 1224 | CGCAGCACCACUGGUUUGU | 1267 | CCCUGGUACCAUCACUGGA | 1310 | AUGAACUGGUCGCCCACGG | 1353 | UGCGUGUCCCCGAGGUCAU |
| 1225 | GCAGCACCACUGGUUUGUC | 1268 | CCUGGUACCAUCACUGGAC | 1311 | UGAACUGGUCGCCCACGGC | 1354 | GCGUGUCCCCGAGGUCAUU |
| 1226 | CAGCACCACUGGUUUGUCC | 1269 | CUGGUACCAUCACUGGACA | 1312 | GAACUGGUCGCCCACGGCU | 1355 | CGUGUCCCCGAGGUCAUUA |
| 1227 | AGCACCACUGGUUUGUCCA | 1270 | UGGUACCAUCACUGGACAC | 1313 | AACUGGUCGCCCACGGCUA | 1356 | GUGUCCCCGAGGUCAUUAU |
| 1228 | GCACCACUGGUUUGUCCAA | 1271 | GGUACCAUCACUGGACACC | 1314 | ACUGGUCGCCCACGGCUAC | 1357 | UGUCCCCGAGGUCAUUAUA |
| 1229 | CACCACUGGUUUGUCCAAG | 1272 | GUACCAUCACUGGACACCG | 1315 | CUGGUCGCCCACGGCUACC | 1358 | GUCCCCGAGGUCAUUAUAG |
| 1230 | ACCACUGGUUUGUCCAAGA | 1273 | UACCAUCACUGGACACCGC | 1316 | UGGUCGCCCACGGCUACCA | 1359 | UCCCCGAGGUCAUUAUAGA |
| 1231 | CCACUGGUUUGUCCAAGAC | 1274 | ACCAUCACUGGACACCGCA | 1317 | GGUCGCCCACGGCUACCAU | 1360 | CCCCGAGGUCAUUAUAGAC |
| 1232 | CACUGGUUUGUCCAAGACU | 1275 | CCAUCACUGGACACCGCAU | 1318 | GUCGCCCACGGCUACCAUG | 1361 | CCCGAGGUCAUUAUAGACA |
| 1233 | ACUGGUUUGUCCAAGACUG | 1276 | CAUCACUGGACACCGCAUG | 1319 | UCGCCCACGGCUACCAUGA | 1362 | CCGAGGUCAUUAUAGACAU |
| 1234 | CUGGUUUGUCCAAGACUGC | 1277 | AUCACUGGACACCGCAUGG | 1320 | CGCCCACGGCUACCAUGAU | 1363 | CGAGGUCAUUAUAGACAUC |
| 1235 | UGGUUUGUCCAAGACUGCA | 1278 | UCACUGGACACCGCAUGGC | 1321 | GCCCACGGCUACCAUGAUC | 1364 | GAGGUCAUUAUAGACAUCA |
| 1236 | GGUUUGUCCAAGACUGCAA | 1279 | CACUGGACACCGCAUGGCA | 1322 | CCCACGGCUACCAUGAUCU | 1365 | AGGUCAUUAUAGACAUCAU |
| 1237 | GUUUGUCCAAGACUGCAAU | 1280 | ACUGGACACCGCAUGGCAU | 1323 | CCACGGCUACCAUGAUCUU | 1366 | GGUCAUUAUAGACAUCAUU |
| 1238 | UUUGUCCAAGACUGCAAUU | 1281 | CUGGACACCGCAUGGCAUG | 1324 | CACGGCUACCAUGAUCUUG | 1367 | GUCAUUAUAGACAUCAUUA |
| 1239 | UUGUCCAAGACUGCAAUUG | 1282 | UGGACACCGCAUGGCAUGG | 1325 | ACGGCUACCAUGAUCUUGG | 1368 | UCAUUAUAGACAUCAUUAG |
| 1240 | UGUCCAAGACUGCAAUUGC | 1283 | GGACACCGCAUGGCAUGGG | 1326 | CGGCUACCAUGAUCUUGGC | 1369 | CAUUAUAGACAUCAUUAGC |
| 1241 | GUCCAAGACUGCAAUUGCU | 1284 | GACACCGCAUGGCAUGGGA | 1327 | GGCUACCAUGAUCUUGGCG | 1370 | AUUAUAGACAUCAUUAGCG |
| 1242 | UCCAAGACUGCAAUUGCUC | 1285 | ACACCGCAUGGCAUGGGAC | 1328 | GCUACCAUGAUCUUGGCGU | 1371 | UUAUAGACAUCAUUAGCGG |
| 1243 | CCAAGACUGCAAUUGCUCC | 1286 | CACCGCAUGGCAUGGGACA | 1329 | CUACCAUGAUCUUGGCGUA | 1372 | UAUAGACAUCAUUAGCGGG |
| 1244 | CAAGACUGCAAUUGCUCCA | 1287 | ACCGCAUGGCAUGGGACAU | 1330 | UACCAUGAUCUUGGCGUAC | 1373 | AUAGACAUCAUUAGCGGGG |
| 1245 | AAGACUGCAAUUGCUCCAU | 1288 | CCGCAUGGCAUGGGACAUG | 1331 | ACCAUGAUCUUGGCGUACG | 1374 | UAGACAUCAUUAGCGGGGC |
| 1246 | AGACUGCAAUUGCUCCAUC | 1289 | CGCAUGGCAUGGGACAUGA | 1332 | CCAUGAUCUUGGCGUACGC | 1375 | AGACAUCAUUAGCGGGGCU |
| 1247 | GACUGCAAUUGCUCCAUCU | 1290 | GCAUGGCAUGGGACAUGAU | 1333 | CAUGAUCUUGGCGUACGCG | 1376 | GACAUCAUUAGCGGGGCUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1377 | ACAUCAUUAGCGGGGCUCA | 1420 | CUACUUCUCUAUGCAGGGA | 1463 | CUUCUGUUGGCCGCCGGGG | 1506 | GGGGUUCUGCCGCGCAGAC |
| 1378 | CAUCAUUAGCGGGGCUCAU | 1421 | UACUUCUCUAUGCAGGGAG | 1464 | UUCUGUUGGCCGCCGGGGU | 1507 | GGGUUCUGCCGCGCAGACC |
| 1379 | AUCAUUAGCGGGGCUCAUU | 1422 | ACUUCUCUAUGCAGGGAGC | 1465 | UCUGUUGGCCGCCGGGGUG | 1508 | GGUUCUGCCGCGCAGACCA |
| 1380 | UCAUUAGCGGGGCUCAUUG | 1423 | CUUCUCUAUGCAGGGAGCG | 1466 | CUGUUGGCCGCCGGGGUGG | 1509 | GUUCUGCCGCGCAGACCAC |
| 1381 | CAUUAGCGGGGCUCAUUGG | 1424 | UUCUCUAUGCAGGGAGCGU | 1467 | UGUUGGCCGCCGGGGUGGA | 1510 | UUCUGCCGCGCAGACCACC |
| 1382 | AUUAGCGGGGCUCAUUGGG | 1425 | UCUCUAUGCAGGGAGCGUG | 1468 | GUUGGCCGCCGGGGUGGAC | 1511 | UCUGCCGCGCAGACCACCG |
| 1383 | UUAGCGGGGCUCAUUGGGG | 1426 | CUCUAUGCAGGGAGCGUGG | 1469 | UUGGCCGCCGGGGUGGACG | 1512 | CUGCCGCGCAGACCACCGG |
| 1384 | UAGCGGGGCUCAUUGGGGC | 1427 | UCUAUGCAGGGAGCGUGGG | 1470 | UGGCCGCCGGGGUGGACGC | 1513 | UGCCGCGCAGACCACCGGG |
| 1385 | AGCGGGGCUCAUUGGGGCG | 1428 | CUAUGCAGGGAGCGUGGGC | 1471 | GGCCGCCGGGGUGGACGCG | 1514 | GCCGCGCAGACCACCGGGC |
| 1386 | GCGGGGCUCAUUGGGGCGU | 1429 | UAUGCAGGGAGCGUGGGCG | 1472 | GCCGCCGGGGUGGACGCGC | 1515 | CCGCGCAGACCACCGGGCG |
| 1387 | CGGGGCUCAUUGGGGCGUC | 1430 | AUGCAGGGAGCGUGGGCGA | 1473 | CCGCCGGGGUGGACGCGCG | 1516 | CGCGCAGACCACCGGGCGC |
| 1388 | GGGGCUCAUUGGGGCGUCA | 1431 | UGCAGGGAGCGUGGGCGAA | 1474 | CGCCGGGGUGGACGCGCGC | 1517 | GCGCAGACCACCGGGCGCC |
| 1389 | GGGCUCAUUGGGGCGUCAU | 1432 | GCAGGGAGCGUGGGCGAAA | 1475 | GCCGGGGUGGACGCGCGCA | 1518 | CGCAGACCACCGGGCGCCU |
| 1390 | GGCUCAUUGGGGCGUCAUG | 1433 | CAGGGAGCGUGGGCGAAAG | 1476 | CCGGGGUGGACGCGCGCAC | 1519 | GCAGACCACCGGGCGCCUC |
| 1391 | GCUCAUUGGGGCGUCAUGU | 1434 | AGGGAGCGUGGGCGAAAGU | 1477 | CGGGGUGGACGCGCGCACC | 1520 | CAGACCACCGGGCGCCUCA |
| 1392 | CUCAUUGGGGCGUCAUGUU | 1435 | GGGAGCGUGGGCGAAAGUC | 1478 | GGGGUGGACGCGCGCACCC | 1521 | AGACCACCGGGCGCCUCAC |
| 1393 | UCAUUGGGGCGUCAUGUUC | 1436 | GGAGCGUGGGCGAAAGUCG | 1479 | GGGUGGACGCGCGCACCCA | 1522 | GACCACCGGGCGCCUCACC |
| 1394 | CAUUGGGGCGUCAUGUUCG | 1437 | GAGCGUGGGCGAAAGUCGU | 1480 | GGUGGACGCGCGCACCCAU | 1523 | ACCACCGGGCGCCUCACCA |
| 1395 | AUUGGGGCGUCAUGUUCGG | 1438 | AGCGUGGGCGAAAGUCGUU | 1481 | GUGGACGCGCGCACCCAUA | 1524 | CCACCGGGCGCCUCACCAG |
| 1396 | UUGGGGCGUCAUGUUCGGC | 1439 | GCGUGGGCGAAAGUCGUUG | 1482 | UGGACGCGCGCACCCAUAC | 1525 | CACCGGGCGCCUCACCAGC |
| 1397 | UGGGGCGUCAUGUUCGGCU | 1440 | CGUGGGCGAAAGUCGUUGU | 1483 | GGACGCGCGCACCCAUACU | 1526 | ACCGGGCGCCUCACCAGCU |
| 1398 | GGGGCGUCAUGUUCGGCUU | 1441 | GUGGGCGAAAGUCGUUGUC | 1484 | GACGCGCGCACCCAUACUG | 1527 | CCGGGCGCCUCACCAGCUU |
| 1399 | GGGCGUCAUGUUCGGCUUG | 1442 | UGGGCGAAAGUCGUUGUCA | 1485 | ACGCGCGCACCCAUACUGU | 1528 | CGGGCGCCUCACCAGCUUA |
| 1400 | GGCGUCAUGUUCGGCUUGG | 1443 | GGGCGAAAGUCGUUGUCAU | 1486 | CGCGCGCACCCAUACUGUU | 1529 | GGGCGCCUCACCAGCUUAU |
| 1401 | GCGUCAUGUUCGGCUUGGC | 1444 | GGCGAAAGUCGUUGUCAUC | 1487 | GCGCGCACCCAUACUGUUG | 1530 | GGCGCCUCACCAGCUUAUU |
| 1402 | CGUCAUGUUCGGCUUGGCC | 1445 | GCGAAAGUCGUUGUCAUCC | 1488 | CGCGCACCCAUACUGUUGG | 1531 | GCGCCUCACCAGCUUAUUU |
| 1403 | GUCAUGUUCGGCUUGGCCU | 1446 | CGAAAGUCGUUGUCAUCCU | 1489 | GCGCACCCAUACUGUUGGG | 1532 | CGCCUCACCAGCUUAUUUG |
| 1404 | UCAUGUUCGGCUUGGCCUA | 1447 | GAAAGUCGUUGUCAUCCUU | 1490 | CGCACCCAUACUGUUGGGG | 1533 | GCCUCACCAGCUUAUUUGA |
| 1405 | CAUGUUCGGCUUGGCCUAC | 1448 | AAAGUCGUUGUCAUCCUUC | 1491 | GCACCCAUACUGUUGGGGG | 1534 | CCUCACCAGCUUAUUUGAC |
| 1406 | AUGUUCGGCUUGGCCUACU | 1449 | AAGUCGUUGUCAUCCUUCU | 1492 | CACCCAUACUGUUGGGGGU | 1535 | CUCACCAGCUUAUUUGACA |
| 1407 | UGUUCGGCUUGGCCUACUU | 1450 | AGUCGUUGUCAUCCUUCUG | 1493 | ACCCAUACUGUUGGGGGUU | 1536 | UCACCAGCUUAUUUGACAU |
| 1408 | GUUCGGCUUGGCCUACUUC | 1451 | GUCGUUGUCAUCCUUCUGU | 1494 | CCCAUACUGUUGGGGGUUC | 1537 | CACCAGCUUAUUUGACAUG |
| 1409 | UUCGGCUUGGCCUACUUCU | 1452 | UCGUUGUCAUCCUUCUGUU | 1495 | CCAUACUGUUGGGGGUUCU | 1538 | ACCAGCUUAUUUGACAUGG |
| 1410 | UCGGCUUGGCCUACUUCUC | 1453 | CGUUGUCAUCCUUCUGUUG | 1496 | CAUACUGUUGGGGGUUCUG | 1539 | CCAGCUUAUUUGACAUGGG |
| 1411 | CGGCUUGGCCUACUUCUCU | 1454 | GUUGUCAUCCUUCUGUUGG | 1497 | AUACUGUUGGGGGUUCUGC | 1540 | CAGCUUAUUUGACAUGGGC |
| 1412 | GGCUUGGCCUACUUCUCUA | 1455 | UUGUCAUCCUUCUGUUGGC | 1498 | UACUGUUGGGGGUUCUGCC | 1541 | AGCUUAUUUGACAUGGGCC |
| 1413 | GCUUGGCCUACUUCUCUAU | 1456 | UGUCAUCCUUCUGUUGGCC | 1499 | ACUGUUGGGGGUUCUGCCG | 1542 | GCUUAUUUGACAUGGGCCC |
| 1414 | CUUGGCCUACUUCUCUAUG | 1457 | GUCAUCCUUCUGUUGGCCG | 1500 | CUGUUGGGGGUUCUGCCGC | 1543 | CUUAUUUGACAUGGGCCCC |
| 1415 | UUGGCCUACUUCUCUAUGC | 1458 | UCAUCCUUCUGUUGGCCGC | 1501 | UGUUGGGGGUUCUGCCGCG | 1544 | UUAUUUGACAUGGGCCCCA |
| 1416 | UGGCCUACUUCUCUAUGCA | 1459 | CAUCCUUCUGUUGGCCGCC | 1502 | GUUGGGGGUUCUGCCGCGC | 1545 | UAUUUGACAUGGGCCCCAG |
| 1417 | GGCCUACUUCUCUAUGCAG | 1460 | AUCCUUCUGUUGGCCGCCG | 1503 | UUGGGGGUUCUGCCGCGCA | 1546 | AUUUGACAUGGGCCCCAGG |
| 1418 | GCCUACUUCUCUAUGCAGG | 1461 | UCCUUCUGUUGGCCGCCGG | 1504 | UGGGGGUUCUGCCGCGCAG | 1547 | UUUGACAUGGGCCCCAGGC |
| 1419 | CCUACUUCUCUAUGCAGGG | 1462 | CCUUCUGUUGGCCGCCGGG | 1505 | GGGGGUUCUGCCGCGCAGA | 1548 | UUGACAUGGGCCCCAGGCA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1549 | UGACAUGGGCCCCAGGCAG | 1592 | GGCAGCUGGCACAUCAACC | 1635 | CCUUGCACACCGGCUUUAU | 1678 | CUUCAACUCGUCAGGAUGU |
| 1550 | GACAUGGGCCCCAGGCAGA | 1593 | GCAGCUGGCACAUCAACCG | 1636 | CUUGCACACCGGCUUUAUC | 1679 | UUCAACUCGUCAGGAUGUC |
| 1551 | ACAUGGGCCCCAGGCAGAA | 1594 | CAGCUGGCACAUCAACCGC | 1637 | UUGCACACCGGCUUUAUCG | 1680 | UCAACUCGUCAGGAUGUCC |
| 1552 | CAUGGGCCCCAGGCAGAAA | 1595 | AGCUGGCACAUCAACCGCA | 1638 | UGCACACCGGCUUUAUCGC | 1681 | CAACUCGUCAGGAUGUCCC |
| 1553 | AUGGGCCCCAGGCAGAAAA | 1596 | GCUGGCACAUCAACCGCAC | 1639 | GCACACCGGCUUUAUCGCG | 1682 | AACUCGUCAGGAUGUCCCG |
| 1554 | UGGGCCCCAGGCAGAAAAU | 1597 | CUGGCACAUCAACCGCACC | 1640 | CACACCGGCUUUAUCGCGU | 1683 | ACUCGUCAGGAUGUCCCGA |
| 1555 | GGGCCCCAGGCAGAAAAUC | 1598 | UGGCACAUCAACCGCACCG | 1641 | ACACCGGCUUUAUCGCGUC | 1684 | CUCGUCAGGAUGUCCCGAA |
| 1556 | GGCCCCAGGCAGAAAAUCC | 1599 | GGCACAUCAACCGCACCGC | 1642 | CACCGGCUUUAUCGCGUCU | 1685 | UCGUCAGGAUGUCCCGAAC |
| 1557 | GCCCCAGGCAGAAAAUCCA | 1600 | GCACAUCAACCGCACCGCC | 1643 | ACCGGCUUUAUCGCGUCUC | 1686 | CGUCAGGAUGUCCCGAACG |
| 1558 | CCCCAGGCAGAAAAUCCAG | 1601 | CACAUCAACCGCACCGCCC | 1644 | CCGGCUUUAUCGCGUCUCU | 1687 | GUCAGGAUGUCCCGAACGC |
| 1559 | CCCAGGCAGAAAAUCCAGC | 1602 | ACAUCAACCGCACCGCCCU | 1645 | CGGCUUUAUCGCGUCUCUG | 1688 | UCAGGAUGUCCCGAACGCA |
| 1560 | CCAGGCAGAAAAUCCAGCU | 1603 | CAUCAACCGCACCGCCCUG | 1646 | GGCUUUAUCGCGUCUCUGU | 1689 | CAGGAUGUCCCGAACGCAU |
| 1561 | CAGGCAGAAAAUCCAGCUC | 1604 | AUCAACCGCACCGCCCUGA | 1647 | GCUUUAUCGCGUCUCUGUU | 1690 | AGGAUGUCCCGAACGCAUG |
| 1562 | AGGCAGAAAAUCCAGCUCG | 1605 | UCAACCGCACCGCCCUGAA | 1648 | CUUUAUCGCGUCUCUGUUC | 1691 | GGAUGUCCCGAACGCAUGU |
| 1563 | GGCAGAAAAUCCAGCUCGU | 1606 | CAACCGCACCGCCCUGAAC | 1649 | UUUAUCGCGUCUCUGUUCU | 1692 | GAUGUCCCGAACGCAUGUC |
| 1564 | GCAGAAAAUCCAGCUCGUU | 1607 | AACCGCACCGCCCUGAACU | 1650 | UUAUCGCGUCUCUGUUCUA | 1693 | AUGUCCCGAACGCAUGUCC |
| 1565 | CAGAAAAUCCAGCUCGUUA | 1608 | ACCGCACCGCCCUGAACUG | 1651 | UAUCGCGUCUCUGUUCUAC | 1694 | UGUCCCGAACGCAUGUCCG |
| 1566 | AGAAAAUCCAGCUCGUUAA | 1609 | CCGCACCGCCCUGAACUGC | 1652 | AUCGCGUCUCUGUUCUACA | 1695 | GUCCCGAACGCAUGUCCGC |
| 1567 | GAAAAUCCAGCUCGUUAAC | 1610 | CGCACCGCCCUGAACUGCA | 1653 | UCGCGUCUCUGUUCUACAC | 1696 | UCCCGAACGCAUGUCCGCC |
| 1568 | AAAAUCCAGCUCGUUAACA | 1611 | GCACCGCCCUGAACUGCAA | 1654 | CGCGUCUCUGUUCUACACC | 1697 | CCCGAACGCAUGUCCGCCU |
| 1569 | AAAUCCAGCUCGUUAACAC | 1612 | CACCGCCCUGAACUGCAAU | 1655 | GCGUCUCUGUUCUACACCC | 1698 | CCGAACGCAUGUCCGCCUG |
| 1570 | AAUCCAGCUCGUUAACACC | 1613 | ACCGCCCUGAACUGCAAUG | 1656 | CGUCUCUGUUCUACACCCA | 1699 | CGAACGCAUGUCCGCCUGC |
| 1571 | AUCCAGCUCGUUAACACCA | 1614 | CCGCCCUGAACUGCAAUGA | 1657 | GUCUCUGUUCUACACCCAC | 1700 | GAACGCAUGUCCGCCUGCC |
| 1572 | UCCAGCUCGUUAACACCAA | 1615 | CGCCCUGAACUGCAAUGAC | 1658 | UCUCUGUUCUACACCCACA | 1701 | AACGCAUGUCCGCCUGCCG |
| 1573 | CCAGCUCGUUAACACCAAU | 1616 | GCCCUGAACUGCAAUGACU | 1659 | CUCUGUUCUACACCCACAG | 1702 | ACGCAUGUCCGCCUGCCGC |
| 1574 | CAGCUCGUUAACACCAAUG | 1617 | CCCUGAACUGCAAUGACUC | 1660 | UCUGUUCUACACCCACAGC | 1703 | CGCAUGUCCGCCUGCCGCA |
| 1575 | AGCUCGUUAACACCAAUGG | 1618 | CCUGAACUGCAAUGACUCC | 1661 | CUGUUCUACACCCACAGCU | 1704 | GCAUGUCCGCCUGCCGCAG |
| 1576 | GCUCGUUAACACCAAUGGC | 1619 | CUGAACUGCAAUGACUCCU | 1662 | UGUUCUACACCCACAGCUU | 1705 | CAUGUCCGCCUGCCGCAGU |
| 1577 | CUCGUUAACACCAAUGGCA | 1620 | UGAACUGCAAUGACUCCUU | 1663 | GUUCUACACCCACAGCUUC | 1706 | AUGUCCGCCUGCCGCAGUA |
| 1578 | UCGUUAACACCAAUGGCAG | 1621 | GAACUGCAAUGACUCCUUG | 1664 | UUCUACACCCACAGCUUCA | 1707 | UGUCCGCCUGCCGCAGUAU |
| 1579 | CGUUAACACCAAUGGCAGC | 1622 | AACUGCAAUGACUCCUUGC | 1665 | UCUACACCCACAGCUUCAA | 1708 | GUCCGCCUGCCGCAGUAUC |
| 1580 | GUUAACACCAAUGGCAGCU | 1623 | ACUGCAAUGACUCCUUGCA | 1666 | CUACACCCACAGCUUCAAC | 1709 | UCCGCCUGCCGCAGUAUCG |
| 1581 | UUAACACCAAUGGCAGCUG | 1624 | CUGCAAUGACUCCUUGCAC | 1667 | UACACCCACAGCUUCAACU | 1710 | CCGCCUGCCGCAGUAUCGA |
| 1582 | UAACACCAAUGGCAGCUGG | 1625 | UGCAAUGACUCCUUGCACA | 1668 | ACACCCACAGCUUCAACUC | 1711 | CGCCUGCCGCAGUAUCGAG |
| 1583 | AACACCAAUGGCAGCUGGC | 1626 | GCAAUGACUCCUUGCACAC | 1669 | CACCCACAGCUUCAACUCG | 1712 | GCCUGCCGCAGUAUCGAGG |
| 1584 | ACACCAAUGGCAGCUGGCA | 1627 | CAAUGACUCCUUGCACACC | 1670 | ACCCACAGCUUCAACUCGU | 1713 | CCUGCCGCAGUAUCGAGGC |
| 1585 | CACCAAUGGCAGCUGGCAC | 1628 | AAUGACUCCUUGCACACCG | 1671 | CCCACAGCUUCAACUCGUC | 1714 | CUGCCGCAGUAUCGAGGCC |
| 1586 | ACCAAUGGCAGCUGGCACA | 1629 | AUGACUCCUUGCACACCGG | 1672 | CCACAGCUUCAACUCGUCA | 1715 | UGCCGCAGUAUCGAGGCCU |
| 1587 | CCAAUGGCAGCUGGCACAU | 1630 | UGACUCCUUGCACACCGGC | 1673 | CACAGCUUCAACUCGUCAG | 1716 | GCCGCAGUAUCGAGGCCUU |
| 1588 | CAAUGGCAGCUGGCACAUC | 1631 | GACUCCUUGCACACCGGCU | 1674 | ACAGCUUCAACUCGUCAGG | 1717 | CCGCAGUAUCGAGGCCUUC |
| 1589 | AAUGGCAGCUGGCACAUCA | 1632 | ACUCCUUGCACACCGGCUU | 1675 | CAGCUUCAACUCGUCAGGA | 1718 | CGCAGUAUCGAGGCCUUCC |
| 1590 | AUGGCAGCUGGCACAUCAA | 1633 | CUCCUUGCACACCGGCUUU | 1676 | AGCUUCAACUCGUCAGGAU | 1719 | GCAGUAUCGAGGCCUUCCG |
| 1591 | UGGCAGCUGGCACAUCAAC | 1634 | UCCUUGCACACCGGCUUUA | 1677 | GCUUCAACUCGUCAGGAUG | 1720 | CAGUAUCGAGGCCUUCCGG |

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|---|---|---|---|---|---|---|---|
| 1721 | AGUAUCGAGGCCUUCCGGG | 1764 | AGGAUAAUGUCACCAAUCC | 1807 | GCACUACCCACCAAGGCAG | 1850 | GUGUGUGGCCCAGUGUACU |
| 1722 | GUAUCGAGGCCUUCCGGGU | 1765 | GGAUAAUGUCACCAAUCCA | 1808 | CACUACCCACCAAGGCAGU | 1851 | UGUGUGGCCCAGUGUACUG |
| 1723 | UAUCGAGGCCUUCCGGGUG | 1766 | GAUAAUGUCACCAAUCCAG | 1809 | ACUACCCACCAAGGCAGUG | 1852 | GUGUGGCCCAGUGUACUGU |
| 1724 | AUCGAGGCCUUCCGGGUGG | 1767 | AUAAUGUCACCAAUCCAGA | 1810 | CUACCCACCAAGGCAGUGU | 1853 | UGUGGCCCAGUGUACUGUU |
| 1725 | UCGAGGCCUUCCGGGUGGG | 1768 | UAAUGUCACCAAUCCAGAG | 1811 | UACCCACCAAGGCAGUGUG | 1854 | GUGGCCCAGUGUACUGUUU |
| 1726 | CGAGGCCUUCCGGGUGGGA | 1769 | AAUGUCACCAAUCCAGAGG | 1812 | ACCCACCAAGGCAGUGUGG | 1855 | UGGCCCAGUGUACUGUUUC |
| 1727 | GAGGCCUUCCGGGUGGGAU | 1770 | AUGUCACCAAUCCAGAGGA | 1813 | CCCACCAAGGCAGUGUGGC | 1856 | GGCCCAGUGUACUGUUUCA |
| 1728 | AGGCCUUCCGGGUGGGAUG | 1771 | UGUCACCAAUCCAGAGGAU | 1814 | CCACCAAGGCAGUGUGGCG | 1857 | GCCCAGUGUACUGUUUCAC |
| 1729 | GGCCUUCCGGGUGGGAUGG | 1772 | GUCACCAAUCCAGAGGAUA | 1815 | CACCAAGGCAGUGUGGCGU | 1858 | CCCAGUGUACUGUUUCACC |
| 1730 | GCCUUCCGGGUGGGAUGGG | 1773 | UCACCAAUCCAGAGGAUAU | 1816 | ACCAAGGCAGUGUGGCGUG | 1859 | CCAGUGUACUGUUUCACCC |
| 1731 | CCUUCCGGGUGGGAUGGGG | 1774 | CACCAAUCCAGAGGAUAUG | 1817 | CCAAGGCAGUGUGGCGUGG | 1860 | CAGUGUACUGUUUCACCCC |
| 1732 | CUUCCGGGUGGGAUGGGGC | 1775 | ACCAAUCCAGAGGAUAUGA | 1818 | CAAGGCAGUGUGGCGUGGU | 1861 | AGUGUACUGUUUCACCCCC |
| 1733 | UUCCGGGUGGGAUGGGGCG | 1776 | CCAAUCCAGAGGAUAUGAG | 1819 | AAGGCAGUGUGGCGUGGUC | 1862 | GUGUACUGUUUCACCCCCA |
| 1734 | UCCGGGUGGGAUGGGGCGC | 1777 | CAAUCCAGAGGAUAUGAGA | 1820 | AGGCAGUGUGGCGUGGUCU | 1863 | UGUACUGUUUCACCCCCAG |
| 1735 | CCGGGUGGGAUGGGGCGCC | 1778 | AAUCCAGAGGAUAUGAGAC | 1821 | GGCAGUGUGGCGUGGUCUC | 1864 | GUACUGUUUCACCCCCAGC |
| 1736 | CGGGUGGGAUGGGGCGCCU | 1779 | AUCCAGAGGAUAUGAGACC | 1822 | GCAGUGUGGCGUGGUCUCC | 1865 | UACUGUUUCACCCCCAGCC |
| 1737 | GGGUGGGAUGGGGCGCCUU | 1780 | UCCAGAGGAUAUGAGACCC | 1823 | CAGUGUGGCGUGGUCUCCG | 1866 | ACUGUUUCACCCCCAGCCC |
| 1738 | GGUGGGAUGGGGCGCCUUG | 1781 | CCAGAGGAUAUGAGACCCU | 1824 | AGUGUGGCGUGGUCUCCGC | 1867 | CUGUUUCACCCCCAGCCCA |
| 1739 | GUGGGAUGGGGCGCCUUGC | 1782 | CAGAGGAUAUGAGACCCUA | 1825 | GUGUGGCGUGGUCUCCGCG | 1868 | UGUUUCACCCCCAGCCCAG |
| 1740 | UGGGAUGGGGCGCCUUGCA | 1783 | AGAGGAUAUGAGACCCUAU | 1826 | UGUGGCGUGGUCUCCGCGA | 1869 | GUUUCACCCCCAGCCCAGU |
| 1741 | GGGAUGGGGCGCCUUGCAA | 1784 | GAGGAUAUGAGACCCUAUU | 1827 | GUGGCGUGGUCUCCGCGAA | 1870 | UUUCACCCCCAGCCCAGUG |
| 1742 | GGAUGGGGCGCCUUGCAAU | 1785 | AGGAUAUGAGACCCUAUUG | 1828 | UGGCGUGGUCUCCGCGAAG | 1871 | UUCACCCCCAGCCCAGUGG |
| 1743 | GAUGGGGCGCCUUGCAAUA | 1786 | GGAUAUGAGACCCUAUUGC | 1829 | GGCGUGGUCUCCGCGAAGA | 1872 | UCACCCCCAGCCCAGUGGU |
| 1744 | AUGGGGCGCCUUGCAAUAU | 1787 | GAUAUGAGACCCUAUUGCU | 1830 | GCGUGGUCUCCGCGAAGAC | 1873 | CACCCCCAGCCCAGUGGUA |
| 1745 | UGGGGCGCCUUGCAAUAUG | 1788 | AUAUGAGACCCUAUUGCUG | 1831 | CGUGGUCUCCGCGAAGACU | 1874 | ACCCCCAGCCCAGUGGUAG |
| 1746 | GGGGCGCCUUGCAAUAUGA | 1789 | UAUGAGACCCUAUUGCUGG | 1832 | GUGGUCUCCGCGAAGACUG | 1875 | CCCCCAGCCCAGUGGUAGU |
| 1747 | GGGCGCCUUGCAAUAUGAG | 1790 | AUGAGACCCUAUUGCUGGC | 1833 | UGGUCUCCGCGAAGACUGU | 1876 | CCCCAGCCCAGUGGUAGUG |
| 1748 | GGCGCCUUGCAAUAUGAGG | 1791 | UGAGACCCUAUUGCUGGCA | 1834 | GGUCUCCGCGAAGACUGUG | 1877 | CCCAGCCCAGUGGUAGUGG |
| 1749 | GCGCCUUGCAAUAUGAGGA | 1792 | GAGACCCUAUUGCUGGCAC | 1835 | GUCUCCGCGAAGACUGUGU | 1878 | CCAGCCCAGUGGUAGUGGG |
| 1750 | CGCCUUGCAAUAUGAGGAU | 1793 | AGACCCUAUUGCUGGCACU | 1836 | UCUCCGCGAAGACUGUGUG | 1879 | CAGCCCAGUGGUAGUGGGC |
| 1751 | GCCUUGCAAUAUGAGGAUA | 1794 | GACCCUAUUGCUGGCACUA | 1837 | CUCCGCGAAGACUGUGUGU | 1880 | AGCCCAGUGGUAGUGGGCA |
| 1752 | CCUUGCAAUAUGAGGAUAA | 1795 | ACCCUAUUGCUGGCACUAC | 1838 | UCCGCGAAGACUGUGUGUG | 1881 | GCCCAGUGGUAGUGGGCAC |
| 1753 | CUUGCAAUAUGAGGAUAAU | 1796 | CCCUAUUGCUGGCACUACC | 1839 | CCGCGAAGACUGUGUGUGG | 1882 | CCCAGUGGUAGUGGGCACG |
| 1754 | UUGCAAUAUGAGGAUAAUG | 1797 | CCUAUUGCUGGCACUACCC | 1840 | CGCGAAGACUGUGUGUGGC | 1883 | CCAGUGGUAGUGGGCACGA |
| 1755 | UGCAAUAUGAGGAUAAUGU | 1798 | CUAUUGCUGGCACUACCCA | 1841 | GCGAAGACUGUGUGUGGCC | 1884 | CAGUGGUAGUGGGCACGAC |
| 1756 | GCAAUAUGAGGAUAAUGUC | 1799 | UAUUGCUGGCACUACCCAC | 1842 | CGAAGACUGUGUGUGGCCC | 1885 | AGUGGUAGUGGGCACGACC |
| 1757 | CAAUAUGAGGAUAAUGUCA | 1800 | AUUGCUGGCACUACCCACC | 1843 | GAAGACUGUGUGUGGCCCA | 1886 | GUGGUAGUGGGCACGACCG |
| 1758 | AAUAUGAGGAUAAUGUCAC | 1801 | UUGCUGGCACUACCCACCA | 1844 | AAGACUGUGUGUGGCCCAG | 1887 | UGGUAGUGGGCACGACCGA |
| 1759 | AUAUGAGGAUAAUGUCACC | 1802 | UGCUGGCACUACCCACCAA | 1845 | AGACUGUGUGUGGCCCAGU | 1888 | GGUAGUGGGCACGACCGAC |
| 1760 | UAUGAGGAUAAUGUCACCA | 1803 | GCUGGCACUACCCACCAAG | 1846 | GACUGUGUGUGGCCCAGUG | 1889 | GUAGUGGGCACGACCGACA |
| 1761 | AUGAGGAUAAUGUCACCAA | 1804 | CUGGCACUACCCACCAAGG | 1847 | ACUGUGUGUGGCCCAGUGU | 1890 | UAGUGGGCACGACCGACAG |
| 1762 | UGAGGAUAAUGUCACCAAU | 1805 | UGGCACUACCCACCAAGGC | 1848 | CUGUGUGUGGCCCAGUGUA | 1891 | AGUGGGCACGACCGACAGG |
| 1763 | GAGGAUAAUGUCACCAAUC | 1806 | GGCACUACCCACCAAGGCA | 1849 | UGUGUGUGGCCCAGUGUAC | 1892 | GUGGGCACGACCGACAGGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1893 | UGGGCACGACCGACAGGCU | 1936 | GGAGAAUGAGACAGAUGUC | 1979 | CCGCUGGGGUCAUGGUUCG | 2022 | GCUACACCAAGACUUGCGG |
| 1894 | GGGCACGACCGACAGGCUU | 1937 | GAGAAUGAGACAGAUGUCU | 1980 | CGCUGGGGUCAUGGUUCGG | 2023 | CUACACCAAGACUUGCGGC |
| 1895 | GGCACGACCGACAGGCUUG | 1938 | AGAAUGAGACAGAUGUCUU | 1981 | GCUGGGGUCAUGGUUCGGC | 2024 | UACACCAAGACUUGCGGCG |
| 1896 | GCACGACCGACAGGCUUGG | 1939 | GAAUGAGACAGAUGUCUUC | 1982 | CUGGGGUCAUGGUUCGGCU | 2025 | ACACCAAGACUUGCGGCGC |
| 1897 | CACGACCGACAGGCUUGGA | 1940 | AAUGAGACAGAUGUCUUCC | 1983 | UGGGGUCAUGGUUCGGCUG | 2026 | CACCAAGACUUGCGGCGCA |
| 1898 | ACGACCGACAGGCUUGGAG | 1941 | AUGAGACAGAUGUCUUCCU | 1984 | GGGGUCAUGGUUCGGCUGC | 2027 | ACCAAGACUUGCGGCGCAC |
| 1899 | CGACCGACAGGCUUGGAGC | 1942 | UGAGACAGAUGUCUUCCUA | 1985 | GGGUCAUGGUUCGGCUGCA | 2028 | CCAAGACUUGCGGCGCACC |
| 1900 | GACCGACAGGCUUGGAGCG | 1943 | GAGACAGAUGUCUUCCUAU | 1986 | GGUCAUGGUUCGGCUGCAC | 2029 | CAAGACUUGCGGCGCACCA |
| 1901 | ACCGACAGGCUUGGAGCGC | 1944 | AGACAGAUGUCUUCCUAUU | 1987 | GUCAUGGUUCGGCUGCACG | 2030 | AAGACUUGCGGCGCACCAC |
| 1902 | CCGACAGGCUUGGAGCGCC | 1945 | GACAGAUGUCUUCCUAUUG | 1988 | UCAUGGUUCGGCUGCACGU | 2031 | AGACUUGCGGCGCACCACC |
| 1903 | CGACAGGCUUGGAGCGCCC | 1946 | ACAGAUGUCUUCCUAUUGA | 1989 | CAUGGUUCGGCUGCACGUG | 2032 | GACUUGCGGCGCACCACCC |
| 1904 | GACAGGCUUGGAGCGCCCA | 1947 | CAGAUGUCUUCCUAUUGAA | 1990 | AUGGUUCGGCUGCACGUGG | 2033 | ACUUGCGGCGCACCACCCU |
| 1905 | ACAGGCUUGGAGCGCCCAC | 1948 | AGAUGUCUUCCUAUUGAAC | 1991 | UGGUUCGGCUGCACGUGGA | 2034 | CUUGCGGCGCACCACCCUG |
| 1906 | CAGGCUUGGAGCGCCCACU | 1949 | GAUGUCUUCCUAUUGAACA | 1992 | GGUUCGGCUGCACGUGGAU | 2035 | UUGCGGCGCACCACCCUGC |
| 1907 | AGGCUUGGAGCGCCCACUU | 1950 | AUGUCUUCCUAUUGAACAG | 1993 | GUUCGGCUGCACGUGGAUG | 2036 | UGCGGCGCACCACCCUGCC |
| 1908 | GGCUUGGAGCGCCCACUUA | 1951 | UGUCUUCCUAUUGAACAGC | 1994 | UUCGGCUGCACGUGGAUGA | 2037 | GCGGCGCACCACCCUGCCG |
| 1909 | GCUUGGAGCGCCCACUUAC | 1952 | GUCUUCCUAUUGAACAGCA | 1995 | UCGGCUGCACGUGGAUGAA | 2038 | CGGCGCACCACCCUGCCGU |
| 1910 | CUUGGAGCGCCCACUUACA | 1953 | UCUUCCUAUUGAACAGCAC | 1996 | CGGCUGCACGUGGAUGAAC | 2039 | GGCGCACCACCCUGCCGUA |
| 1911 | UUGGAGCGCCCACUUACAC | 1954 | CUUCCUAUUGAACAGCACU | 1997 | GGCUGCACGUGGAUGAACU | 2040 | GCGCACCACCCUGCCGUAC |
| 1912 | UGGAGCGCCCACUUACACG | 1955 | UUCCUAUUGAACAGCACUC | 1998 | GCUGCACGUGGAUGAACUC | 2041 | CGCACCACCCUGCCGUACU |
| 1913 | GGAGCGCCCACUUACACGU | 1956 | UCCUAUUGAACAGCACUCG | 1999 | CUGCACGUGGAUGAACUCU | 2042 | GCACCACCCUGCCGUACUA |
| 1914 | GAGCGCCCACUUACACGUG | 1957 | CCUAUUGAACAGCACUCGA | 2000 | UGCACGUGGAUGAACUCUU | 2043 | CACCACCCUGCCGUACUAG |
| 1915 | AGCGCCCACUUACACGUGG | 1958 | CUAUUGAACAGCACUCGAC | 2001 | GCACGUGGAUGAACUCUUC | 2044 | ACCACCCUGCCGUACUAGA |
| 1916 | GCGCCCACUUACACGUGGG | 1959 | UAUUGAACAGCACUCGACC | 2002 | CACGUGGAUGAACUCUUCU | 2045 | CCACCCUGCCGUACUAGAG |
| 1917 | CGCCCACUUACACGUGGGG | 1960 | AUUGAACAGCACUCGACCA | 2003 | ACGUGGAUGAACUCUUCUG | 2046 | CACCCUGCCGUACUAGAGC |
| 1918 | GCCCACUUACACGUGGGGG | 1961 | UUGAACAGCACUCGACCAC | 2004 | CGUGGAUGAACUCUUCUGG | 2047 | ACCCUGCCGUACUAGAGCU |
| 1919 | CCCACUUACACGUGGGGGG | 1962 | UGAACAGCACUCGACCACC | 2005 | GUGGAUGAACUCUUCUGGC | 2048 | CCCUGCCGUACUAGAGCUG |
| 1920 | CCACUUACACGUGGGGGGA | 1963 | GAACAGCACUCGACCACCG | 2006 | UGGAUGAACUCUUCUGGCU | 2049 | CCUGCCGUACUAGAGCUGA |
| 1921 | CACUUACACGUGGGGGGAG | 1964 | AACAGCACUCGACCACCGC | 2007 | GGAUGAACUCUUCUGGCUA | 2050 | CUGCCGUACUAGAGCUGAC |
| 1922 | ACUUACACGUGGGGGGAGA | 1965 | ACAGCACUCGACCACCGCU | 2008 | GAUGAACUCUUCUGGCUAC | 2051 | UGCCGUACUAGAGCUGACU |
| 1923 | CUUACACGUGGGGGGAGAA | 1966 | CAGCACUCGACCACCGCUG | 2009 | AUGAACUCUUCUGGCUACA | 2052 | GCCGUACUAGAGCUGACUU |
| 1924 | UUACACGUGGGGGGAGAAU | 1967 | AGCACUCGACCACCGCUGG | 2010 | UGAACUCUUCUGGCUACAC | 2053 | CCGUACUAGAGCUGACUUC |
| 1925 | UACACGUGGGGGGAGAAUG | 1968 | GCACUCGACCACCGCUGGG | 2011 | GAACUCUUCUGGCUACACC | 2054 | CGUACUAGAGCUGACUUCA |
| 1926 | ACACGUGGGGGGAGAAUGA | 1969 | CACUCGACCACCGCUGGGG | 2012 | AACUCUUCUGGCUACACCA | 2055 | GUACUAGAGCUGACUUCAA |
| 1927 | CACGUGGGGGGAGAAUGAG | 1970 | ACUCGACCACCGCUGGGGU | 2013 | ACUCUUCUGGCUACACCAA | 2056 | UACUAGAGCUGACUUCAAC |
| 1928 | ACGUGGGGGGAGAAUGAGA | 1971 | CUCGACCACCGCUGGGGUC | 2014 | CUCUUCUGGCUACACCAAG | 2057 | ACUAGAGCUGACUUCAACG |
| 1929 | CGUGGGGGGAGAAUGAGAC | 1972 | UCGACCACCGCUGGGGUCA | 2015 | UCUUCUGGCUACACCAAGA | 2058 | CUAGAGCUGACUUCAACGC |
| 1930 | GUGGGGGGAGAAUGAGACA | 1973 | CGACCACCGCUGGGGUCAU | 2016 | CUUCUGGCUACACCAAGAC | 2059 | UAGAGCUGACUUCAACGCC |
| 1931 | UGGGGGGAGAAUGAGACAG | 1974 | GACCACCGCUGGGGUCAUG | 2017 | UUCUGGCUACACCAAGACU | 2060 | AGAGCUGACUUCAACGCCA |
| 1932 | GGGGGGAGAAUGAGACAGA | 1975 | ACCACCGCUGGGGUCAUGG | 2018 | UCUGGCUACACCAAGACUU | 2061 | GAGCUGACUUCAACGCCAG |
| 1933 | GGGGGAGAAUGAGACAGAU | 1976 | CCACCGCUGGGGUCAUGGU | 2019 | CUGGCUACACCAAGACUUG | 2062 | AGCUGACUUCAACGCCAGC |
| 1934 | GGGGAGAAUGAGACAGAUG | 1977 | CACCGCUGGGGUCAUGGUU | 2020 | UGGCUACACCAAGACUUGC | 2063 | GCUGACUUCAACGCCAGCA |
| 1935 | GGGAGAAUGAGACAGAUGU | 1978 | ACCGCUGGGGUCAUGGUUC | 2021 | GGCUACACCAAGACUUGCG | 2064 | CUGACUUCAACGCCAGCAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2065 | UGACUUCAACGCCAGCACG | 2108 | UUUAGGAAGCAUCCUGAUA | 2151 | GGCCCUGGCUCACGCCAAG | 2194 | GCUCUGGCAUUACCCCUGC |
| 2066 | GACUUCAACGCCAGCACGG | 2109 | UUAGGAAGCAUCCUGAUAC | 2152 | GCCCUGGCUCACGCCAAGG | 2195 | CUCUGGCAUUACCCCUGCA |
| 2067 | ACUUCAACGCCAGCACGGA | 2110 | UAGGAAGCAUCCUGAUACC | 2153 | CCCUGGCUCACGCCAAGGU | 2196 | UCUGGCAUUACCCCUGCAC |
| 2068 | CUUCAACGCCAGCACGGAC | 2111 | AGGAAGCAUCCUGAUACCA | 2154 | CCUGGCUCACGCCAAGGUG | 2197 | CUGGCAUUACCCCUGCACA |
| 2069 | UUCAACGCCAGCACGGACC | 2112 | GGAAGCAUCCUGAUACCAC | 2155 | CUGGCUCACGCCAAGGUGC | 2198 | UGGCAUUACCCCUGCACAG |
| 2070 | UCAACGCCAGCACGGACCU | 2113 | GAAGCAUCCUGAUACCACU | 2156 | UGGCUCACGCCAAGGUGCC | 2199 | GGCAUUACCCCUGCACAGU |
| 2071 | CAACGCCAGCACGGACCUG | 2114 | AAGCAUCCUGAUACCACUU | 2157 | GGCUCACGCCAAGGUGCCU | 2200 | GCAUUACCCCUGCACAGUU |
| 2072 | AACGCCAGCACGGACCUGU | 2115 | AGCAUCCUGAUACCACUUA | 2158 | GCUCACGCCAAGGUGCCUG | 2201 | CAUUACCCCUGCACAGUUA |
| 2073 | ACGCCAGCACGGACCUGUU | 2116 | GCAUCCUGAUACCACUUAC | 2159 | CUCACGCCAAGGUGCCUGA | 2202 | AUUACCCCUGCACAGUUAA |
| 2074 | CGCCAGCACGGACCUGUUG | 2117 | CAUCCUGAUACCACUUACC | 2160 | UCACGCCAAGGUGCCUGAU | 2203 | UUACCCCUGCACAGUUAAC |
| 2075 | GCCAGCACGGACCUGUUGU | 2118 | AUCCUGAUACCACUUACCU | 2161 | CACGCCAAGGUGCCUGAUC | 2204 | UACCCCUGCACAGUUAACU |
| 2076 | CCAGCACGGACCUGUUGUG | 2119 | UCCUGAUACCACUUACCUC | 2162 | ACGCCAAGGUGCCUGAUCG | 2205 | ACCCCUGCACAGUUAACUA |
| 2077 | CAGCACGGACCUGUUGUGC | 2120 | CCUGAUACCACUUACCUCA | 2163 | CGCCAAGGUGCCUGAUCGA | 2206 | CCCCUGCACAGUUAACUAU |
| 2078 | AGCACGGACCUGUUGUGCC | 2121 | CUGAUACCACUUACCUCAA | 2164 | GCCAAGGUGCCUGAUCGAC | 2207 | CCCUGCACAGUUAACUAUA |
| 2079 | GCACGGACCUGUUGUGCCC | 2122 | UGAUACCACUUACCUCAAA | 2165 | CCAAGGUGCCUGAUCGACU | 2208 | CCUGCACAGUUAACUAUAC |
| 2080 | CACGGACCUGUUGUGCCCC | 2123 | GAUACCACUUACCUCAAAU | 2166 | CAAGGUGCCUGAUCGACUA | 2209 | CUGCACAGUUAACUAUACC |
| 2081 | ACGGACCUGUUGUGCCCCA | 2124 | AUACCACUUACCUCAAAUG | 2167 | AAGGUGCCUGAUCGACUAC | 2210 | UGCACAGUUAACUAUACCA |
| 2082 | CGGACCUGUUGUGCCCCAC | 2125 | UACCACUUACCUCAAAUGC | 2168 | AGGUGCCUGAUCGACUACC | 2211 | GCACAGUUAACUAUACCAU |
| 2083 | GGACCUGUUGUGCCCCACG | 2126 | ACCACUUACCUCAAAUGCG | 2169 | GGUGCCUGAUCGACUACCC | 2212 | CACAGUUAACUAUACCAUC |
| 2084 | GACCUGUUGUGCCCCACGG | 2127 | CCACUUACCUCAAAUGCGG | 2170 | GUGCCUGAUCGACUACCCC | 2213 | ACAGUUAACUAUACCAUCU |
| 2085 | ACCUGUUGUGCCCCACGGA | 2128 | CACUUACCUCAAAUGCGGC | 2171 | UGCCUGAUCGACUACCCCU | 2214 | CAGUUAACUAUACCAUCUU |
| 2086 | CCUGUUGUGCCCCACGGAC | 2129 | ACUUACCUCAAAUGCGGCU | 2172 | GCCUGAUCGACUACCCCUA | 2215 | AGUUAACUAUACCAUCUUC |
| 2087 | CUGUUGUGCCCCACGGACU | 2130 | CUUACCUCAAAUGCGGCUC | 2173 | CCUGAUCGACUACCCCUAC | 2216 | GUUAACUAUACCAUCUUCA |
| 2088 | UGUUGUGCCCCACGGACUG | 2131 | UUACCUCAAAUGCGGCUCU | 2174 | CUGAUCGACUACCCCUACA | 2217 | UUAACUAUACCAUCUUCAA |
| 2089 | GUUGUGCCCCACGGACUGU | 2132 | UACCUCAAAUGCGGCUCUG | 2175 | UGAUCGACUACCCCUACAG | 2218 | UAACUAUACCAUCUUCAAA |
| 2090 | UUGUGCCCCACGGACUGUU | 2133 | ACCUCAAAUGCGGCUCUGG | 2176 | GAUCGACUACCCCUACAGG | 2219 | AACUAUACCAUCUUCAAAA |
| 2091 | UGUGCCCCACGGACUGUUU | 2134 | CCUCAAAUGCGGCUCUGGG | 2177 | AUCGACUACCCCUACAGGC | 2220 | ACUAUACCAUCUUCAAAAU |
| 2092 | GUGCCCCACGGACUGUUUU | 2135 | CUCAAAUGCGGCUCUGGGC | 2178 | UCGACUACCCCUACAGGCU | 2221 | CUAUACCAUCUUCAAAAUA |
| 2093 | UGCCCCACGGACUGUUUUA | 2136 | UCAAAUGCGGCUCUGGGCC | 2179 | CGACUACCCCUACAGGCUC | 2222 | UAUACCAUCUUCAAAAUAA |
| 2094 | GCCCCACGGACUGUUUUAG | 2137 | CAAAUGCGGCUCUGGGCCC | 2180 | GACUACCCCUACAGGCUCU | 2223 | AUACCAUCUUCAAAAUAAG |
| 2095 | CCCCACGGACUGUUUUAGG | 2138 | AAAUGCGGCUCUGGGCCCU | 2181 | ACUACCCCUACAGGCUCUG | 2224 | UACCAUCUUCAAAAUAAGG |
| 2096 | CCCACGGACUGUUUUAGGA | 2139 | AAUGCGGCUCUGGGCCCUG | 2182 | CUACCCCUACAGGCUCUGG | 2225 | ACCAUCUUCAAAAUAAGGA |
| 2097 | CCACGGACUGUUUUAGGAA | 2140 | AUGCGGCUCUGGGCCCUGG | 2183 | UACCCCUACAGGCUCUGGC | 2226 | CCAUCUUCAAAAUAAGGAU |
| 2098 | CACGGACUGUUUUAGGAAG | 2141 | UGCGGCUCUGGGCCCUGGC | 2184 | ACCCCUACAGGCUCUGGCA | 2227 | CAUCUUCAAAAUAAGGAUG |
| 2099 | ACGGACUGUUUUAGGAAGC | 2142 | GCGGCUCUGGGCCCUGGCU | 2185 | CCCCUACAGGCUCUGGCAU | 2228 | AUCUUCAAAAUAAGGAUGU |
| 2100 | CGGACUGUUUUAGGAAGCA | 2143 | CGGCUCUGGGCCCUGGCUC | 2186 | CCCUACAGGCUCUGGCAUU | 2229 | UCUUCAAAAUAAGGAUGUA |
| 2101 | GGACUGUUUUAGGAAGCAU | 2144 | GGCUCUGGGCCCUGGCUCA | 2187 | CCUACAGGCUCUGGCAUUA | 2230 | CUUCAAAAUAAGGAUGUAU |
| 2102 | GACUGUUUUAGGAAGCAUC | 2145 | GCUCUGGGCCCUGGCUCAC | 2188 | CUACAGGCUCUGGCAUUAC | 2231 | UUCAAAAUAAGGAUGUAUG |
| 2103 | ACUGUUUUAGGAAGCAUCC | 2146 | CUCUGGGCCCUGGCUCACG | 2189 | UACAGGCUCUGGCAUUACC | 2232 | UCAAAAUAAGGAUGUAUGU |
| 2104 | CUGUUUUAGGAAGCAUCCU | 2147 | UCUGGGCCCUGGCUCACGC | 2190 | ACAGGCUCUGGCAUUACCC | 2233 | CAAAAUAAGGAUGUAUGUG |
| 2105 | UGUUUUAGGAAGCAUCCUG | 2148 | CUGGGCCCUGGCUCACGCC | 2191 | CAGGCUCUGGCAUUACCCC | 2234 | AAAAUAAGGAUGUAUGUGG |
| 2106 | GUUUUAGGAAGCAUCCUGA | 2149 | UGGGCCCUGGCUCACGCCA | 2192 | AGGCUCUGGCAUUACCCCU | 2235 | AAAUAAGGAUGUAUGUGGG |
| 2107 | UUUUAGGAAGCAUCCUGAU | 2150 | GGGCCCUGGCUCACGCCAA | 2193 | GGCUCUGGCAUUACCCCUG | 2236 | AAUAAGGAUGUAUGUGGGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2237 | AUAAGGAUGUAUGUGGGAG | 2280 | CAUGCAAUUUCACUCGUGG | 2323 | AGACAGAAGUCAACUGUCU | 2366 | UGGGCCAUUUUACCUUGCU |
| 2238 | UAAGGAUGUAUGUGGGAGG | 2281 | AUGCAAUUUCACUCGUGGG | 2324 | GACAGAAGUCAACUGUCUC | 2367 | GGGCCAUUUUACCUUGCUC |
| 2239 | AAGGAUGUAUGUGGGAGGG | 2282 | UGCAAUUUCACUCGUGGGG | 2325 | ACAGAAGUCAACUGUCUCC | 2368 | GGCCAUUUUACCUUGCUCU |
| 2240 | AGGAUGUAUGUGGGAGGGG | 2283 | GCAAUUUCACUCGUGGGGA | 2326 | CAGAAGUCAACUGUCUCCU | 2369 | GCCAUUUUACCUUGCUCUU |
| 2241 | GGAUGUAUGUGGGAGGGGU | 2284 | CAAUUUCACUCGUGGGGAU | 2327 | AGAAGUCAACUGUCUCCUU | 2370 | CCAUUUUACCUUGCUCUUA |
| 2242 | GAUGUAUGUGGGAGGGGUU | 2285 | AAUUUCACUCGUGGGGAUC | 2328 | GAAGUCAACUGUCUCCUUU | 2371 | CAUUUUACCUUGCUCUUAC |
| 2243 | AUGUAUGUGGGAGGGGUUG | 2286 | AUUUCACUCGUGGGGAUCG | 2329 | AAGUCAACUGUCUCCUUUG | 2372 | AUUUUACCUUGCUCUUACU |
| 2244 | UGUAUGUGGGAGGGGUUGA | 2287 | UUUCACUCGUGGGGAUCGU | 2330 | AGUCAACUGUCUCCUUUGU | 2373 | UUUUACCUUGCUCUUACUC |
| 2245 | GUAUGUGGGAGGGGUUGAG | 2288 | UUCACUCGUGGGGAUCGUU | 2331 | GUCAACUGUCUCCUUUGUU | 2374 | UUUACCUUGCUCUUACUCG |
| 2246 | UAUGUGGGAGGGGUUGAGC | 2289 | UCACUCGUGGGGAUCGUUG | 2332 | UCAACUGUCUCCUUUGUUG | 2375 | UUACCUUGCUCUUACUCGG |
| 2247 | AUGUGGGAGGGGUUGAGCA | 2290 | CACUCGUGGGGAUCGUUGC | 2333 | CAACUGUCUCCUUUGUUGC | 2376 | UACCUUGCUCUUACUCGGA |
| 2248 | UGUGGGAGGGGUUGAGCAC | 2291 | ACUCGUGGGGAUCGUUGCA | 2334 | AACUGUCUCCUUUGUUGCA | 2377 | ACCUUGCUCUUACUCGGAC |
| 2249 | GUGGGAGGGGUUGAGCACA | 2292 | CUCGUGGGGAUCGUUGCAA | 2335 | ACUGUCUCCUUUGUUGCAC | 2378 | CCUUGCUCUUACUCGGACC |
| 2250 | UGGGAGGGGUUGAGCACAG | 2293 | UCGUGGGGAUCGUUGCAAC | 2336 | CUGUCUCCUUUGUUGCACU | 2379 | CUUGCUCUUACUCGGACCU |
| 2251 | GGGAGGGGUUGAGCACAGG | 2294 | CGUGGGGAUCGUUGCAACU | 2337 | UGUCUCCUUUGUUGCACUC | 2380 | UUGCUCUUACUCGGACCUG |
| 2252 | GGAGGGGUUGAGCACAGGC | 2295 | GUGGGGAUCGUUGCAACUU | 2338 | GUCUCCUUUGUUGCACUCC | 2381 | UGCUCUUACUCGGACCUGC |
| 2253 | GAGGGGUUGAGCACAGGCU | 2296 | UGGGGAUCGUUGCAACUUG | 2339 | UCUCCUUUGUUGCACUCCA | 2382 | GCUCUUACUCGGACCUGCC |
| 2254 | AGGGGUUGAGCACAGGCUC | 2297 | GGGGAUCGUUGCAACUUGG | 2340 | CUCCUUUGUUGCACUCCAC | 2383 | CUCUUACUCGGACCUGCCC |
| 2255 | GGGGUUGAGCACAGGCUCA | 2298 | GGGAUCGUUGCAACUUGGA | 2341 | UCCUUUGUUGCACUCCACC | 2384 | UCUUACUCGGACCUGCCCG |
| 2256 | GGGUUGAGCACAGGCUCAC | 2299 | GGAUCGUUGCAACUUGGAG | 2342 | CCUUUGUUGCACUCCACCA | 2385 | CUUACUCGGACCUGCCCGC |
| 2257 | GGUUGAGCACAGGCUCACG | 2300 | GAUCGUUGCAACUUGGAGG | 2343 | CUUUGUUGCACUCCACCAC | 2386 | UUACUCGGACCUGCCCGCC |
| 2258 | GUUGAGCACAGGCUCACGG | 2301 | AUCGUUGCAACUUGGAGGA | 2344 | UUUGUUGCACUCCACCACG | 2387 | UACUCGGACCUGCCCGCCU |
| 2259 | UUGAGCACAGGCUCACGGC | 2302 | UCGUUGCAACUUGGAGGAC | 2345 | UUGUUGCACUCCACCACGG | 2388 | ACUCGGACCUGCCCGCCUU |
| 2260 | UGAGCACAGGCUCACGGCU | 2303 | CGUUGCAACUUGGAGGACA | 2346 | UGUUGCACUCCACCACGGA | 2389 | CUCGGACCUGCCCGCCUUG |
| 2261 | GAGCACAGGCUCACGGCUG | 2304 | GUUGCAACUUGGAGGACAG | 2347 | GUUGCACUCCACCACGGAA | 2390 | UCGGACCUGCCCGCCUUGU |
| 2262 | AGCACAGGCUCACGGCUGC | 2305 | UUGCAACUUGGAGGACAGA | 2348 | UUGCACUCCACCACGGAAU | 2391 | CGGACCUGCCCGCCUUGUC |
| 2263 | GCACAGGCUCACGGCUGCA | 2306 | UGCAACUUGGAGGACAGAG | 2349 | UGCACUCCACCACGGAAUG | 2392 | GGACCUGCCCGCCUUGUCG |
| 2264 | CACAGGCUCACGGCUGCAU | 2307 | GCAACUUGGAGGACAGAGA | 2350 | GCACUCCACCACGGAAUGG | 2393 | GACCUGCCCGCCUUGUCGA |
| 2265 | ACAGGCUCACGGCUGCAUG | 2308 | CAACUUGGAGGACAGAGAC | 2351 | CACUCCACCACGGAAUGGG | 2394 | ACCUGCCCGCCUUGUCGAC |
| 2266 | CAGGCUCACGGCUGCAUGC | 2309 | AACUUGGAGGACAGAGACA | 2352 | ACUCCACCACGGAAUGGGC | 2395 | CCUGCCCGCCUUGUCGACU |
| 2267 | AGGCUCACGGCUGCAUGCA | 2310 | ACUUGGAGGACAGAGACAG | 2353 | CUCCACCACGGAAUGGGCC | 2396 | CUGCCCGCCUUGUCGACUG |
| 2268 | GGCUCACGGCUGCAUGCAA | 2311 | CUUGGAGGACAGAGACAGA | 2354 | UCCACCACGGAAUGGGCCA | 2397 | UGCCCGCCUUGUCGACUGG |
| 2269 | GCUCACGGCUGCAUGCAAU | 2312 | UUGGAGGACAGAGACAGAA | 2355 | CCACCACGGAAUGGGCCAU | 2398 | GCCCGCCUUGUCGACUGGU |
| 2270 | CUCACGGCUGCAUGCAAUU | 2313 | UGGAGGACAGAGACAGAAG | 2356 | CACCACGGAAUGGGCCAUU | 2399 | CCCGCCUUGUCGACUGGUC |
| 2271 | UCACGGCUGCAUGCAAUUU | 2314 | GGAGGACAGAGACAGAAGU | 2357 | ACCACGGAAUGGGCCAUUU | 2400 | CCGCCUUGUCGACUGGUCU |
| 2272 | CACGGCUGCAUGCAAUUUC | 2315 | GAGGACAGAGACAGAAGUC | 2358 | CCACGGAAUGGGCCAUUUU | 2401 | CGCCUUGUCGACUGGUCUU |
| 2273 | ACGGCUGCAUGCAAUUUCA | 2316 | AGGACAGAGACAGAAGUCA | 2359 | CACGGAAUGGGCCAUUUUA | 2402 | GCCUUGUCGACUGGUCUUC |
| 2274 | CGGCUGCAUGCAAUUUCAC | 2317 | GGACAGAGACAGAAGUCAA | 2360 | ACGGAAUGGGCCAUUUUAC | 2403 | CCUUGUCGACUGGUCUUCU |
| 2275 | GGCUGCAUGCAAUUUCACU | 2318 | GACAGAGACAGAAGUCAAC | 2361 | CGGAAUGGGCCAUUUUACC | 2404 | CUUGUCGACUGGUCUUCUC |
| 2276 | GCUGCAUGCAAUUUCACUC | 2319 | ACAGAGACAGAAGUCAACU | 2362 | GGAAUGGGCCAUUUUACCU | 2405 | UUGUCGACUGGUCUUCUCC |
| 2277 | CUGCAUGCAAUUUCACUCG | 2320 | CAGAGACAGAAGUCAACUG | 2363 | GAAUGGGCCAUUUUACCUU | 2406 | UGUCGACUGGUCUUCUCCA |
| 2278 | UGCAUGCAAUUUCACUCGU | 2321 | AGAGACAGAAGUCAACUGU | 2364 | AAUGGGCCAUUUUACCUUG | 2407 | GUCGACUGGUCUUCUCCAC |
| 2279 | GCAUGCAAUUUCACUCGUG | 2322 | GAGACAGAAGUCAACUGUC | 2365 | AUGGGCCAUUUUACCUUGC | 2408 | UCGACUGGUCUUCUCCACC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2409 | CGACUGGUCUUCUCCACCU | 2452 | AUUCAUGUAUGGCCUAUCA | 2495 | CGAUGGGAGUGGGUAAUAC | 2538 | CCAGGGUUUGCGCCUGCUU |
| 2410 | GACUGGUCUUCUCCACCUC | 2453 | UUCAUGUAUGGCCUAUCAC | 2496 | GAUGGGAGUGGGUAAUACU | 2539 | CAGGGUUUGCGCCUGCUUA |
| 2411 | ACUGGUCUUCUCCACCUCC | 2454 | UCAUGUAUGGCCUAUCACC | 2497 | AUGGGAGUGGGUAAUACUC | 2540 | AGGGUUUGCGCCUGCUUAU |
| 2412 | CUGGUCUUCUCCACCUCCA | 2455 | CAUGUAUGGCCUAUCACCU | 2498 | UGGGAGUGGGUAAUACUCU | 2541 | GGGUUUGCGCCUGCUUAUG |
| 2413 | UGGUCUUCUCCACCUCCAC | 2456 | AUGUAUGGCCUAUCACCUG | 2499 | GGGAGUGGGUAAUACUCUU | 2542 | GGUUUGCGCCUGCUUAUGG |
| 2414 | GGUCUUCUCCACCUCCACC | 2457 | UGUAUGGCCUAUCACCUGC | 2500 | GGAGUGGGUAAUACUCUUA | 2543 | GUUUGCGCCUGCUUAUGGA |
| 2415 | GUCUUCUCCACCUCCACCA | 2458 | GUAUGGCCUAUCACCUGCC | 2501 | GAGUGGGUAAUACUCUUAU | 2544 | UUUGCGCCUGCUUAUGGAU |
| 2416 | UCUUCUCCACCUCCACCAA | 2459 | UAUGGCCUAUCACCUGCCC | 2502 | AGUGGGUAAUACUCUUAUU | 2545 | UUGCGCCUGCUUAUGGAUG |
| 2417 | CUUCUCCACCUCCACCAAA | 2460 | AUGGCCUAUCACCUGCCCU | 2503 | GUGGGUAAUACUCUUAUUC | 2546 | UGCGCCUGCUUAUGGAUGC |
| 2418 | UUCUCCACCUCCACCAAAA | 2461 | UGGCCUAUCACCUGCCCUC | 2504 | UGGGUAAUACUCUUAUUCC | 2547 | GCGCCUGCUUAUGGAUGCU |
| 2419 | UCUCCACCUCCACCAAAAC | 2462 | GGCCUAUCACCUGCCCUCA | 2505 | GGGUAAUACUCUUAUUCCU | 2548 | CGCCUGCUUAUGGAUGCUC |
| 2420 | CUCCACCUCCACCAAAACA | 2463 | GCCUAUCACCUGCCCUCAC | 2506 | GGUAAUACUCUUAUUCCUG | 2549 | GCCUGCUUAUGGAUGCUCA |
| 2421 | UCCACCUCCACCAAAACAU | 2464 | CCUAUCACCUGCCCUCACA | 2507 | GUAAUACUCUUAUUCCUGC | 2550 | CCUGCUUAUGGAUGCUCAU |
| 2422 | CCACCUCCACCAAAACAUC | 2465 | CUAUCACCUGCCCUCACAA | 2508 | UAAUACUCUUAUUCCUGCU | 2551 | CUGCUUAUGGAUGCUCAUC |
| 2423 | CACCUCCACCAAAACAUCG | 2466 | UAUCACCUGCCCUCACAAA | 2509 | AAUACUCUUAUUCCUGCUC | 2552 | UGCUUAUGGAUGCUCAUCU |
| 2424 | ACCUCCACCAAAACAUCGU | 2467 | AUCACCUGCCCUCACAAAA | 2510 | AUACUCUUAUUCCUGCUCU | 2553 | GCUUAUGGAUGCUCAUCUU |
| 2425 | CCUCCACCAAAACAUCGUG | 2468 | UCACCUGCCCUCACAAAAU | 2511 | UACUCUUAUUCCUGCUCUU | 2554 | CUUAUGGAUGCUCAUCUUG |
| 2426 | CUCCACCAAAACAUCGUGG | 2469 | CACCUGCCCUCACAAAAUA | 2512 | ACUCUUAUUCCUGCUCUUA | 2555 | UUAUGGAUGCUCAUCUUGU |
| 2427 | UCCACCAAAACAUCGUGGA | 2470 | ACCUGCCCUCACAAAAUAC | 2513 | CUCUUAUUCCUGCUCUUAG | 2556 | UAUGGAUGCUCAUCUUGUU |
| 2428 | CCACCAAAACAUCGUGGAC | 2471 | CCUGCCCUCACAAAAUACA | 2514 | UCUUAUUCCUGCUCUUAGC | 2557 | AUGGAUGCUCAUCUUGUUG |
| 2429 | CACCAAAACAUCGUGGACG | 2472 | CUGCCCUCACAAAAUACAU | 2515 | CUUAUUCCUGCUCUUAGCG | 2558 | UGGAUGCUCAUCUUGUUGG |
| 2430 | ACCAAAACAUCGUGGACGU | 2473 | UGCCCUCACAAAAUACAUC | 2516 | UUAUUCCUGCUCUUAGCGG | 2559 | GGAUGCUCAUCUUGUUGGG |
| 2431 | CCAAAACAUCGUGGACGUA | 2474 | GCCCUCACAAAAUACAUCG | 2517 | UAUUCCUGCUCUUAGCGGA | 2560 | GAUGCUCAUCUUGUUGGGC |
| 2432 | CAAAACAUCGUGGACGUAC | 2475 | CCCUCACAAAAUACAUCGU | 2518 | AUUCCUGCUCUUAGCGGAC | 2561 | AUGCUCAUCUUGUUGGGCC |
| 2433 | AAAACAUCGUGGACGUACA | 2476 | CCUCACAAAAUACAUCGUC | 2519 | UUCCUGCUCUUAGCGGACG | 2562 | UGCUCAUCUUGUUGGGCCA |
| 2434 | AAACAUCGUGGACGUACAA | 2477 | CUCACAAAAUACAUCGUCC | 2520 | UCCUGCUCUUAGCGGACGC | 2563 | GCUCAUCUUGUUGGGCCAG |
| 2435 | AACAUCGUGGACGUACAAU | 2478 | UCACAAAAUACAUCGUCCG | 2521 | CCUGCUCUUAGCGGACGCC | 2564 | CUCAUCUUGUUGGGCCAGG |
| 2436 | ACAUCGUGGACGUACAAUU | 2479 | CACAAAAUACAUCGUCCGA | 2522 | CUGCUCUUAGCGGACGCCA | 2565 | UCAUCUUGUUGGGCCAGGC |
| 2437 | CAUCGUGGACGUACAAUUC | 2480 | ACAAAAUACAUCGUCCGAU | 2523 | UGCUCUUAGCGGACGCCAG | 2566 | CAUCUUGUUGGGCCAGGCC |
| 2438 | AUCGUGGACGUACAAUUCA | 2481 | CAAAAUACAUCGUCCGAUG | 2524 | GCUCUUAGCGGACGCCAGG | 2567 | AUCUUGUUGGGCCAGGCCG |
| 2439 | UCGUGGACGUACAAUUCAU | 2482 | AAAAUACAUCGUCCGAUGG | 2525 | CUCUUAGCGGACGCCAGGG | 2568 | UCUUGUUGGGCCAGGCCGA |
| 2440 | CGUGGACGUACAAUUCAUG | 2483 | AAAUACAUCGUCCGAUGGG | 2526 | UCUUAGCGGACGCCAGGGU | 2569 | CUUGUUGGGCCAGGCCGAA |
| 2441 | GUGGACGUACAAUUCAUGU | 2484 | AAUACAUCGUCCGAUGGGA | 2527 | CUUAGCGGACGCCAGGGUU | 2570 | UUGUUGGGCCAGGCCGAAG |
| 2442 | UGGACGUACAAUUCAUGUA | 2485 | AUACAUCGUCCGAUGGGAG | 2528 | UUAGCGGACGCCAGGGUUU | 2571 | UGUUGGGCCAGGCCGAAGC |
| 2443 | GGACGUACAAUUCAUGUAU | 2486 | UACAUCGUCCGAUGGGAGU | 2529 | UAGCGGACGCCAGGGUUUG | 2572 | GUUGGGCCAGGCCGAAGCA |
| 2444 | GACGUACAAUUCAUGUAUG | 2487 | ACAUCGUCCGAUGGGAGUG | 2530 | AGCGGACGCCAGGGUUUGC | 2573 | UUGGGCCAGGCCGAAGCAG |
| 2445 | ACGUACAAUUCAUGUAUGG | 2488 | CAUCGUCCGAUGGGAGUGG | 2531 | GCGGACGCCAGGGUUUGCG | 2574 | UGGGCCAGGCCGAAGCAGC |
| 2446 | CGUACAAUUCAUGUAUGGC | 2489 | AUCGUCCGAUGGGAGUGGG | 2532 | CGGACGCCAGGGUUUGCGC | 2575 | GGGCCAGGCCGAAGCAGCA |
| 2447 | GUACAAUUCAUGUAUGGCC | 2490 | UCGUCCGAUGGGAGUGGGU | 2533 | GGACGCCAGGGUUUGCGCC | 2576 | GGCCAGGCCGAAGCAGCAC |
| 2448 | UACAAUUCAUGUAUGGCCU | 2491 | CGUCCGAUGGGAGUGGGUA | 2534 | GACGCCAGGGUUUGCGCCU | 2577 | GCCAGGCCGAAGCAGCACU |
| 2449 | ACAAUUCAUGUAUGGCCUA | 2492 | GUCCGAUGGGAGUGGGUAA | 2535 | ACGCCAGGGUUUGCGCCUG | 2578 | CCAGGCCGAAGCAGCACUA |
| 2450 | CAAUUCAUGUAUGGCCUAU | 2493 | UCCGAUGGGAGUGGGUAAU | 2536 | CGCCAGGGUUUGCGCCUGC | 2579 | CAGGCCGAAGCAGCACUAG |
| 2451 | AAUUCAUGUAUGGCCUAUC | 2494 | CCGAUGGGAGUGGGUAAUA | 2537 | GCCAGGGUUUGCGCCUGCU | 2580 | AGGCCGAAGCAGCACUAGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2581 | GGCCGAAGCAGCACUAGAG | 2624 | AGCGCAGCUAGCUGCAAUG | 2667 | UCGUGGCUGCUUGGUACAU | 2710 | UACCUAUUCCCUCACUGGC |
| 2582 | GCCGAAGCAGCACUAGAGA | 2625 | GCGCAGCUAGCUGCAAUGG | 2668 | CGUGGCUGCUUGGUACAUC | 2711 | ACCUAUUCCCUCACUGGCC |
| 2583 | CCGAAGCAGCACUAGAGAA | 2626 | CGCAGCUAGCUGCAAUGGC | 2669 | GUGGCUGCUUGGUACAUCA | 2712 | CCUAUUCCCUCACUGGCCU |
| 2584 | CGAAGCAGCACUAGAGAAG | 2627 | GCAGCUAGCUGCAAUGGCU | 2670 | UGGCUGCUUGGUACAUCAA | 2713 | CUAUUCCCUCACUGGCCUG |
| 2585 | GAAGCAGCACUAGAGAAGC | 2628 | CAGCUAGCUGCAAUGGCUU | 2671 | GGCUGCUUGGUACAUCAAG | 2714 | UAUUCCCUCACUGGCCUGU |
| 2586 | AAGCAGCACUAGAGAAGCU | 2629 | AGCUAGCUGCAAUGGCUUC | 2672 | GCUGCUUGGUACAUCAAGG | 2715 | AUUCCCUCACUGGCCUGUG |
| 2587 | AGCAGCACUAGAGAAGCUG | 2630 | GCUAGCUGCAAUGGCUUCC | 2673 | CUGCUUGGUACAUCAAGGG | 2716 | UUCCCUCACUGGCCUGUGG |
| 2588 | GCAGCACUAGAGAAGCUGG | 2631 | CUAGCUGCAAUGGCUUCCU | 2674 | UGCUUGGUACAUCAAGGGU | 2717 | UCCCUCACUGGCCUGUGGU |
| 2589 | CAGCACUAGAGAAGCUGGU | 2632 | UAGCUGCAAUGGCUUCCUA | 2675 | GCUUGGUACAUCAAGGGUC | 2718 | CCCUCACUGGCCUGUGGUC |
| 2590 | AGCACUAGAGAAGCUGGUC | 2633 | AGCUGCAAUGGCUUCCUAU | 2676 | CUUGGUACAUCAAGGGUCG | 2719 | CCUCACUGGCCUGUGGUCC |
| 2591 | GCACUAGAGAAGCUGGUCA | 2634 | GCUGCAAUGGCUUCCUAUA | 2677 | UUGGUACAUCAAGGGUCGG | 2720 | CUCACUGGCCUGUGGUCCU |
| 2592 | CACUAGAGAAGCUGGUCAU | 2635 | CUGCAAUGGCUUCCUAUAU | 2678 | UGGUACAUCAAGGGUCGGG | 2721 | UCACUGGCCUGUGGUCCUU |
| 2593 | ACUAGAGAAGCUGGUCAUC | 2636 | UGCAAUGGCUUCCUAUAUU | 2679 | GGUACAUCAAGGGUCGGGU | 2722 | CACUGGCCUGUGGUCCUUU |
| 2594 | CUAGAGAAGCUGGUCAUCU | 2637 | GCAAUGGCUUCCUAUAUUU | 2680 | GUACAUCAAGGGUCGGGUA | 2723 | ACUGGCCUGUGGUCCUUUA |
| 2595 | UAGAGAAGCUGGUCAUCUU | 2638 | CAAUGGCUUCCUAUAUUUU | 2681 | UACAUCAAGGGUCGGGUAG | 2724 | CUGGCCUGUGGUCCUUUAG |
| 2596 | AGAGAAGCUGGUCAUCUUG | 2639 | AAUGGCUUCCUAUAUUUUG | 2682 | ACAUCAAGGGUCGGGUAGU | 2725 | UGGCCUGUGGUCCUUUAGC |
| 2597 | GAGAAGCUGGUCAUCUUGC | 2640 | AUGGCUUCCUAUAUUUUGU | 2683 | CAUCAAGGGUCGGGUAGUC | 2726 | GGCCUGUGGUCCUUUAGCC |
| 2598 | AGAAGCUGGUCAUCUUGCA | 2641 | UGGCUUCCUAUAUUUUGUC | 2684 | AUCAAGGGUCGGGUAGUCC | 2727 | GCCUGUGGUCCUUUAGCCU |
| 2599 | GAAGCUGGUCAUCUUGCAC | 2642 | GGCUUCCUAUAUUUUGUCA | 2685 | UCAAGGGUCGGGUAGUCCC | 2728 | CCUGUGGUCCUUUAGCCUA |
| 2600 | AAGCUGGUCAUCUUGCACG | 2643 | GCUUCCUAUAUUUUGUCAU | 2686 | CAAGGGUCGGGUAGUCCCC | 2729 | CUGUGGUCCUUUAGCCUAC |
| 2601 | AGCUGGUCAUCUUGCACGC | 2644 | CUUCCUAUAUUUUGUCAUC | 2687 | AAGGGUCGGGUAGUCCCCU | 2730 | UGUGGUCCUUUAGCCUACU |
| 2602 | GCUGGUCAUCUUGCACGCU | 2645 | UUCCUAUAUUUUGUCAUCU | 2688 | AGGGUCGGGUAGUCCCCUU | 2731 | GUGGUCCUUUAGCCUACUG |
| 2603 | CUGGUCAUCUUGCACGCUG | 2646 | UCCUAUAUUUUGUCAUCUU | 2689 | GGGUCGGGUAGUCCCCUUA | 2732 | UGGUCCUUUAGCCUACUGC |
| 2604 | UGGUCAUCUUGCACGCUGC | 2647 | CCUAUAUUUUGUCAUCUUU | 2690 | GGUCGGGUAGUCCCCUUAG | 2733 | GGUCCUUUAGCCUACUGCU |
| 2605 | GGUCAUCUUGCACGCUGCG | 2648 | CUAUAUUUUGUCAUCUUUU | 2691 | GUCGGGUAGUCCCCUUAGC | 2734 | GUCCUUUAGCCUACUGCUC |
| 2606 | GUCAUCUUGCACGCUGCGA | 2649 | UAUAUUUUGUCAUCUUUUU | 2692 | UCGGGUAGUCCCCUUAGCU | 2735 | UCCUUUAGCCUACUGCUCC |
| 2607 | UCAUCUUGCACGCUGCGAG | 2650 | AUAUUUUGUCAUCUUUUUC | 2693 | CGGGUAGUCCCCUUAGCUA | 2736 | CCUUUAGCCUACUGCUCCU |
| 2608 | CAUCUUGCACGCUGCGAGC | 2651 | UAUUUUGUCAUCUUUUUCG | 2694 | GGGUAGUCCCCUUAGCUAC | 2737 | CUUUAGCCUACUGCUCCUA |
| 2609 | AUCUUGCACGCUGCGAGCG | 2652 | AUUUUGUCAUCUUUUUCGU | 2695 | GGUAGUCCCCUUAGCUACC | 2738 | UUUAGCCUACUGCUCCUAG |
| 2610 | UCUUGCACGCUGCGAGCGC | 2653 | UUUUGUCAUCUUUUUCGUG | 2696 | GUAGUCCCCUUAGCUACCU | 2739 | UUAGCCUACUGCUCCUAGC |
| 2611 | CUUGCACGCUGCGAGCGCA | 2654 | UUUGUCAUCUUUUUCGUGG | 2697 | UAGUCCCCUUAGCUACCUA | 2740 | UAGCCUACUGCUCCUAGCA |
| 2612 | UUGCACGCUGCGAGCGCAG | 2655 | UUGUCAUCUUUUUCGUGGC | 2698 | AGUCCCCUUAGCUACCUAU | 2741 | AGCCUACUGCUCCUAGCAU |
| 2613 | UGCACGCUGCGAGCGCAGC | 2656 | UGUCAUCUUUUUCGUGGCU | 2699 | GUCCCCUUAGCUACCUAUU | 2742 | GCCUACUGCUCCUAGCAUU |
| 2614 | GCACGCUGCGAGCGCAGCU | 2657 | GUCAUCUUUUUCGUGGCUG | 2700 | UCCCCUUAGCUACCUAUUC | 2743 | CCUACUGCUCCUAGCAUUG |
| 2615 | CACGCUGCGAGCGCAGCUA | 2658 | UCAUCUUUUUCGUGGCUGC | 2701 | CCCCUUAGCUACCUAUUCC | 2744 | CUACUGCUCCUAGCAUUGC |
| 2616 | ACGCUGCGAGCGCAGCUAG | 2659 | CAUCUUUUUCGUGGCUGCU | 2702 | CCCUUAGCUACCUAUUCCC | 2745 | UACUGCUCCUAGCAUUGCC |
| 2617 | CGCUGCGAGCGCAGCUAGC | 2660 | AUCUUUUUCGUGGCUGCUU | 2703 | CCUUAGCUACCUAUUCCCU | 2746 | ACUGCUCCUAGCAUUGCCC |
| 2618 | GCUGCGAGCGCAGCUAGCU | 2661 | UCUUUUUCGUGGCUGCUUG | 2704 | CUUAGCUACCUAUUCCCUC | 2747 | CUGCUCCUAGCAUUGCCCC |
| 2619 | CUGCGAGCGCAGCUAGCUG | 2662 | CUUUUUCGUGGCUGCUUGG | 2705 | UUAGCUACCUAUUCCCUCA | 2748 | UGCUCCUAGCAUUGCCCCA |
| 2620 | UGCGAGCGCAGCUAGCUGC | 2663 | UUUUUCGUGGCUGCUUGGU | 2706 | UAGCUACCUAUUCCCUCAC | 2749 | GCUCCUAGCAUUGCCCCAA |
| 2621 | GCGAGCGCAGCUAGCUGCA | 2664 | UUUUCGUGGCUGCUUGGUA | 2707 | AGCUACCUAUUCCCUCACU | 2750 | CUCCUAGCAUUGCCCCAAC |
| 2622 | CGAGCGCAGCUAGCUGCAA | 2665 | UUUCGUGGCUGCUUGGUAC | 2708 | GCUACCUAUUCCCUCACUG | 2751 | UCCUAGCAUUGCCCCAACA |
| 2623 | GAGCGCAGCUAGCUGCAAU | 2666 | UUCGUGGCUGCUUGGUACA | 2709 | CUACCUAUUCCCUCACUGG | 2752 | CCUAGCAUUGCCCCAACAG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2753 | CUAGCAUUGCCCCAACAGG | 2796 | AUGGCCAGAUAGGAGCGGC | 2839 | UACUCUCACCCCCGGGUAU | 2882 | UGGUGGUUGUGCUAUCUUC |
| 2754 | UAGCAUUGCCCCAACAGGC | 2797 | UGGCCAGAUAGGAGCGGCU | 2840 | ACUCUCACCCCCGGGUAUA | 2883 | GGUGGUUGUGCUAUCUUCU |
| 2755 | AGCAUUGCCCCAACAGGCU | 2798 | GGCCAGAUAGGAGCGGCUC | 2841 | CUCUCACCCCCGGGUAUAA | 2884 | GUGGUUGUGCUAUCUUCUG |
| 2756 | GCAUUGCCCCAACAGGCUU | 2799 | GCCAGAUAGGAGCGGCUCU | 2842 | UCUCACCCCCGGGUAUAAG | 2885 | UGGUUGUGCUAUCUUCUGA |
| 2757 | CAUUGCCCCAACAGGCUUA | 2800 | CCAGAUAGGAGCGGCUCUG | 2843 | CUCACCCCCGGGUAUAAGA | 2886 | GGUUGUGCUAUCUUCUGAC |
| 2758 | AUUGCCCCAACAGGCUUAU | 2801 | CAGAUAGGAGCGGCUCUGC | 2844 | UCACCCCCGGGUAUAAGAC | 2887 | GUUGUGCUAUCUUCUGACC |
| 2759 | UUGCCCCAACAGGCUUAUG | 2802 | AGAUAGGAGCGGCUCUGCU | 2845 | CACCCCCGGGUAUAAGACC | 2888 | UUGUGCUAUCUUCUGACCC |
| 2760 | UGCCCCAACAGGCUUAUGC | 2803 | GAUAGGAGCGGCUCUGCUG | 2846 | ACCCCCGGGUAUAAGACCC | 2889 | UGUGCUAUCUUCUGACCCU |
| 2761 | GCCCCAACAGGCUUAUGCU | 2804 | AUAGGAGCGGCUCUGCUGG | 2847 | CCCCCGGGUAUAAGACCCU | 2890 | GUGCUAUCUUCUGACCCUG |
| 2762 | CCCCAACAGGCUUAUGCUU | 2805 | UAGGAGCGGCUCUGCUGGU | 2848 | CCCCGGGUAUAAGACCCUU | 2891 | UGCUAUCUUCUGACCCUGG |
| 2763 | CCCAACAGGCUUAUGCUUA | 2806 | AGGAGCGGCUCUGCUGGUA | 2849 | CCCGGGUAUAAGACCCUUC | 2892 | GCUAUCUUCUGACCCUGGG |
| 2764 | CCAACAGGCUUAUGCUUAU | 2807 | GGAGCGGCUCUGCUGGUAA | 2850 | CCGGGUAUAAGACCCUUCU | 2893 | CUAUCUUCUGACCCUGGGG |
| 2765 | CAACAGGCUUAUGCUUAUG | 2808 | GAGCGGCUCUGCUGGUAAU | 2851 | CGGGUAUAAGACCCUUCUC | 2894 | UAUCUUCUGACCCUGGGGG |
| 2766 | AACAGGCUUAUGCUUAUGA | 2809 | AGCGGCUCUGCUGGUAAUG | 2852 | GGGUAUAAGACCCUUCUCA | 2895 | AUCUUCUGACCCUGGGGGA |
| 2767 | ACAGGCUUAUGCUUAUGAC | 2810 | GCGGCUCUGCUGGUAAUGA | 2853 | GGUAUAAGACCCUUCUCAG | 2896 | UCUUCUGACCCUGGGGGAA |
| 2768 | CAGGCUUAUGCUUAUGACG | 2811 | CGGCUCUGCUGGUAAUGAU | 2854 | GUAUAAGACCCUUCUCAGC | 2897 | CUUCUGACCCUGGGGGAAG |
| 2769 | AGGCUUAUGCUUAUGACGC | 2812 | GGCUCUGCUGGUAAUGAUC | 2855 | UAUAAGACCCUUCUCAGCC | 2898 | UUCUGACCCUGGGGGAAGC |
| 2770 | GGCUUAUGCUUAUGACGCA | 2813 | GCUCUGCUGGUAAUGAUCA | 2856 | AUAAGACCCUUCUCAGCCG | 2899 | UCUGACCCUGGGGGAAGCU |
| 2771 | GCUUAUGCUUAUGACGCAU | 2814 | CUCUGCUGGUAAUGAUCAC | 2857 | UAAGACCCUUCUCAGCCGG | 2900 | CUGACCCUGGGGGAAGCUA |
| 2772 | CUUAUGCUUAUGACGCAUC | 2815 | UCUGCUGGUAAUGAUCACU | 2858 | AAGACCCUUCUCAGCCGGU | 2901 | UGACCCUGGGGGAAGCUAU |
| 2773 | UUAUGCUUAUGACGCAUCU | 2816 | CUGCUGGUAAUGAUCACUC | 2859 | AGACCCUUCUCAGCCGGUU | 2902 | GACCCUGGGGGAAGCUAUG |
| 2774 | UAUGCUUAUGACGCAUCUG | 2817 | UGCUGGUAAUGAUCACUCU | 2860 | GACCCUUCUCAGCCGGUUU | 2903 | ACCCUGGGGGAAGCUAUGG |
| 2775 | AUGCUUAUGACGCAUCUGU | 2818 | GCUGGUAAUGAUCACUCUC | 2861 | ACCCUUCUCAGCCGGUUUU | 2904 | CCCUGGGGGAAGCUAUGGU |
| 2776 | UGCUUAUGACGCAUCUGUG | 2819 | CUGGUAAUGAUCACUCUCU | 2862 | CCCUUCUCAGCCGGUUUUU | 2905 | CCUGGGGGAAGCUAUGGUC |
| 2777 | GCUUAUGACGCAUCUGUGC | 2820 | UGGUAAUGAUCACUCUCUU | 2863 | CCUUCUCAGCCGGUUUUUG | 2906 | CUGGGGGAAGCUAUGGUCC |
| 2778 | CUUAUGACGCAUCUGUGCA | 2821 | GGUAAUGAUCACUCUCUUU | 2864 | CUUCUCAGCCGGUUUUUGU | 2907 | UGGGGGAAGCUAUGGUCCA |
| 2779 | UUAUGACGCAUCUGUGCAU | 2822 | GUAAUGAUCACUCUCUUUA | 2865 | UUCUCAGCCGGUUUUUGUG | 2908 | GGGGGAAGCUAUGGUCCAG |
| 2780 | UAUGACGCAUCUGUGCAUG | 2823 | UAAUGAUCACUCUCUUUAC | 2866 | UCUCAGCCGGUUUUUGUGG | 2909 | GGGGAAGCUAUGGUCCAGG |
| 2781 | AUGACGCAUCUGUGCAUGG | 2824 | AAUGAUCACUCUCUUUACU | 2867 | CUCAGCCGGUUUUUGUGGU | 2910 | GGGAAGCUAUGGUCCAGGA |
| 2782 | UGACGCAUCUGUGCAUGGC | 2825 | AUGAUCACUCUCUUUACUC | 2868 | UCAGCCGGUUUUUGUGGUG | 2911 | GGAAGCUAUGGUCCAGGAG |
| 2783 | GACGCAUCUGUGCAUGGCC | 2826 | UGAUCACUCUCUUUACUCU | 2869 | CAGCCGGUUUUUGUGGUGG | 2912 | GAAGCUAUGGUCCAGGAGU |
| 2784 | ACGCAUCUGUGCAUGGCCA | 2827 | GAUCACUCUCUUUACUCUC | 2870 | AGCCGGUUUUUGUGGUGGU | 2913 | AAGCUAUGGUCCAGGAGUG |
| 2785 | CGCAUCUGUGCAUGGCCAG | 2828 | AUCACUCUCUUUACUCUCA | 2871 | GCCGGUUUUUGUGGUGGUU | 2914 | AGCUAUGGUCCAGGAGUGG |
| 2786 | GCAUCUGUGCAUGGCCAGA | 2829 | UCACUCUCUUUACUCUCAC | 2872 | CCGGUUUUUGUGGUGGUUG | 2915 | GCUAUGGUCCAGGAGUGGG |
| 2787 | CAUCUGUGCAUGGCCAGAU | 2830 | CACUCUCUUUACUCUCACC | 2873 | CGGUUUUUGUGGUGGUUGU | 2916 | CUAUGGUCCAGGAGUGGGC |
| 2788 | AUCUGUGCAUGGCCAGAUA | 2831 | ACUCUCUUUACUCUCACCC | 2874 | GGUUUUUGUGGUGGUUGUG | 2917 | UAUGGUCCAGGAGUGGGCA |
| 2789 | UCUGUGCAUGGCCAGAUAG | 2832 | CUCUCUUUACUCUCACCCC | 2875 | GUUUUUGUGGUGGUUGUGC | 2918 | AUGGUCCAGGAGUGGGCAC |
| 2790 | CUGUGCAUGGCCAGAUAGG | 2833 | UCUCUUUACUCUCACCCCC | 2876 | UUUUUGUGGUGGUUGUGCU | 2919 | UGGUCCAGGAGUGGGCACC |
| 2791 | UGUGCAUGGCCAGAUAGGA | 2834 | CUCUUUACUCUCACCCCCG | 2877 | UUUUGUGGUGGUUGUGCUA | 2920 | GGUCCAGGAGUGGGCACCA |
| 2792 | GUGCAUGGCCAGAUAGGAG | 2835 | UCUUUACUCUCACCCCCGG | 2878 | UUUGUGGUGGUUGUGCUAU | 2921 | GUCCAGGAGUGGGCACCAC |
| 2793 | UGCAUGGCCAGAUAGGAGC | 2836 | CUUUACUCUCACCCCCGGG | 2879 | UUGUGGUGGUUGUGCUAUC | 2922 | UCCAGGAGUGGGCACCACC |
| 2794 | GCAUGGCCAGAUAGGAGCG | 2837 | UUUACUCUCACCCCCGGGU | 2880 | UGUGGUGGUUGUGCUAUCU | 2923 | CCAGGAGUGGGCACCACCU |
| 2795 | CAUGGCCAGAUAGGAGCGG | 2838 | UUACUCUCACCCCCGGGUA | 2881 | GUGGUGGUUGUGCUAUCUU | 2924 | CAGGAGUGGGCACCACCUA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2925 | AGGAGUGGGCACCACCUAU | 2968 | CAUCAUAUGGGCCGUCGCC | 3011 | GACAUAACCAAGUGGCUCU | 3054 | UCCUAAAAGGUGCUUUGAC |
| 2926 | GGAGUGGGCACCACCUAUG | 2969 | AUCAUAUGGGCCGUCGCCA | 3012 | ACAUAACCAAGUGGCUCUU | 3055 | CCUAAAAGGUGCUUUGACG |
| 2927 | GAGUGGGCACCACCUAUGC | 2970 | UCAUAUGGGCCGUCGCCAU | 3013 | CAUAACCAAGUGGCUCUUG | 3056 | CUAAAAGGUGCUUUGACGC |
| 2928 | AGUGGGCACCACCUAUGCA | 2971 | CAUAUGGGCCGUCGCCAUA | 3014 | AUAACCAAGUGGCUCUUGG | 3057 | UAAAAGGUGCUUUGACGCG |
| 2929 | GUGGGCACCACCUAUGCAG | 2972 | AUAUGGGCCGUCGCCAUAU | 3015 | UAACCAAGUGGCUCUUGGC | 3058 | AAAAGGUGCUUUGACGCGC |
| 2930 | UGGGCACCACCUAUGCAGG | 2973 | UAUGGGCCGUCGCCAUAUU | 3016 | AACCAAGUGGCUCUUGGCG | 3059 | AAAGGUGCUUUGACGCGCG |
| 2931 | GGGCACCACCUAUGCAGGU | 2974 | AUGGGCCGUCGCCAUAUUC | 3017 | ACCAAGUGGCUCUUGGCGG | 3060 | AAGGUGCUUUGACGCGCGU |
| 2932 | GGCACCACCUAUGCAGGUG | 2975 | UGGGCCGUCGCCAUAUUCU | 3018 | CCAAGUGGCUCUUGGCGGU | 3061 | AGGUGCUUUGACGCGCGUG |
| 2933 | GCACCACCUAUGCAGGUGC | 2976 | GGGCCGUCGCCAUAUUCUA | 3019 | CAAGUGGCUCUUGGCGGUG | 3062 | GGUGCUUUGACGCGCGUGC |
| 2934 | CACCACCUAUGCAGGUGCG | 2977 | GGCCGUCGCCAUAUUCUAC | 3020 | AAGUGGCUCUUGGCGGUGC | 3063 | GUGCUUUGACGCGCGUGCC |
| 2935 | ACCACCUAUGCAGGUGCGC | 2978 | GCCGUCGCCAUAUUCUACC | 3021 | AGUGGCUCUUGGCGGUGCU | 3064 | UGCUUUGACGCGCGUGCCG |
| 2936 | CCACCUAUGCAGGUGCGCG | 2979 | CCGUCGCCAUAUUCUACCC | 3022 | GUGGCUCUUGGCGGUGCUU | 3065 | GCUUUGACGCGCGUGCCGU |
| 2937 | CACCUAUGCAGGUGCGCGG | 2980 | CGUCGCCAUAUUCUACCCA | 3023 | UGGCUCUUGGCGGUGCUUG | 3066 | CUUUGACGCGCGUGCCGUA |
| 2938 | ACCUAUGCAGGUGCGCGGU | 2981 | GUCGCCAUAUUCUACCCAG | 3024 | GGCUCUUGGCGGUGCUUGG | 3067 | UUUGACGCGCGUGCCGUAC |
| 2939 | CCUAUGCAGGUGCGCGGUG | 2982 | UCGCCAUAUUCUACCCAGG | 3025 | GCUCUUGGCGGUGCUUGGG | 3068 | UUGACGCGCGUGCCGUACU |
| 2940 | CUAUGCAGGUGCGCGGUGG | 2983 | CGCCAUAUUCUACCCAGGU | 3026 | CUCUUGGCGGUGCUUGGGC | 3069 | UGACGCGCGUGCCGUACUU |
| 2941 | UAUGCAGGUGCGCGGUGGC | 2984 | GCCAUAUUCUACCCAGGUG | 3027 | UCUUGGCGGUGCUUGGGCC | 3070 | GACGCGCGUGCCGUACUUC |
| 2942 | AUGCAGGUGCGCGGUGGCC | 2985 | CCAUAUUCUACCCAGGUGU | 3028 | CUUGGCGGUGCUUGGGCCU | 3071 | ACGCGCGUGCCGUACUUCG |
| 2943 | UGCAGGUGCGCGGUGGCCG | 2986 | CAUAUUCUACCCAGGUGUG | 3029 | UUGGCGGUGCUUGGGCCUG | 3072 | CGCGCGUGCCGUACUUCGU |
| 2944 | GCAGGUGCGCGGUGGCCGU | 2987 | AUAUUCUACCCAGGUGUGG | 3030 | UGGCGGUGCUUGGGCCUGC | 3073 | GCGCGUGCCGUACUUCGUC |
| 2945 | CAGGUGCGCGGUGGCCGUG | 2988 | UAUUCUACCCAGGUGUGGU | 3031 | GGCGGUGCUUGGGCCUGCU | 3074 | CGCGUGCCGUACUUCGUCA |
| 2946 | AGGUGCGCGGUGGCCGUGA | 2989 | AUUCUACCCAGGUGUGGUG | 3032 | GCGGUGCUUGGGCCUGCUU | 3075 | GCGUGCCGUACUUCGUCAG |
| 2947 | GGUGCGCGGUGGCCGUGAU | 2990 | UUCUACCCAGGUGUGGUGU | 3033 | CGGUGCUUGGGCCUGCUUA | 3076 | CGUGCCGUACUUCGUCAGG |
| 2948 | GUGCGCGGUGGCCGUGAUG | 2991 | UCUACCCAGGUGUGGUGUU | 3034 | GGUGCUUGGGCCUGCUUAC | 3077 | GUGCCGUACUUCGUCAGGG |
| 2949 | UGCGCGGUGGCCGUGAUGG | 2992 | CUACCCAGGUGUGGUGUUU | 3035 | GUGCUUGGGCCUGCUUACC | 3078 | UGCCGUACUUCGUCAGGGC |
| 2950 | GCGCGGUGGCCGUGAUGGC | 2993 | UACCCAGGUGUGGUGUUUG | 3036 | UGCUUGGGCCUGCUUACCU | 3079 | GCCGUACUUCGUCAGGGCU |
| 2951 | CGCGGUGGCCGUGAUGGCA | 2994 | ACCCAGGUGUGGUGUUUGA | 3037 | GCUUGGGCCUGCUUACCUC | 3080 | CCGUACUUCGUCAGGGCUC |
| 2952 | GCGGUGGCCGUGAUGGCAU | 2995 | CCCAGGUGUGGUGUUUGAC | 3038 | CUUGGGCCUGCUUACCUCC | 3081 | CGUACUUCGUCAGGGCUCA |
| 2953 | CGGUGGCCGUGAUGGCAUC | 2996 | CCAGGUGUGGUGUUUGACA | 3039 | UUGGGCCUGCUUACCUCCU | 3082 | GUACUUCGUCAGGGCUCAC |
| 2954 | GGUGGCCGUGAUGGCAUCA | 2997 | CAGGUGUGGUGUUUGACAU | 3040 | UGGGCCUGCUUACCUCCUA | 3083 | UACUUCGUCAGGGCUCACG |
| 2955 | GUGGCCGUGAUGGCAUCAU | 2998 | AGGUGUGGUGUUUGACAUA | 3041 | GGGCCUGCUUACCUCCUAA | 3084 | ACUUCGUCAGGGCUCACGC |
| 2956 | UGGCCGUGAUGGCAUCAUA | 2999 | GGUGUGGUGUUUGACAUAA | 3042 | GGCCUGCUUACCUCCUAAA | 3085 | CUUCGUCAGGGCUCACGCU |
| 2957 | GGCCGUGAUGGCAUCAUAU | 3000 | GUGUGGUGUUUGACAUAAC | 3043 | GCCUGCUUACCUCCUAAAA | 3086 | UUCGUCAGGGCUCACGCUC |
| 2958 | GCCGUGAUGGCAUCAUAUG | 3001 | UGUGGUGUUUGACAUAACC | 3044 | CCUGCUUACCUCCUAAAAG | 3087 | UCGUCAGGGCUCACGCUCU |
| 2959 | CCGUGAUGGCAUCAUAUGG | 3002 | GUGGUGUUUGACAUAACCA | 3045 | CUGCUUACCUCCUAAAAGG | 3088 | CGUCAGGGCUCACGCUCUA |
| 2960 | CGUGAUGGCAUCAUAUGGG | 3003 | UGGUGUUUGACAUAACCAA | 3046 | UGCUUACCUCCUAAAAGGU | 3089 | GUCAGGGCUCACGCUCUAC |
| 2961 | GUGAUGGCAUCAUAUGGGC | 3004 | GGUGUUUGACAUAACCAAG | 3047 | GCUUACCUCCUAAAAGGUG | 3090 | UCAGGGCUCACGCUCUACU |
| 2962 | UGAUGGCAUCAUAUGGGCC | 3005 | GUGUUUGACAUAACCAAGU | 3048 | CUUACCUCCUAAAAGGUGC | 3091 | CAGGGCUCACGCUCUACUG |
| 2963 | GAUGGCAUCAUAUGGGCCG | 3006 | UGUUUGACAUAACCAAGUG | 3049 | UUACCUCCUAAAAGGUGCU | 3092 | AGGGCUCACGCUCUACUGA |
| 2964 | AUGGCAUCAUAUGGGCCGU | 3007 | GUUUGACAUAACCAAGUGG | 3050 | UACCUCCUAAAAGGUGCUU | 3093 | GGGCUCACGCUCUACUGAG |
| 2965 | UGGCAUCAUAUGGGCCGUC | 3008 | UUUGACAUAACCAAGUGGC | 3051 | ACCUCCUAAAAGGUGCUUU | 3094 | GGCUCACGCUCUACUGAGG |
| 2966 | GGCAUCAUAUGGGCCGUCG | 3009 | UUGACAUAACCAAGUGGCU | 3052 | CCUCCUAAAAGGUGCUUUG | 3095 | GCUCACGCUCUACUGAGGA |
| 2967 | GCAUCAUAUGGGCCGUCGC | 3010 | UGACAUAACCAAGUGGCUC | 3053 | CUCCUAAAAGGUGCUUUGA | 3096 | CUCACGCUCUACUGAGGAU |

**FIG. 3 (page 138 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3097 | UCACGCUCUACUGAGGAUG | 3140 | GGGGGCAGGUACGUCCAGA | 3183 | GGACUGGCACUUACAUCUA | 3226 | UUGGGCUGCUAGUGGCCUG |
| 3098 | CACGCUCUACUGAGGAUGU | 3141 | GGGGCAGGUACGUCCAGAU | 3184 | GACUGGCACUUACAUCUAU | 3227 | UGGGCUGCUAGUGGCCUGC |
| 3099 | ACGCUCUACUGAGGAUGUG | 3142 | GGGCAGGUACGUCCAGAUG | 3185 | ACUGGCACUUACAUCUAUG | 3228 | GGGCUGCUAGUGGCCUGCG |
| 3100 | CGCUCUACUGAGGAUGUGC | 3143 | GGCAGGUACGUCCAGAUGG | 3186 | CUGGCACUUACAUCUAUGA | 3229 | GGCUGCUAGUGGCCUGCGG |
| 3101 | GCUCUACUGAGGAUGUGCA | 3144 | GCAGGUACGUCCAGAUGGC | 3187 | UGGCACUUACAUCUAUGAC | 3230 | GCUGCUAGUGGCCUGCGGG |
| 3102 | CUCUACUGAGGAUGUGCAC | 3145 | CAGGUACGUCCAGAUGGCG | 3188 | GGCACUUACAUCUAUGACC | 3231 | CUGCUAGUGGCCUGCGGGA |
| 3103 | UCUACUGAGGAUGUGCACC | 3146 | AGGUACGUCCAGAUGGCGC | 3189 | GCACUUACAUCUAUGACCA | 3232 | UGCUAGUGGCCUGCGGGAC |
| 3104 | CUACUGAGGAUGUGCACCA | 3147 | GGUACGUCCAGAUGGCGCU | 3190 | CACUUACAUCUAUGACCAC | 3233 | GCUAGUGGCCUGCGGGACC |
| 3105 | UACUGAGGAUGUGCACCAU | 3148 | GUACGUCCAGAUGGCGCUA | 3191 | ACUUACAUCUAUGACCACC | 3234 | CUAGUGGCCUGCGGGACCU |
| 3106 | ACUGAGGAUGUGCACCAUG | 3149 | UACGUCCAGAUGGCGCUAC | 3192 | CUUACAUCUAUGACCACCU | 3235 | UAGUGGCCUGCGGGACCUG |
| 3107 | CUGAGGAUGUGCACCAUGG | 3150 | ACGUCCAGAUGGCGCUACU | 3193 | UUACAUCUAUGACCACCUC | 3236 | AGUGGCCUGCGGGACCUGG |
| 3108 | UGAGGAUGUGCACCAUGGC | 3151 | CGUCCAGAUGGCGCUACUA | 3194 | UACAUCUAUGACCACCUCA | 3237 | GUGGCCUGCGGGACCUGGC |
| 3109 | GAGGAUGUGCACCAUGGCA | 3152 | GUCCAGAUGGCGCUACUAG | 3195 | ACAUCUAUGACCACCUCAC | 3238 | UGGCCUGCGGGACCUGGCG |
| 3110 | AGGAUGUGCACCAUGGCAA | 3153 | UCCAGAUGGCGCUACUAGC | 3196 | CAUCUAUGACCACCUCACC | 3239 | GGCCUGCGGGACCUGGCGG |
| 3111 | GGAUGUGCACCAUGGCAAG | 3154 | CCAGAUGGCGCUACUAGCC | 3197 | AUCUAUGACCACCUCACCC | 3240 | GCCUGCGGGACCUGGCGGU |
| 3112 | GAUGUGCACCAUGGCAAGG | 3155 | CAGAUGGCGCUACUAGCCC | 3198 | UCUAUGACCACCUCACCCC | 3241 | CCUGCGGGACCUGGCGGUC |
| 3113 | AUGUGCACCAUGGCAAGGC | 3156 | AGAUGGCGCUACUAGCCCU | 3199 | CUAUGACCACCUCACCCCU | 3242 | CUGCGGGACCUGGCGGUCG |
| 3114 | UGUGCACCAUGGCAAGGCA | 3157 | GAUGGCGCUACUAGCCCUU | 3200 | UAUGACCACCUCACCCCUA | 3243 | UGCGGGACCUGGCGGUCGC |
| 3115 | GUGCACCAUGGCAAGGCAU | 3158 | AUGGCGCUACUAGCCCUUG | 3201 | AUGACCACCUCACCCCUAU | 3244 | GCGGGACCUGGCGGUCGCC |
| 3116 | UGCACCAUGGCAAGGCAUC | 3159 | UGGCGCUACUAGCCCUUGG | 3202 | UGACCACCUCACCCCUAUG | 3245 | CGGGACCUGGCGGUCGCCG |
| 3117 | GCACCAUGGCAAGGCAUCU | 3160 | GGCGCUACUAGCCCUUGGC | 3203 | GACCACCUCACCCCUAUGU | 3246 | GGGACCUGGCGGUCGCCGU |
| 3118 | CACCAUGGCAAGGCAUCUC | 3161 | GCGCUACUAGCCCUUGGCA | 3204 | ACCACCUCACCCCUAUGUC | 3247 | GGACCUGGCGGUCGCCGUU |
| 3119 | ACCAUGGCAAGGCAUCUCG | 3162 | CGCUACUAGCCCUUGGCAG | 3205 | CCACCUCACCCCUAUGUCG | 3248 | GACCUGGCGGUCGCCGUUG |
| 3120 | CCAUGGCAAGGCAUCUCGC | 3163 | GCUACUAGCCCUUGGCAGG | 3206 | CACCUCACCCCUAUGUCGG | 3249 | ACCUGGCGGUCGCCGUUGA |
| 3121 | CAUGGCAAGGCAUCUCGCG | 3164 | CUACUAGCCCUUGGCAGGU | 3207 | ACCUCACCCCUAUGUCGGA | 3250 | CCUGGCGGUCGCCGUUGAG |
| 3122 | AUGGCAAGGCAUCUCGCGG | 3165 | UACUAGCCCUUGGCAGGUG | 3208 | CCUCACCCCUAUGUCGGAU | 3251 | CUGGCGGUCGCCGUUGAGC |
| 3123 | UGGCAAGGCAUCUCGCGGG | 3166 | ACUAGCCCUUGGCAGGUGG | 3209 | CUCACCCCUAUGUCGGAUU | 3252 | UGGCGGUCGCCGUUGAGCC |
| 3124 | GGCAAGGCAUCUCGCGGGG | 3167 | CUAGCCCUUGGCAGGUGGA | 3210 | UCACCCCUAUGUCGGAUUG | 3253 | GGCGGUCGCCGUUGAGCCU |
| 3125 | GCAAGGCAUCUCGCGGGGG | 3168 | UAGCCCUUGGCAGGUGGAC | 3211 | CACCCCUAUGUCGGAUUGG | 3254 | GCGGUCGCCGUUGAGCCUA |
| 3126 | CAAGGCAUCUCGCGGGGGG | 3169 | AGCCCUUGGCAGGUGGACU | 3212 | ACCCCUAUGUCGGAUUGGG | 3255 | CGGUCGCCGUUGAGCCUAU |
| 3127 | AAGGCAUCUCGCGGGGGGC | 3170 | GCCCUUGGCAGGUGGACUG | 3213 | CCCCUAUGUCGGAUUGGGC | 3256 | GGUCGCCGUUGAGCCUAUC |
| 3128 | AGGCAUCUCGCGGGGGGCA | 3171 | CCCUUGGCAGGUGGACUGG | 3214 | CCCUAUGUCGGAUUGGGCU | 3257 | GUCGCCGUUGAGCCUAUCA |
| 3129 | GGCAUCUCGCGGGGGGCAG | 3172 | CCUUGGCAGGUGGACUGGC | 3215 | CCUAUGUCGGAUUGGGCUG | 3258 | UCGCCGUUGAGCCUAUCAU |
| 3130 | GCAUCUCGCGGGGGGCAGG | 3173 | CUUGGCAGGUGGACUGGCA | 3216 | CUAUGUCGGAUUGGGCUGC | 3259 | CGCCGUUGAGCCUAUCAUC |
| 3131 | CAUCUCGCGGGGGGCAGGU | 3174 | UUGGCAGGUGGACUGGCAC | 3217 | UAUGUCGGAUUGGGCUGCU | 3260 | GCCGUUGAGCCUAUCAUCU |
| 3132 | AUCUCGCGGGGGGCAGGUA | 3175 | UGGCAGGUGGACUGGCACU | 3218 | AUGUCGGAUUGGGCUGCUA | 3261 | CCGUUGAGCCUAUCAUCUU |
| 3133 | UCUCGCGGGGGGCAGGUAC | 3176 | GGCAGGUGGACUGGCACUU | 3219 | UGUCGGAUUGGGCUGCUAG | 3262 | CGUUGAGCCUAUCAUCUUC |
| 3134 | CUCGCGGGGGGCAGGUACG | 3177 | GCAGGUGGACUGGCACUUA | 3220 | GUCGGAUUGGGCUGCUAGU | 3263 | GUUGAGCCUAUCAUCUUCA |
| 3135 | UCGCGGGGGGCAGGUACGU | 3178 | CAGGUGGACUGGCACUUAC | 3221 | UCGGAUUGGGCUGCUAGUG | 3264 | UUGAGCCUAUCAUCUUCAG |
| 3136 | CGCGGGGGGCAGGUACGUC | 3179 | AGGUGGACUGGCACUUACA | 3222 | CGGAUUGGGCUGCUAGUGG | 3265 | UGAGCCUAUCAUCUUCAGU |
| 3137 | GCGGGGGGCAGGUACGUCC | 3180 | GGUGGACUGGCACUUACAU | 3223 | GGAUUGGGCUGCUAGUGGC | 3266 | GAGCCUAUCAUCUUCAGUC |
| 3138 | CGGGGGGCAGGUACGUCCA | 3181 | GUGGACUGGCACUUACAUC | 3224 | GAUUGGGCUGCUAGUGGCC | 3267 | AGCCUAUCAUCUUCAGUCC |
| 3139 | GGGGGGCAGGUACGUCCAG | 3182 | UGGACUGGCACUUACAUCU | 3225 | AUUGGGCUGCUAGUGGCCU | 3268 | GCCUAUCAUCUUCAGUCCG |

**FIG. 3 (page 139 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3269 | CCUAUCAUCUUCAGUCCGA | 3312 | GAGCGGAGACAGCUGCUUG | 3355 | CGUGUCCGCCCGACUUGGU | 3398 | GAUGGCUAUACCUCCAAGG |
| 3270 | CUAUCAUCUUCAGUCCGAU | 3313 | AGCGGAGACAGCUGCUUGU | 3356 | GUGUCCGCCCGACUUGGUC | 3399 | AUGGCUAUACCUCCAAGGG |
| 3271 | UAUCAUCUUCAGUCCGAUG | 3314 | GCGGAGACAGCUGCUUGUG | 3357 | UGUCCGCCCGACUUGGUCG | 3400 | UGGCUAUACCUCCAAGGGG |
| 3272 | AUCAUCUUCAGUCCGAUGG | 3315 | CGGAGACAGCUGCUUGUGG | 3358 | GUCCGCCCGACUUGGUCGG | 3401 | GGCUAUACCUCCAAGGGGU |
| 3273 | UCAUCUUCAGUCCGAUGGA | 3316 | GGAGACAGCUGCUUGUGGG | 3359 | UCCGCCCGACUUGGUCGGG | 3402 | GCUAUACCUCCAAGGGGUG |
| 3274 | CAUCUUCAGUCCGAUGGAG | 3317 | GAGACAGCUGCUUGUGGGG | 3360 | CCGCCCGACUUGGUCGGGA | 3403 | CUAUACCUCCAAGGGGUGG |
| 3275 | AUCUUCAGUCCGAUGGAGA | 3318 | AGACAGCUGCUUGUGGGGA | 3361 | CGCCCGACUUGGUCGGGAG | 3404 | UAUACCUCCAAGGGGUGGA |
| 3276 | UCUUCAGUCCGAUGGAGAA | 3319 | GACAGCUGCUUGUGGGGAC | 3362 | GCCCGACUUGGUCGGGAGG | 3405 | AUACCUCCAAGGGGUGGAG |
| 3277 | CUUCAGUCCGAUGGAGAAG | 3320 | ACAGCUGCUUGUGGGGACA | 3363 | CCCGACUUGGUCGGGAGGU | 3406 | UACCUCCAAGGGGUGGAGU |
| 3278 | UUCAGUCCGAUGGAGAAGA | 3321 | CAGCUGCUUGUGGGGACAU | 3364 | CCGACUUGGUCGGGAGGUC | 3407 | ACCUCCAAGGGGUGGAGUC |
| 3279 | UCAGUCCGAUGGAGAAGAA | 3322 | AGCUGCUUGUGGGGACAUU | 3365 | CGACUUGGUCGGGAGGUCC | 3408 | CCUCCAAGGGGUGGAGUCU |
| 3280 | CAGUCCGAUGGAGAAGAAA | 3323 | GCUGCUUGUGGGGACAUUU | 3366 | GACUUGGUCGGGAGGUCCU | 3409 | CUCCAAGGGGUGGAGUCUU |
| 3281 | AGUCCGAUGGAGAAGAAAG | 3324 | CUGCUUGUGGGGACAUUUU | 3367 | ACUUGGUCGGGAGGUCCUC | 3410 | UCCAAGGGGUGGAGUCUUC |
| 3282 | GUCCGAUGGAGAAGAAAGU | 3325 | UGCUUGUGGGGACAUUUUA | 3368 | CUUGGUCGGGAGGUCCUCC | 3411 | CCAAGGGGUGGAGUCUUCU |
| 3283 | UCCGAUGGAGAAGAAAGUC | 3326 | GCUUGUGGGGACAUUUUAC | 3369 | UUGGUCGGGAGGUCCUCCU | 3412 | CAAGGGGUGGAGUCUUCUC |
| 3284 | CCGAUGGAGAAGAAAGUCA | 3327 | CUUGUGGGGACAUUUUACA | 3370 | UGGUCGGGAGGUCCUCCUU | 3413 | AAGGGGUGGAGUCUUCUCG |
| 3285 | CGAUGGAGAAGAAAGUCAU | 3328 | UUGUGGGGACAUUUUACAC | 3371 | GGUCGGGAGGUCCUCCUUG | 3414 | AGGGGUGGAGUCUUCUCGC |
| 3286 | GAUGGAGAAGAAAGUCAUU | 3329 | UGUGGGGACAUUUUACACG | 3372 | GUCGGGAGGUCCUCCUUGG | 3415 | GGGGUGGAGUCUUCUCGCC |
| 3287 | AUGGAGAAGAAAGUCAUUG | 3330 | GUGGGGACAUUUUACACGG | 3373 | UCGGGAGGUCCUCCUUGGC | 3416 | GGGUGGAGUCUUCUCGCCC |
| 3288 | UGGAGAAGAAAGUCAUUGU | 3331 | UGGGGACAUUUUACACGGA | 3374 | CGGGAGGUCCUCCUUGGCC | 3417 | GGUGGAGUCUUCUCGCCCC |
| 3289 | GGAGAAGAAAGUCAUUGUC | 3332 | GGGGACAUUUUACACGGAC | 3375 | GGGAGGUCCUCCUUGGCCC | 3418 | GUGGAGUCUUCUCGCCCCC |
| 3290 | GAGAAGAAAGUCAUUGUCU | 3333 | GGGACAUUUUACACGGACU | 3376 | GGAGGUCCUCCUUGGCCCA | 3419 | UGGAGUCUUCUCGCCCCCA |
| 3291 | AGAAGAAAGUCAUUGUCUG | 3334 | GGACAUUUUACACGGACUU | 3377 | GAGGUCCUCCUUGGCCCAG | 3420 | GGAGUCUUCUCGCCCCCAU |
| 3292 | GAAGAAAGUCAUUGUCUGG | 3335 | GACAUUUUACACGGACUUC | 3378 | AGGUCCUCCUUGGCCCAGC | 3421 | GAGUCUUCUCGCCCCCAUC |
| 3293 | AAGAAAGUCAUUGUCUGGG | 3336 | ACAUUUUACACGGACUUCC | 3379 | GGUCCUCCUUGGCCCAGCU | 3422 | AGUCUUCUCGCCCCCAUCA |
| 3294 | AGAAAGUCAUUGUCUGGGG | 3337 | CAUUUUACACGGACUUCCC | 3380 | GUCCUCCUUGGCCCAGCUG | 3423 | GUCUUCUCGCCCCCAUCAC |
| 3295 | GAAAGUCAUUGUCUGGGGA | 3338 | AUUUUACACGGACUUCCCG | 3381 | UCCUCCUUGGCCCAGCUGA | 3424 | UCUUCUCGCCCCCAUCACU |
| 3296 | AAAGUCAUUGUCUGGGGAG | 3339 | UUUUACACGGACUUCCCGU | 3382 | CCUCCUUGGCCCAGCUGAU | 3425 | CUUCUCGCCCCCAUCACUG |
| 3297 | AAGUCAUUGUCUGGGGAGC | 3340 | UUUACACGGACUUCCCGUG | 3383 | CUCCUUGGCCCAGCUGAUG | 3426 | UUCUCGCCCCCAUCACUGC |
| 3298 | AGUCAUUGUCUGGGGAGCG | 3341 | UUACACGGACUUCCCGUGU | 3384 | UCCUUGGCCCAGCUGAUGG | 3427 | UCUCGCCCCCAUCACUGCU |
| 3299 | GUCAUUGUCUGGGGAGCGG | 3342 | UACACGGACUUCCCGUGUC | 3385 | CCUUGGCCCAGCUGAUGGC | 3428 | CUCGCCCCCAUCACUGCUU |
| 3300 | UCAUUGUCUGGGGAGCGGA | 3343 | ACACGGACUUCCCGUGUCC | 3386 | CUUGGCCCAGCUGAUGGCU | 3429 | UCGCCCCCAUCACUGCUUA |
| 3301 | CAUUGUCUGGGGAGCGGAG | 3344 | CACGGACUUCCCGUGUCCG | 3387 | UUGGCCCAGCUGAUGGCUA | 3430 | CGCCCCCAUCACUGCUUAC |
| 3302 | AUUGUCUGGGGAGCGGAGA | 3345 | ACGGACUUCCCGUGUCCGC | 3388 | UGGCCCAGCUGAUGGCUAU | 3431 | GCCCCCAUCACUGCUUACG |
| 3303 | UUGUCUGGGGAGCGGAGAC | 3346 | CGGACUUCCCGUGUCCGCC | 3389 | GGCCCAGCUGAUGGCUAUA | 3432 | CCCCCAUCACUGCUUACGC |
| 3304 | UGUCUGGGGAGCGGAGACA | 3347 | GGACUUCCCGUGUCCGCCC | 3390 | GCCCAGCUGAUGGCUAUAC | 3433 | CCCCAUCACUGCUUACGCC |
| 3305 | GUCUGGGGAGCGGAGACAG | 3348 | GACUUCCCGUGUCCGCCCG | 3391 | CCCAGCUGAUGGCUAUACC | 3434 | CCCAUCACUGCUUACGCCC |
| 3306 | UCUGGGGAGCGGAGACAGC | 3349 | ACUUCCCGUGUCCGCCCGA | 3392 | CCAGCUGAUGGCUAUACCU | 3435 | CCAUCACUGCUUACGCCCA |
| 3307 | CUGGGGAGCGGAGACAGCU | 3350 | CUUCCCGUGUCCGCCCGAC | 3393 | CAGCUGAUGGCUAUACCUC | 3436 | CAUCACUGCUUACGCCCAG |
| 3308 | UGGGGAGCGGAGACAGCUG | 3351 | UUCCCGUGUCCGCCCGACU | 3394 | AGCUGAUGGCUAUACCUCC | 3437 | AUCACUGCUUACGCCCAGC |
| 3309 | GGGGAGCGGAGACAGCUGC | 3352 | UCCCGUGUCCGCCCGACUU | 3395 | GCUGAUGGCUAUACCUCCA | 3438 | UCACUGCUUACGCCCAGCA |
| 3310 | GGGAGCGGAGACAGCUGCU | 3353 | CCCGUGUCCGCCCGACUUG | 3396 | CUGAUGGCUAUACCUCCAA | 3439 | CACUGCUUACGCCCAGCAG |
| 3311 | GGAGCGGAGACAGCUGCUU | 3354 | CCGUGUCCGCCCGACUUGG | 3397 | UGAUGGCUAUACCUCCAAG | 3440 | ACUGCUUACGCCCAGCAGA |

**FIG. 3 (page 140 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3441 | CUGCUUACGCCCAGCAGAC | 3484 | GGUGAGCAUGACGGGGCGC | 3527 | AUUCAGGUCCUGUCCACAG | 3570 | CCAUCUCGGGGGUUUUGUG |
| 3442 | UGCUUACGCCCAGCAGACA | 3485 | GUGAGCAUGACGGGGCGCG | 3528 | UUCAGGUCCUGUCCACAGU | 3571 | CAUCUCGGGGGUUUUGUGG |
| 3443 | GCUUACGCCCAGCAGACAC | 3486 | UGAGCAUGACGGGGCGCGA | 3529 | UCAGGUCCUGUCCACAGUC | 3572 | AUCUCGGGGGUUUUGUGGA |
| 3444 | CUUACGCCCAGCAGACACG | 3487 | GAGCAUGACGGGGCGCGAC | 3530 | CAGGUCCUGUCCACAGUCA | 3573 | UCUCGGGGGUUUUGUGGAC |
| 3445 | UUACGCCCAGCAGACACGU | 3488 | AGCAUGACGGGGCGCGACA | 3531 | AGGUCCUGUCCACAGUCAC | 3574 | CUCGGGGGUUUUGUGGACU |
| 3446 | UACGCCCAGCAGACACGUG | 3489 | GCAUGACGGGGCGCGACAA | 3532 | GGUCCUGUCCACAGUCACU | 3575 | UCGGGGGUUUUGUGGACUG |
| 3447 | ACGCCCAGCAGACACGUGG | 3490 | CAUGACGGGGCGCGACAAG | 3533 | GUCCUGUCCACAGUCACUC | 3576 | CGGGGGUUUUGUGGACUGU |
| 3448 | CGCCCAGCAGACACGUGGC | 3491 | AUGACGGGGCGCGACAAGA | 3534 | UCCUGUCCACAGUCACUCA | 3577 | GGGGGUUUUGUGGACUGUC |
| 3449 | GCCCAGCAGACACGUGGCC | 3492 | UGACGGGGCGCGACAAGAC | 3535 | CCUGUCCACAGUCACUCAG | 3578 | GGGGUUUUGUGGACUGUCU |
| 3450 | CCCAGCAGACACGUGGCCU | 3493 | GACGGGGCGCGACAAGACA | 3536 | CUGUCCACAGUCACUCAGU | 3579 | GGGUUUUGUGGACUGUCUA |
| 3451 | CCAGCAGACACGUGGCCUU | 3494 | ACGGGGCGCGACAAGACAG | 3537 | UGUCCACAGUCACUCAGUC | 3580 | GGUUUUGUGGACUGUCUAC |
| 3452 | CAGCAGACACGUGGCCUUU | 3495 | CGGGGCGCGACAAGACAGA | 3538 | GUCCACAGUCACUCAGUCC | 3581 | GUUUUGUGGACUGUCUACC |
| 3453 | AGCAGACACGUGGCCUUUU | 3496 | GGGGCGCGACAAGACAGAA | 3539 | UCCACAGUCACUCAGUCCU | 3582 | UUUUGUGGACUGUCUACCA |
| 3454 | GCAGACACGUGGCCUUUUG | 3497 | GGGCGCGACAAGACAGAAC | 3540 | CCACAGUCACUCAGUCCUU | 3583 | UUUGUGGACUGUCUACCAU |
| 3455 | CAGACACGUGGCCUUUUGG | 3498 | GGCGCGACAAGACAGAACA | 3541 | CACAGUCACUCAGUCCUUC | 3584 | UUGUGGACUGUCUACCAUG |
| 3456 | AGACACGUGGCCUUUUGGG | 3499 | GCGCGACAAGACAGAACAG | 3542 | ACAGUCACUCAGUCCUUCC | 3585 | UGUGGACUGUCUACCAUGG |
| 3457 | GACACGUGGCCUUUUGGGC | 3500 | CGCGACAAGACAGAACAGG | 3543 | CAGUCACUCAGUCCUUCCU | 3586 | GUGGACUGUCUACCAUGGA |
| 3458 | ACACGUGGCCUUUUGGGCA | 3501 | GCGACAAGACAGAACAGGC | 3544 | AGUCACUCAGUCCUUCCUC | 3587 | UGGACUGUCUACCAUGGAG |
| 3459 | CACGUGGCCUUUUGGGCAC | 3502 | CGACAAGACAGAACAGGCU | 3545 | GUCACUCAGUCCUUCCUCG | 3588 | GGACUGUCUACCAUGGAGC |
| 3460 | ACGUGGCCUUUUGGGCACC | 3503 | GACAAGACAGAACAGGCUG | 3546 | UCACUCAGUCCUUCCUCGG | 3589 | GACUGUCUACCAUGGAGCU |
| 3461 | CGUGGCCUUUUGGGCACCA | 3504 | ACAAGACAGAACAGGCUGG | 3547 | CACUCAGUCCUUCCUCGGA | 3590 | ACUGUCUACCAUGGAGCUG |
| 3462 | GUGGCCUUUUGGGCACCAU | 3505 | CAAGACAGAACAGGCUGGG | 3548 | ACUCAGUCCUUCCUCGGAA | 3591 | CUGUCUACCAUGGAGCUGG |
| 3463 | UGGCCUUUUGGGCACCAUA | 3506 | AAGACAGAACAGGCUGGGG | 3549 | CUCAGUCCUUCCUCGGAAC | 3592 | UGUCUACCAUGGAGCUGGC |
| 3464 | GGCCUUUUGGGCACCAUAG | 3507 | AGACAGAACAGGCUGGGGA | 3550 | UCAGUCCUUCCUCGGAACA | 3593 | GUCUACCAUGGAGCUGGCA |
| 3465 | GCCUUUUGGGCACCAUAGU | 3508 | GACAGAACAGGCUGGGGAA | 3551 | CAGUCCUUCCUCGGAACAU | 3594 | UCUACCAUGGAGCUGGCAA |
| 3466 | CCUUUUGGGCACCAUAGUG | 3509 | ACAGAACAGGCUGGGGAAA | 3552 | AGUCCUUCCUCGGAACAUC | 3595 | CUACCAUGGAGCUGGCAAC |
| 3467 | CUUUUGGGCACCAUAGUGG | 3510 | CAGAACAGGCUGGGGAAAU | 3553 | GUCCUUCCUCGGAACAUCC | 3596 | UACCAUGGAGCUGGCAACA |
| 3468 | UUUUGGGCACCAUAGUGGU | 3511 | AGAACAGGCUGGGGAAAUU | 3554 | UCCUUCCUCGGAACAUCCA | 3597 | ACCAUGGAGCUGGCAACAA |
| 3469 | UUUGGGCACCAUAGUGGUG | 3512 | GAACAGGCUGGGGAAAUUC | 3555 | CCUUCCUCGGAACAUCCAU | 3598 | CCAUGGAGCUGGCAACAAG |
| 3470 | UUGGGCACCAUAGUGGUGA | 3513 | AACAGGCUGGGGAAAUUCA | 3556 | CUUCCUCGGAACAUCCAUC | 3599 | CAUGGAGCUGGCAACAAGA |
| 3471 | UGGGCACCAUAGUGGUGAG | 3514 | ACAGGCUGGGGAAAUUCAG | 3557 | UUCCUCGGAACAUCCAUCU | 3600 | AUGGAGCUGGCAACAAGAC |
| 3472 | GGGCACCAUAGUGGUGAGC | 3515 | CAGGCUGGGGAAAUUCAGG | 3558 | UCCUCGGAACAUCCAUCUC | 3601 | UGGAGCUGGCAACAAGACU |
| 3473 | GGCACCAUAGUGGUGAGCA | 3516 | AGGCUGGGGAAAUUCAGGU | 3559 | CCUCGGAACAUCCAUCUCG | 3602 | GGAGCUGGCAACAAGACUC |
| 3474 | GCACCAUAGUGGUGAGCAU | 3517 | GGCUGGGGAAAUUCAGGUC | 3560 | CUCGGAACAUCCAUCUCGG | 3603 | GAGCUGGCAACAAGACUCU |
| 3475 | CACCAUAGUGGUGAGCAUG | 3518 | GCUGGGGAAAUUCAGGUCC | 3561 | UCGGAACAUCCAUCUCGGG | 3604 | AGCUGGCAACAAGACUCUG |
| 3476 | ACCAUAGUGGUGAGCAUGA | 3519 | CUGGGGAAAUUCAGGUCCU | 3562 | CGGAACAUCCAUCUCGGGG | 3605 | GCUGGCAACAAGACUCUGG |
| 3477 | CCAUAGUGGUGAGCAUGAC | 3520 | UGGGGAAAUUCAGGUCCUG | 3563 | GGAACAUCCAUCUCGGGGG | 3606 | CUGGCAACAAGACUCUGGC |
| 3478 | CAUAGUGGUGAGCAUGACG | 3521 | GGGGAAAUUCAGGUCCUGU | 3564 | GAACAUCCAUCUCGGGGGU | 3607 | UGGCAACAAGACUCUGGCC |
| 3479 | AUAGUGGUGAGCAUGACGG | 3522 | GGGAAAUUCAGGUCCUGUC | 3565 | AACAUCCAUCUCGGGGGUU | 3608 | GGCAACAAGACUCUGGCCG |
| 3480 | UAGUGGUGAGCAUGACGGG | 3523 | GGAAAUUCAGGUCCUGUCC | 3566 | ACAUCCAUCUCGGGGGUUU | 3609 | GCAACAAGACUCUGGCCGG |
| 3481 | AGUGGUGAGCAUGACGGGG | 3524 | GAAAUUCAGGUCCUGUCCA | 3567 | CAUCCAUCUCGGGGGUUUU | 3610 | CAACAAGACUCUGGCCGGC |
| 3482 | GUGGUGAGCAUGACGGGGC | 3525 | AAAUUCAGGUCCUGUCCAC | 3568 | AUCCAUCUCGGGGGUUUUG | 3611 | AACAAGACUCUGGCCGGCU |
| 3483 | UGGUGAGCAUGACGGGGCG | 3526 | AAUUCAGGUCCUGUCCACA | 3569 | UCCAUCUCGGGGGUUUUGU | 3612 | ACAAGACUCUGGCCGGCUC |

**FIG. 3 (page 141 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3613 | CAAGACUCUGGCCGGCUCA | 3656 | UCCAGUGCUGAGGGGGACU | 3699 | GGACUAAAUCUUUGGAGCC | 3742 | GUACCUGGUCACGCGGAAC |
| 3614 | AAGACUCUGGCCGGCUCAC | 3657 | CCAGUGCUGAGGGGGACUU | 3700 | GACUAAAUCUUUGGAGCCG | 3743 | UACCUGGUCACGCGGAACG |
| 3615 | AGACUCUGGCCGGCUCACG | 3658 | CAGUGCUGAGGGGGACUUA | 3701 | ACUAAAUCUUUGGAGCCGU | 3744 | ACCUGGUCACGCGGAACGC |
| 3616 | GACUCUGGCCGGCUCACGG | 3659 | AGUGCUGAGGGGGACUUAG | 3702 | CUAAAUCUUUGGAGCCGUG | 3745 | CCUGGUCACGCGGAACGCU |
| 3617 | ACUCUGGCCGGCUCACGGG | 3660 | GUGCUGAGGGGGACUUAGU | 3703 | UAAAUCUUUGGAGCCGUGC | 3746 | CUGGUCACGCGGAACGCUG |
| 3618 | CUCUGGCCGGCUCACGGGG | 3661 | UGCUGAGGGGGACUUAGUA | 3704 | AAAUCUUUGGAGCCGUGCA | 3747 | UGGUCACGCGGAACGCUGA |
| 3619 | UCUGGCCGGCUCACGGGGU | 3662 | GCUGAGGGGGACUUAGUAG | 3705 | AAUCUUUGGAGCCGUGCAC | 3748 | GGUCACGCGGAACGCUGAU |
| 3620 | CUGGCCGGCUCACGGGGUC | 3663 | CUGAGGGGGACUUAGUAGG | 3706 | AUCUUUGGAGCCGUGCACG | 3749 | GUCACGCGGAACGCUGAUG |
| 3621 | UGGCCGGCUCACGGGGUCC | 3664 | UGAGGGGGACUUAGUAGGG | 3707 | UCUUUGGAGCCGUGCACGU | 3750 | UCACGCGGAACGCUGAUGU |
| 3622 | GGCCGGCUCACGGGGUCCG | 3665 | GAGGGGGACUUAGUAGGGU | 3708 | CUUUGGAGCCGUGCACGUG | 3751 | CACGCGGAACGCUGAUGUC |
| 3623 | GCCGGCUCACGGGGUCCGG | 3666 | AGGGGGACUUAGUAGGGUG | 3709 | UUUGGAGCCGUGCACGUGU | 3752 | ACGCGGAACGCUGAUGUCA |
| 3624 | CCGGCUCACGGGGUCCGGU | 3667 | GGGGGACUUAGUAGGGUGG | 3710 | UUGGAGCCGUGCACGUGUG | 3753 | CGCGGAACGCUGAUGUCAU |
| 3625 | CGGCUCACGGGGUCCGGUC | 3668 | GGGGACUUAGUAGGGUGGC | 3711 | UGGAGCCGUGCACGUGUGG | 3754 | GCGGAACGCUGAUGUCAUC |
| 3626 | GGCUCACGGGGUCCGGUCA | 3669 | GGGACUUAGUAGGGUGGCC | 3712 | GGAGCCGUGCACGUGUGGA | 3755 | CGGAACGCUGAUGUCAUCC |
| 3627 | GCUCACGGGGUCCGGUCAC | 3670 | GGACUUAGUAGGGUGGCCC | 3713 | GAGCCGUGCACGUGUGGAG | 3756 | GGAACGCUGAUGUCAUCCC |
| 3628 | CUCACGGGGUCCGGUCACG | 3671 | GACUUAGUAGGGUGGCCCA | 3714 | AGCCGUGCACGUGUGGAGC | 3757 | GAACGCUGAUGUCAUCCCG |
| 3629 | UCACGGGGUCCGGUCACGC | 3672 | ACUUAGUAGGGUGGCCCAG | 3715 | GCCGUGCACGUGUGGAGCG | 3758 | AACGCUGAUGUCAUCCCGG |
| 3630 | CACGGGGUCCGGUCACGCA | 3673 | CUUAGUAGGGUGGCCCAGC | 3716 | CCGUGCACGUGUGGAGCGG | 3759 | ACGCUGAUGUCAUCCCGGC |
| 3631 | ACGGGGUCCGGUCACGCAG | 3674 | UUAGUAGGGUGGCCCAGCC | 3717 | CGUGCACGUGUGGAGCGGU | 3760 | CGCUGAUGUCAUCCCGGCU |
| 3632 | CGGGGUCCGGUCACGCAGA | 3675 | UAGUAGGGUGGCCCAGCCC | 3718 | GUGCACGUGUGGAGCGGUC | 3761 | GCUGAUGUCAUCCCGGCUC |
| 3633 | GGGGUCCGGUCACGCAGAU | 3676 | AGUAGGGUGGCCCAGCCCC | 3719 | UGCACGUGUGGAGCGGUCG | 3762 | CUGAUGUCAUCCCGGCUCG |
| 3634 | GGGUCCGGUCACGCAGAUG | 3677 | GUAGGGUGGCCCAGCCCCC | 3720 | GCACGUGUGGAGCGGUCGA | 3763 | UGAUGUCAUCCCGGCUCGA |
| 3635 | GGUCCGGUCACGCAGAUGU | 3678 | UAGGGUGGCCCAGCCCCCC | 3721 | CACGUGUGGAGCGGUCGAC | 3764 | GAUGUCAUCCCGGCUCGAA |
| 3636 | GUCCGGUCACGCAGAUGUA | 3679 | AGGGUGGCCCAGCCCCCCU | 3722 | ACGUGUGGAGCGGUCGACC | 3765 | AUGUCAUCCCGGCUCGAAG |
| 3637 | UCCGGUCACGCAGAUGUAC | 3680 | GGGUGGCCCAGCCCCCCUG | 3723 | CGUGUGGAGCGGUCGACCU | 3766 | UGUCAUCCCGGCUCGAAGA |
| 3638 | CCGGUCACGCAGAUGUACU | 3681 | GGUGGCCCAGCCCCCCUGG | 3724 | GUGUGGAGCGGUCGACCUG | 3767 | GUCAUCCCGGCUCGAAGAC |
| 3639 | CGGUCACGCAGAUGUACUC | 3682 | GUGGCCCAGCCCCCCUGGG | 3725 | UGUGGAGCGGUCGACCUGU | 3768 | UCAUCCCGGCUCGAAGACG |
| 3640 | GGUCACGCAGAUGUACUCC | 3683 | UGGCCCAGCCCCCCUGGGA | 3726 | GUGGAGCGGUCGACCUGUA | 3769 | CAUCCCGGCUCGAAGACGC |
| 3641 | GUCACGCAGAUGUACUCCA | 3684 | GGCCCAGCCCCCCUGGGAC | 3727 | UGGAGCGGUCGACCUGUAC | 3770 | AUCCCGGCUCGAAGACGCG |
| 3642 | UCACGCAGAUGUACUCCAG | 3685 | GCCCAGCCCCCCUGGGACU | 3728 | GGAGCGGUCGACCUGUACC | 3771 | UCCCGGCUCGAAGACGCGG |
| 3643 | CACGCAGAUGUACUCCAGU | 3686 | CCCAGCCCCCCUGGGACUA | 3729 | GAGCGGUCGACCUGUACCU | 3772 | CCCGGCUCGAAGACGCGGG |
| 3644 | ACGCAGAUGUACUCCAGUG | 3687 | CCAGCCCCCCUGGGACUAA | 3730 | AGCGGUCGACCUGUACCUG | 3773 | CCGGCUCGAAGACGCGGGG |
| 3645 | CGCAGAUGUACUCCAGUGC | 3688 | CAGCCCCCCUGGGACUAAA | 3731 | GCGGUCGACCUGUACCUGG | 3774 | CGGCUCGAAGACGCGGGGA |
| 3646 | GCAGAUGUACUCCAGUGCU | 3689 | AGCCCCCCUGGGACUAAAU | 3732 | CGGUCGACCUGUACCUGGU | 3775 | GGCUCGAAGACGCGGGGAC |
| 3647 | CAGAUGUACUCCAGUGCUG | 3690 | GCCCCCCUGGGACUAAAUC | 3733 | GGUCGACCUGUACCUGGUC | 3776 | GCUCGAAGACGCGGGGACA |
| 3648 | AGAUGUACUCCAGUGCUGA | 3691 | CCCCCCUGGGACUAAAUCU | 3734 | GUCGACCUGUACCUGGUCA | 3777 | CUCGAAGACGCGGGGACAA |
| 3649 | GAUGUACUCCAGUGCUGAG | 3692 | CCCCCUGGGACUAAAUCUU | 3735 | UCGACCUGUACCUGGUCAC | 3778 | UCGAAGACGCGGGGACAAA |
| 3650 | AUGUACUCCAGUGCUGAGG | 3693 | CCCCUGGGACUAAAUCUUU | 3736 | CGACCUGUACCUGGUCACG | 3779 | CGAAGACGCGGGGACAAAC |
| 3651 | UGUACUCCAGUGCUGAGGG | 3694 | CCCUGGGACUAAAUCUUUG | 3737 | GACCUGUACCUGGUCACGC | 3780 | GAAGACGCGGGGACAAACG |
| 3652 | GUACUCCAGUGCUGAGGGG | 3695 | CCUGGGACUAAAUCUUUGG | 3738 | ACCUGUACCUGGUCACGCG | 3781 | AAGACGCGGGGACAAACGG |
| 3653 | UACUCCAGUGCUGAGGGGG | 3696 | CUGGGACUAAAUCUUUGGA | 3739 | CCUGUACCUGGUCACGCGG | 3782 | AGACGCGGGGACAAACGGG |
| 3654 | ACUCCAGUGCUGAGGGGGA | 3697 | UGGGACUAAAUCUUUGGAG | 3740 | CUGUACCUGGUCACGCGGA | 3783 | GACGCGGGGACAAACGGGG |
| 3655 | CUCCAGUGCUGAGGGGGAC | 3698 | GGGACUAAAUCUUUGGAGC | 3741 | UGUACCUGGUCACGCGGAA | 3784 | ACGCGGGGACAAACGGGGA |

**FIG. 3 (page 142 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3785 | CGCGGGGACAAACGGGGAG | 3828 | CCACCUUGAAGGGGUCCUC | 3871 | GGGCCACGCUGUCGGAGUC | 3914 | GGCGUGGCUAAGUCCAUAG |
| 3786 | GCGGGGACAAACGGGGAGC | 3829 | CACCUUGAAGGGGUCCUCA | 3872 | GGCCACGCUGUCGGAGUCU | 3915 | GCGUGGCUAAGUCCAUAGA |
| 3787 | CGGGGACAAACGGGGAGCG | 3830 | ACCUUGAAGGGGUCCUCAG | 3873 | GCCACGCUGUCGGAGUCUU | 3916 | CGUGGCUAAGUCCAUAGAU |
| 3788 | GGGGACAAACGGGGAGCGC | 3831 | CCUUGAAGGGGUCCUCAGG | 3874 | CCACGCUGUCGGAGUCUUC | 3917 | GUGGCUAAGUCCAUAGAUU |
| 3789 | GGGACAAACGGGGAGCGCU | 3832 | CUUGAAGGGGUCCUCAGGA | 3875 | CACGCUGUCGGAGUCUUCC | 3918 | UGGCUAAGUCCAUAGAUUU |
| 3790 | GGACAAACGGGGAGCGCUA | 3833 | UUGAAGGGGUCCUCAGGAG | 3876 | ACGCUGUCGGAGUCUUCCG | 3919 | GGCUAAGUCCAUAGAUUUC |
| 3791 | GACAAACGGGGAGCGCUAC | 3834 | UGAAGGGGUCCUCAGGAGG | 3877 | CGCUGUCGGAGUCUUCCGG | 3920 | GCUAAGUCCAUAGAUUUCA |
| 3792 | ACAAACGGGGAGCGCUACU | 3835 | GAAGGGGUCCUCAGGAGGC | 3878 | GCUGUCGGAGUCUUCCGGG | 3921 | CUAAGUCCAUAGAUUUCAU |
| 3793 | CAAACGGGGAGCGCUACUC | 3836 | AAGGGGUCCUCAGGAGGCC | 3879 | CUGUCGGAGUCUUCCGGGC | 3922 | UAAGUCCAUAGAUUUCAUC |
| 3794 | AAACGGGGAGCGCUACUCU | 3837 | AGGGGUCCUCAGGAGGCCC | 3880 | UGUCGGAGUCUUCCGGGCA | 3923 | AAGUCCAUAGAUUUCAUCC |
| 3795 | AACGGGGAGCGCUACUCUC | 3838 | GGGGUCCUCAGGAGGCCCG | 3881 | GUCGGAGUCUUCCGGGCAG | 3924 | AGUCCAUAGAUUUCAUCCC |
| 3796 | ACGGGGAGCGCUACUCUCC | 3839 | GGGUCCUCAGGAGGCCCGG | 3882 | UCGGAGUCUUCCGGGCAGC | 3925 | GUCCAUAGAUUUCAUCCCC |
| 3797 | CGGGGAGCGCUACUCUCCC | 3840 | GGUCCUCAGGAGGCCCGGU | 3883 | CGGAGUCUUCCGGGCAGCU | 3926 | UCCAUAGAUUUCAUCCCCG |
| 3798 | GGGGAGCGCUACUCUCCCC | 3841 | GUCCUCAGGAGGCCCGGUG | 3884 | GGAGUCUUCCGGGCAGCUG | 3927 | CCAUAGAUUUCAUCCCCGU |
| 3799 | GGGAGCGCUACUCUCCCCG | 3842 | UCCUCAGGAGGCCCGGUGC | 3885 | GAGUCUUCCGGGCAGCUGU | 3928 | CAUAGAUUUCAUCCCCGUU |
| 3800 | GGAGCGCUACUCUCCCCGA | 3843 | CCUCAGGAGGCCCGGUGCU | 3886 | AGUCUUCCGGGCAGCUGUG | 3929 | AUAGAUUUCAUCCCCGUUG |
| 3801 | GAGCGCUACUCUCCCCGAG | 3844 | CUCAGGAGGCCCGGUGCUA | 3887 | GUCUUCCGGGCAGCUGUGU | 3930 | UAGAUUUCAUCCCCGUUGA |
| 3802 | AGCGCUACUCUCCCCGAGA | 3845 | UCAGGAGGCCCGGUGCUAU | 3888 | UCUUCCGGGCAGCUGUGUG | 3931 | AGAUUUCAUCCCCGUUGAG |
| 3803 | GCGCUACUCUCCCCGAGAC | 3846 | CAGGAGGCCCGGUGCUAUG | 3889 | CUUCCGGGCAGCUGUGUGC | 3932 | GAUUUCAUCCCCGUUGAGA |
| 3804 | CGCUACUCUCCCCGAGACC | 3847 | AGGAGGCCCGGUGCUAUGC | 3890 | UUCCGGGCAGCUGUGUGCU | 3933 | AUUUCAUCCCCGUUGAGAC |
| 3805 | GCUACUCUCCCCGAGACCU | 3848 | GGAGGCCCGGUGCUAUGCC | 3891 | UCCGGGCAGCUGUGUGCUC | 3934 | UUUCAUCCCCGUUGAGACA |
| 3806 | CUACUCUCCCCGAGACCUC | 3849 | GAGGCCCGGUGCUAUGCCC | 3892 | CCGGGCAGCUGUGUGCUCU | 3935 | UUCAUCCCCGUUGAGACAC |
| 3807 | UACUCUCCCCGAGACCUCU | 3850 | AGGCCCGGUGCUAUGCCCC | 3893 | CGGGCAGCUGUGUGCUCUC | 3936 | UCAUCCCCGUUGAGACACU |
| 3808 | ACUCUCCCCGAGACCUCUU | 3851 | GGCCCGGUGCUAUGCCCCA | 3894 | GGGCAGCUGUGUGCUCUCG | 3937 | CAUCCCCGUUGAGACACUC |
| 3809 | CUCUCCCCGAGACCUCUUU | 3852 | GCCCGGUGCUAUGCCCCAG | 3895 | GGCAGCUGUGUGCUCUCGG | 3938 | AUCCCCGUUGAGACACUCG |
| 3810 | UCUCCCCGAGACCUCUUUC | 3853 | CCCGGUGCUAUGCCCCAGG | 3896 | GCAGCUGUGUGCUCUCGGG | 3939 | UCCCCGUUGAGACACUCGA |
| 3811 | CUCCCCGAGACCUCUUUCC | 3854 | CCGGUGCUAUGCCCCAGGG | 3897 | CAGCUGUGUGCUCUCGGGG | 3940 | CCCCGUUGAGACACUCGAC |
| 3812 | UCCCCGAGACCUCUUUCCA | 3855 | CGGUGCUAUGCCCCAGGGG | 3898 | AGCUGUGUGCUCUCGGGGC | 3941 | CCCGUUGAGACACUCGACA |
| 3813 | CCCCGAGACCUCUUUCCAC | 3856 | GGUGCUAUGCCCCAGGGGC | 3899 | GCUGUGUGCUCUCGGGGCG | 3942 | CCGUUGAGACACUCGACAU |
| 3814 | CCCGAGACCUCUUUCCACC | 3857 | GUGCUAUGCCCCAGGGGCC | 3900 | CUGUGUGCUCUCGGGGCGU | 3943 | CGUUGAGACACUCGACAUC |
| 3815 | CCGAGACCUCUUUCCACCU | 3858 | UGCUAUGCCCCAGGGGCCA | 3901 | UGUGUGCUCUCGGGGCGUG | 3944 | GUUGAGACACUCGACAUCG |
| 3816 | CGAGACCUCUUUCCACCUU | 3859 | GCUAUGCCCCAGGGGCCAC | 3902 | GUGUGCUCUCGGGGCGUGG | 3945 | UUGAGACACUCGACAUCGU |
| 3817 | GAGACCUCUUUCCACCUUG | 3860 | CUAUGCCCCAGGGGCCACG | 3903 | UGUGCUCUCGGGGCGUGGC | 3946 | UGAGACACUCGACAUCGUC |
| 3818 | AGACCUCUUUCCACCUUGA | 3861 | UAUGCCCCAGGGGCCACGC | 3904 | GUGCUCUCGGGGCGUGGCU | 3947 | GAGACACUCGACAUCGUCA |
| 3819 | GACCUCUUUCCACCUUGAA | 3862 | AUGCCCCAGGGGCCACGCU | 3905 | UGCUCUCGGGGCGUGGCUA | 3948 | AGACACUCGACAUCGUCAC |
| 3820 | ACCUCUUUCCACCUUGAAG | 3863 | UGCCCCAGGGGCCACGCUG | 3906 | GCUCUCGGGGCGUGGCUAA | 3949 | GACACUCGACAUCGUCACG |
| 3821 | CCUCUUUCCACCUUGAAGG | 3864 | GCCCCAGGGGCCACGCUGU | 3907 | CUCUCGGGGCGUGGCUAAG | 3950 | ACACUCGACAUCGUCACGC |
| 3822 | CUCUUUCCACCUUGAAGGG | 3865 | CCCCAGGGGCCACGCUGUC | 3908 | UCUCGGGGCGUGGCUAAGU | 3951 | CACUCGACAUCGUCACGCG |
| 3823 | UCUUUCCACCUUGAAGGGG | 3866 | CCCAGGGGCCACGCUGUCG | 3909 | CUCGGGGCGUGGCUAAGUC | 3952 | ACUCGACAUCGUCACGCGG |
| 3824 | CUUUCCACCUUGAAGGGGU | 3867 | CCAGGGGCCACGCUGUCGG | 3910 | UCGGGGCGUGGCUAAGUCC | 3953 | CUCGACAUCGUCACGCGGU |
| 3825 | UUUCCACCUUGAAGGGGUC | 3868 | CAGGGGCCACGCUGUCGGA | 3911 | CGGGGCGUGGCUAAGUCCA | 3954 | UCGACAUCGUCACGCGGUC |
| 3826 | UUCCACCUUGAAGGGGUCC | 3869 | AGGGGCCACGCUGUCGGAG | 3912 | GGGGCGUGGCUAAGUCCAU | 3955 | CGACAUCGUCACGCGGUCC |
| 3827 | UCCACCUUGAAGGGGUCCU | 3870 | GGGGCCACGCUGUCGGAGU | 3913 | GGGCGUGGCUAAGUCCAUA | 3956 | GACAUCGUCACGCGGUCCC |

**FIG. 3 (page 143 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3957 | ACAUCGUCACGCGGUCCCC | 4000 | ACCUGCUGUGCCCCAGACC | 4043 | CCGACUGGCAGUGGAAAGA | 4086 | CUGCUCAGGGGUAUAAAGU |
| 3958 | CAUCGUCACGCGGUCCCCC | 4001 | CCUGCUGUGCCCCAGACCU | 4044 | CGACUGGCAGUGGAAAGAG | 4087 | UGCUCAGGGGUAUAAAGUG |
| 3959 | AUCGUCACGCGGUCCCCCA | 4002 | CUGCUGUGCCCCAGACCUA | 4045 | GACUGGCAGUGGAAAGAGC | 4088 | GCUCAGGGGUAUAAAGUGC |
| 3960 | UCGUCACGCGGUCCCCCAC | 4003 | UGCUGUGCCCCAGACCUAU | 4046 | ACUGGCAGUGGAAAGAGCA | 4089 | CUCAGGGGUAUAAAGUGCU |
| 3961 | CGUCACGCGGUCCCCCACC | 4004 | GCUGUGCCCCAGACCUAUC | 4047 | CUGGCAGUGGAAAGAGCAC | 4090 | UCAGGGGUAUAAAGUGCUA |
| 3962 | GUCACGCGGUCCCCCACCU | 4005 | CUGUGCCCCAGACCUAUCA | 4048 | UGGCAGUGGAAAGAGCACC | 4091 | CAGGGGUAUAAAGUGCUAG |
| 3963 | UCACGCGGUCCCCCACCUU | 4006 | UGUGCCCCAGACCUAUCAG | 4049 | GGCAGUGGAAAGAGCACCA | 4092 | AGGGGUAUAAAGUGCUAGU |
| 3964 | CACGCGGUCCCCCACCUUU | 4007 | GUGCCCCAGACCUAUCAGG | 4050 | GCAGUGGAAAGAGCACCAA | 4093 | GGGGUAUAAAGUGCUAGUG |
| 3965 | ACGCGGUCCCCCACCUUUA | 4008 | UGCCCCAGACCUAUCAGGU | 4051 | CAGUGGAAAGAGCACCAAA | 4094 | GGGUAUAAAGUGCUAGUGC |
| 3966 | CGCGGUCCCCCACCUUUAG | 4009 | GCCCCAGACCUAUCAGGUC | 4052 | AGUGGAAAGAGCACCAAAG | 4095 | GGUAUAAAGUGCUAGUGCU |
| 3967 | GCGGUCCCCCACCUUUAGU | 4010 | CCCCAGACCUAUCAGGUCG | 4053 | GUGGAAAGAGCACCAAAGU | 4096 | GUAUAAAGUGCUAGUGCUU |
| 3968 | CGGUCCCCCACCUUUAGUG | 4011 | CCCAGACCUAUCAGGUCGG | 4054 | UGGAAAGAGCACCAAAGUU | 4097 | UAUAAAGUGCUAGUGCUUA |
| 3969 | GGUCCCCCACCUUUAGUGA | 4012 | CCAGACCUAUCAGGUCGGG | 4055 | GGAAAGAGCACCAAAGUUC | 4098 | AUAAAGUGCUAGUGCUUAA |
| 3970 | GUCCCCCACCUUUAGUGAC | 4013 | CAGACCUAUCAGGUCGGGU | 4056 | GAAAGAGCACCAAAGUUCC | 4099 | UAAAGUGCUAGUGCUUAAU |
| 3971 | UCCCCCACCUUUAGUGACA | 4014 | AGACCUAUCAGGUCGGGUA | 4057 | AAAGAGCACCAAAGUUCCU | 4100 | AAAGUGCUAGUGCUUAAUC |
| 3972 | CCCCCACCUUUAGUGACAA | 4015 | GACCUAUCAGGUCGGGUAC | 4058 | AAGAGCACCAAAGUUCCUG | 4101 | AAGUGCUAGUGCUUAAUCC |
| 3973 | CCCCACCUUUAGUGACAAC | 4016 | ACCUAUCAGGUCGGGUACU | 4059 | AGAGCACCAAAGUUCCUGU | 4102 | AGUGCUAGUGCUUAAUCCC |
| 3974 | CCCACCUUUAGUGACAACA | 4017 | CCUAUCAGGUCGGGUACUU | 4060 | GAGCACCAAAGUUCCUGUC | 4103 | GUGCUAGUGCUUAAUCCCU |
| 3975 | CCACCUUUAGUGACAACAG | 4018 | CUAUCAGGUCGGGUACUUG | 4061 | AGCACCAAAGUUCCUGUCG | 4104 | UGCUAGUGCUUAAUCCCUC |
| 3976 | CACCUUUAGUGACAACAGC | 4019 | UAUCAGGUCGGGUACUUGC | 4062 | GCACCAAAGUUCCUGUCGC | 4105 | GCUAGUGCUUAAUCCCUCA |
| 3977 | ACCUUUAGUGACAACAGCA | 4020 | AUCAGGUCGGGUACUUGCA | 4063 | CACCAAAGUUCCUGUCGCA | 4106 | CUAGUGCUUAAUCCCUCAG |
| 3978 | CCUUUAGUGACAACAGCAC | 4021 | UCAGGUCGGGUACUUGCAU | 4064 | ACCAAAGUUCCUGUCGCAU | 4107 | UAGUGCUUAAUCCCUCAGU |
| 3979 | CUUUAGUGACAACAGCACA | 4022 | CAGGUCGGGUACUUGCAUG | 4065 | CCAAAGUUCCUGUCGCAUA | 4108 | AGUGCUUAAUCCCUCAGUG |
| 3980 | UUUAGUGACAACAGCACAC | 4023 | AGGUCGGGUACUUGCAUGC | 4066 | CAAAGUUCCUGUCGCAUAU | 4109 | GUGCUUAAUCCCUCAGUGG |
| 3981 | UUAGUGACAACAGCACACC | 4024 | GGUCGGGUACUUGCAUGCC | 4067 | AAAGUUCCUGUCGCAUAUG | 4110 | UGCUUAAUCCCUCAGUGGC |
| 3982 | UAGUGACAACAGCACACCA | 4025 | GUCGGGUACUUGCAUGCCC | 4068 | AAGUUCCUGUCGCAUAUGC | 4111 | GCUUAAUCCCUCAGUGGCU |
| 3983 | AGUGACAACAGCACACCAC | 4026 | UCGGGUACUUGCAUGCCCC | 4069 | AGUUCCUGUCGCAUAUGCU | 4112 | CUUAAUCCCUCAGUGGCUG |
| 3984 | GUGACAACAGCACACCACC | 4027 | CGGGUACUUGCAUGCCCCG | 4070 | GUUCCUGUCGCAUAUGCUG | 4113 | UUAAUCCCUCAGUGGCUGC |
| 3985 | UGACAACAGCACACCACCU | 4028 | GGGUACUUGCAUGCCCCGA | 4071 | UUCCUGUCGCAUAUGCUGC | 4114 | UAAUCCCUCAGUGGCUGCC |
| 3986 | GACAACAGCACACCACCUG | 4029 | GGUACUUGCAUGCCCCGAC | 4072 | UCCUGUCGCAUAUGCUGCU | 4115 | AAUCCCUCAGUGGCUGCCA |
| 3987 | ACAACAGCACACCACCUGC | 4030 | GUACUUGCAUGCCCCGACU | 4073 | CCUGUCGCAUAUGCUGCUC | 4116 | AUCCCUCAGUGGCUGCCAC |
| 3988 | CAACAGCACACCACCUGCU | 4031 | UACUUGCAUGCCCCGACUG | 4074 | CUGUCGCAUAUGCUGCUCA | 4117 | UCCCUCAGUGGCUGCCACC |
| 3989 | AACAGCACACCACCUGCUG | 4032 | ACUUGCAUGCCCCGACUGG | 4075 | UGUCGCAUAUGCUGCUCAG | 4118 | CCCUCAGUGGCUGCCACCC |
| 3990 | ACAGCACACCACCUGCUGU | 4033 | CUUGCAUGCCCCGACUGGC | 4076 | GUCGCAUAUGCUGCUCAGG | 4119 | CCUCAGUGGCUGCCACCCU |
| 3991 | CAGCACACCACCUGCUGUG | 4034 | UUGCAUGCCCCGACUGGCA | 4077 | UCGCAUAUGCUGCUCAGGG | 4120 | CUCAGUGGCUGCCACCCUG |
| 3992 | AGCACACCACCUGCUGUGC | 4035 | UGCAUGCCCCGACUGGCAG | 4078 | CGCAUAUGCUGCUCAGGGG | 4121 | UCAGUGGCUGCCACCCUGG |
| 3993 | GCACACCACCUGCUGUGCC | 4036 | GCAUGCCCCGACUGGCAGU | 4079 | GCAUAUGCUGCUCAGGGGU | 4122 | CAGUGGCUGCCACCCUGGG |
| 3994 | CACACCACCUGCUGUGCCC | 4037 | CAUGCCCCGACUGGCAGUG | 4080 | CAUAUGCUGCUCAGGGGUA | 4123 | AGUGGCUGCCACCCUGGGG |
| 3995 | ACACCACCUGCUGUGCCCC | 4038 | AUGCCCCGACUGGCAGUGG | 4081 | AUAUGCUGCUCAGGGGUAU | 4124 | GUGGCUGCCACCCUGGGGU |
| 3996 | CACCACCUGCUGUGCCCCA | 4039 | UGCCCCGACUGGCAGUGGA | 4082 | UAUGCUGCUCAGGGGUAUA | 4125 | UGGCUGCCACCCUGGGGUU |
| 3997 | ACCACCUGCUGUGCCCCAG | 4040 | GCCCCGACUGGCAGUGGAA | 4083 | AUGCUGCUCAGGGGUAUAA | 4126 | GGCUGCCACCCUGGGGUUU |
| 3998 | CCACCUGCUGUGCCCCAGA | 4041 | CCCCGACUGGCAGUGGAAA | 4084 | UGCUGCUCAGGGGUAUAAA | 4127 | GCUGCCACCCUGGGGUUUG |
| 3999 | CACCUGCUGUGCCCCAGAC | 4042 | CCCGACUGGCAGUGGAAAG | 4085 | GCUGCUCAGGGGUAUAAAG | 4128 | CUGCCACCCUGGGGUUUGG |

FIG. 3 (page 144 of 479)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4129 | UGCCACCCUGGGGUUUGGG | 4172 | AUCAAUCCCAACAUUAGGA | 4215 | GGGCGCCCAUCACGUACUC | 4258 | UGGGGGCUGUGCGGGCGGC |
| 4130 | GCCACCCUGGGGUUUGGGG | 4173 | UCAAUCCCAACAUUAGGAC | 4216 | GGCGCCCAUCACGUACUCC | 4259 | GGGGGCUGUGCGGGCGGCG |
| 4131 | CCACCCUGGGGUUUGGGGC | 4174 | CAAUCCCAACAUUAGGACU | 4217 | GCGCCCAUCACGUACUCCA | 4260 | GGGGCUGUGCGGGCGGCGC |
| 4132 | CACCCUGGGGUUUGGGGCG | 4175 | AAUCCCAACAUUAGGACUG | 4218 | CGCCCAUCACGUACUCCAC | 4261 | GGGCUGUGCGGGCGGCGCC |
| 4133 | ACCCUGGGGUUUGGGGCGU | 4176 | AUCCCAACAUUAGGACUGG | 4219 | GCCCAUCACGUACUCCACA | 4262 | GGCUGUGCGGGCGGCGCCU |
| 4134 | CCCUGGGGUUUGGGGCGUA | 4177 | UCCCAACAUUAGGACUGGA | 4220 | CCCAUCACGUACUCCACAU | 4263 | GCUGUGCGGGCGGCGCCUA |
| 4135 | CCUGGGGUUUGGGGCGUAC | 4178 | CCCAACAUUAGGACUGGAG | 4221 | CCAUCACGUACUCCACAUA | 4264 | CUGUGCGGGCGGCGCCUAC |
| 4136 | CUGGGGUUUGGGGCGUACU | 4179 | CCAACAUUAGGACUGGAGU | 4222 | CAUCACGUACUCCACAUAU | 4265 | UGUGCGGGCGGCGCCUACG |
| 4137 | UGGGGUUUGGGGCGUACUU | 4180 | CAACAUUAGGACUGGAGUC | 4223 | AUCACGUACUCCACAUAUG | 4266 | GUGCGGGCGGCGCCUACGA |
| 4138 | GGGGUUUGGGGCGUACUUG | 4181 | AACAUUAGGACUGGAGUCA | 4224 | UCACGUACUCCACAUAUGG | 4267 | UGCGGGCGGCGCCUACGAC |
| 4139 | GGGUUUGGGGCGUACUUGU | 4182 | ACAUUAGGACUGGAGUCAG | 4225 | CACGUACUCCACAUAUGGC | 4268 | GCGGGCGGCGCCUACGACA |
| 4140 | GGUUUGGGGCGUACUUGUC | 4183 | CAUUAGGACUGGAGUCAGG | 4226 | ACGUACUCCACAUAUGGCA | 4269 | CGGGCGGCGCCUACGACAU |
| 4141 | GUUUGGGGCGUACUUGUCU | 4184 | AUUAGGACUGGAGUCAGGA | 4227 | CGUACUCCACAUAUGGCAA | 4270 | GGGCGGCGCCUACGACAUC |
| 4142 | UUUGGGGCGUACUUGUCUA | 4185 | UUAGGACUGGAGUCAGGAC | 4228 | GUACUCCACAUAUGGCAAA | 4271 | GGCGGCGCCUACGACAUCA |
| 4143 | UUGGGGCGUACUUGUCUAA | 4186 | UAGGACUGGAGUCAGGACU | 4229 | UACUCCACAUAUGGCAAAU | 4272 | GCGGCGCCUACGACAUCAU |
| 4144 | UGGGGCGUACUUGUCUAAG | 4187 | AGGACUGGAGUCAGGACUG | 4230 | ACUCCACAUAUGGCAAAUU | 4273 | CGGCGCCUACGACAUCAUC |
| 4145 | GGGGCGUACUUGUCUAAGG | 4188 | GGACUGGAGUCAGGACUGU | 4231 | CUCCACAUAUGGCAAAUUC | 4274 | GGCGCCUACGACAUCAUCA |
| 4146 | GGGCGUACUUGUCUAAGGC | 4189 | GACUGGAGUCAGGACUGUG | 4232 | UCCACAUAUGGCAAAUUCC | 4275 | GCGCCUACGACAUCAUCAU |
| 4147 | GGCGUACUUGUCUAAGGCA | 4190 | ACUGGAGUCAGGACUGUGA | 4233 | CCACAUAUGGCAAAUUCCU | 4276 | CGCCUACGACAUCAUCAUA |
| 4148 | GCGUACUUGUCUAAGGCAC | 4191 | CUGGAGUCAGGACUGUGAC | 4234 | CACAUAUGGCAAAUUCCUC | 4277 | GCCUACGACAUCAUCAUAU |
| 4149 | CGUACUUGUCUAAGGCACA | 4192 | UGGAGUCAGGACUGUGACG | 4235 | ACAUAUGGCAAAUUCCUCG | 4278 | CCUACGACAUCAUCAUAUG |
| 4150 | GUACUUGUCUAAGGCACAU | 4193 | GGAGUCAGGACUGUGACGA | 4236 | CAUAUGGCAAAUUCCUCGC | 4279 | CUACGACAUCAUCAUAUGU |
| 4151 | UACUUGUCUAAGGCACAUG | 4194 | GAGUCAGGACUGUGACGAC | 4237 | AUAUGGCAAAUUCCUCGCC | 4280 | UACGACAUCAUCAUAUGUG |
| 4152 | ACUUGUCUAAGGCACAUGG | 4195 | AGUCAGGACUGUGACGACC | 4238 | UAUGGCAAAUUCCUCGCCG | 4281 | ACGACAUCAUCAUAUGUGA |
| 4153 | CUUGUCUAAGGCACAUGGC | 4196 | GUCAGGACUGUGACGACCG | 4239 | AUGGCAAAUUCCUCGCCGA | 4282 | CGACAUCAUCAUAUGUGAU |
| 4154 | UUGUCUAAGGCACAUGGCA | 4197 | UCAGGACUGUGACGACCGG | 4240 | UGGCAAAUUCCUCGCCGAU | 4283 | GACAUCAUCAUAUGUGAUG |
| 4155 | UGUCUAAGGCACAUGGCAU | 4198 | CAGGACUGUGACGACCGGG | 4241 | GGCAAAUUCCUCGCCGAUG | 4284 | ACAUCAUCAUAUGUGAUGA |
| 4156 | GUCUAAGGCACAUGGCAUC | 4199 | AGGACUGUGACGACCGGGG | 4242 | GCAAAUUCCUCGCCGAUGG | 4285 | CAUCAUCAUAUGUGAUGAA |
| 4157 | UCUAAGGCACAUGGCAUCA | 4200 | GGACUGUGACGACCGGGGC | 4243 | CAAAUUCCUCGCCGAUGGG | 4286 | AUCAUCAUAUGUGAUGAAU |
| 4158 | CUAAGGCACAUGGCAUCAA | 4201 | GACUGUGACGACCGGGGCG | 4244 | AAAUUCCUCGCCGAUGGGG | 4287 | UCAUCAUAUGUGAUGAAUG |
| 4159 | UAAGGCACAUGGCAUCAAU | 4202 | ACUGUGACGACCGGGGCGC | 4245 | AAUUCCUCGCCGAUGGGGG | 4288 | CAUCAUAUGUGAUGAAUGC |
| 4160 | AAGGCACAUGGCAUCAAUC | 4203 | CUGUGACGACCGGGGCGCC | 4246 | AUUCCUCGCCGAUGGGGGC | 4289 | AUCAUAUGUGAUGAAUGCC |
| 4161 | AGGCACAUGGCAUCAAUCC | 4204 | UGUGACGACCGGGGCGCCC | 4247 | UUCCUCGCCGAUGGGGGCU | 4290 | UCAUAUGUGAUGAAUGCCA |
| 4162 | GGCACAUGGCAUCAAUCCC | 4205 | GUGACGACCGGGGCGCCCA | 4248 | UCCUCGCCGAUGGGGGCUG | 4291 | CAUAUGUGAUGAAUGCCAU |
| 4163 | GCACAUGGCAUCAAUCCCA | 4206 | UGACGACCGGGGCGCCCAU | 4249 | CCUCGCCGAUGGGGGCUGU | 4292 | AUAUGUGAUGAAUGCCAUG |
| 4164 | CACAUGGCAUCAAUCCCAA | 4207 | GACGACCGGGGCGCCCAUC | 4250 | CUCGCCGAUGGGGGCUGUG | 4293 | UAUGUGAUGAAUGCCAUGC |
| 4165 | ACAUGGCAUCAAUCCCAAC | 4208 | ACGACCGGGGCGCCCAUCA | 4251 | UCGCCGAUGGGGGCUGUGC | 4294 | AUGUGAUGAAUGCCAUGCC |
| 4166 | CAUGGCAUCAAUCCCAACA | 4209 | CGACCGGGGCGCCCAUCAC | 4252 | CGCCGAUGGGGGCUGUGCG | 4295 | UGUGAUGAAUGCCAUGCCG |
| 4167 | AUGGCAUCAAUCCCAACAU | 4210 | GACCGGGGCGCCCAUCACG | 4253 | GCCGAUGGGGGCUGUGCGG | 4296 | GUGAUGAAUGCCAUGCCGU |
| 4168 | UGGCAUCAAUCCCAACAUU | 4211 | ACCGGGGCGCCCAUCACGU | 4254 | CCGAUGGGGGCUGUGCGGG | 4297 | UGAUGAAUGCCAUGCCGUG |
| 4169 | GGCAUCAAUCCCAACAUUA | 4212 | CCGGGGCGCCCAUCACGUA | 4255 | CGAUGGGGGCUGUGCGGGC | 4298 | GAUGAAUGCCAUGCCGUGG |
| 4170 | GCAUCAAUCCCAACAUUAG | 4213 | CGGGGCGCCCAUCACGUAC | 4256 | GAUGGGGGCUGUGCGGGCG | 4299 | AUGAAUGCCAUGCCGUGGA |
| 4171 | CAUCAAUCCCAACAUUAGG | 4214 | GGGGCGCCCAUCACGUACU | 4257 | AUGGGGGCUGUGCGGGCGG | 4300 | UGAAUGCCAUGCCGUGGAC |

**FIG. 3 (page 145 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4301 | GAAUGCCAUGCCGUGGACU | 4344 | CAGUCCUUGAUCAAGCAGA | 4387 | GCUGGCUACAGCUACGCCC | 4430 | CCCAACAUAGAGGAGGUGG |
| 4302 | AAUGCCAUGCCGUGGACUC | 4345 | AGUCCUUGAUCAAGCAGAG | 4388 | CUGGCUACAGCUACGCCCC | 4431 | CCAACAUAGAGGAGGUGGC |
| 4303 | AUGCCAUGCCGUGGACUCU | 4346 | GUCCUUGAUCAAGCAGAGA | 4389 | UGGCUACAGCUACGCCCCC | 4432 | CAACAUAGAGGAGGUGGCC |
| 4304 | UGCCAUGCCGUGGACUCUA | 4347 | UCCUUGAUCAAGCAGAGAC | 4390 | GGCUACAGCUACGCCCCCU | 4433 | AACAUAGAGGAGGUGGCCC |
| 4305 | GCCAUGCCGUGGACUCUAC | 4348 | CCUUGAUCAAGCAGAGACA | 4391 | GCUACAGCUACGCCCCCUG | 4434 | ACAUAGAGGAGGUGGCCCU |
| 4306 | CCAUGCCGUGGACUCUACC | 4349 | CUUGAUCAAGCAGAGACAG | 4392 | CUACAGCUACGCCCCCUGG | 4435 | CAUAGAGGAGGUGGCCCUU |
| 4307 | CAUGCCGUGGACUCUACCA | 4350 | UUGAUCAAGCAGAGACAGC | 4393 | UACAGCUACGCCCCCUGGG | 4436 | AUAGAGGAGGUGGCCCUUG |
| 4308 | AUGCCGUGGACUCUACCAC | 4351 | UGAUCAAGCAGAGACAGCU | 4394 | ACAGCUACGCCCCCUGGGU | 4437 | UAGAGGAGGUGGCCCUUGG |
| 4309 | UGCCGUGGACUCUACCACC | 4352 | GAUCAAGCAGAGACAGCUG | 4395 | CAGCUACGCCCCCUGGGUC | 4438 | AGAGGAGGUGGCCCUUGGG |
| 4310 | GCCGUGGACUCUACCACCA | 4353 | AUCAAGCAGAGACAGCUGG | 4396 | AGCUACGCCCCCUGGGUCA | 4439 | GAGGAGGUGGCCCUUGGGC |
| 4311 | CCGUGGACUCUACCACCAU | 4354 | UCAAGCAGAGACAGCUGGG | 4397 | GCUACGCCCCCUGGGUCAG | 4440 | AGGAGGUGGCCCUUGGGCA |
| 4312 | CGUGGACUCUACCACCAUC | 4355 | CAAGCAGAGACAGCUGGGG | 4398 | CUACGCCCCCUGGGUCAGU | 4441 | GGAGGUGGCCCUUGGGCAG |
| 4313 | GUGGACUCUACCACCAUCC | 4356 | AAGCAGAGACAGCUGGGGU | 4399 | UACGCCCCCUGGGUCAGUG | 4442 | GAGGUGGCCCUUGGGCAGG |
| 4314 | UGGACUCUACCACCAUCCU | 4357 | AGCAGAGACAGCUGGGGUC | 4400 | ACGCCCCCUGGGUCAGUGA | 4443 | AGGUGGCCCUUGGGCAGGA |
| 4315 | GGACUCUACCACCAUCCUU | 4358 | GCAGAGACAGCUGGGGUCA | 4401 | CGCCCCCUGGGUCAGUGAC | 4444 | GGUGGCCCUUGGGCAGGAG |
| 4316 | GACUCUACCACCAUCCUUG | 4359 | CAGAGACAGCUGGGGUCAG | 4402 | GCCCCCUGGGUCAGUGACA | 4445 | GUGGCCCUUGGGCAGGAGG |
| 4317 | ACUCUACCACCAUCCUUGG | 4360 | AGAGACAGCUGGGGUCAGA | 4403 | CCCCCUGGGUCAGUGACAA | 4446 | UGGCCCUUGGGCAGGAGGG |
| 4318 | CUCUACCACCAUCCUUGGC | 4361 | GAGACAGCUGGGGUCAGAC | 4404 | CCCCUGGGUCAGUGACAAC | 4447 | GGCCCUUGGGCAGGAGGGC |
| 4319 | UCUACCACCAUCCUUGGCA | 4362 | AGACAGCUGGGGUCAGACU | 4405 | CCCUGGGUCAGUGACAACC | 4448 | GCCCUUGGGCAGGAGGGCG |
| 4320 | CUACCACCAUCCUUGGCAU | 4363 | GACAGCUGGGGUCAGACUA | 4406 | CCUGGGUCAGUGACAACCC | 4449 | CCCUUGGGCAGGAGGGCGA |
| 4321 | UACCACCAUCCUUGGCAUC | 4364 | ACAGCUGGGGUCAGACUAA | 4407 | CUGGGUCAGUGACAACCCC | 4450 | CCUUGGGCAGGAGGGCGAG |
| 4322 | ACCACCAUCCUUGGCAUCG | 4365 | CAGCUGGGGUCAGACUAAC | 4408 | UGGGUCAGUGACAACCCCC | 4451 | CUUGGGCAGGAGGGCGAGA |
| 4323 | CCACCAUCCUUGGCAUCGG | 4366 | AGCUGGGGUCAGACUAACU | 4409 | GGGUCAGUGACAACCCCCC | 4452 | UUGGGCAGGAGGGCGAGAU |
| 4324 | CACCAUCCUUGGCAUCGGA | 4367 | GCUGGGGUCAGACUAACUG | 4410 | GGUCAGUGACAACCCCCCA | 4453 | UGGGCAGGAGGGCGAGAUC |
| 4325 | ACCAUCCUUGGCAUCGGAA | 4368 | CUGGGGUCAGACUAACUGU | 4411 | GUCAGUGACAACCCCCCAC | 4454 | GGGCAGGAGGGCGAGAUCC |
| 4326 | CCAUCCUUGGCAUCGGAAC | 4369 | UGGGGUCAGACUAACUGUG | 4412 | UCAGUGACAACCCCCCACC | 4455 | GGCAGGAGGGCGAGAUCCC |
| 4327 | CAUCCUUGGCAUCGGAACA | 4370 | GGGGUCAGACUAACUGUGC | 4413 | CAGUGACAACCCCCCACCC | 4456 | GCAGGAGGGCGAGAUCCCC |
| 4328 | AUCCUUGGCAUCGGAACAG | 4371 | GGGUCAGACUAACUGUGCU | 4414 | AGUGACAACCCCCCACCCC | 4457 | CAGGAGGGCGAGAUCCCCU |
| 4329 | UCCUUGGCAUCGGAACAGU | 4372 | GGUCAGACUAACUGUGCUG | 4415 | GUGACAACCCCCCACCCCA | 4458 | AGGAGGGCGAGAUCCCCUU |
| 4330 | CCUUGGCAUCGGAACAGUC | 4373 | GUCAGACUAACUGUGCUGG | 4416 | UGACAACCCCCCACCCCAA | 4459 | GGAGGGCGAGAUCCCCUUC |
| 4331 | CUUGGCAUCGGAACAGUCC | 4374 | UCAGACUAACUGUGCUGGC | 4417 | GACAACCCCCCACCCCAAC | 4460 | GAGGGCGAGAUCCCCUUCU |
| 4332 | UUGGCAUCGGAACAGUCCU | 4375 | CAGACUAACUGUGCUGGCU | 4418 | ACAACCCCCCACCCCAACA | 4461 | AGGGCGAGAUCCCCUUCUA |
| 4333 | UGGCAUCGGAACAGUCCUU | 4376 | AGACUAACUGUGCUGGCUA | 4419 | CAACCCCCCACCCCAACAU | 4462 | GGGCGAGAUCCCCUUCUAU |
| 4334 | GGCAUCGGAACAGUCCUUG | 4377 | GACUAACUGUGCUGGCUAC | 4420 | AACCCCCCACCCCAACAUA | 4463 | GGCGAGAUCCCCUUCUAUG |
| 4335 | GCAUCGGAACAGUCCUUGA | 4378 | ACUAACUGUGCUGGCUACA | 4421 | ACCCCCCACCCCAACAUAG | 4464 | GCGAGAUCCCCUUCUAUGG |
| 4336 | CAUCGGAACAGUCCUUGAU | 4379 | CUAACUGUGCUGGCUACAG | 4422 | CCCCCCACCCCAACAUAGA | 4465 | CGAGAUCCCCUUCUAUGGG |
| 4337 | AUCGGAACAGUCCUUGAUC | 4380 | UAACUGUGCUGGCUACAGC | 4423 | CCCCCACCCCAACAUAGAG | 4466 | GAGAUCCCCUUCUAUGGGA |
| 4338 | UCGGAACAGUCCUUGAUCA | 4381 | AACUGUGCUGGCUACAGCU | 4424 | CCCCACCCCAACAUAGAGG | 4467 | AGAUCCCCUUCUAUGGGAG |
| 4339 | CGGAACAGUCCUUGAUCAA | 4382 | ACUGUGCUGGCUACAGCUA | 4425 | CCCACCCCAACAUAGAGGA | 4468 | GAUCCCCUUCUAUGGGAGG |
| 4340 | GGAACAGUCCUUGAUCAAG | 4383 | CUGUGCUGGCUACAGCUAC | 4426 | CCACCCCAACAUAGAGGAG | 4469 | AUCCCCUUCUAUGGGAGGG |
| 4341 | GAACAGUCCUUGAUCAAGC | 4384 | UGUGCUGGCUACAGCUACG | 4427 | CACCCCAACAUAGAGGAGG | 4470 | UCCCCUUCUAUGGGAGGGC |
| 4342 | AACAGUCCUUGAUCAAGCA | 4385 | GUGCUGGCUACAGCUACGC | 4428 | ACCCCAACAUAGAGGAGGU | 4471 | CCCCUUCUAUGGGAGGGCG |
| 4343 | ACAGUCCUUGAUCAAGCAG | 4386 | UGCUGGCUACAGCUACGCC | 4429 | CCCCAACAUAGAGGAGGUG | 4472 | CCCUUCUAUGGGAGGGCGA |

**FIG. 3 (page 146 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4473 | CCUUCUAUGGGAGGGCGAU | 4516 | AAGACAUCUGAUCUUCUGC | 4559 | CUCGCGGCGGCCCUUCGGG | 4602 | ACUACAGAGGGUUGGACGU |
| 4474 | CUUCUAUGGGAGGGCGAUU | 4517 | AGACAUCUGAUCUUCUGCC | 4560 | UCGCGGCGGCCCUUCGGGG | 4603 | CUACAGAGGGUUGGACGUC |
| 4475 | UUCUAUGGGAGGGCGAUUC | 4518 | GACAUCUGAUCUUCUGCCA | 4561 | CGCGGCGGCCCUUCGGGGU | 4604 | UACAGAGGGUUGGACGUCU |
| 4476 | UCUAUGGGAGGGCGAUUCC | 4519 | ACAUCUGAUCUUCUGCCAU | 4562 | GCGGCGGCCCUUCGGGGUA | 4605 | ACAGAGGGUUGGACGUCUC |
| 4477 | CUAUGGGAGGGCGAUUCCC | 4520 | CAUCUGAUCUUCUGCCAUU | 4563 | CGGCGGCCCUUCGGGGUAU | 4606 | CAGAGGGUUGGACGUCUCC |
| 4478 | UAUGGGAGGGCGAUUCCCC | 4521 | AUCUGAUCUUCUGCCAUUC | 4564 | GGCGGCCCUUCGGGGUAUG | 4607 | AGAGGGUUGGACGUCUCCG |
| 4479 | AUGGGAGGGCGAUUCCCCU | 4522 | UCUGAUCUUCUGCCAUUCA | 4565 | GCGGCCCUUCGGGGUAUGG | 4608 | GAGGGUUGGACGUCUCCGU |
| 4480 | UGGGAGGGCGAUUCCCCUG | 4523 | CUGAUCUUCUGCCAUUCAA | 4566 | CGGCCCUUCGGGGUAUGGG | 4609 | AGGGUUGGACGUCUCCGUA |
| 4481 | GGGAGGGCGAUUCCCCUGU | 4524 | UGAUCUUCUGCCAUUCAAA | 4567 | GGCCCUUCGGGGUAUGGGC | 4610 | GGGUUGGACGUCUCCGUAA |
| 4482 | GGAGGGCGAUUCCCCUGUC | 4525 | GAUCUUCUGCCAUUCAAAG | 4568 | GCCCUUCGGGGUAUGGGCU | 4611 | GGUUGGACGUCUCCGUAAU |
| 4483 | GAGGGCGAUUCCCCUGUCU | 4526 | AUCUUCUGCCAUUCAAAGA | 4569 | CCCUUCGGGGUAUGGGCUU | 4612 | GUUGGACGUCUCCGUAAUA |
| 4484 | AGGGCGAUUCCCCUGUCUU | 4527 | UCUUCUGCCAUUCAAAGAA | 4570 | CCUUCGGGGUAUGGGCUUG | 4613 | UUGGACGUCUCCGUAAUAC |
| 4485 | GGGCGAUUCCCCUGUCUUA | 4528 | CUUCUGCCAUUCAAAGAAA | 4571 | CUUCGGGGUAUGGGCUUGA | 4614 | UGGACGUCUCCGUAAUACC |
| 4486 | GGCGAUUCCCCUGUCUUAC | 4529 | UUCUGCCAUUCAAAGAAAA | 4572 | UUCGGGGUAUGGGCUUGAA | 4615 | GGACGUCUCCGUAAUACCA |
| 4487 | GCGAUUCCCCUGUCUUACA | 4530 | UCUGCCAUUCAAAGAAAAA | 4573 | UCGGGGUAUGGGCUUGAAC | 4616 | GACGUCUCCGUAAUACCAA |
| 4488 | CGAUUCCCCUGUCUUACAU | 4531 | CUGCCAUUCAAAGAAAAAG | 4574 | CGGGGUAUGGGCUUGAACU | 4617 | ACGUCUCCGUAAUACCAAC |
| 4489 | GAUUCCCCUGUCUUACAUC | 4532 | UGCCAUUCAAAGAAAAAGU | 4575 | GGGGUAUGGGCUUGAACUC | 4618 | CGUCUCCGUAAUACCAACU |
| 4490 | AUUCCCCUGUCUUACAUCA | 4533 | GCCAUUCAAAGAAAAAGUG | 4576 | GGGUAUGGGCUUGAACUCA | 4619 | GUCUCCGUAAUACCAACUC |
| 4491 | UUCCCCUGUCUUACAUCAA | 4534 | CCAUUCAAAGAAAAAGUGU | 4577 | GGUAUGGGCUUGAACUCAG | 4620 | UCUCCGUAAUACCAACUCA |
| 4492 | UCCCCUGUCUUACAUCAAG | 4535 | CAUUCAAAGAAAAAGUGUG | 4578 | GUAUGGGCUUGAACUCAGU | 4621 | CUCCGUAAUACCAACUCAG |
| 4493 | CCCCUGUCUUACAUCAAGG | 4536 | AUUCAAAGAAAAAGUGUGA | 4579 | UAUGGGCUUGAACUCAGUG | 4622 | UCCGUAAUACCAACUCAGG |
| 4494 | CCCUGUCUUACAUCAAGGG | 4537 | UUCAAAGAAAAAGUGUGAC | 4580 | AUGGGCUUGAACUCAGUGG | 4623 | CCGUAAUACCAACUCAGGG |
| 4495 | CCUGUCUUACAUCAAGGGA | 4538 | UCAAAGAAAAAGUGUGACG | 4581 | UGGGCUUGAACUCAGUGGC | 4624 | CGUAAUACCAACUCAGGGA |
| 4496 | CUGUCUUACAUCAAGGGAG | 4539 | CAAAGAAAAAGUGUGACGA | 4582 | GGGCUUGAACUCAGUGGCA | 4625 | GUAAUACCAACUCAGGGAG |
| 4497 | UGUCUUACAUCAAGGGAGG | 4540 | AAAGAAAAAGUGUGACGAG | 4583 | GGCUUGAACUCAGUGGCAU | 4626 | UAAUACCAACUCAGGGAGA |
| 4498 | GUCUUACAUCAAGGGAGGA | 4541 | AAGAAAAAGUGUGACGAGC | 4584 | GCUUGAACUCAGUGGCAUA | 4627 | AAUACCAACUCAGGGAGAC |
| 4499 | UCUUACAUCAAGGGAGGAA | 4542 | AGAAAAAGUGUGACGAGCU | 4585 | CUUGAACUCAGUGGCAUAC | 4628 | AUACCAACUCAGGGAGACG |
| 4500 | CUUACAUCAAGGGAGGAAG | 4543 | GAAAAAGUGUGACGAGCUC | 4586 | UUGAACUCAGUGGCAUACU | 4629 | UACCAACUCAGGGAGACGU |
| 4501 | UUACAUCAAGGGAGGAAGA | 4544 | AAAAAGUGUGACGAGCUCG | 4587 | UGAACUCAGUGGCAUACUA | 4630 | ACCAACUCAGGGAGACGUA |
| 4502 | UACAUCAAGGGAGGAAGAC | 4545 | AAAAGUGUGACGAGCUCGC | 4588 | GAACUCAGUGGCAUACUAC | 4631 | CCAACUCAGGGAGACGUAG |
| 4503 | ACAUCAAGGGAGGAAGACA | 4546 | AAAGUGUGACGAGCUCGCG | 4589 | AACUCAGUGGCAUACUACA | 4632 | CAACUCAGGGAGACGUAGU |
| 4504 | CAUCAAGGGAGGAAGACAU | 4547 | AAGUGUGACGAGCUCGCGG | 4590 | ACUCAGUGGCAUACUACAG | 4633 | AACUCAGGGAGACGUAGUG |
| 4505 | AUCAAGGGAGGAAGACAUC | 4548 | AGUGUGACGAGCUCGCGGC | 4591 | CUCAGUGGCAUACUACAGA | 4634 | ACUCAGGGAGACGUAGUGG |
| 4506 | UCAAGGGAGGAAGACAUCU | 4549 | GUGUGACGAGCUCGCGGCG | 4592 | UCAGUGGCAUACUACAGAG | 4635 | CUCAGGGAGACGUAGUGGU |
| 4507 | CAAGGGAGGAAGACAUCUG | 4550 | UGUGACGAGCUCGCGGCGG | 4593 | CAGUGGCAUACUACAGAGG | 4636 | UCAGGGAGACGUAGUGGUC |
| 4508 | AAGGGAGGAAGACAUCUGA | 4551 | GUGACGAGCUCGCGGCGGC | 4594 | AGUGGCAUACUACAGAGGG | 4637 | CAGGGAGACGUAGUGGUCG |
| 4509 | AGGGAGGAAGACAUCUGAU | 4552 | UGACGAGCUCGCGGCGGCC | 4595 | GUGGCAUACUACAGAGGGU | 4638 | AGGGAGACGUAGUGGUCGU |
| 4510 | GGGAGGAAGACAUCUGAUC | 4553 | GACGAGCUCGCGGCGGCCC | 4596 | UGGCAUACUACAGAGGGUU | 4639 | GGGAGACGUAGUGGUCGUC |
| 4511 | GGAGGAAGACAUCUGAUCU | 4554 | ACGAGCUCGCGGCGGCCCU | 4597 | GGCAUACUACAGAGGGUUG | 4640 | GGAGACGUAGUGGUCGUCG |
| 4512 | GAGGAAGACAUCUGAUCUU | 4555 | CGAGCUCGCGGCGGCCCUU | 4598 | GCAUACUACAGAGGGUUGG | 4641 | GAGACGUAGUGGUCGUCGC |
| 4513 | AGGAAGACAUCUGAUCUUC | 4556 | GAGCUCGCGGCGGCCCUUC | 4599 | CAUACUACAGAGGGUUGGA | 4642 | AGACGUAGUGGUCGUCGCC |
| 4514 | GGAAGACAUCUGAUCUUCU | 4557 | AGCUCGCGGCGGCCCUUCG | 4600 | AUACUACAGAGGGUUGGAC | 4643 | GACGUAGUGGUCGUCGCCA |
| 4515 | GAAGACAUCUGAUCUUCUG | 4558 | GCUCGCGGCGGCCCUUCGG | 4601 | UACUACAGAGGGUUGGACG | 4644 | ACGUAGUGGUCGUCGCCAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4645 | CGUAGUGGUCGUCGCCACC | 4688 | GGGGACUUUGACUCCGUGA | 4731 | AAGUUGUAGACUUCAGUUU | 4774 | ACAGAUUGUCCCUCAAGAC |
| 4646 | GUAGUGGUCGUCGCCACCG | 4689 | GGGACUUUGACUCCGUGAU | 4732 | AGUUGUAGACUUCAGUUUA | 4775 | CAGAUUGUCCCUCAAGACG |
| 4647 | UAGUGGUCGUCGCCACCGA | 4690 | GGACUUUGACUCCGUGAUC | 4733 | GUUGUAGACUUCAGUUUAG | 4776 | AGAUUGUCCCUCAAGACGC |
| 4648 | AGUGGUCGUCGCCACCGAC | 4691 | GACUUUGACUCCGUGAUCG | 4734 | UUGUAGACUUCAGUUUAGA | 4777 | GAUUGUCCCUCAAGACGCU |
| 4649 | GUGGUCGUCGCCACCGACG | 4692 | ACUUUGACUCCGUGAUCGA | 4735 | UGUAGACUUCAGUUUAGAC | 4778 | AUUGUCCCUCAAGACGCUG |
| 4650 | UGGUCGUCGCCACCGACGC | 4693 | CUUUGACUCCGUGAUCGAC | 4736 | GUAGACUUCAGUUUAGACC | 4779 | UUGUCCCUCAAGACGCUGU |
| 4651 | GGUCGUCGCCACCGACGCC | 4694 | UUUGACUCCGUGAUCGACU | 4737 | UAGACUUCAGUUUAGACCC | 4780 | UGUCCCUCAAGACGCUGUC |
| 4652 | GUCGUCGCCACCGACGCCC | 4695 | UUGACUCCGUGAUCGACUG | 4738 | AGACUUCAGUUUAGACCCC | 4781 | GUCCCUCAAGACGCUGUCU |
| 4653 | UCGUCGCCACCGACGCCCU | 4696 | UGACUCCGUGAUCGACUGC | 4739 | GACUUCAGUUUAGACCCCA | 4782 | UCCCUCAAGACGCUGUCUC |
| 4654 | CGUCGCCACCGACGCCCUC | 4697 | GACUCCGUGAUCGACUGCA | 4740 | ACUUCAGUUUAGACCCCAC | 4783 | CCCUCAAGACGCUGUCUCA |
| 4655 | GUCGCCACCGACGCCCUCA | 4698 | ACUCCGUGAUCGACUGCAA | 4741 | CUUCAGUUUAGACCCCACA | 4784 | CCUCAAGACGCUGUCUCAC |
| 4656 | UCGCCACCGACGCCCUCAU | 4699 | CUCCGUGAUCGACUGCAAC | 4742 | UUCAGUUUAGACCCCACAU | 4785 | CUCAAGACGCUGUCUCACG |
| 4657 | CGCCACCGACGCCCUCAUG | 4700 | UCCGUGAUCGACUGCAACG | 4743 | UCAGUUUAGACCCCACAUU | 4786 | UCAAGACGCUGUCUCACGU |
| 4658 | GCCACCGACGCCCUCAUGA | 4701 | CCGUGAUCGACUGCAACGU | 4744 | CAGUUUAGACCCCACAUUC | 4787 | CAAGACGCUGUCUCACGUA |
| 4659 | CCACCGACGCCCUCAUGAC | 4702 | CGUGAUCGACUGCAACGUA | 4745 | AGUUUAGACCCCACAUUCA | 4788 | AAGACGCUGUCUCACGUAG |
| 4660 | CACCGACGCCCUCAUGACA | 4703 | GUGAUCGACUGCAACGUAG | 4746 | GUUUAGACCCCACAUUCAC | 4789 | AGACGCUGUCUCACGUAGC |
| 4661 | ACCGACGCCCUCAUGACAG | 4704 | UGAUCGACUGCAACGUAGC | 4747 | UUUAGACCCCACAUUCACC | 4790 | GACGCUGUCUCACGUAGCC |
| 4662 | CCGACGCCCUCAUGACAGG | 4705 | GAUCGACUGCAACGUAGCG | 4748 | UUAGACCCCACAUUCACCA | 4791 | ACGCUGUCUCACGUAGCCA |
| 4663 | CGACGCCCUCAUGACAGGG | 4706 | AUCGACUGCAACGUAGCGG | 4749 | UAGACCCCACAUUCACCAU | 4792 | CGCUGUCUCACGUAGCCAG |
| 4664 | GACGCCCUCAUGACAGGGU | 4707 | UCGACUGCAACGUAGCGGU | 4750 | AGACCCCACAUUCACCAUA | 4793 | GCUGUCUCACGUAGCCAGC |
| 4665 | ACGCCCUCAUGACAGGGUA | 4708 | CGACUGCAACGUAGCGGUC | 4751 | GACCCCACAUUCACCAUAA | 4794 | CUGUCUCACGUAGCCAGCG |
| 4666 | CGCCCUCAUGACAGGGUAU | 4709 | GACUGCAACGUAGCGGUCA | 4752 | ACCCCACAUUCACCAUAAC | 4795 | UGUCUCACGUAGCCAGCGC |
| 4667 | GCCCUCAUGACAGGGUAUA | 4710 | ACUGCAACGUAGCGGUCAC | 4753 | CCCCACAUUCACCAUAACC | 4796 | GUCUCACGUAGCCAGCGCC |
| 4668 | CCCUCAUGACAGGGUAUAC | 4711 | CUGCAACGUAGCGGUCACU | 4754 | CCCACAUUCACCAUAACCA | 4797 | UCUCACGUAGCCAGCGCCG |
| 4669 | CCUCAUGACAGGGUAUACU | 4712 | UGCAACGUAGCGGUCACUC | 4755 | CCACAUUCACCAUAACCAC | 4798 | CUCACGUAGCCAGCGCCGG |
| 4670 | CUCAUGACAGGGUAUACUG | 4713 | GCAACGUAGCGGUCACUCA | 4756 | CACAUUCACCAUAACCACA | 4799 | UCACGUAGCCAGCGCCGGG |
| 4671 | UCAUGACAGGGUAUACUGG | 4714 | CAACGUAGCGGUCACUCAA | 4757 | ACAUUCACCAUAACCACAC | 4800 | CACGUAGCCAGCGCCGGGG |
| 4672 | CAUGACAGGGUAUACUGGG | 4715 | AACGUAGCGGUCACUCAAG | 4758 | CAUUCACCAUAACCACACA | 4801 | ACGUAGCCAGCGCCGGGGU |
| 4673 | AUGACAGGGUAUACUGGGG | 4716 | ACGUAGCGGUCACUCAAGU | 4759 | AUUCACCAUAACCACACAG | 4802 | CGUAGCCAGCGCCGGGGUC |
| 4674 | UGACAGGGUAUACUGGGGA | 4717 | CGUAGCGGUCACUCAAGUU | 4760 | UUCACCAUAACCACACAGA | 4803 | GUAGCCAGCGCCGGGGUCG |
| 4675 | GACAGGGUAUACUGGGGAC | 4718 | GUAGCGGUCACUCAAGUUG | 4761 | UCACCAUAACCACACAGAU | 4804 | UAGCCAGCGCCGGGGUCGC |
| 4676 | ACAGGGUAUACUGGGGACU | 4719 | UAGCGGUCACUCAAGUUGU | 4762 | CACCAUAACCACACAGAUU | 4805 | AGCCAGCGCCGGGGUCGCA |
| 4677 | CAGGGUAUACUGGGGACUU | 4720 | AGCGGUCACUCAAGUUGUA | 4763 | ACCAUAACCACACAGAUUG | 4806 | GCCAGCGCCGGGGUCGCAC |
| 4678 | AGGGUAUACUGGGGACUUU | 4721 | GCGGUCACUCAAGUUGUAG | 4764 | CCAUAACCACACAGAUUGU | 4807 | CCAGCGCCGGGGUCGCACG |
| 4679 | GGGUAUACUGGGGACUUUG | 4722 | CGGUCACUCAAGUUGUAGA | 4765 | CAUAACCACACAGAUUGUC | 4808 | CAGCGCCGGGGUCGCACGG |
| 4680 | GGUAUACUGGGGACUUUGA | 4723 | GGUCACUCAAGUUGUAGAC | 4766 | AUAACCACACAGAUUGUCC | 4809 | AGCGCCGGGGUCGCACGGG |
| 4681 | GUAUACUGGGGACUUUGAC | 4724 | GUCACUCAAGUUGUAGACU | 4767 | UAACCACACAGAUUGUCCC | 4810 | GCGCCGGGGUCGCACGGGU |
| 4682 | UAUACUGGGGACUUUGACU | 4725 | UCACUCAAGUUGUAGACUU | 4768 | AACCACACAGAUUGUCCCU | 4811 | CGCCGGGGUCGCACGGGUA |
| 4683 | AUACUGGGGACUUUGACUC | 4726 | CACUCAAGUUGUAGACUUC | 4769 | ACCACACAGAUUGUCCCUC | 4812 | GCCGGGGUCGCACGGGUAG |
| 4684 | UACUGGGGACUUUGACUCC | 4727 | ACUCAAGUUGUAGACUUCA | 4770 | CCACACAGAUUGUCCCUCA | 4813 | CCGGGGUCGCACGGGUAGG |
| 4685 | ACUGGGGACUUUGACUCCG | 4728 | CUCAAGUUGUAGACUUCAG | 4771 | CACACAGAUUGUCCCUCAA | 4814 | CGGGGUCGCACGGGUAGGG |
| 4686 | CUGGGGACUUUGACUCCGU | 4729 | UCAAGUUGUAGACUUCAGU | 4772 | ACACAGAUUGUCCCUCAAG | 4815 | GGGGUCGCACGGGUAGGGG |
| 4687 | UGGGGACUUUGACUCCGUG | 4730 | CAAGUUGUAGACUUCAGUU | 4773 | CACAGAUUGUCCCUCAAGA | 4816 | GGGUCGCACGGGUAGGGGA |

**FIG. 3 (page 148 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4817 | GGUCGCACGGGUAGGGGAA | 4860 | CCACUGGUGAGCGAGCCUC | 4903 | CUGUGAGUGCUACGACGCA | 4946 | CCAUCGGAGACCACCGUCA |
| 4818 | GUCGCACGGGUAGGGGAAG | 4861 | CACUGGUGAGCGAGCCUCA | 4904 | UGUGAGUGCUACGACGCAG | 4947 | CAUCGGAGACCACCGUCAG |
| 4819 | UCGCACGGGUAGGGGAAGA | 4862 | ACUGGUGAGCGAGCCUCAG | 4905 | GUGAGUGCUACGACGCAGG | 4948 | AUCGGAGACCACCGUCAGG |
| 4820 | CGCACGGGUAGGGGAAGAC | 4863 | CUGGUGAGCGAGCCUCAGG | 4906 | UGAGUGCUACGACGCAGGG | 4949 | UCGGAGACCACCGUCAGGC |
| 4821 | GCACGGGUAGGGGAAGACU | 4864 | UGGUGAGCGAGCCUCAGGA | 4907 | GAGUGCUACGACGCAGGGG | 4950 | CGGAGACCACCGUCAGGCU |
| 4822 | CACGGGUAGGGGAAGACUG | 4865 | GGUGAGCGAGCCUCAGGAA | 4908 | AGUGCUACGACGCAGGGGC | 4951 | GGAGACCACCGUCAGGCUC |
| 4823 | ACGGGUAGGGGAAGACUGG | 4866 | GUGAGCGAGCCUCAGGAAU | 4909 | GUGCUACGACGCAGGGGCC | 4952 | GAGACCACCGUCAGGCUCA |
| 4824 | CGGGUAGGGGAAGACUGGG | 4867 | UGAGCGAGCCUCAGGAAUG | 4910 | UGCUACGACGCAGGGGCCG | 4953 | AGACCACCGUCAGGCUCAG |
| 4825 | GGGUAGGGGAAGACUGGGC | 4868 | GAGCGAGCCUCAGGAAUGU | 4911 | GCUACGACGCAGGGGCCGC | 4954 | GACCACCGUCAGGCUCAGG |
| 4826 | GGUAGGGGAAGACUGGGCA | 4869 | AGCGAGCCUCAGGAAUGUU | 4912 | CUACGACGCAGGGGCCGCA | 4955 | ACCACCGUCAGGCUCAGGG |
| 4827 | GUAGGGGAAGACUGGGCAU | 4870 | GCGAGCCUCAGGAAUGUUU | 4913 | UACGACGCAGGGGCCGCAU | 4956 | CCACCGUCAGGCUCAGGGC |
| 4828 | UAGGGGAAGACUGGGCAUU | 4871 | CGAGCCUCAGGAAUGUUUG | 4914 | ACGACGCAGGGGCCGCAUG | 4957 | CACCGUCAGGCUCAGGGCG |
| 4829 | AGGGGAAGACUGGGCAUUU | 4872 | GAGCCUCAGGAAUGUUUGA | 4915 | CGACGCAGGGGCCGCAUGG | 4958 | ACCGUCAGGCUCAGGGCGU |
| 4830 | GGGGAAGACUGGGCAUUUA | 4873 | AGCCUCAGGAAUGUUUGAC | 4916 | GACGCAGGGGCCGCAUGGU | 4959 | CCGUCAGGCUCAGGGCGUA |
| 4831 | GGGAAGACUGGGCAUUUAU | 4874 | GCCUCAGGAAUGUUUGACA | 4917 | ACGCAGGGGCCGCAUGGUA | 4960 | CGUCAGGCUCAGGGCGUAU |
| 4832 | GGAAGACUGGGCAUUUAUA | 4875 | CCUCAGGAAUGUUUGACAG | 4918 | CGCAGGGGCCGCAUGGUAU | 4961 | GUCAGGCUCAGGGCGUAUU |
| 4833 | GAAGACUGGGCAUUUAUAG | 4876 | CUCAGGAAUGUUUGACAGU | 4919 | GCAGGGGCCGCAUGGUAUG | 4962 | UCAGGCUCAGGGCGUAUUU |
| 4834 | AAGACUGGGCAUUUAUAGG | 4877 | UCAGGAAUGUUUGACAGUG | 4920 | CAGGGGCCGCAUGGUAUGA | 4963 | CAGGCUCAGGGCGUAUUUC |
| 4835 | AGACUGGGCAUUUAUAGGU | 4878 | CAGGAAUGUUUGACAGUGU | 4921 | AGGGGCCGCAUGGUAUGAG | 4964 | AGGCUCAGGGCGUAUUUCA |
| 4836 | GACUGGGCAUUUAUAGGUA | 4879 | AGGAAUGUUUGACAGUGUA | 4922 | GGGGCCGCAUGGUAUGAGC | 4965 | GGCUCAGGGCGUAUUUCAA |
| 4837 | ACUGGGCAUUUAUAGGUAU | 4880 | GGAAUGUUUGACAGUGUAG | 4923 | GGGCCGCAUGGUAUGAGCU | 4966 | GCUCAGGGCGUAUUUCAAC |
| 4838 | CUGGGCAUUUAUAGGUAUG | 4881 | GAAUGUUUGACAGUGUAGU | 4924 | GGCCGCAUGGUAUGAGCUC | 4967 | CUCAGGGCGUAUUUCAACA |
| 4839 | UGGGCAUUUAUAGGUAUGU | 4882 | AAUGUUUGACAGUGUAGUG | 4925 | GCCGCAUGGUAUGAGCUCA | 4968 | UCAGGGCGUAUUUCAACAC |
| 4840 | GGGCAUUUAUAGGUAUGUU | 4883 | AUGUUUGACAGUGUAGUGC | 4926 | CCGCAUGGUAUGAGCUCAC | 4969 | CAGGGCGUAUUUCAACACG |
| 4841 | GGCAUUUAUAGGUAUGUUU | 4884 | UGUUUGACAGUGUAGUGCU | 4927 | CGCAUGGUAUGAGCUCACA | 4970 | AGGGCGUAUUUCAACACGC |
| 4842 | GCAUUUAUAGGUAUGUUUC | 4885 | GUUUGACAGUGUAGUGCUC | 4928 | GCAUGGUAUGAGCUCACAC | 4971 | GGGCGUAUUUCAACACGCC |
| 4843 | CAUUUAUAGGUAUGUUUCC | 4886 | UUUGACAGUGUAGUGCUCU | 4929 | CAUGGUAUGAGCUCACACC | 4972 | GGCGUAUUUCAACACGCCC |
| 4844 | AUUUAUAGGUAUGUUUCCA | 4887 | UUGACAGUGUAGUGCUCUG | 4930 | AUGGUAUGAGCUCACACCA | 4973 | GCGUAUUUCAACACGCCCG |
| 4845 | UUUAUAGGUAUGUUUCCAC | 4888 | UGACAGUGUAGUGCUCUGU | 4931 | UGGUAUGAGCUCACACCAU | 4974 | CGUAUUUCAACACGCCCGG |
| 4846 | UUAUAGGUAUGUUUCCACU | 4889 | GACAGUGUAGUGCUCUGUG | 4932 | GGUAUGAGCUCACACCAUC | 4975 | GUAUUUCAACACGCCCGGU |
| 4847 | UAUAGGUAUGUUUCCACUG | 4890 | ACAGUGUAGUGCUCUGUGA | 4933 | GUAUGAGCUCACACCAUCG | 4976 | UAUUUCAACACGCCCGGUU |
| 4848 | AUAGGUAUGUUUCCACUGG | 4891 | CAGUGUAGUGCUCUGUGAG | 4934 | UAUGAGCUCACACCAUCGG | 4977 | AUUUCAACACGCCCGGUUU |
| 4849 | UAGGUAUGUUUCCACUGGU | 4892 | AGUGUAGUGCUCUGUGAGU | 4935 | AUGAGCUCACACCAUCGGA | 4978 | UUUCAACACGCCCGGUUUG |
| 4850 | AGGUAUGUUUCCACUGGUG | 4893 | GUGUAGUGCUCUGUGAGUG | 4936 | UGAGCUCACACCAUCGGAG | 4979 | UUCAACACGCCCGGUUUGC |
| 4851 | GGUAUGUUUCCACUGGUGA | 4894 | UGUAGUGCUCUGUGAGUGC | 4937 | GAGCUCACACCAUCGGAGA | 4980 | UCAACACGCCCGGUUUGCC |
| 4852 | GUAUGUUUCCACUGGUGAG | 4895 | GUAGUGCUCUGUGAGUGCU | 4938 | AGCUCACACCAUCGGAGAC | 4981 | CAACACGCCCGGUUUGCCU |
| 4853 | UAUGUUUCCACUGGUGAGC | 4896 | UAGUGCUCUGUGAGUGCUA | 4939 | GCUCACACCAUCGGAGACC | 4982 | AACACGCCCGGUUUGCCUG |
| 4854 | AUGUUUCCACUGGUGAGCG | 4897 | AGUGCUCUGUGAGUGCUAC | 4940 | CUCACACCAUCGGAGACCA | 4983 | ACACGCCCGGUUUGCCUGU |
| 4855 | UGUUUCCACUGGUGAGCGA | 4898 | GUGCUCUGUGAGUGCUACG | 4941 | UCACACCAUCGGAGACCAC | 4984 | CACGCCCGGUUUGCCUGUG |
| 4856 | GUUUCCACUGGUGAGCGAG | 4899 | UGCUCUGUGAGUGCUACGA | 4942 | CACACCAUCGGAGACCACC | 4985 | ACGCCCGGUUUGCCUGUGU |
| 4857 | UUUCCACUGGUGAGCGAGC | 4900 | GCUCUGUGAGUGCUACGAC | 4943 | ACACCAUCGGAGACCACCG | 4986 | CGCCCGGUUUGCCUGUGUG |
| 4858 | UUCCACUGGUGAGCGAGCC | 4901 | CUCUGUGAGUGCUACGACG | 4944 | CACCAUCGGAGACCACCGU | 4987 | GCCCGGUUUGCCUGUGUGC |
| 4859 | UCCACUGGUGAGCGAGCCU | 4902 | UCUGUGAGUGCUACGACGC | 4945 | ACCAUCGGAGACCACCGUC | 4988 | CCCGGUUUGCCUGUGUGCC |

**FIG. 3 (page 149 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4989 | CCGGUUUGCCUGUGUGCCA | 5032 | AGUUUUCACCGGCCUCACA | 5075 | CAAACAAAGCAAUCGGGGG | 5118 | ACCAGGCUACAGUGUGCGC |
| 4990 | CGGUUUGCCUGUGUGCCAA | 5033 | GUUUUCACCGGCCUCACAC | 5076 | AAACAAAGCAAUCGGGGGA | 5119 | CCAGGCUACAGUGUGCGCU |
| 4991 | GGUUUGCCUGUGUGCCAAG | 5034 | UUUUCACCGGCCUCACACA | 5077 | AACAAAGCAAUCGGGGGAA | 5120 | CAGGCUACAGUGUGCGCUA |
| 4992 | GUUUGCCUGUGUGCCAAGA | 5035 | UUUCACCGGCCUCACACAC | 5078 | ACAAAGCAAUCGGGGGAAA | 5121 | AGGCUACAGUGUGCGCUAG |
| 4993 | UUUGCCUGUGUGCCAAGAC | 5036 | UUCACCGGCCUCACACACA | 5079 | CAAAGCAAUCGGGGGAAAA | 5122 | GGCUACAGUGUGCGCUAGG |
| 4994 | UUGCCUGUGUGCCAAGACC | 5037 | UCACCGGCCUCACACACAU | 5080 | AAAGCAAUCGGGGGAAAAU | 5123 | GCUACAGUGUGCGCUAGGG |
| 4995 | UGCCUGUGUGCCAAGACCA | 5038 | CACCGGCCUCACACACAUA | 5081 | AAGCAAUCGGGGGAAAAUU | 5124 | CUACAGUGUGCGCUAGGGC |
| 4996 | GCCUGUGUGCCAAGACCAU | 5039 | ACCGGCCUCACACACAUAG | 5082 | AGCAAUCGGGGGAAAAUUU | 5125 | UACAGUGUGCGCUAGGGCC |
| 4997 | CCUGUGUGCCAAGACCAUC | 5040 | CCGGCCUCACACACAUAGA | 5083 | GCAAUCGGGGGAAAAUUUC | 5126 | ACAGUGUGCGCUAGGGCCA |
| 4998 | CUGUGUGCCAAGACCAUCU | 5041 | CGGCCUCACACACAUAGAU | 5084 | CAAUCGGGGGAAAAUUUCG | 5127 | CAGUGUGCGCUAGGGCCAA |
| 4999 | UGUGUGCCAAGACCAUCUU | 5042 | GGCCUCACACACAUAGAUG | 5085 | AAUCGGGGGAAAAUUUCGC | 5128 | AGUGUGCGCUAGGGCCAAA |
| 5000 | GUGUGCCAAGACCAUCUUG | 5043 | GCCUCACACACAUAGAUGC | 5086 | AUCGGGGGAAAAUUUCGCA | 5129 | GUGUGCGCUAGGGCCAAAG |
| 5001 | UGUGCCAAGACCAUCUUGA | 5044 | CCUCACACACAUAGAUGCC | 5087 | UCGGGGGAAAAUUUCGCAU | 5130 | UGUGCGCUAGGGCCAAAGC |
| 5002 | GUGCCAAGACCAUCUUGAG | 5045 | CUCACACACAUAGAUGCCC | 5088 | CGGGGGAAAAUUUCGCAUA | 5131 | GUGCGCUAGGGCCAAAGCC |
| 5003 | UGCCAAGACCAUCUUGAGU | 5046 | UCACACACAUAGAUGCCCA | 5089 | GGGGGAAAAUUUCGCAUAC | 5132 | UGCGCUAGGGCCAAAGCCC |
| 5004 | GCCAAGACCAUCUUGAGUU | 5047 | CACACACAUAGAUGCCCAC | 5090 | GGGGAAAAUUUCGCAUACU | 5133 | GCGCUAGGGCCAAAGCCCC |
| 5005 | CCAAGACCAUCUUGAGUUU | 5048 | ACACACAUAGAUGCCCACU | 5091 | GGGAAAAUUUCGCAUACUU | 5134 | CGCUAGGGCCAAAGCCCCC |
| 5006 | CAAGACCAUCUUGAGUUUU | 5049 | CACACAUAGAUGCCCACUU | 5092 | GGAAAAUUUCGCAUACUUA | 5135 | GCUAGGGCCAAAGCCCCCC |
| 5007 | AAGACCAUCUUGAGUUUUG | 5050 | ACACAUAGAUGCCCACUUC | 5093 | GAAAAUUUCGCAUACUUAA | 5136 | CUAGGGCCAAAGCCCCCCC |
| 5008 | AGACCAUCUUGAGUUUUGG | 5051 | CACAUAGAUGCCCACUUCC | 5094 | AAAAUUUCGCAUACUUAAC | 5137 | UAGGGCCAAAGCCCCCCCC |
| 5009 | GACCAUCUUGAGUUUUGGG | 5052 | ACAUAGAUGCCCACUUCCU | 5095 | AAAUUUCGCAUACUUAACA | 5138 | AGGGCCAAAGCCCCCCCCC |
| 5010 | ACCAUCUUGAGUUUUGGGA | 5053 | CAUAGAUGCCCACUUCCUU | 5096 | AAUUUCGCAUACUUAACAG | 5139 | GGGCCAAAGCCCCCCCCCC |
| 5011 | CCAUCUUGAGUUUUGGGAG | 5054 | AUAGAUGCCCACUUCCUUU | 5097 | AUUUCGCAUACUUAACAGC | 5140 | GGCCAAAGCCCCCCCCCCG |
| 5012 | CAUCUUGAGUUUUGGGAGG | 5055 | UAGAUGCCCACUUCCUUUC | 5098 | UUUCGCAUACUUAACAGCC | 5141 | GCCAAAGCCCCCCCCCCGU |
| 5013 | AUCUUGAGUUUUGGGAGGC | 5056 | AGAUGCCCACUUCCUUUCC | 5099 | UUCGCAUACUUAACAGCCU | 5142 | CCAAAGCCCCCCCCCCGUC |
| 5014 | UCUUGAGUUUUGGGAGGCA | 5057 | GAUGCCCACUUCCUUUCCC | 5100 | UCGCAUACUUAACAGCCUA | 5143 | CAAAGCCCCCCCCCCGUCC |
| 5015 | CUUGAGUUUUGGGAGGCAG | 5058 | AUGCCCACUUCCUUUCCCA | 5101 | CGCAUACUUAACAGCCUAC | 5144 | AAAGCCCCCCCCCGUCCU |
| 5016 | UUGAGUUUUGGGAGGCAGU | 5059 | UGCCCACUUCCUUUCCCAA | 5102 | GCAUACUUAACAGCCUACC | 5145 | AAGCCCCCCCCCGUCCUG |
| 5017 | UGAGUUUUGGGAGGCAGUU | 5060 | GCCCACUUCCUUUCCCAAA | 5103 | CAUACUUAACAGCCUACCA | 5146 | AGCCCCCCCCCGUCCUGG |
| 5018 | GAGUUUUGGGAGGCAGUUU | 5061 | CCCACUUCCUUUCCCAAAC | 5104 | AUACUUAACAGCCUACCAG | 5147 | GCCCCCCCCCGUCCUGGG |
| 5019 | AGUUUUGGGAGGCAGUUUU | 5062 | CCACUUCCUUUCCCAAACA | 5105 | UACUUAACAGCCUACCAGG | 5148 | CCCCCCCCCGUCCUGGGA |
| 5020 | GUUUUGGGAGGCAGUUUUC | 5063 | CACUUCCUUUCCCAAACAA | 5106 | ACUUAACAGCCUACCAGGC | 5149 | CCCCCCCCGUCCUGGGAC |
| 5021 | UUUUGGGAGGCAGUUUUCA | 5064 | ACUUCCUUUCCCAAACAAA | 5107 | CUUAACAGCCUACCAGGCU | 5150 | CCCCCCCGUCCUGGGACG |
| 5022 | UUUGGGAGGCAGUUUUCAC | 5065 | CUUCCUUUCCCAAACAAAG | 5108 | UUAACAGCCUACCAGGCUA | 5151 | CCCCCCGUCCUGGGACGU |
| 5023 | UUGGGAGGCAGUUUUCACC | 5066 | UUCCUUUCCCAAACAAAGC | 5109 | UAACAGCCUACCAGGCUAC | 5152 | CCCCCGUCCUGGGACGUC |
| 5024 | UGGGAGGCAGUUUUCACCG | 5067 | UCCUUUCCCAAACAAAGCA | 5110 | AACAGCCUACCAGGCUACA | 5153 | CCCCGUCCUGGGACGUCA |
| 5025 | GGGAGGCAGUUUUCACCGG | 5068 | CCUUUCCCAAACAAAGCAA | 5111 | ACAGCCUACCAGGCUACAG | 5154 | CCCGUCCUGGGACGUCAU |
| 5026 | GGAGGCAGUUUUCACCGGC | 5069 | CUUUCCCAAACAAAGCAAU | 5112 | CAGCCUACCAGGCUACAGU | 5155 | CCGUCCUGGGACGUCAUG |
| 5027 | GAGGCAGUUUUCACCGGCC | 5070 | UUUCCCAAACAAAGCAAUC | 5113 | AGCCUACCAGGCUACAGUG | 5156 | CCGUCCUGGGACGUCAUGU |
| 5028 | AGGCAGUUUUCACCGGCCU | 5071 | UUCCCAAACAAAGCAAUCG | 5114 | GCCUACCAGGCUACAGUGU | 5157 | CGUCCUGGGACGUCAUGUG |
| 5029 | GGCAGUUUUCACCGGCCUC | 5072 | UCCCAAACAAAGCAAUCGG | 5115 | CCUACCAGGCUACAGUGUG | 5158 | GUCCUGGGACGUCAUGUGG |
| 5030 | GCAGUUUUCACCGGCCUCA | 5073 | CCCAAACAAAGCAAUCGGG | 5116 | CUACCAGGCUACAGUGUGC | 5159 | UCCUGGGACGUCAUGUGGA |
| 5031 | CAGUUUUCACCGGCCUCAC | 5074 | CCAAACAAAGCAAUCGGGG | 5117 | UACCAGGCUACAGUGUGCG | 5160 | CCUGGGACGUCAUGUGGAA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5161 | CUGGGACGUCAUGUGGAAG | 5204 | CUCGUGGGCCCCACACCUC | 5247 | CCAACGAGGUCACCCUCAC | 5290 | CACCUGCAUGCAAGCCGAC |
| 5162 | UGGGACGUCAUGUGGAAGU | 5205 | UCGUGGGCCCCACACCUCU | 5248 | CAACGAGGUCACCCUCACA | 5291 | ACCUGCAUGCAAGCCGACC |
| 5163 | GGGACGUCAUGUGGAAGUG | 5206 | CGUGGGCCCCACACCUCUC | 5249 | AACGAGGUCACCCUCACAC | 5292 | CCUGCAUGCAAGCCGACCU |
| 5164 | GGACGUCAUGUGGAAGUGU | 5207 | GUGGGCCCCACACCUCUCC | 5250 | ACGAGGUCACCCUCACACA | 5293 | CUGCAUGCAAGCCGACCUU |
| 5165 | GACGUCAUGUGGAAGUGUU | 5208 | UGGGCCCCACACCUCUCCU | 5251 | CGAGGUCACCCUCACACAU | 5294 | UGCAUGCAAGCCGACCUUG |
| 5166 | ACGUCAUGUGGAAGUGUUU | 5209 | GGGCCCCACACCUCUCCUG | 5252 | GAGGUCACCCUCACACAUC | 5295 | GCAUGCAAGCCGACCUUGA |
| 5167 | CGUCAUGUGGAAGUGUUUG | 5210 | GGCCCCACACCUCUCCUGU | 5253 | AGGUCACCCUCACACAUCC | 5296 | CAUGCAAGCCGACCUUGAG |
| 5168 | GUCAUGUGGAAGUGUUUGA | 5211 | GCCCCACACCUCUCCUGUA | 5254 | GGUCACCCUCACACAUCCC | 5297 | AUGCAAGCCGACCUUGAGG |
| 5169 | UCAUGUGGAAGUGUUUGAC | 5212 | CCCCACACCUCUCCUGUAC | 5255 | GUCACCCUCACACAUCCCG | 5298 | UGCAAGCCGACCUUGAGGU |
| 5170 | CAUGUGGAAGUGUUUGACU | 5213 | CCCACACCUCUCCUGUACC | 5256 | UCACCCUCACACAUCCCGU | 5299 | GCAAGCCGACCUUGAGGUC |
| 5171 | AUGUGGAAGUGUUUGACUC | 5214 | CCACACCUCUCCUGUACCG | 5257 | CACCCUCACACAUCCCGUG | 5300 | CAAGCCGACCUUGAGGUCA |
| 5172 | UGUGGAAGUGUUUGACUCG | 5215 | CACACCUCUCCUGUACCGC | 5258 | ACCCUCACACAUCCCGUGA | 5301 | AAGCCGACCUUGAGGUCAU |
| 5173 | GUGGAAGUGUUUGACUCGA | 5216 | ACACCUCUCCUGUACCGCU | 5259 | CCCUCACACAUCCCGUGAC | 5302 | AGCCGACCUUGAGGUCAUG |
| 5174 | UGGAAGUGUUUGACUCGAC | 5217 | CACCUCUCCUGUACCGCUU | 5260 | CCUCACACAUCCCGUGACG | 5303 | GCCGACCUUGAGGUCAUGA |
| 5175 | GGAAGUGUUUGACUCGACU | 5218 | ACCUCUCCUGUACCGCUUG | 5261 | CUCACACAUCCCGUGACGA | 5304 | CCGACCUUGAGGUCAUGAC |
| 5176 | GAAGUGUUUGACUCGACUC | 5219 | CCUCUCCUGUACCGCUUGG | 5262 | UCACACAUCCCGUGACGAA | 5305 | CGACCUUGAGGUCAUGACC |
| 5177 | AAGUGUUUGACUCGACUCA | 5220 | CUCUCCUGUACCGCUUGGG | 5263 | CACACAUCCCGUGACGAAA | 5306 | GACCUUGAGGUCAUGACCA |
| 5178 | AGUGUUUGACUCGACUCAA | 5221 | UCUCCUGUACCGCUUGGGC | 5264 | ACACAUCCCGUGACGAAAU | 5307 | ACCUUGAGGUCAUGACCAG |
| 5179 | GUGUUUGACUCGACUCAAG | 5222 | CUCCUGUACCGCUUGGGCU | 5265 | CACAUCCCGUGACGAAAUA | 5308 | CCUUGAGGUCAUGACCAGC |
| 5180 | UGUUUGACUCGACUCAAGC | 5223 | UCCUGUACCGCUUGGGCUC | 5266 | ACAUCCCGUGACGAAAUAC | 5309 | CUUGAGGUCAUGACCAGCA |
| 5181 | GUUUGACUCGACUCAAGCC | 5224 | CCUGUACCGCUUGGGCUCU | 5267 | CAUCCCGUGACGAAAUACA | 5310 | UUGAGGUCAUGACCAGCAC |
| 5182 | UUUGACUCGACUCAAGCCC | 5225 | CUGUACCGCUUGGGCUCUG | 5268 | AUCCCGUGACGAAAUACAU | 5311 | UGAGGUCAUGACCAGCACA |
| 5183 | UUGACUCGACUCAAGCCCA | 5226 | UGUACCGCUUGGGCUCUGU | 5269 | UCCCGUGACGAAAUACAUC | 5312 | GAGGUCAUGACCAGCACAU |
| 5184 | UGACUCGACUCAAGCCCAC | 5227 | GUACCGCUUGGGCUCUGUU | 5270 | CCCGUGACGAAAUACAUCG | 5313 | AGGUCAUGACCAGCACAUG |
| 5185 | GACUCGACUCAAGCCCACA | 5228 | UACCGCUUGGGCUCUGUUA | 5271 | CCGUGACGAAAUACAUCGC | 5314 | GGUCAUGACCAGCACAUGG |
| 5186 | ACUCGACUCAAGCCCACAC | 5229 | ACCGCUUGGGCUCUGUUAC | 5272 | CGUGACGAAAUACAUCGCC | 5315 | GUCAUGACCAGCACAUGGG |
| 5187 | CUCGACUCAAGCCCACACU | 5230 | CCGCUUGGGCUCUGUUACC | 5273 | GUGACGAAAUACAUCGCCA | 5316 | UCAUGACCAGCACAUGGGU |
| 5188 | UCGACUCAAGCCCACACUC | 5231 | CGCUUGGGCUCUGUUACCA | 5274 | UGACGAAAUACAUCGCCAC | 5317 | CAUGACCAGCACAUGGGUC |
| 5189 | CGACUCAAGCCCACACUCG | 5232 | GCUUGGGCUCUGUUACCAA | 5275 | GACGAAAUACAUCGCCACC | 5318 | AUGACCAGCACAUGGGUCU |
| 5190 | GACUCAAGCCCACACUCGU | 5233 | CUUGGGCUCUGUUACCAAC | 5276 | ACGAAAUACAUCGCCACCU | 5319 | UGACCAGCACAUGGGUCUU |
| 5191 | ACUCAAGCCCACACUCGUG | 5234 | UUGGGCUCUGUUACCAACG | 5277 | CGAAAUACAUCGCCACCUG | 5320 | GACCAGCACAUGGGUCUUG |
| 5192 | CUCAAGCCCACACUCGUGG | 5235 | UGGGCUCUGUUACCAACGA | 5278 | GAAAUACAUCGCCACCUGC | 5321 | ACCAGCACAUGGGUCUUGG |
| 5193 | UCAAGCCCACACUCGUGGG | 5236 | GGGCUCUGUUACCAACGAG | 5279 | AAAUACAUCGCCACCUGCA | 5322 | CCAGCACAUGGGUCUUGGC |
| 5194 | CAAGCCCACACUCGUGGGC | 5237 | GGCUCUGUUACCAACGAGG | 5280 | AAUACAUCGCCACCUGCAU | 5323 | CAGCACAUGGGUCUUGGCA |
| 5195 | AAGCCCACACUCGUGGGCC | 5238 | GCUCUGUUACCAACGAGGU | 5281 | AUACAUCGCCACCUGCAUG | 5324 | AGCACAUGGGUCUUGGCAG |
| 5196 | AGCCCACACUCGUGGGCCC | 5239 | CUCUGUUACCAACGAGGUC | 5282 | UACAUCGCCACCUGCAUGC | 5325 | GCACAUGGGUCUUGGCAGG |
| 5197 | GCCCACACUCGUGGGCCCC | 5240 | UCUGUUACCAACGAGGUCA | 5283 | ACAUCGCCACCUGCAUGCA | 5326 | CACAUGGGUCUUGGCAGGG |
| 5198 | CCCACACUCGUGGGCCCCA | 5241 | CUGUUACCAACGAGGUCAC | 5284 | CAUCGCCACCUGCAUGCAA | 5327 | ACAUGGGUCUUGGCAGGGG |
| 5199 | CCACACUCGUGGGCCCCAC | 5242 | UGUUACCAACGAGGUCACC | 5285 | AUCGCCACCUGCAUGCAAG | 5328 | CAUGGGUCUUGGCAGGGGG |
| 5200 | CACACUCGUGGGCCCCACA | 5243 | GUUACCAACGAGGUCACCC | 5286 | UCGCCACCUGCAUGCAAGC | 5329 | AUGGGUCUUGGCAGGGGGA |
| 5201 | ACACUCGUGGGCCCCACAC | 5244 | UUACCAACGAGGUCACCCU | 5287 | CGCCACCUGCAUGCAAGCC | 5330 | UGGGUCUUGGCAGGGGGAG |
| 5202 | CACUCGUGGGCCCCACACC | 5245 | UACCAACGAGGUCACCCUC | 5288 | GCCACCUGCAUGCAAGCCG | 5331 | GGGUCUUGGCAGGGGGAGU |
| 5203 | ACUCGUGGGCCCCACACCU | 5246 | ACCAACGAGGUCACCCUCA | 5289 | CCACCUGCAUGCAAGCCGA | 5332 | GGUCUUGGCAGGGGGAGUC |

**FIG. 3 (page 151 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5333 | GUCUUGGCAGGGGGAGUCU | 5376 | UGGCGACCGGGUGUGUUUG | 5419 | CCAGCGAGCCGUCGUUGCG | 5462 | GCUUUUGAUGAGAUGGAGG |
| 5334 | UCUUGGCAGGGGGAGUCUU | 5377 | GGCGACCGGGUGUGUUUGC | 5420 | CAGCGAGCCGUCGUUGCGC | 5463 | CUUUUGAUGAGAUGGAGGA |
| 5335 | CUUGGCAGGGGGAGUCUUG | 5378 | GCGACCGGGUGUGUUUGCA | 5421 | AGCGAGCCGUCGUUGCGCC | 5464 | UUUUGAUGAGAUGGAGGAA |
| 5336 | UUGGCAGGGGGAGUCUUGG | 5379 | CGACCGGGUGUGUUUGCAU | 5422 | GCGAGCCGUCGUUGCGCCG | 5465 | UUUGAUGAGAUGGAGGAAU |
| 5337 | UGGCAGGGGGAGUCUUGGC | 5380 | GACCGGGUGUGUUUGCAUC | 5423 | CGAGCCGUCGUUGCGCCGG | 5466 | UUGAUGAGAUGGAGGAAUG |
| 5338 | GGCAGGGGGAGUCUUGGCG | 5381 | ACCGGGUGUGUUUGCAUCA | 5424 | GAGCCGUCGUUGCGCCGGA | 5467 | UGAUGAGAUGGAGGAAUGU |
| 5339 | GCAGGGGGAGUCUUGGCGG | 5382 | CCGGGUGUGUUUGCAUCAU | 5425 | AGCCGUCGUUGCGCCGGAC | 5468 | GAUGAGAUGGAGGAAUGUG |
| 5340 | CAGGGGGAGUCUUGGCGGC | 5383 | CGGGUGUGUUUGCAUCAUC | 5426 | GCCGUCGUUGCGCCGGACA | 5469 | AUGAGAUGGAGGAAUGUGC |
| 5341 | AGGGGGAGUCUUGGCGGCC | 5384 | GGGUGUGUUUGCAUCAUCG | 5427 | CCGUCGUUGCGCCGGACAA | 5470 | UGAGAUGGAGGAAUGUGCC |
| 5342 | GGGGGAGUCUUGGCGGCCG | 5385 | GGUGUGUUUGCAUCAUCGG | 5428 | CGUCGUUGCGCCGGACAAG | 5471 | GAGAUGGAGGAAUGUGCCU |
| 5343 | GGGGAGUCUUGGCGGCCGU | 5386 | GUGUGUUUGCAUCAUCGGC | 5429 | GUCGUUGCGCCGGACAAGG | 5472 | AGAUGGAGGAAUGUGCCUC |
| 5344 | GGGAGUCUUGGCGGCCGUC | 5387 | UGUGUUUGCAUCAUCGGCC | 5430 | UCGUUGCGCCGGACAAGGA | 5473 | GAUGGAGGAAUGUGCCUCU |
| 5345 | GGAGUCUUGGCGGCCGUCG | 5388 | GUGUUUGCAUCAUCGGCCG | 5431 | CGUUGCGCCGGACAAGGAG | 5474 | AUGGAGGAAUGUGCCUCUA |
| 5346 | GAGUCUUGGCGGCCGUCGC | 5389 | UGUUUGCAUCAUCGGCCGC | 5432 | GUUGCGCCGGACAAGGAGG | 5475 | UGGAGGAAUGUGCCUCUAG |
| 5347 | AGUCUUGGCGGCCGUCGCC | 5390 | GUUUGCAUCAUCGGCCGCU | 5433 | UUGCGCCGGACAAGGAGGU | 5476 | GGAGGAAUGUGCCUCUAGG |
| 5348 | GUCUUGGCGGCCGUCGCCG | 5391 | UUUGCAUCAUCGGCCGCUU | 5434 | UGCGCCGGACAAGGAGGUC | 5477 | GAGGAAUGUGCCUCUAGGG |
| 5349 | UCUUGGCGGCCGUCGCCGC | 5392 | UUGCAUCAUCGGCCGCUUG | 5435 | GCGCCGGACAAGGAGGUCC | 5478 | AGGAAUGUGCCUCUAGGGC |
| 5350 | CUUGGCGGCCGUCGCCGCG | 5393 | UGCAUCAUCGGCCGCUUGC | 5436 | CGCCGGACAAGGAGGUCCU | 5479 | GGAAUGUGCCUCUAGGGCG |
| 5351 | UUGGCGGCCGUCGCCGCGU | 5394 | GCAUCAUCGGCCGCUUGCA | 5437 | GCCGGACAAGGAGGUCCUC | 5480 | GAAUGUGCCUCUAGGGCGG |
| 5352 | UGGCGGCCGUCGCCGCGUA | 5395 | CAUCAUCGGCCGCUUGCAC | 5438 | CCGGACAAGGAGGUCCUCU | 5481 | AAUGUGCCUCUAGGGCGGC |
| 5353 | GGCGGCCGUCGCCGCGUAU | 5396 | AUCAUCGGCCGCUUGCACA | 5439 | CGGACAAGGAGGUCCUCUA | 5482 | AUGUGCCUCUAGGGCGGCU |
| 5354 | GCGGCCGUCGCCGCGUAUU | 5397 | UCAUCGGCCGCUUGCACAU | 5440 | GGACAAGGAGGUCCUCUAU | 5483 | UGUGCCUCUAGGGCGGCUC |
| 5355 | CGGCCGUCGCCGCGUAUUG | 5398 | CAUCGGCCGCUUGCACAUU | 5441 | GACAAGGAGGUCCUCUAUG | 5484 | GUGCCUCUAGGGCGGCUCU |
| 5356 | GGCCGUCGCCGCGUAUUGC | 5399 | AUCGGCCGCUUGCACAUUA | 5442 | ACAAGGAGGUCCUCUAUGA | 5485 | UGCCUCUAGGGCGGCUCUC |
| 5357 | GCCGUCGCCGCGUAUUGCC | 5400 | UCGGCCGCUUGCACAUUAA | 5443 | CAAGGAGGUCCUCUAUGAG | 5486 | GCCUCUAGGGCGGCUCUCA |
| 5358 | CCGUCGCCGCGUAUUGCCU | 5401 | CGGCCGCUUGCACAUUAAC | 5444 | AAGGAGGUCCUCUAUGAGG | 5487 | CCUCUAGGGCGGCUCUCAU |
| 5359 | CGUCGCCGCGUAUUGCCUG | 5402 | GGCCGCUUGCACAUUAACC | 5445 | AGGAGGUCCUCUAUGAGGC | 5488 | CUCUAGGGCGGCUCUCAUU |
| 5360 | GUCGCCGCGUAUUGCCUGG | 5403 | GCCGCUUGCACAUUAACCA | 5446 | GGAGGUCCUCUAUGAGGCU | 5489 | UCUAGGGCGGCUCUCAUUG |
| 5361 | UCGCCGCGUAUUGCCUGGC | 5404 | CCGCUUGCACAUUAACCAG | 5447 | GAGGUCCUCUAUGAGGCUU | 5490 | CUAGGGCGGCUCUCAUUGA |
| 5362 | CGCCGCGUAUUGCCUGGCG | 5405 | CGCUUGCACAUUAACCAGC | 5448 | AGGUCCUCUAUGAGGCUUU | 5491 | UAGGGCGGCUCUCAUUGAA |
| 5363 | GCCGCGUAUUGCCUGGCGA | 5406 | GCUUGCACAUUAACCAGCG | 5449 | GGUCCUCUAUGAGGCUUUU | 5492 | AGGGCGGCUCUCAUUGAAG |
| 5364 | CCGCGUAUUGCCUGGCGAC | 5407 | CUUGCACAUUAACCAGCGA | 5450 | GUCCUCUAUGAGGCUUUUG | 5493 | GGGCGGCUCUCAUUGAAGA |
| 5365 | CGCGUAUUGCCUGGCGACC | 5408 | UUGCACAUUAACCAGCGAG | 5451 | UCCUCUAUGAGGCUUUUGA | 5494 | GGCGGCUCUCAUUGAAGAG |
| 5366 | GCGUAUUGCCUGGCGACCG | 5409 | UGCACAUUAACCAGCGAGC | 5452 | CCUCUAUGAGGCUUUUGAU | 5495 | GCGGCUCUCAUUGAAGAGG |
| 5367 | CGUAUUGCCUGGCGACCGG | 5410 | GCACAUUAACCAGCGAGCC | 5453 | CUCUAUGAGGCUUUUGAUG | 5496 | CGGCUCUCAUUGAAGAGGG |
| 5368 | GUAUUGCCUGGCGACCGGG | 5411 | CACAUUAACCAGCGAGCCG | 5454 | UCUAUGAGGCUUUUGAUGA | 5497 | GGCUCUCAUUGAAGAGGGG |
| 5369 | UAUUGCCUGGCGACCGGGU | 5412 | ACAUUAACCAGCGAGCCGU | 5455 | CUAUGAGGCUUUUGAUGAG | 5498 | GCUCUCAUUGAAGAGGGGC |
| 5370 | AUUGCCUGGCGACCGGGUG | 5413 | CAUUAACCAGCGAGCCGUC | 5456 | UAUGAGGCUUUUGAUGAGA | 5499 | CUCUCAUUGAAGAGGGGCA |
| 5371 | UUGCCUGGCGACCGGGUGU | 5414 | AUUAACCAGCGAGCCGUCG | 5457 | AUGAGGCUUUUGAUGAGAU | 5500 | UCUCAUUGAAGAGGGGCAG |
| 5372 | UGCCUGGCGACCGGGUGUG | 5415 | UUAACCAGCGAGCCGUCGU | 5458 | UGAGGCUUUUGAUGAGAUG | 5501 | CUCAUUGAAGAGGGGCAGC |
| 5373 | GCCUGGCGACCGGGUGUGU | 5416 | UAACCAGCGAGCCGUCGUU | 5459 | GAGGCUUUUGAUGAGAUGG | 5502 | UCAUUGAAGAGGGGCAGCG |
| 5374 | CCUGGCGACCGGGUGUGUU | 5417 | AACCAGCGAGCCGUCGUUG | 5460 | AGGCUUUUGAUGAGAUGGA | 5503 | CAUUGAAGAGGGGCAGCGG |
| 5375 | CUGGCGACCGGGUGUGUUU | 5418 | ACCAGCGAGCCGUCGUUGC | 5461 | GGCUUUUGAUGAGAUGGAG | 5504 | AUUGAAGAGGGGCAGCGGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5505 | UUGAAGAGGGGCAGCGGAU | 5548 | CCAAGGCUUAUUGCAGCAA | 5591 | CAACCCACUGUGCAGGCUU | 5634 | GGGCCAAACACAUGUGGAA |
| 5506 | UGAAGAGGGGCAGCGGAUA | 5549 | CAAGGCUUAUUGCAGCAAG | 5592 | AACCCACUGUGCAGGCUUC | 5635 | GGCCAAACACAUGUGGAAC |
| 5507 | GAAGAGGGGCAGCGGAUAG | 5550 | AAGGCUUAUUGCAGCAAGC | 5593 | ACCCACUGUGCAGGCUUCA | 5636 | GCCAAACACAUGUGGAACU |
| 5508 | AAGAGGGGCAGCGGAUAGC | 5551 | AGGCUUAUUGCAGCAAGCU | 5594 | CCCACUGUGCAGGCUUCAU | 5637 | CCAAACACAUGUGGAACUU |
| 5509 | AGAGGGGCAGCGGAUAGCC | 5552 | GGCUUAUUGCAGCAAGCUU | 5595 | CCACUGUGCAGGCUUCAUG | 5638 | CAAACACAUGUGGAACUUC |
| 5510 | GAGGGGCAGCGGAUAGCCG | 5553 | GCUUAUUGCAGCAAGCUUC | 5596 | CACUGUGCAGGCUUCAUGG | 5639 | AAACACAUGUGGAACUUCA |
| 5511 | AGGGGCAGCGGAUAGCCGA | 5554 | CUUAUUGCAGCAAGCUUCC | 5597 | ACUGUGCAGGCUUCAUGGC | 5640 | AACACAUGUGGAACUUCAU |
| 5512 | GGGGCAGCGGAUAGCCGAG | 5555 | UUAUUGCAGCAAGCUUCCA | 5598 | CUGUGCAGGCUUCAUGGCC | 5641 | ACACAUGUGGAACUUCAUU |
| 5513 | GGGCAGCGGAUAGCCGAGA | 5556 | UAUUGCAGCAAGCUUCCAA | 5599 | UGUGCAGGCUUCAUGGCCC | 5642 | CACAUGUGGAACUUCAUUA |
| 5514 | GGCAGCGGAUAGCCGAGAU | 5557 | AUUGCAGCAAGCUUCCAAA | 5600 | GUGCAGGCUUCAUGGCCCA | 5643 | ACAUGUGGAACUUCAUUAG |
| 5515 | GCAGCGGAUAGCCGAGAUG | 5558 | UUGCAGCAAGCUUCCAAAC | 5601 | UGCAGGCUUCAUGGCCCAA | 5644 | CAUGUGGAACUUCAUUAGC |
| 5516 | CAGCGGAUAGCCGAGAUGC | 5559 | UGCAGCAAGCUUCCAAACA | 5602 | GCAGGCUUCAUGGCCCAAG | 5645 | AUGUGGAACUUCAUUAGCG |
| 5517 | AGCGGAUAGCCGAGAUGCU | 5560 | GCAGCAAGCUUCCAAACAA | 5603 | CAGGCUUCAUGGCCCAAGG | 5646 | UGUGGAACUUCAUUAGCGG |
| 5518 | GCGGAUAGCCGAGAUGCUG | 5561 | CAGCAAGCUUCCAAACAAG | 5604 | AGGCUUCAUGGCCCAAGGU | 5647 | GUGGAACUUCAUUAGCGGC |
| 5519 | CGGAUAGCCGAGAUGCUGA | 5562 | AGCAAGCUUCCAAACAAGC | 5605 | GGCUUCAUGGCCCAAGGUA | 5648 | UGGAACUUCAUUAGCGGCA |
| 5520 | GGAUAGCCGAGAUGCUGAA | 5563 | GCAAGCUUCCAAACAAGCU | 5606 | GCUUCAUGGCCCAAGGUAG | 5649 | GGAACUUCAUUAGCGGCAU |
| 5521 | GAUAGCCGAGAUGCUGAAG | 5564 | CAAGCUUCCAAACAAGCUC | 5607 | CUUCAUGGCCCAAGGUAGA | 5650 | GAACUUCAUUAGCGGCAUC |
| 5522 | AUAGCCGAGAUGCUGAAGU | 5565 | AAGCUUCCAAACAAGCUCA | 5608 | UUCAUGGCCCAAGGUAGAA | 5651 | AACUUCAUUAGCGGCAUCC |
| 5523 | UAGCCGAGAUGCUGAAGUC | 5566 | AGCUUCCAAACAAGCUCAA | 5609 | UCAUGGCCCAAGGUAGAAC | 5652 | ACUUCAUUAGCGGCAUCCA |
| 5524 | AGCCGAGAUGCUGAAGUCC | 5567 | GCUUCCAAACAAGCUCAAG | 5610 | CAUGGCCCAAGGUAGAACA | 5653 | CUUCAUUAGCGGCAUCCAA |
| 5525 | GCCGAGAUGCUGAAGUCCA | 5568 | CUUCCAAACAAGCUCAAGA | 5611 | AUGGCCCAAGGUAGAACAA | 5654 | UUCAUUAGCGGCAUCCAAU |
| 5526 | CCGAGAUGCUGAAGUCCAA | 5569 | UUCCAAACAAGCUCAAGAC | 5612 | UGGCCCAAGGUAGAACAAU | 5655 | UCAUUAGCGGCAUCCAAUA |
| 5527 | CGAGAUGCUGAAGUCCAAG | 5570 | UCCAAACAAGCUCAAGACA | 5613 | GGCCCAAGGUAGAACAAUU | 5656 | CAUUAGCGGCAUCCAAUAC |
| 5528 | GAGAUGCUGAAGUCCAAGA | 5571 | CCAAACAAGCUCAAGACAU | 5614 | GCCCAAGGUAGAACAAUUC | 5657 | AUUAGCGGCAUCCAAUACC |
| 5529 | AGAUGCUGAAGUCCAAGAU | 5572 | CAAACAAGCUCAAGACAUA | 5615 | CCCAAGGUAGAACAAUUCU | 5658 | UUAGCGGCAUCCAAUACCU |
| 5530 | GAUGCUGAAGUCCAAGAUC | 5573 | AAACAAGCUCAAGACAUAC | 5616 | CCAAGGUAGAACAAUUCUG | 5659 | UAGCGGCAUCCAAUACCUC |
| 5531 | AUGCUGAAGUCCAAGAUCC | 5574 | AACAAGCUCAAGACAUACA | 5617 | CAAGGUAGAACAAUUCUGG | 5660 | AGCGGCAUCCAAUACCUCG |
| 5532 | UGCUGAAGUCCAAGAUCCA | 5575 | ACAAGCUCAAGACAUACAA | 5618 | AAGGUAGAACAAUUCUGGG | 5661 | GCGGCAUCCAAUACCUCGC |
| 5533 | GCUGAAGUCCAAGAUCCAA | 5576 | CAAGCUCAAGACAUACAAC | 5619 | AGGUAGAACAAUUCUGGGC | 5662 | CGGCAUCCAAUACCUCGCA |
| 5534 | CUGAAGUCCAAGAUCCAAG | 5577 | AAGCUCAAGACAUACAACC | 5620 | GGUAGAACAAUUCUGGGCC | 5663 | GGCAUCCAAUACCUCGCAG |
| 5535 | UGAAGUCCAAGAUCCAAGG | 5578 | AGCUCAAGACAUACAACCC | 5621 | GUAGAACAAUUCUGGGCCA | 5664 | GCAUCCAAUACCUCGCAGG |
| 5536 | GAAGUCCAAGAUCCAAGGC | 5579 | GCUCAAGACAUACAACCCA | 5622 | UAGAACAAUUCUGGGCCAA | 5665 | CAUCCAAUACCUCGCAGGA |
| 5537 | AAGUCCAAGAUCCAAGGCU | 5580 | CUCAAGACAUACAACCCAC | 5623 | AGAACAAUUCUGGGCCAAA | 5666 | AUCCAAUACCUCGCAGGAC |
| 5538 | AGUCCAAGAUCCAAGGCUU | 5581 | UCAAGACAUACAACCCACU | 5624 | GAACAAUUCUGGGCCAAAC | 5667 | UCCAAUACCUCGCAGGACU |
| 5539 | GUCCAAGAUCCAAGGCUUA | 5582 | CAAGACAUACAACCCACUG | 5625 | AACAAUUCUGGGCCAAACA | 5668 | CCAAUACCUCGCAGGACUA |
| 5540 | UCCAAGAUCCAAGGCUUAU | 5583 | AAGACAUACAACCCACUGU | 5626 | ACAAUUCUGGGCCAAACAC | 5669 | CAAUACCUCGCAGGACUAU |
| 5541 | CCAAGAUCCAAGGCUUAUU | 5584 | AGACAUACAACCCACUGUG | 5627 | CAAUUCUGGGCCAAACACA | 5670 | AAUACCUCGCAGGACUAUC |
| 5542 | CAAGAUCCAAGGCUUAUUG | 5585 | GACAUACAACCCACUGUGC | 5628 | AAUUCUGGGCCAAACACAU | 5671 | AUACCUCGCAGGACUAUCA |
| 5543 | AAGAUCCAAGGCUUAUUGC | 5586 | ACAUACAACCCACUGUGCA | 5629 | AUUCUGGGCCAAACACAUG | 5672 | UACCUCGCAGGACUAUCAA |
| 5544 | AGAUCCAAGGCUUAUUGCA | 5587 | CAUACAACCCACUGUGCAG | 5630 | UUCUGGGCCAAACACAUGU | 5673 | ACCUCGCAGGACUAUCAAC |
| 5545 | GAUCCAAGGCUUAUUGCAG | 5588 | AUACAACCCACUGUGCAGG | 5631 | UCUGGGCCAAACACAUGUG | 5674 | CCUCGCAGGACUAUCAACA |
| 5546 | AUCCAAGGCUUAUUGCAGC | 5589 | UACAACCCACUGUGCAGGC | 5632 | CUGGGCCAAACACAUGUGG | 5675 | CUCGCAGGACUAUCAACAC |
| 5547 | UCCAAGGCUUAUUGCAGCA | 5590 | ACAACCCACUGUGCAGGCU | 5633 | UGGGCCAAACACAUGUGGA | 5676 | UCGCAGGACUAUCAACACU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5677 | CGCAGGACUAUCAACACUG | 5720 | AUGAUGGCGUUCAGUGCCG | 5763 | GCACCACUAUCCUUCUCAA | 5806 | CCAAAUUGCACCACCCGCG |
| 5678 | GCAGGACUAUCAACACUGC | 5721 | UGAUGGCGUUCAGUGCCGC | 5764 | CACCACUAUCCUUCUCAAC | 5807 | CAAAUUGCACCACCCGCGG |
| 5679 | CAGGACUAUCAACACUGCC | 5722 | GAUGGCGUUCAGUGCCGCC | 5765 | ACCACUAUCCUUCUCAACA | 5808 | AAAUUGCACCACCCGCGGG |
| 5680 | AGGACUAUCAACACUGCCA | 5723 | AUGGCGUUCAGUGCCGCCC | 5766 | CCACUAUCCUUCUCAACAU | 5809 | AAUUGCACCACCCGCGGGG |
| 5681 | GGACUAUCAACACUGCCAG | 5724 | UGGCGUUCAGUGCCGCCCU | 5767 | CACUAUCCUUCUCAACAUU | 5810 | AUUGCACCACCCGCGGGGG |
| 5682 | GACUAUCAACACUGCCAGG | 5725 | GGCGUUCAGUGCCGCCCUC | 5768 | ACUAUCCUUCUCAACAUUU | 5811 | UUGCACCACCCGCGGGGGC |
| 5683 | ACUAUCAACACUGCCAGGG | 5726 | GCGUUCAGUGCCGCCCUCA | 5769 | CUAUCCUUCUCAACAUUUU | 5812 | UGCACCACCCGCGGGGGCC |
| 5684 | CUAUCAACACUGCCAGGGA | 5727 | CGUUCAGUGCCGCCCUCAC | 5770 | UAUCCUUCUCAACAUUUUG | 5813 | GCACCACCCGCGGGGGCCA |
| 5685 | UAUCAACACUGCCAGGGAA | 5728 | GUUCAGUGCCGCCCUCACC | 5771 | AUCCUUCUCAACAUUUUGG | 5814 | CACCACCCGCGGGGGCCAC |
| 5686 | AUCAACACUGCCAGGGAAC | 5729 | UUCAGUGCCGCCCUCACCA | 5772 | UCCUUCUCAACAUUUUGGG | 5815 | ACCACCCGCGGGGGCCACU |
| 5687 | UCAACACUGCCAGGGAACC | 5730 | UCAGUGCCGCCCUCACCAG | 5773 | CCUUCUCAACAUUUUGGGG | 5816 | CCACCCGCGGGGGCCACUG |
| 5688 | CAACACUGCCAGGGAACCC | 5731 | CAGUGCCGCCCUCACCAGU | 5774 | CUUCUCAACAUUUUGGGGG | 5817 | CACCCGCGGGGGCCACUGG |
| 5689 | AACACUGCCAGGGAACCCU | 5732 | AGUGCCGCCCUCACCAGUC | 5775 | UUCUCAACAUUUUGGGGGG | 5818 | ACCCGCGGGGGCCACUGGC |
| 5690 | ACACUGCCAGGGAACCCUG | 5733 | GUGCCGCCCUCACCAGUCC | 5776 | UCUCAACAUUUUGGGGGGC | 5819 | CCCGCGGGGGCCACUGGCU |
| 5691 | CACUGCCAGGGAACCCUGC | 5734 | UGCCGCCCUCACCAGUCCG | 5777 | CUCAACAUUUUGGGGGGCU | 5820 | CCGCGGGGGCCACUGGCUU |
| 5692 | ACUGCCAGGGAACCCUGCA | 5735 | GCCGCCCUCACCAGUCCGC | 5778 | UCAACAUUUUGGGGGGCUG | 5821 | CGCGGGGGCCACUGGCUUC |
| 5693 | CUGCCAGGGAACCCUGCAG | 5736 | CCGCCCUCACCAGUCCGCU | 5779 | CAACAUUUUGGGGGGCUGG | 5822 | GCGGGGGCCACUGGCUUCG |
| 5694 | UGCCAGGGAACCCUGCAGU | 5737 | CGCCCUCACCAGUCCGCUG | 5780 | AACAUUUUGGGGGGCUGGC | 5823 | CGGGGGCCACUGGCUUCGU |
| 5695 | GCCAGGGAACCCUGCAGUA | 5738 | GCCCUCACCAGUCCGCUGU | 5781 | ACAUUUUGGGGGGCUGGCU | 5824 | GGGGGCCACUGGCUUCGUU |
| 5696 | CCAGGGAACCCUGCAGUAG | 5739 | CCCUCACCAGUCCGCUGUC | 5782 | CAUUUUGGGGGGCUGGCUA | 5825 | GGGGCCACUGGCUUCGUUG |
| 5697 | CAGGGAACCCUGCAGUAGC | 5740 | CCUCACCAGUCCGCUGUCA | 5783 | AUUUUGGGGGGCUGGCUAG | 5826 | GGGCCACUGGCUUCGUUGU |
| 5698 | AGGGAACCCUGCAGUAGCU | 5741 | CUCACCAGUCCGCUGUCAA | 5784 | UUUUGGGGGGCUGGCUAGC | 5827 | GGCCACUGGCUUCGUUGUC |
| 5699 | GGGAACCCUGCAGUAGCUU | 5742 | UCACCAGUCCGCUGUCAAC | 5785 | UUUGGGGGGCUGGCUAGCA | 5828 | GCCACUGGCUUCGUUGUCA |
| 5700 | GGAACCCUGCAGUAGCUUC | 5743 | CACCAGUCCGCUGUCAACA | 5786 | UUGGGGGGCUGGCUAGCAU | 5829 | CCACUGGCUUCGUUGUCAG |
| 5701 | GAACCCUGCAGUAGCUUCC | 5744 | ACCAGUCCGCUGUCAACAA | 5787 | UGGGGGGCUGGCUAGCAUC | 5830 | CACUGGCUUCGUUGUCAGU |
| 5702 | AACCCUGCAGUAGCUUCCA | 5745 | CCAGUCCGCUGUCAACAAG | 5788 | GGGGGGCUGGCUAGCAUCC | 5831 | ACUGGCUUCGUUGUCAGUG |
| 5703 | ACCCUGCAGUAGCUUCCAU | 5746 | CAGUCCGCUGUCAACAAGC | 5789 | GGGGGCUGGCUAGCAUCCC | 5832 | CUGGCUUCGUUGUCAGUGG |
| 5704 | CCCUGCAGUAGCUUCCAUG | 5747 | AGUCCGCUGUCAACAAGCA | 5790 | GGGGCUGGCUAGCAUCCCA | 5833 | UGGCUUCGUUGUCAGUGGC |
| 5705 | CCUGCAGUAGCUUCCAUGA | 5748 | GUCCGCUGUCAACAAGCAC | 5791 | GGGCUGGCUAGCAUCCCAA | 5834 | GGCUUCGUUGUCAGUGGCC |
| 5706 | CUGCAGUAGCUUCCAUGAU | 5749 | UCCGCUGUCAACAAGCACC | 5792 | GGCUGGCUAGCAUCCCAAA | 5835 | GCUUCGUUGUCAGUGGCCU |
| 5707 | UGCAGUAGCUUCCAUGAUG | 5750 | CCGCUGUCAACAAGCACCA | 5793 | GCUGGCUAGCAUCCCAAAU | 5836 | CUUCGUUGUCAGUGGCCUA |
| 5708 | GCAGUAGCUUCCAUGAUGG | 5751 | CGCUGUCAACAAGCACCAC | 5794 | CUGGCUAGCAUCCCAAAUU | 5837 | UUCGUUGUCAGUGGCCUAG |
| 5709 | CAGUAGCUUCCAUGAUGGC | 5752 | GCUGUCAACAAGCACCACU | 5795 | UGGCUAGCAUCCCAAAUUG | 5838 | UCGUUGUCAGUGGCCUAGU |
| 5710 | AGUAGCUUCCAUGAUGGCG | 5753 | CUGUCAACAAGCACCACUA | 5796 | GGCUAGCAUCCCAAAUUGC | 5839 | CGUUGUCAGUGGCCUAGUG |
| 5711 | GUAGCUUCCAUGAUGGCGU | 5754 | UGUCAACAAGCACCACUAU | 5797 | GCUAGCAUCCCAAAUUGCA | 5840 | GUUGUCAGUGGCCUAGUGG |
| 5712 | UAGCUUCCAUGAUGGCGUU | 5755 | GUCAACAAGCACCACUAUC | 5798 | CUAGCAUCCCAAAUUGCAC | 5841 | UUGUCAGUGGCCUAGUGGG |
| 5713 | AGCUUCCAUGAUGGCGUUC | 5756 | UCAACAAGCACCACUAUCC | 5799 | UAGCAUCCCAAAUUGCACC | 5842 | UGUCAGUGGCCUAGUGGGA |
| 5714 | GCUUCCAUGAUGGCGUUCA | 5757 | CAACAAGCACCACUAUCCU | 5800 | AGCAUCCCAAAUUGCACCA | 5843 | GUCAGUGGCCUAGUGGGAG |
| 5715 | CUUCCAUGAUGGCGUUCAG | 5758 | AACAAGCACCACUAUCCUU | 5801 | GCAUCCCAAAUUGCACCAC | 5844 | UCAGUGGCCUAGUGGGAGC |
| 5716 | UUCCAUGAUGGCGUUCAGU | 5759 | ACAAGCACCACUAUCCUUC | 5802 | CAUCCCAAAUUGCACCACC | 5845 | CAGUGGCCUAGUGGGAGCU |
| 5717 | UCCAUGAUGGCGUUCAGUG | 5760 | CAAGCACCACUAUCCUUCU | 5803 | AUCCCAAAUUGCACCACCC | 5846 | AGUGGCCUAGUGGGAGCUG |
| 5718 | CCAUGAUGGCGUUCAGUGC | 5761 | AAGCACCACUAUCCUUCUC | 5804 | UCCCAAAUUGCACCACCCG | 5847 | GUGGCCUAGUGGGAGCUGC |
| 5719 | CAUGAUGGCGUUCAGUGCC | 5762 | AGCACCACUAUCCUUCUCA | 5805 | CCCAAAUUGCACCACCCGC | 5848 | UGGCCUAGUGGGAGCUGCC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5849 | GGCCUAGUGGGAGCUGCCG | 5892 | UGCUAGUGGACAUCCUGGC | 5935 | GGCUCUCGUCGCAUUCAAG | 5978 | AUGGAGGAUGUCGUCAACU |
| 5850 | GCCUAGUGGGAGCUGCCGU | 5893 | GCUAGUGGACAUCCUGGCA | 5936 | GCUCUCGUCGCAUUCAAGA | 5979 | UGGAGGAUGUCGUCAACUU |
| 5851 | CCUAGUGGGAGCUGCCGUA | 5894 | CUAGUGGACAUCCUGGCAG | 5937 | CUCUCGUCGCAUUCAAGAU | 5980 | GGAGGAUGUCGUCAACUUG |
| 5852 | CUAGUGGGAGCUGCCGUAG | 5895 | UAGUGGACAUCCUGGCAGG | 5938 | UCUCGUCGCAUUCAAGAUC | 5981 | GAGGAUGUCGUCAACUUGC |
| 5853 | UAGUGGGAGCUGCCGUAGG | 5896 | AGUGGACAUCCUGGCAGGG | 5939 | CUCGUCGCAUUCAAGAUCA | 5982 | AGGAUGUCGUCAACUUGCU |
| 5854 | AGUGGGAGCUGCCGUAGGC | 5897 | GUGGACAUCCUGGCAGGGU | 5940 | UCGUCGCAUUCAAGAUCAU | 5983 | GGAUGUCGUCAACUUGCUG |
| 5855 | GUGGGAGCUGCCGUAGGCA | 5898 | UGGACAUCCUGGCAGGGUA | 5941 | CGUCGCAUUCAAGAUCAUG | 5984 | GAUGUCGUCAACUUGCUGC |
| 5856 | UGGGAGCUGCCGUAGGCAG | 5899 | GGACAUCCUGGCAGGGUAU | 5942 | GUCGCAUUCAAGAUCAUGU | 5985 | AUGUCGUCAACUUGCUGCC |
| 5857 | GGGAGCUGCCGUAGGCAGU | 5900 | GACAUCCUGGCAGGGUAUG | 5943 | UCGCAUUCAAGAUCAUGUC | 5986 | UGUCGUCAACUUGCUGCCU |
| 5858 | GGAGCUGCCGUAGGCAGUA | 5901 | ACAUCCUGGCAGGGUAUGG | 5944 | CGCAUUCAAGAUCAUGUCU | 5987 | GUCGUCAACUUGCUGCCUG |
| 5859 | GAGCUGCCGUAGGCAGUAU | 5902 | CAUCCUGGCAGGGUAUGGU | 5945 | GCAUUCAAGAUCAUGUCUG | 5988 | UCGUCAACUUGCUGCCUGG |
| 5860 | AGCUGCCGUAGGCAGUAUA | 5903 | AUCCUGGCAGGGUAUGGUG | 5946 | CAUUCAAGAUCAUGUCUGG | 5989 | CGUCAACUUGCUGCCUGGA |
| 5861 | GCUGCCGUAGGCAGUAUAG | 5904 | UCCUGGCAGGGUAUGGUGC | 5947 | AUUCAAGAUCAUGUCUGGC | 5990 | GUCAACUUGCUGCCUGGAA |
| 5862 | CUGCCGUAGGCAGUAUAGG | 5905 | CCUGGCAGGGUAUGGUGCG | 5948 | UUCAAGAUCAUGUCUGGCG | 5991 | UCAACUUGCUGCCUGGAAU |
| 5863 | UGCCGUAGGCAGUAUAGGC | 5906 | CUGGCAGGGUAUGGUGCGG | 5949 | UCAAGAUCAUGUCUGGCGA | 5992 | CAACUUGCUGCCUGGAAUU |
| 5864 | GCCGUAGGCAGUAUAGGCU | 5907 | UGGCAGGGUAUGGUGCGGG | 5950 | CAAGAUCAUGUCUGGCGAG | 5993 | AACUUGCUGCCUGGAAUUC |
| 5865 | CCGUAGGCAGUAUAGGCUU | 5908 | GGCAGGGUAUGGUGCGGGC | 5951 | AAGAUCAUGUCUGGCGAGA | 5994 | ACUUGCUGCCUGGAAUUCU |
| 5866 | CGUAGGCAGUAUAGGCUUA | 5909 | GCAGGGUAUGGUGCGGGCA | 5952 | AGAUCAUGUCUGGCGAGAA | 5995 | CUUGCUGCCUGGAAUUCUG |
| 5867 | GUAGGCAGUAUAGGCUUAG | 5910 | CAGGGUAUGGUGCGGGCAU | 5953 | GAUCAUGUCUGGCGAGAAG | 5996 | UUGCUGCCUGGAAUUCUGU |
| 5868 | UAGGCAGUAUAGGCUUAGG | 5911 | AGGGUAUGGUGCGGGCAUU | 5954 | AUCAUGUCUGGCGAGAAGC | 5997 | UGCUGCCUGGAAUUCUGUC |
| 5869 | AGGCAGUAUAGGCUUAGGU | 5912 | GGGUAUGGUGCGGGCAUUU | 5955 | UCAUGUCUGGCGAGAAGCC | 5998 | GCUGCCUGGAAUUCUGUCU |
| 5870 | GGCAGUAUAGGCUUAGGUA | 5913 | GGUAUGGUGCGGGCAUUUC | 5956 | CAUGUCUGGCGAGAAGCCC | 5999 | CUGCCUGGAAUUCUGUCUC |
| 5871 | GCAGUAUAGGCUUAGGUAA | 5914 | GUAUGGUGCGGGCAUUUCG | 5957 | AUGUCUGGCGAGAAGCCCU | 6000 | UGCCUGGAAUUCUGUCUCC |
| 5872 | CAGUAUAGGCUUAGGUAAG | 5915 | UAUGGUGCGGGCAUUUCGG | 5958 | UGUCUGGCGAGAAGCCCUC | 6001 | GCCUGGAAUUCUGUCUCCG |
| 5873 | AGUAUAGGCUUAGGUAAGG | 5916 | AUGGUGCGGGCAUUUCGGG | 5959 | GUCUGGCGAGAAGCCCUCC | 6002 | CCUGGAAUUCUGUCUCCGG |
| 5874 | GUAUAGGCUUAGGUAAGGU | 5917 | UGGUGCGGGCAUUUCGGGG | 5960 | UCUGGCGAGAAGCCCUCCA | 6003 | CUGGAAUUCUGUCUCCGGG |
| 5875 | UAUAGGCUUAGGUAAGGUG | 5918 | GGUGCGGGCAUUUCGGGGG | 5961 | CUGGCGAGAAGCCCUCCAU | 6004 | UGGAAUUCUGUCUCCGGGU |
| 5876 | AUAGGCUUAGGUAAGGUGC | 5919 | GUGCGGGCAUUUCGGGGGC | 5962 | UGGCGAGAAGCCCUCCAUG | 6005 | GGAAUUCUGUCUCCGGGUG |
| 5877 | UAGGCUUAGGUAAGGUGCU | 5920 | UGCGGGCAUUUCGGGGGCU | 5963 | GGCGAGAAGCCCUCCAUGG | 6006 | GAAUUCUGUCUCCGGGUGC |
| 5878 | AGGCUUAGGUAAGGUGCUA | 5921 | GCGGGCAUUUCGGGGGCUC | 5964 | GCGAGAAGCCCUCCAUGGA | 6007 | AAUUCUGUCUCCGGGUGCC |
| 5879 | GGCUUAGGUAAGGUGCUAG | 5922 | CGGGCAUUUCGGGGGCUCU | 5965 | CGAGAAGCCCUCCAUGGAG | 6008 | AUUCUGUCUCCGGGUGCCU |
| 5880 | GCUUAGGUAAGGUGCUAGU | 5923 | GGGCAUUUCGGGGGCUCUC | 5966 | GAGAAGCCCUCCAUGGAGG | 6009 | UUCUGUCUCCGGGUGCCUU |
| 5881 | CUUAGGUAAGGUGCUAGUG | 5924 | GGCAUUUCGGGGGCUCUCG | 5967 | AGAAGCCCUCCAUGGAGGA | 6010 | UCUGUCUCCGGGUGCCUUG |
| 5882 | UUAGGUAAGGUGCUAGUGG | 5925 | GCAUUUCGGGGGCUCUCGU | 5968 | GAAGCCCUCCAUGGAGGAU | 6011 | CUGUCUCCGGGUGCCUUGG |
| 5883 | UAGGUAAGGUGCUAGUGGA | 5926 | CAUUUCGGGGGCUCUCGUC | 5969 | AAGCCCUCCAUGGAGGAUG | 6012 | UGUCUCCGGGUGCCUUGGU |
| 5884 | AGGUAAGGUGCUAGUGGAC | 5927 | AUUUCGGGGGCUCUCGUCG | 5970 | AGCCCUCCAUGGAGGAUGU | 6013 | GUCUCCGGGUGCCUUGGUA |
| 5885 | GGUAAGGUGCUAGUGGACA | 5928 | UUUCGGGGGCUCUCGUCGC | 5971 | GCCCUCCAUGGAGGAUGUC | 6014 | UCUCCGGGUGCCUUGGUAG |
| 5886 | GUAAGGUGCUAGUGGACAU | 5929 | UUCGGGGGCUCUCGUCGCA | 5972 | CCCUCCAUGGAGGAUGUCG | 6015 | CUCCGGGUGCCUUGGUAGU |
| 5887 | UAAGGUGCUAGUGGACAUC | 5930 | UCGGGGGCUCUCGUCGCAU | 5973 | CCUCCAUGGAGGAUGUCGU | 6016 | UCCGGGUGCCUUGGUAGUG |
| 5888 | AAGGUGCUAGUGGACAUCC | 5931 | CGGGGGCUCUCGUCGCAUU | 5974 | CUCCAUGGAGGAUGUCGUC | 6017 | CCGGGUGCCUUGGUAGUGG |
| 5889 | AGGUGCUAGUGGACAUCCU | 5932 | GGGGGCUCUCGUCGCAUUC | 5975 | UCCAUGGAGGAUGUCGUCA | 6018 | CGGGUGCCUUGGUAGUGGG |
| 5890 | GGUGCUAGUGGACAUCCUG | 5933 | GGGGCUCUCGUCGCAUUCA | 5976 | CCAUGGAGGAUGUCGUCAA | 6019 | GGGUGCCUUGGUAGUGGGA |
| 5891 | GUGCUAGUGGACAUCCUGG | 5934 | GGGCUCUCGUCGCAUUCAA | 5977 | CAUGGAGGAUGUCGUCAAC | 6020 | GGUGCCUUGGUAGUGGGAG |

**FIG. 3 (page 155 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6021 | GUGCCUUGGUAGUGGGAGU | 6064 | ACACGUGGGACCGGGGGAA | 6107 | CUCAUUGCCUUUGCUUCCA | 6150 | ACUACGUGACGGAGUCGGA |
| 6022 | UGCCUUGGUAGUGGGAGUC | 6065 | CACGUGGGACCGGGGGAAG | 6108 | UCAUUGCCUUUGCUUCCAG | 6151 | CUACGUGACGGAGUCGGAU |
| 6023 | GCCUUGGUAGUGGGAGUCA | 6066 | ACGUGGGACCGGGGGAAGG | 6109 | CAUUGCCUUUGCUUCCAGA | 6152 | UACGUGACGGAGUCGGAUG |
| 6024 | CCUUGGUAGUGGGAGUCAU | 6067 | CGUGGGACCGGGGGAAGGC | 6110 | AUUGCCUUUGCUUCCAGAG | 6153 | ACGUGACGGAGUCGGAUGC |
| 6025 | CUUGGUAGUGGGAGUCAUC | 6068 | GUGGGACCGGGGGAAGGCG | 6111 | UUGCCUUUGCUUCCAGAGG | 6154 | CGUGACGGAGUCGGAUGCG |
| 6026 | UUGGUAGUGGGAGUCAUCU | 6069 | UGGGACCGGGGGAAGGCGC | 6112 | UGCCUUUGCUUCCAGAGGA | 6155 | GUGACGGAGUCGGAUGCGU |
| 6027 | UGGUAGUGGGAGUCAUCUG | 6070 | GGGACCGGGGGAAGGCGCC | 6113 | GCCUUUGCUUCCAGAGGAA | 6156 | UGACGGAGUCGGAUGCGUC |
| 6028 | GGUAGUGGGAGUCAUCUGC | 6071 | GGACCGGGGGAAGGCGCCG | 6114 | CCUUUGCUUCCAGAGGAAA | 6157 | GACGGAGUCGGAUGCGUCG |
| 6029 | GUAGUGGGAGUCAUCUGCG | 6072 | GACCGGGGGAAGGCGCCGU | 6115 | CUUUGCUUCCAGAGGAAAU | 6158 | ACGGAGUCGGAUGCGUCGC |
| 6030 | UAGUGGGAGUCAUCUGCGC | 6073 | ACCGGGGGAAGGCGCCGUC | 6116 | UUUGCUUCCAGAGGAAAUC | 6159 | CGGAGUCGGAUGCGUCGCA |
| 6031 | AGUGGGAGUCAUCUGCGCG | 6074 | CCGGGGGAAGGCGCCGUCC | 6117 | UUGCUUCCAGAGGAAAUCA | 6160 | GGAGUCGGAUGCGUCGCAG |
| 6032 | GUGGGAGUCAUCUGCGCGG | 6075 | CGGGGGAAGGCGCCGUCCA | 6118 | UGCUUCCAGAGGAAAUCAC | 6161 | GAGUCGGAUGCGUCGCAGC |
| 6033 | UGGGAGUCAUCUGCGCGGC | 6076 | GGGGGAAGGCGCCGUCCAA | 6119 | GCUUCCAGAGGAAAUCACG | 6162 | AGUCGGAUGCGUCGCAGCG |
| 6034 | GGGAGUCAUCUGCGCGGCC | 6077 | GGGGAAGGCGCCGUCCAAU | 6120 | CUUCCAGAGGAAAUCACGU | 6163 | GUCGGAUGCGUCGCAGCGU |
| 6035 | GGAGUCAUCUGCGCGGCCA | 6078 | GGGAAGGCGCCGUCCAAUG | 6121 | UUCCAGAGGAAAUCACGUC | 6164 | UCGGAUGCGUCGCAGCGUG |
| 6036 | GAGUCAUCUGCGCGGCCAU | 6079 | GGAAGGCGCCGUCCAAUGG | 6122 | UCCAGAGGAAAUCACGUCG | 6165 | CGGAUGCGUCGCAGCGUGU |
| 6037 | AGUCAUCUGCGCGGCCAUU | 6080 | GAAGGCGCCGUCCAAUGGA | 6123 | CCAGAGGAAAUCACGUCGC | 6166 | GGAUGCGUCGCAGCGUGUG |
| 6038 | GUCAUCUGCGCGGCCAUUC | 6081 | AAGGCGCCGUCCAAUGGAU | 6124 | CAGAGGAAAUCACGUCGCC | 6167 | GAUGCGUCGCAGCGUGUGA |
| 6039 | UCAUCUGCGCGGCCAUUCU | 6082 | AGGCGCCGUCCAAUGGAUG | 6125 | AGAGGAAAUCACGUCGCCC | 6168 | AUGCGUCGCAGCGUGUGAC |
| 6040 | CAUCUGCGCGGCCAUUCUG | 6083 | GGCGCCGUCCAAUGGAUGA | 6126 | GAGGAAAUCACGUCGCCCC | 6169 | UGCGUCGCAGCGUGUGACC |
| 6041 | AUCUGCGCGGCCAUUCUGC | 6084 | GCGCCGUCCAAUGGAUGAA | 6127 | AGGAAAUCACGUCGCCCCC | 6170 | GCGUCGCAGCGUGUGACCC |
| 6042 | UCUGCGCGGCCAUUCUGCG | 6085 | CGCCGUCCAAUGGAUGAAU | 6128 | GGAAAUCACGUCGCCCCCA | 6171 | CGUCGCAGCGUGUGACCCA |
| 6043 | CUGCGCGGCCAUUCUGCGC | 6086 | GCCGUCCAAUGGAUGAAUA | 6129 | GAAAUCACGUCGCCCCCAC | 6172 | GUCGCAGCGUGUGACCCAA |
| 6044 | UGCGCGGCCAUUCUGCGCC | 6087 | CCGUCCAAUGGAUGAAUAG | 6130 | AAAUCACGUCGCCCCCACC | 6173 | UCGCAGCGUGUGACCCAAC |
| 6045 | GCGCGGCCAUUCUGCGCCG | 6088 | CGUCCAAUGGAUGAAUAGA | 6131 | AAUCACGUCGCCCCCACCC | 6174 | CGCAGCGUGUGACCCAACU |
| 6046 | CGCGGCCAUUCUGCGCCGA | 6089 | GUCCAAUGGAUGAAUAGAC | 6132 | AUCACGUCGCCCCCACCCA | 6175 | GCAGCGUGUGACCCAACUA |
| 6047 | GCGGCCAUUCUGCGCCGAC | 6090 | UCCAAUGGAUGAAUAGACU | 6133 | UCACGUCGCCCCCACCCAC | 6176 | CAGCGUGUGACCCAACUAC |
| 6048 | CGGCCAUUCUGCGCCGACA | 6091 | CCAAUGGAUGAAUAGACUC | 6134 | CACGUCGCCCCCACCCACU | 6177 | AGCGUGUGACCCAACUACU |
| 6049 | GGCCAUUCUGCGCCGACAC | 6092 | CAAUGGAUGAAUAGACUCA | 6135 | ACGUCGCCCCCACCCACUA | 6178 | GCGUGUGACCCAACUACUU |
| 6050 | GCCAUUCUGCGCCGACACG | 6093 | AAUGGAUGAAUAGACUCAU | 6136 | CGUCGCCCCCACCCACUAC | 6179 | CGUGUGACCCAACUACUUG |
| 6051 | CCAUUCUGCGCCGACACGU | 6094 | AUGGAUGAAUAGACUCAUU | 6137 | GUCGCCCCCACCCACUACG | 6180 | GUGUGACCCAACUACUUGG |
| 6052 | CAUUCUGCGCCGACACGUG | 6095 | UGGAUGAAUAGACUCAUUG | 6138 | UCGCCCCCACCCACUACGU | 6181 | UGUGACCCAACUACUUGGC |
| 6053 | AUUCUGCGCCGACACGUGG | 6096 | GGAUGAAUAGACUCAUUGC | 6139 | CGCCCCCACCCACUACGUG | 6182 | GUGACCCAACUACUUGGCU |
| 6054 | UUCUGCGCCGACACGUGGG | 6097 | GAUGAAUAGACUCAUUGCC | 6140 | GCCCCCACCCACUACGUGA | 6183 | UGACCCAACUACUUGGCUC |
| 6055 | UCUGCGCCGACACGUGGGA | 6098 | AUGAAUAGACUCAUUGCCU | 6141 | CCCCCACCCACUACGUGAC | 6184 | GACCCAACUACUUGGCUCC |
| 6056 | CUGCGCCGACACGUGGGAC | 6099 | UGAAUAGACUCAUUGCCUU | 6142 | CCCCACCCACUACGUGACG | 6185 | ACCCAACUACUUGGCUCCC |
| 6057 | UGCGCCGACACGUGGGACC | 6100 | GAAUAGACUCAUUGCCUUU | 6143 | CCCACCCACUACGUGACGG | 6186 | CCCAACUACUUGGCUCCCU |
| 6058 | GCGCCGACACGUGGGACCG | 6101 | AAUAGACUCAUUGCCUUUG | 6144 | CCACCCACUACGUGACGGA | 6187 | CCAACUACUUGGCUCCCUU |
| 6059 | CGCCGACACGUGGGACCGG | 6102 | AUAGACUCAUUGCCUUUGC | 6145 | CACCCACUACGUGACGGAG | 6188 | CAACUACUUGGCUCCCUUA |
| 6060 | GCCGACACGUGGGACCGGG | 6103 | UAGACUCAUUGCCUUUGCU | 6146 | ACCCACUACGUGACGGAGU | 6189 | AACUACUUGGCUCCCUUAC |
| 6061 | CCGACACGUGGGACCGGGG | 6104 | AGACUCAUUGCCUUUGCUU | 6147 | CCCACUACGUGACGGAGUC | 6190 | ACUACUUGGCUCCCUUACC |
| 6062 | CGACACGUGGGACCGGGGG | 6105 | GACUCAUUGCCUUUGCUUC | 6148 | CCACUACGUGACGGAGUCG | 6191 | CUACUUGGCUCCCUUACCA |
| 6063 | GACACGUGGGACCGGGGGA | 6106 | ACUCAUUGCCUUUGCUUCC | 6149 | CACUACGUGACGGAGUCGG | 6192 | UACUUGGCUCCCUUACCAU |

**FIG. 3 (page 156 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6193 | ACUUGGCUCCCUUACCAUA | 6236 | AACUGGAUUACUGAGGACU | 6279 | GGCUCCGCGAUGUGUGGGA | 6322 | CUUUAAAAAUUGGCUGACC |
| 6194 | CUUGGCUCCCUUACCAUAA | 6237 | ACUGGAUUACUGAGGACUG | 6280 | GCUCCGCGAUGUGUGGGAC | 6323 | UUUAAAAAUUGGCUGACCU |
| 6195 | UUGGCUCCCUUACCAUAAC | 6238 | CUGGAUUACUGAGGACUGC | 6281 | CUCCGCGAUGUGUGGGACU | 6324 | UUAAAAAUUGGCUGACCUC |
| 6196 | UGGCUCCCUUACCAUAACC | 6239 | UGGAUUACUGAGGACUGCC | 6282 | UCCGCGAUGUGUGGGACUG | 6325 | UAAAAAUUGGCUGACCUCC |
| 6197 | GGCUCCCUUACCAUAACCA | 6240 | GGAUUACUGAGGACUGCCC | 6283 | CCGCGAUGUGUGGGACUGG | 6326 | AAAAAUUGGCUGACCUCCA |
| 6198 | GCUCCCUUACCAUAACCAG | 6241 | GAUUACUGAGGACUGCCCC | 6284 | CGCGAUGUGUGGGACUGGG | 6327 | AAAAUUGGCUGACCUCCAA |
| 6199 | CUCCCUUACCAUAACCAGC | 6242 | AUUACUGAGGACUGCCCCA | 6285 | GCGAUGUGUGGGACUGGGU | 6328 | AAAUUGGCUGACCUCCAAA |
| 6200 | UCCCUUACCAUAACCAGCC | 6243 | UUACUGAGGACUGCCCCAU | 6286 | CGAUGUGUGGGACUGGGUU | 6329 | AAUUGGCUGACCUCCAAAU |
| 6201 | CCCUUACCAUAACCAGCCU | 6244 | UACUGAGGACUGCCCCAUC | 6287 | GAUGUGUGGGACUGGGUUU | 6330 | AUUGGCUGACCUCCAAAUU |
| 6202 | CCUUACCAUAACCAGCCUG | 6245 | ACUGAGGACUGCCCCAUCC | 6288 | AUGUGUGGGACUGGGUUUG | 6331 | UUGGCUGACCUCCAAAUUA |
| 6203 | CUUACCAUAACCAGCCUGC | 6246 | CUGAGGACUGCCCCAUCCC | 6289 | UGUGUGGGACUGGGUUUGC | 6332 | UGGCUGACCUCCAAAUUAU |
| 6204 | UUACCAUAACCAGCCUGCU | 6247 | UGAGGACUGCCCCAUCCCA | 6290 | GUGUGGGACUGGGUUUGCA | 6333 | GGCUGACCUCCAAAUUAUU |
| 6205 | UACCAUAACCAGCCUGCUC | 6248 | GAGGACUGCCCCAUCCCAU | 6291 | UGUGGGACUGGGUUUGCAC | 6334 | GCUGACCUCCAAAUUAUUC |
| 6206 | ACCAUAACCAGCCUGCUCA | 6249 | AGGACUGCCCCAUCCCAUG | 6292 | GUGGGACUGGGUUUGCACC | 6335 | CUGACCUCCAAAUUAUUCC |
| 6207 | CCAUAACCAGCCUGCUCAG | 6250 | GGACUGCCCCAUCCCAUGC | 6293 | UGGGACUGGGUUUGCACCA | 6336 | UGACCUCCAAAUUAUUCCC |
| 6208 | CAUAACCAGCCUGCUCAGA | 6251 | GACUGCCCCAUCCCAUGCG | 6294 | GGGACUGGGUUUGCACCAU | 6337 | GACCUCCAAAUUAUUCCCA |
| 6209 | AUAACCAGCCUGCUCAGAA | 6252 | ACUGCCCCAUCCCAUGCGG | 6295 | GGACUGGGUUUGCACCAUC | 6338 | ACCUCCAAAUUAUUCCCAA |
| 6210 | UAACCAGCCUGCUCAGAAG | 6253 | CUGCCCCAUCCCAUGCGGC | 6296 | GACUGGGUUUGCACCAUCC | 6339 | CCUCCAAAUUAUUCCCAAA |
| 6211 | AACCAGCCUGCUCAGAAGA | 6254 | UGCCCCAUCCCAUGCGGCG | 6297 | ACUGGGUUUGCACCAUCCU | 6340 | CUCCAAAUUAUUCCCAAAG |
| 6212 | ACCAGCCUGCUCAGAAGAC | 6255 | GCCCCAUCCCAUGCGGCGG | 6298 | CUGGGUUUGCACCAUCCUA | 6341 | UCCAAAUUAUUCCCAAAGA |
| 6213 | CCAGCCUGCUCAGAAGACU | 6256 | CCCCAUCCCAUGCGGCGGC | 6299 | UGGGUUUGCACCAUCCUAA | 6342 | CCAAAUUAUUCCCAAAGAU |
| 6214 | CAGCCUGCUCAGAAGACUC | 6257 | CCCAUCCCAUGCGGCGGCU | 6300 | GGGUUUGCACCAUCCUAAC | 6343 | CAAAUUAUUCCCAAAGAUG |
| 6215 | AGCCUGCUCAGAAGACUCC | 6258 | CCAUCCCAUGCGGCGGCUC | 6301 | GGUUUGCACCAUCCUAACA | 6344 | AAAUUAUUCCCAAAGAUGC |
| 6216 | GCCUGCUCAGAAGACUCCA | 6259 | CAUCCCAUGCGGCGGCUCG | 6302 | GUUUGCACCAUCCUAACAG | 6345 | AAUUAUUCCCAAAGAUGCC |
| 6217 | CCUGCUCAGAAGACUCCAC | 6260 | AUCCCAUGCGGCGGCUCGU | 6303 | UUUGCACCAUCCUAACAGA | 6346 | AUUAUUCCCAAAGAUGCCC |
| 6218 | CUGCUCAGAAGACUCCACA | 6261 | UCCCAUGCGGCGGCUCGUG | 6304 | UUGCACCAUCCUAACAGAC | 6347 | UUAUUCCCAAAGAUGCCCG |
| 6219 | UGCUCAGAAGACUCCACAA | 6262 | CCCAUGCGGCGGCUCGUGG | 6305 | UGCACCAUCCUAACAGACU | 6348 | UAUUCCCAAAGAUGCCCGG |
| 6220 | GCUCAGAAGACUCCACAAC | 6263 | CCAUGCGGCGGCUCGUGGC | 6306 | GCACCAUCCUAACAGACUU | 6349 | AUUCCCAAAGAUGCCCGGC |
| 6221 | CUCAGAAGACUCCACAACU | 6264 | CAUGCGGCGGCUCGUGGCU | 6307 | CACCAUCCUAACAGACUUU | 6350 | UUCCCAAAGAUGCCCGGCC |
| 6222 | UCAGAAGACUCCACAACUG | 6265 | AUGCGGCGGCUCGUGGCUC | 6308 | ACCAUCCUAACAGACUUUA | 6351 | UCCCAAAGAUGCCCGGCCU |
| 6223 | CAGAAGACUCCACAACUGG | 6266 | UGCGGCGGCUCGUGGCUCC | 6309 | CCAUCCUAACAGACUUUAA | 6352 | CCCAAAGAUGCCCGGCCUC |
| 6224 | AGAAGACUCCACAACUGGA | 6267 | GCGGCGGCUCGUGGCUCCG | 6310 | CAUCCUAACAGACUUUAAA | 6353 | CCAAAGAUGCCCGGCCUCC |
| 6225 | GAAGACUCCACAACUGGAU | 6268 | CGGCGGCUCGUGGCUCCGC | 6311 | AUCCUAACAGACUUUAAAA | 6354 | CAAAGAUGCCCGGCCUCCC |
| 6226 | AAGACUCCACAACUGGAUU | 6269 | GGCGGCUCGUGGCUCCGCG | 6312 | UCCUAACAGACUUUAAAAA | 6355 | AAAGAUGCCCGGCCUCCCC |
| 6227 | AGACUCCACAACUGGAUUA | 6270 | GCGGCUCGUGGCUCCGCGA | 6313 | CCUAACAGACUUUAAAAAU | 6356 | AAGAUGCCCGGCCUCCCCU |
| 6228 | GACUCCACAACUGGAUUAC | 6271 | CGGCUCGUGGCUCCGCGAU | 6314 | CUAACAGACUUUAAAAAUU | 6357 | AGAUGCCCGGCCUCCCCUU |
| 6229 | ACUCCACAACUGGAUUACU | 6272 | GGCUCGUGGCUCCGCGAUG | 6315 | UAACAGACUUUAAAAAUUG | 6358 | GAUGCCCGGCCUCCCCUUU |
| 6230 | CUCCACAACUGGAUUACUG | 6273 | GCUCGUGGCUCCGCGAUGU | 6316 | AACAGACUUUAAAAAUUGG | 6359 | AUGCCCGGCCUCCCCUUUG |
| 6231 | UCCACAACUGGAUUACUGA | 6274 | CUCGUGGCUCCGCGAUGUG | 6317 | ACAGACUUUAAAAAUUGGC | 6360 | UGCCCGGCCUCCCCUUUGU |
| 6232 | CCACAACUGGAUUACUGAG | 6275 | UCGUGGCUCCGCGAUGUGU | 6318 | CAGACUUUAAAAAUUGGCU | 6361 | GCCCGGCCUCCCCUUUGUC |
| 6233 | CACAACUGGAUUACUGAGG | 6276 | CGUGGCUCCGCGAUGUGUG | 6319 | AGACUUUAAAAAUUGGCUG | 6362 | CCCGGCCUCCCCUUUGUCU |
| 6234 | ACAACUGGAUUACUGAGGA | 6277 | GUGGCUCCGCGAUGUGUGG | 6320 | GACUUUAAAAAUUGGCUGA | 6363 | CCGGCCUCCCCUUUGUCUC |
| 6235 | CAACUGGAUUACUGAGGAC | 6278 | UGGCUCCGCGAUGUGUGGG | 6321 | ACUUUAAAAAUUGGCUGAC | 6364 | CGGCCUCCCCUUUGUCUCC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6365 | GGCCUCCCCUUUGUCUCCU | 6408 | GGGCCGGCACUGGCAUCAU | 6451 | CAAUAUCUCUGGCAAUGUC | 6494 | GGGCCUAAGACCUGCAUGA |
| 6366 | GCCUCCCCUUUGUCUCCUG | 6409 | GGCCGGCACUGGCAUCAUG | 6452 | AAUAUCUCUGGCAAUGUCC | 6495 | GGCCUAAGACCUGCAUGAA |
| 6367 | CCUCCCCUUUGUCUCCUGU | 6410 | GCCGGCACUGGCAUCAUGA | 6453 | AUAUCUCUGGCAAUGUCCG | 6496 | GCCUAAGACCUGCAUGAAU |
| 6368 | CUCCCCUUUGUCUCCUGUC | 6411 | CCGGCACUGGCAUCAUGAC | 6454 | UAUCUCUGGCAAUGUCCGC | 6497 | CCUAAGACCUGCAUGAAUA |
| 6369 | UCCCCUUUGUCUCCUGUCA | 6412 | CGGCACUGGCAUCAUGACC | 6455 | AUCUCUGGCAAUGUCCGCU | 6498 | CUAAGACCUGCAUGAAUAU |
| 6370 | CCCCUUUGUCUCCUGUCAA | 6413 | GGCACUGGCAUCAUGACCA | 6456 | UCUCUGGCAAUGUCCGCUU | 6499 | UAAGACCUGCAUGAAUAUC |
| 6371 | CCCUUUGUCUCCUGUCAAA | 6414 | GCACUGGCAUCAUGACCAC | 6457 | CUCUGGCAAUGUCCGCUUG | 6500 | AAGACCUGCAUGAAUAUCU |
| 6372 | CCUUUGUCUCCUGUCAAAA | 6415 | CACUGGCAUCAUGACCACA | 6458 | UCUGGCAAUGUCCGCUUGG | 6501 | AGACCUGCAUGAAUAUCUG |
| 6373 | CUUUGUCUCCUGUCAAAAG | 6416 | ACUGGCAUCAUGACCACAC | 6459 | CUGGCAAUGUCCGCUUGGG | 6502 | GACCUGCAUGAAUAUCUGG |
| 6374 | UUUGUCUCCUGUCAAAAGG | 6417 | CUGGCAUCAUGACCACACG | 6460 | UGGCAAUGUCCGCUUGGGC | 6503 | ACCUGCAUGAAUAUCUGGC |
| 6375 | UUGUCUCCUGUCAAAAGGG | 6418 | UGGCAUCAUGACCACACGG | 6461 | GGCAAUGUCCGCUUGGGCU | 6504 | CCUGCAUGAAUAUCUGGCA |
| 6376 | UGUCUCCUGUCAAAAGGGG | 6419 | GGCAUCAUGACCACACGGU | 6462 | GCAAUGUCCGCUUGGGCUC | 6505 | CUGCAUGAAUAUCUGGCAG |
| 6377 | GUCUCCUGUCAAAAGGGGU | 6420 | GCAUCAUGACCACACGGUG | 6463 | CAAUGUCCGCUUGGGCUCC | 6506 | UGCAUGAAUAUCUGGCAGG |
| 6378 | UCUCCUGUCAAAAGGGGUA | 6421 | CAUCAUGACCACACGGUGU | 6464 | AAUGUCCGCUUGGGCUCCA | 6507 | GCAUGAAUAUCUGGCAGGG |
| 6379 | CUCCUGUCAAAAGGGGUAC | 6422 | AUCAUGACCACACGGUGUC | 6465 | AUGUCCGCUUGGGCUCCAU | 6508 | CAUGAAUAUCUGGCAGGGG |
| 6380 | UCCUGUCAAAAGGGGUACA | 6423 | UCAUGACCACACGGUGUCC | 6466 | UGUCCGCUUGGGCUCCAUG | 6509 | AUGAAUAUCUGGCAGGGGA |
| 6381 | CCUGUCAAAAGGGGUACAA | 6424 | CAUGACCACACGGUGUCCU | 6467 | GUCCGCUUGGGCUCCAUGA | 6510 | UGAAUAUCUGGCAGGGGAC |
| 6382 | CUGUCAAAAGGGGUACAAG | 6425 | AUGACCACACGGUGUCCUU | 6468 | UCCGCUUGGGCUCCAUGAG | 6511 | GAAUAUCUGGCAGGGGACC |
| 6383 | UGUCAAAAGGGGUACAAGG | 6426 | UGACCACACGGUGUCCUUG | 6469 | CCGCUUGGGCUCCAUGAGA | 6512 | AAUAUCUGGCAGGGGACCU |
| 6384 | GUCAAAAGGGGUACAAGGG | 6427 | GACCACACGGUGUCCUUGC | 6470 | CGCUUGGGCUCCAUGAGAA | 6513 | AUAUCUGGCAGGGGACCUU |
| 6385 | UCAAAAGGGGUACAAGGGC | 6428 | ACCACACGGUGUCCUUGCG | 6471 | GCUUGGGCUCCAUGAGAAU | 6514 | UAUCUGGCAGGGGACCUUU |
| 6386 | CAAAAGGGGUACAAGGGCG | 6429 | CCACACGGUGUCCUUGCGG | 6472 | CUUGGGCUCCAUGAGAAUC | 6515 | AUCUGGCAGGGGACCUUUC |
| 6387 | AAAAGGGGUACAAGGGCGU | 6430 | CACACGGUGUCCUUGCGGC | 6473 | UUGGGCUCCAUGAGAAUCA | 6516 | UCUGGCAGGGGACCUUUCC |
| 6388 | AAAGGGGUACAAGGGCGUG | 6431 | ACACGGUGUCCUUGCGGCG | 6474 | UGGGCUCCAUGAGAAUCAC | 6517 | CUGGCAGGGGACCUUUCCU |
| 6389 | AAGGGGUACAAGGGCGUGU | 6432 | CACGGUGUCCUUGCGGCGC | 6475 | GGGCUCCAUGAGAAUCACG | 6518 | UGGCAGGGGACCUUUCCUA |
| 6390 | AGGGGUACAAGGGCGUGUG | 6433 | ACGGUGUCCUUGCGGCGCC | 6476 | GGCUCCAUGAGAAUCACGG | 6519 | GGCAGGGGACCUUUCCUAU |
| 6391 | GGGGUACAAGGGCGUGUGG | 6434 | CGGUGUCCUUGCGGCGCCA | 6477 | GCUCCAUGAGAAUCACGGG | 6520 | GCAGGGGACCUUUCCUAUC |
| 6392 | GGGUACAAGGGCGUGUGGG | 6435 | GGUGUCCUUGCGGCGCCAA | 6478 | CUCCAUGAGAAUCACGGGG | 6521 | CAGGGGACCUUUCCUAUCA |
| 6393 | GGUACAAGGGCGUGUGGGC | 6436 | GUGUCCUUGCGGCGCCAAU | 6479 | UCCAUGAGAAUCACGGGGC | 6522 | AGGGGACCUUUCCUAUCAA |
| 6394 | GUACAAGGGCGUGUGGGCC | 6437 | UGUCCUUGCGGCGCCAAUA | 6480 | CCAUGAGAAUCACGGGGCC | 6523 | GGGGACCUUUCCUAUCAAU |
| 6395 | UACAAGGGCGUGUGGGCCG | 6438 | GUCCUUGCGGCGCCAAUAU | 6481 | CAUGAGAAUCACGGGGCCU | 6524 | GGGACCUUUCCUAUCAAUU |
| 6396 | ACAAGGGCGUGUGGGCCGG | 6439 | UCCUUGCGGCGCCAAUAUC | 6482 | AUGAGAAUCACGGGGCCUA | 6525 | GGACCUUUCCUAUCAAUUG |
| 6397 | CAAGGGCGUGUGGGCCGGC | 6440 | CCUUGCGGCGCCAAUAUCU | 6483 | UGAGAAUCACGGGGCCUAA | 6526 | GACCUUUCCUAUCAAUUGU |
| 6398 | AAGGGCGUGUGGGCCGGCA | 6441 | CUUGCGGCGCCAAUAUCUC | 6484 | GAGAAUCACGGGGCCUAAG | 6527 | ACCUUUCCUAUCAAUUGUU |
| 6399 | AGGGCGUGUGGGCCGGCAC | 6442 | UUGCGGCGCCAAUAUCUCU | 6485 | AGAAUCACGGGGCCUAAGA | 6528 | CCUUUCCUAUCAAUUGUUA |
| 6400 | GGGCGUGUGGGCCGGCACU | 6443 | UGCGGCGCCAAUAUCUCUG | 6486 | GAAUCACGGGGCCUAAGAC | 6529 | CUUUCCUAUCAAUUGUUAC |
| 6401 | GGCGUGUGGGCCGGCACUG | 6444 | GCGGCGCCAAUAUCUCUGG | 6487 | AAUCACGGGGCCUAAGACC | 6530 | UUUCCUAUCAAUUGUUACA |
| 6402 | GCGUGUGGGCCGGCACUGG | 6445 | CGGCGCCAAUAUCUCUGGC | 6488 | AUCACGGGGCCUAAGACCU | 6531 | UUCCUAUCAAUUGUUACAC |
| 6403 | CGUGUGGGCCGGCACUGGC | 6446 | GGCGCCAAUAUCUCUGGCA | 6489 | UCACGGGGCCUAAGACCUG | 6532 | UCCUAUCAAUUGUUACACG |
| 6404 | GUGUGGGCCGGCACUGGCA | 6447 | GCGCCAAUAUCUCUGGCAA | 6490 | CACGGGGCCUAAGACCUGC | 6533 | CCUAUCAAUUGUUACACGG |
| 6405 | UGUGGGCCGGCACUGGCAU | 6448 | CGCCAAUAUCUCUGGCAAU | 6491 | ACGGGGCCUAAGACCUGCA | 6534 | CUAUCAAUUGUUACACGGA |
| 6406 | GUGGGCCGGCACUGGCAUC | 6449 | GCCAAUAUCUCUGGCAAUG | 6492 | CGGGGCCUAAGACCUGCAU | 6535 | UAUCAAUUGUUACACGGAG |
| 6407 | UGGGCCGGCACUGGCAUCA | 6450 | CCAAUAUCUCUGGCAAUGU | 6493 | GGGGCCUAAGACCUGCAUG | 6536 | AUCAAUUGUUACACGGAGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6537 | UCAAUUGUUACACGGAGGG | 6580 | AAACUUUAAGGUCGCCAUC | 6623 | GCGGAGGUGACGCAGCACG | 6666 | UCACCACUGAUAACUUGAA |
| 6538 | CAAUUGUUACACGGAGGGC | 6581 | AACUUUAAGGUCGCCAUCU | 6624 | CGGAGGUGACGCAGCACGG | 6667 | CACCACUGAUAACUUGAAA |
| 6539 | AAUUGUUACACGGAGGGCC | 6582 | ACUUUAAGGUCGCCAUCUG | 6625 | GGAGGUGACGCAGCACGGG | 6668 | ACCACUGAUAACUUGAAAG |
| 6540 | AUUGUUACACGGAGGGCCA | 6583 | CUUUAAGGUCGCCAUCUGG | 6626 | GAGGUGACGCAGCACGGGU | 6669 | CCACUGAUAACUUGAAAGU |
| 6541 | UUGUUACACGGAGGGCCAG | 6584 | UUUAAGGUCGCCAUCUGGA | 6627 | AGGUGACGCAGCACGGGUC | 6670 | CACUGAUAACUUGAAAGUC |
| 6542 | UGUUACACGGAGGGCCAGU | 6585 | UUAAGGUCGCCAUCUGGAG | 6628 | GGUGACGCAGCACGGGUCA | 6671 | ACUGAUAACUUGAAAGUCC |
| 6543 | GUUACACGGAGGGCCAGUG | 6586 | UAAGGUCGCCAUCUGGAGG | 6629 | GUGACGCAGCACGGGUCAU | 6672 | CUGAUAACUUGAAAGUCCC |
| 6544 | UUACACGGAGGGCCAGUGC | 6587 | AAGGUCGCCAUCUGGAGGG | 6630 | UGACGCAGCACGGGUCAUA | 6673 | UGAUAACUUGAAAGUCCCC |
| 6545 | UACACGGAGGGCCAGUGCG | 6588 | AGGUCGCCAUCUGGAGGGU | 6631 | GACGCAGCACGGGUCAUAC | 6674 | GAUAACUUGAAAGUCCCCU |
| 6546 | ACACGGAGGGCCAGUGCGU | 6589 | GGUCGCCAUCUGGAGGGUG | 6632 | ACGCAGCACGGGUCAUACC | 6675 | AUAACUUGAAAGUCCCCUG |
| 6547 | CACGGAGGGCCAGUGCGUG | 6590 | GUCGCCAUCUGGAGGGUGG | 6633 | CGCAGCACGGGUCAUACCA | 6676 | UAACUUGAAAGUCCCCUGC |
| 6548 | ACGGAGGGCCAGUGCGUGC | 6591 | UCGCCAUCUGGAGGGUGGC | 6634 | GCAGCACGGGUCAUACCAC | 6677 | AACUUGAAAGUCCCCUGCC |
| 6549 | CGGAGGGCCAGUGCGUGCC | 6592 | CGCCAUCUGGAGGGUGGCG | 6635 | CAGCACGGGUCAUACCACU | 6678 | ACUUGAAAGUCCCCUGCCA |
| 6550 | GGAGGGCCAGUGCGUGCCG | 6593 | GCCAUCUGGAGGGUGGCGG | 6636 | AGCACGGGUCAUACCACUA | 6679 | CUUGAAAGUCCCCUGCCAA |
| 6551 | GAGGGCCAGUGCGUGCCGA | 6594 | CCAUCUGGAGGGUGGCGGC | 6637 | GCACGGGUCAUACCACUAC | 6680 | UUGAAAGUCCCCUGCCAAC |
| 6552 | AGGGCCAGUGCGUGCCGAA | 6595 | CAUCUGGAGGGUGGCGGCC | 6638 | CACGGGUCAUACCACUACA | 6681 | UGAAAGUCCCCUGCCAACU |
| 6553 | GGGCCAGUGCGUGCCGAAA | 6596 | AUCUGGAGGGUGGCGGCCU | 6639 | ACGGGUCAUACCACUACAU | 6682 | GAAAGUCCCCUGCCAACUA |
| 6554 | GGCCAGUGCGUGCCGAAAC | 6597 | UCUGGAGGGUGGCGGCCUC | 6640 | CGGGUCAUACCACUACAUA | 6683 | AAAGUCCCCUGCCAACUAC |
| 6555 | GCCAGUGCGUGCCGAAACC | 6598 | CUGGAGGGUGGCGGCCUCA | 6641 | GGGUCAUACCACUACAUAA | 6684 | AAGUCCCCUGCCAACUACC |
| 6556 | CCAGUGCGUGCCGAAACCC | 6599 | UGGAGGGUGGCGGCCUCAG | 6642 | GGUCAUACCACUACAUAAC | 6685 | AGUCCCCUGCCAACUACCC |
| 6557 | CAGUGCGUGCCGAAACCCG | 6600 | GGAGGGUGGCGGCCUCAGA | 6643 | GUCAUACCACUACAUAACA | 6686 | GUCCCCUGCCAACUACCCU |
| 6558 | AGUGCGUGCCGAAACCCGC | 6601 | GAGGGUGGCGGCCUCAGAG | 6644 | UCAUACCACUACAUAACAG | 6687 | UCCCCUGCCAACUACCCUC |
| 6559 | GUGCGUGCCGAAACCCGCG | 6602 | AGGGUGGCGGCCUCAGAGU | 6645 | CAUACCACUACAUAACAGG | 6688 | CCCCUGCCAACUACCCUCU |
| 6560 | UGCGUGCCGAAACCCGCGC | 6603 | GGGUGGCGGCCUCAGAGUA | 6646 | AUACCACUACAUAACAGGA | 6689 | CCCUGCCAACUACCCUCUC |
| 6561 | GCGUGCCGAAACCCGCGCC | 6604 | GGUGGCGGCCUCAGAGUAC | 6647 | UACCACUACAUAACAGGAC | 6690 | CCUGCCAACUACCCUCUCC |
| 6562 | CGUGCCGAAACCCGCGCCA | 6605 | GUGGCGGCCUCAGAGUACG | 6648 | ACCACUACAUAACAGGACU | 6691 | CUGCCAACUACCCUCUCCC |
| 6563 | GUGCCGAAACCCGCGCCAA | 6606 | UGGCGGCCUCAGAGUACGC | 6649 | CCACUACAUAACAGGACUC | 6692 | UGCCAACUACCCUCUCCCG |
| 6564 | UGCCGAAACCCGCGCCAAA | 6607 | GGCGGCCUCAGAGUACGCG | 6650 | CACUACAUAACAGGACUCA | 6693 | GCCAACUACCCUCUCCCGA |
| 6565 | GCCGAAACCCGCGCCAAAC | 6608 | GCGGCCUCAGAGUACGCGG | 6651 | ACUACAUAACAGGACUCAC | 6694 | CCAACUACCCUCUCCCGAG |
| 6566 | CCGAAACCCGCGCCAAACU | 6609 | CGGCCUCAGAGUACGCGGA | 6652 | CUACAUAACAGGACUCACC | 6695 | CAACUACCCUCUCCCGAGU |
| 6567 | CGAAACCCGCGCCAAACUU | 6610 | GGCCUCAGAGUACGCGGAG | 6653 | UACAUAACAGGACUCACCA | 6696 | AACUACCCUCUCCCGAGUU |
| 6568 | GAAACCCGCGCCAAACUUU | 6611 | GCCUCAGAGUACGCGGAGG | 6654 | ACAUAACAGGACUCACCAC | 6697 | ACUACCCUCUCCCGAGUUC |
| 6569 | AAACCCGCGCCAAACUUUA | 6612 | CCUCAGAGUACGCGGAGGU | 6655 | CAUAACAGGACUCACCACU | 6698 | CUACCCUCUCCCGAGUUCU |
| 6570 | AACCCGCGCCAAACUUUAA | 6613 | CUCAGAGUACGCGGAGGUG | 6656 | AUAACAGGACUCACCACUG | 6699 | UACCCUCUCCCGAGUUCUU |
| 6571 | ACCCGCGCCAAACUUUAAG | 6614 | UCAGAGUACGCGGAGGUGA | 6657 | UAACAGGACUCACCACUGA | 6700 | ACCCUCUCCCGAGUUCUUU |
| 6572 | CCCGCGCCAAACUUUAAGG | 6615 | CAGAGUACGCGGAGGUGAC | 6658 | AACAGGACUCACCACUGAU | 6701 | CCCUCUCCCGAGUUCUUUU |
| 6573 | CCGCGCCAAACUUUAAGGU | 6616 | AGAGUACGCGGAGGUGACG | 6659 | ACAGGACUCACCACUGAUA | 6702 | CCUCUCCCGAGUUCUUUUC |
| 6574 | CGCGCCAAACUUUAAGGUC | 6617 | GAGUACGCGGAGGUGACGC | 6660 | CAGGACUCACCACUGAUAA | 6703 | CUCUCCCGAGUUCUUUUCC |
| 6575 | GCGCCAAACUUUAAGGUCG | 6618 | AGUACGCGGAGGUGACGCA | 6661 | AGGACUCACCACUGAUAAC | 6704 | UCUCCCGAGUUCUUUUCCU |
| 6576 | CGCCAAACUUUAAGGUCGC | 6619 | GUACGCGGAGGUGACGCAG | 6662 | GGACUCACCACUGAUAACU | 6705 | CUCCCGAGUUCUUUUCCUG |
| 6577 | GCCAAACUUUAAGGUCGCC | 6620 | UACGCGGAGGUGACGCAGC | 6663 | GACUCACCACUGAUAACUU | 6706 | UCCCGAGUUCUUUUCCUGG |
| 6578 | CCAAACUUUAAGGUCGCCA | 6621 | ACGCGGAGGUGACGCAGCA | 6664 | ACUCACCACUGAUAACUUG | 6707 | CCCGAGUUCUUUUCCUGGG |
| 6579 | CAAACUUUAAGGUCGCCAU | 6622 | CGCGGAGGUGACGCAGCAC | 6665 | CUCACCACUGAUAACUUGA | 6708 | CCGAGUUCUUUUCCUGGGU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6709 | CGAGUUCUUUUCCUGGGUG | 6752 | GCCCCCACACCGAAGCCGU | 6795 | GCGUUGGGCUUAAUUCAUU | 6838 | CGACCCUGAACCCGACACA |
| 6710 | GAGUUCUUUUCCUGGGUGG | 6753 | CCCCCACACCGAAGCCGUU | 6796 | CGUUGGGCUUAAUUCAUUU | 6839 | GACCCUGAACCCGACACAG |
| 6711 | AGUUCUUUUCCUGGGUGGA | 6754 | CCCCACACCGAAGCCGUUU | 6797 | GUUGGGCUUAAUUCAUUUG | 6840 | ACCCUGAACCCGACACAGA |
| 6712 | GUUCUUUUCCUGGGUGGAC | 6755 | CCCACACCGAAGCCGUUUU | 6798 | UUGGGCUUAAUUCAUUUGU | 6841 | CCCUGAACCCGACACAGAC |
| 6713 | UUCUUUUCCUGGGUGGACG | 6756 | CCACACCGAAGCCGUUUUU | 6799 | UGGGCUUAAUUCAUUUGUC | 6842 | CCUGAACCCGACACAGACG |
| 6714 | UCUUUUCCUGGGUGGACGG | 6757 | CACACCGAAGCCGUUUUUC | 6800 | GGGCUUAAUUCAUUUGUCG | 6843 | CUGAACCCGACACAGACGU |
| 6715 | CUUUUCCUGGGUGGACGGA | 6758 | ACACCGAAGCCGUUUUUCC | 6801 | GGCUUAAUUCAUUUGUCGU | 6844 | UGAACCCGACACAGACGUA |
| 6716 | UUUUCCUGGGUGGACGGAG | 6759 | CACCGAAGCCGUUUUUCCG | 6802 | GCUUAAUUCAUUUGUCGUC | 6845 | GAACCCGACACAGACGUAU |
| 6717 | UUUCCUGGGUGGACGGAGU | 6760 | ACCGAAGCCGUUUUUCCGG | 6803 | CUUAAUUCAUUUGUCGUCG | 6846 | AACCCGACACAGACGUAUU |
| 6718 | UUCCUGGGUGGACGGAGUG | 6761 | CCGAAGCCGUUUUUCCGGG | 6804 | UUAAUUCAUUUGUCGUCGG | 6847 | ACCCGACACAGACGUAUUG |
| 6719 | UCCUGGGUGGACGGAGUGC | 6762 | CGAAGCCGUUUUUCCGGGA | 6805 | UAAUUCAUUUGUCGUCGGG | 6848 | CCCGACACAGACGUAUUGA |
| 6720 | CCUGGGUGGACGGAGUGCA | 6763 | GAAGCCGUUUUUCCGGGAU | 6806 | AAUUCAUUUGUCGUCGGGU | 6849 | CCGACACAGACGUAUUGAU |
| 6721 | CUGGGUGGACGGAGUGCAG | 6764 | AAGCCGUUUUUCCGGGAUG | 6807 | AUUCAUUUGUCGUCGGGUC | 6850 | CGACACAGACGUAUUGAUG |
| 6722 | UGGGUGGACGGAGUGCAGA | 6765 | AGCCGUUUUUCCGGGAUGA | 6808 | UUCAUUUGUCGUCGGGUCC | 6851 | GACACAGACGUAUUGAUGU |
| 6723 | GGGUGGACGGAGUGCAGAU | 6766 | GCCGUUUUUCCGGGAUGAG | 6809 | UCAUUUGUCGUCGGGUCCC | 6852 | ACACAGACGUAUUGAUGUC |
| 6724 | GGUGGACGGAGUGCAGAUC | 6767 | CCGUUUUUCCGGGAUGAGG | 6810 | CAUUUGUCGUCGGGUCCCA | 6853 | CACAGACGUAUUGAUGUCC |
| 6725 | GUGGACGGAGUGCAGAUCC | 6768 | CGUUUUUCCGGGAUGAGGU | 6811 | AUUUGUCGUCGGGUCCCAG | 6854 | ACAGACGUAUUGAUGUCCA |
| 6726 | UGGACGGAGUGCAGAUCCA | 6769 | GUUUUUCCGGGAUGAGGUC | 6812 | UUUGUCGUCGGGUCCCAGC | 6855 | CAGACGUAUUGAUGUCCAU |
| 6727 | GGACGGAGUGCAGAUCCAU | 6770 | UUUUUCCGGGAUGAGGUCU | 6813 | UUGUCGUCGGGUCCCAGCU | 6856 | AGACGUAUUGAUGUCCAUG |
| 6728 | GACGGAGUGCAGAUCCAUA | 6771 | UUUUCCGGGAUGAGGUCUC | 6814 | UGUCGUCGGGUCCCAGCUU | 6857 | GACGUAUUGAUGUCCAUGC |
| 6729 | ACGGAGUGCAGAUCCAUAG | 6772 | UUUCCGGGAUGAGGUCUCG | 6815 | GUCGUCGGGUCCCAGCUUC | 6858 | ACGUAUUGAUGUCCAUGCU |
| 6730 | CGGAGUGCAGAUCCAUAGG | 6773 | UUCCGGGAUGAGGUCUCGU | 6816 | UCGUCGGGUCCCAGCUUCC | 6859 | CGUAUUGAUGUCCAUGCUA |
| 6731 | GGAGUGCAGAUCCAUAGGU | 6774 | UCCGGGAUGAGGUCUCGUU | 6817 | CGUCGGGUCCCAGCUUCCU | 6860 | GUAUUGAUGUCCAUGCUAA |
| 6732 | GAGUGCAGAUCCAUAGGUU | 6775 | CCGGGAUGAGGUCUCGUUC | 6818 | GUCGGGUCCCAGCUUCCUU | 6861 | UAUUGAUGUCCAUGCUAAC |
| 6733 | AGUGCAGAUCCAUAGGUUU | 6776 | CGGGAUGAGGUCUCGUUCU | 6819 | UCGGGUCCCAGCUUCCUUG | 6862 | AUUGAUGUCCAUGCUAACA |
| 6734 | GUGCAGAUCCAUAGGUUUG | 6777 | GGGAUGAGGUCUCGUUCUG | 6820 | CGGGUCCCAGCUUCCUUGC | 6863 | UUGAUGUCCAUGCUAACAG |
| 6735 | UGCAGAUCCAUAGGUUUGC | 6778 | GGAUGAGGUCUCGUUCUGC | 6821 | GGGUCCCAGCUUCCUUGCG | 6864 | UGAUGUCCAUGCUAACAGA |
| 6736 | GCAGAUCCAUAGGUUUGCC | 6779 | GAUGAGGUCUCGUUCUGCG | 6822 | GGUCCCAGCUUCCUUGCGA | 6865 | GAUGUCCAUGCUAACAGAU |
| 6737 | CAGAUCCAUAGGUUUGCCC | 6780 | AUGAGGUCUCGUUCUGCGU | 6823 | GUCCCAGCUUCCUUGCGAC | 6866 | AUGUCCAUGCUAACAGAUC |
| 6738 | AGAUCCAUAGGUUUGCCCC | 6781 | UGAGGUCUCGUUCUGCGUU | 6824 | UCCCAGCUUCCUUGCGACC | 6867 | UGUCCAUGCUAACAGAUCC |
| 6739 | GAUCCAUAGGUUUGCCCCC | 6782 | GAGGUCUCGUUCUGCGUUG | 6825 | CCCAGCUUCCUUGCGACCC | 6868 | GUCCAUGCUAACAGAUCCA |
| 6740 | AUCCAUAGGUUUGCCCCCA | 6783 | AGGUCUCGUUCUGCGUUGG | 6826 | CCAGCUUCCUUGCGACCCU | 6869 | UCCAUGCUAACAGAUCCAU |
| 6741 | UCCAUAGGUUUGCCCCCAC | 6784 | GGUCUCGUUCUGCGUUGGG | 6827 | CAGCUUCCUUGCGACCCUG | 6870 | CCAUGCUAACAGAUCCAUC |
| 6742 | CCAUAGGUUUGCCCCCACA | 6785 | GUCUCGUUCUGCGUUGGGC | 6828 | AGCUUCCUUGCGACCCUGA | 6871 | CAUGCUAACAGAUCCAUCU |
| 6743 | CAUAGGUUUGCCCCCACAC | 6786 | UCUCGUUCUGCGUUGGGCU | 6829 | GCUUCCUUGCGACCCUGAA | 6872 | AUGCUAACAGAUCCAUCUC |
| 6744 | AUAGGUUUGCCCCCACACC | 6787 | CUCGUUCUGCGUUGGGCUU | 6830 | CUUCCUUGCGACCCUGAAC | 6873 | UGCUAACAGAUCCAUCUCA |
| 6745 | UAGGUUUGCCCCCACACCG | 6788 | UCGUUCUGCGUUGGGCUUA | 6831 | UUCCUUGCGACCCUGAACC | 6874 | GCUAACAGAUCCAUCUCAU |
| 6746 | AGGUUUGCCCCCACACCGA | 6789 | CGUUCUGCGUUGGGCUUAA | 6832 | UCCUUGCGACCCUGAACCC | 6875 | CUAACAGAUCCAUCUCAUA |
| 6747 | GGUUUGCCCCCACACCGAA | 6790 | GUUCUGCGUUGGGCUUAAU | 6833 | CCUUGCGACCCUGAACCCG | 6876 | UAACAGAUCCAUCUCAUAU |
| 6748 | GUUUGCCCCCACACCGAAG | 6791 | UUCUGCGUUGGGCUUAAUU | 6834 | CUUGCGACCCUGAACCCGA | 6877 | AACAGAUCCAUCUCAUAUC |
| 6749 | UUUGCCCCCACACCGAAGC | 6792 | UCUGCGUUGGGCUUAAUUC | 6835 | UUGCGACCCUGAACCCGAC | 6878 | ACAGAUCCAUCUCAUAUCA |
| 6750 | UUGCCCCCACACCGAAGCC | 6793 | CUGCGUUGGGCUUAAUUCA | 6836 | UGCGACCCUGAACCCGACA | 6879 | CAGAUCCAUCUCAUAUCAC |
| 6751 | UGCCCCCACACCGAAGCCG | 6794 | UGCGUUGGGCUUAAUUCAU | 6837 | GCGACCCUGAACCCGACAC | 6880 | AGAUCCAUCUCAUAUCACG |

**FIG. 3 (page 160 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6881 | GAUCCAUCUCAUAUCACGG | 6924 | CGCGGGGGUCACCCCCAUC | 6967 | GCUAUCGGCACCAUCGCUG | 7010 | AAAGCCUAUGAUGUGGACA |
| 6882 | AUCCAUCUCAUAUCACGGC | 6925 | GCGGGGGUCACCCCCAUCC | 6968 | CUAUCGGCACCAUCGCUGC | 7011 | AAGCCUAUGAUGUGGACAU |
| 6883 | UCCAUCUCAUAUCACGGCG | 6926 | CGGGGGUCACCCCCAUCCG | 6969 | UAUCGGCACCAUCGCUGCG | 7012 | AGCCUAUGAUGUGGACAUG |
| 6884 | CCAUCUCAUAUCACGGCGG | 6927 | GGGGGUCACCCCCAUCCGA | 6970 | AUCGGCACCAUCGCUGCGA | 7013 | GCCUAUGAUGUGGACAUGG |
| 6885 | CAUCUCAUAUCACGGCGGA | 6928 | GGGGUCACCCCCAUCCGAG | 6971 | UCGGCACCAUCGCUGCGAG | 7014 | CCUAUGAUGUGGACAUGGU |
| 6886 | AUCUCAUAUCACGGCGGAG | 6929 | GGGUCACCCCCAUCCGAGG | 6972 | CGGCACCAUCGCUGCGAGC | 7015 | CUAUGAUGUGGACAUGGUG |
| 6887 | UCUCAUAUCACGGCGGAGA | 6930 | GGUCACCCCCAUCCGAGGC | 6973 | GGCACCAUCGCUGCGAGCC | 7016 | UAUGAUGUGGACAUGGUGG |
| 6888 | CUCAUAUCACGGCGGAGAC | 6931 | GUCACCCCCAUCCGAGGCA | 6974 | GCACCAUCGCUGCGAGCCA | 7017 | AUGAUGUGGACAUGGUGGA |
| 6889 | UCAUAUCACGGCGGAGACU | 6932 | UCACCCCCAUCCGAGGCAA | 6975 | CACCAUCGCUGCGAGCCAC | 7018 | UGAUGUGGACAUGGUGGAU |
| 6890 | CAUAUCACGGCGGAGACUG | 6933 | CACCCCCAUCCGAGGCAAG | 6976 | ACCAUCGCUGCGAGCCACC | 7019 | GAUGUGGACAUGGUGGAUG |
| 6891 | AUAUCACGGCGGAGACUGC | 6934 | ACCCCCAUCCGAGGCAAGC | 6977 | CCAUCGCUGCGAGCCACCU | 7020 | AUGUGGACAUGGUGGAUGC |
| 6892 | UAUCACGGCGGAGACUGCA | 6935 | CCCCCAUCCGAGGCAAGCU | 6978 | CAUCGCUGCGAGCCACCUG | 7021 | UGUGGACAUGGUGGAUGCU |
| 6893 | AUCACGGCGGAGACUGCAG | 6936 | CCCCAUCCGAGGCAAGCUC | 6979 | AUCGCUGCGAGCCACCUGC | 7022 | GUGGACAUGGUGGAUGCUA |
| 6894 | UCACGGCGGAGACUGCAGC | 6937 | CCCAUCCGAGGCAAGCUCC | 6980 | UCGCUGCGAGCCACCUGCA | 7023 | UGGACAUGGUGGAUGCUAA |
| 6895 | CACGGCGGAGACUGCAGCG | 6938 | CCAUCCGAGGCAAGCUCCU | 6981 | CGCUGCGAGCCACCUGCAC | 7024 | GGACAUGGUGGAUGCUAAC |
| 6896 | ACGGCGGAGACUGCAGCGC | 6939 | CAUCCGAGGCAAGCUCCUC | 6982 | GCUGCGAGCCACCUGCACC | 7025 | GACAUGGUGGAUGCUAACC |
| 6897 | CGGCGGAGACUGCAGCGCG | 6940 | AUCCGAGGCAAGCUCCUCG | 6983 | CUGCGAGCCACCUGCACCA | 7026 | ACAUGGUGGAUGCUAACCU |
| 6898 | GGCGGAGACUGCAGCGCGG | 6941 | UCCGAGGCAAGCUCCUCGG | 6984 | UGCGAGCCACCUGCACCAC | 7027 | CAUGGUGGAUGCUAACCUG |
| 6899 | GCGGAGACUGCAGCGCGGC | 6942 | CCGAGGCAAGCUCCUCGGC | 6985 | GCGAGCCACCUGCACCACC | 7028 | AUGGUGGAUGCUAACCUGU |
| 6900 | CGGAGACUGCAGCGCGGCG | 6943 | CGAGGCAAGCUCCUCGGCG | 6986 | CGAGCCACCUGCACCACCC | 7029 | UGGUGGAUGCUAACCUGUU |
| 6901 | GGAGACUGCAGCGCGGCGU | 6944 | GAGGCAAGCUCCUCGGCGA | 6987 | GAGCCACCUGCACCACCCA | 7030 | GGUGGAUGCUAACCUGUUC |
| 6902 | GAGACUGCAGCGCGGCGUU | 6945 | AGGCAAGCUCCUCGGCGAG | 6988 | AGCCACCUGCACCACCCAC | 7031 | GUGGAUGCUAACCUGUUCA |
| 6903 | AGACUGCAGCGCGGCGUUU | 6946 | GGCAAGCUCCUCGGCGAGC | 6989 | GCCACCUGCACCACCCACG | 7032 | UGGAUGCUAACCUGUUCAU |
| 6904 | GACUGCAGCGCGGCGUUUA | 6947 | GCAAGCUCCUCGGCGAGCC | 6990 | CCACCUGCACCACCCACGG | 7033 | GGAUGCUAACCUGUUCAUG |
| 6905 | ACUGCAGCGCGGCGUUUAG | 6948 | CAAGCUCCUCGGCGAGCCA | 6991 | CACCUGCACCACCCACGGC | 7034 | GAUGCUAACCUGUUCAUGG |
| 6906 | CUGCAGCGCGGCGUUUAGC | 6949 | AAGCUCCUCGGCGAGCCAG | 6992 | ACCUGCACCACCCACGGCA | 7035 | AUGCUAACCUGUUCAUGGG |
| 6907 | UGCAGCGCGGCGUUUAGCG | 6950 | AGCUCCUCGGCGAGCCAGC | 6993 | CCUGCACCACCCACGGCAA | 7036 | UGCUAACCUGUUCAUGGGG |
| 6908 | GCAGCGCGGCGUUUAGCGC | 6951 | GCUCCUCGGCGAGCCAGCU | 6994 | CUGCACCACCCACGGCAAA | 7037 | GCUAACCUGUUCAUGGGGG |
| 6909 | CAGCGCGGCGUUUAGCGCG | 6952 | CUCCUCGGCGAGCCAGCUA | 6995 | UGCACCACCCACGGCAAAG | 7038 | CUAACCUGUUCAUGGGGGG |
| 6910 | AGCGCGGCGUUUAGCGCGG | 6953 | UCCUCGGCGAGCCAGCUAU | 6996 | GCACCACCCACGGCAAAGC | 7039 | UAACCUGUUCAUGGGGGGC |
| 6911 | GCGCGGCGUUUAGCGCGGG | 6954 | CCUCGGCGAGCCAGCUAUC | 6997 | CACCACCCACGGCAAAGCC | 7040 | AACCUGUUCAUGGGGGGCG |
| 6912 | CGCGGCGUUUAGCGCGGGG | 6955 | CUCGGCGAGCCAGCUAUCG | 6998 | ACCACCCACGGCAAAGCCU | 7041 | ACCUGUUCAUGGGGGGCGA |
| 6913 | GCGGCGUUUAGCGCGGGGG | 6956 | UCGGCGAGCCAGCUAUCGG | 6999 | CCACCCACGGCAAAGCCUA | 7042 | CCUGUUCAUGGGGGGCGAU |
| 6914 | CGGCGUUUAGCGCGGGGGU | 6957 | CGGCGAGCCAGCUAUCGGC | 7000 | CACCCACGGCAAAGCCUAU | 7043 | CUGUUCAUGGGGGGCGAUG |
| 6915 | GGCGUUUAGCGCGGGGGUC | 6958 | GGCGAGCCAGCUAUCGGCA | 7001 | ACCCACGGCAAAGCCUAUG | 7044 | UGUUCAUGGGGGGCGAUGU |
| 6916 | GCGUUUAGCGCGGGGGUCA | 6959 | GCGAGCCAGCUAUCGGCAC | 7002 | CCCACGGCAAAGCCUAUGA | 7045 | GUUCAUGGGGGGCGAUGUG |
| 6917 | CGUUUAGCGCGGGGGUCAC | 6960 | CGAGCCAGCUAUCGGCACC | 7003 | CCACGGCAAAGCCUAUGAU | 7046 | UUCAUGGGGGGCGAUGUGA |
| 6918 | GUUUAGCGCGGGGGUCACC | 6961 | GAGCCAGCUAUCGGCACCA | 7004 | CACGGCAAAGCCUAUGAUG | 7047 | UCAUGGGGGGCGAUGUGAC |
| 6919 | UUUAGCGCGGGGGUCACCC | 6962 | AGCCAGCUAUCGGCACCAU | 7005 | ACGGCAAAGCCUAUGAUGU | 7048 | CAUGGGGGGCGAUGUGACU |
| 6920 | UUAGCGCGGGGGUCACCCC | 6963 | GCCAGCUAUCGGCACCAUC | 7006 | CGGCAAAGCCUAUGAUGUG | 7049 | AUGGGGGGCGAUGUGACUC |
| 6921 | UAGCGCGGGGGUCACCCCC | 6964 | CCAGCUAUCGGCACCAUCG | 7007 | GGCAAAGCCUAUGAUGUGG | 7050 | UGGGGGGCGAUGUGACUCG |
| 6922 | AGCGCGGGGGUCACCCCCA | 6965 | CAGCUAUCGGCACCAUCGC | 7008 | GCAAAGCCUAUGAUGUGGA | 7051 | GGGGGGCGAUGUGACUCGG |
| 6923 | GCGCGGGGGUCACCCCCAU | 6966 | AGCUAUCGGCACCAUCGCU | 7009 | CAAAGCCUAUGAUGUGGAC | 7052 | GGGGGCGAUGUGACUCGGA |

**FIG. 3 (page 161 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7053 | GGGGCGAUGUGACUCGGAU | 7096 | UCUGGACUCUCUCGACCCA | 7139 | GAGCCUUCGAUACCAUCAG | 7182 | UCCCACCAGCUUUACCGGC |
| 7054 | GGGCGAUGUGACUCGGAUA | 7097 | CUGGACUCUCUCGACCCAA | 7140 | AGCCUUCGAUACCAUCAGA | 7183 | CCCACCAGCUUUACCGGCC |
| 7055 | GGCGAUGUGACUCGGAUAG | 7098 | UGGACUCUCUCGACCCAAU | 7141 | GCCUUCGAUACCAUCAGAA | 7184 | CCACCAGCUUUACCGGCCU |
| 7056 | GCGAUGUGACUCGGAUAGA | 7099 | GGACUCUCUCGACCCAAUG | 7142 | CCUUCGAUACCAUCAGAAU | 7185 | CACCAGCUUUACCGGCCUG |
| 7057 | CGAUGUGACUCGGAUAGAG | 7100 | GACUCUCUCGACCCAAUGG | 7143 | CUUCGAUACCAUCAGAAUA | 7186 | ACCAGCUUUACCGGCCUGG |
| 7058 | GAUGUGACUCGGAUAGAGU | 7101 | ACUCUCUCGACCCAAUGGU | 7144 | UUCGAUACCAUCAGAAUAC | 7187 | CCAGCUUUACCGGCCUGGG |
| 7059 | AUGUGACUCGGAUAGAGUC | 7102 | CUCUCUCGACCCAAUGGUC | 7145 | UCGAUACCAUCAGAAUACA | 7188 | CAGCUUUACCGGCCUGGGC |
| 7060 | UGUGACUCGGAUAGAGUCU | 7103 | UCUCUCGACCCAAUGGUCG | 7146 | CGAUACCAUCAGAAUACAU | 7189 | AGCUUUACCGGCCUGGGCA |
| 7061 | GUGACUCGGAUAGAGUCUG | 7104 | CUCUCGACCCAAUGGUCGA | 7147 | GAUACCAUCAGAAUACAUG | 7190 | GCUUUACCGGCCUGGGCAC |
| 7062 | UGACUCGGAUAGAGUCUGG | 7105 | UCUCGACCCAAUGGUCGAA | 7148 | AUACCAUCAGAAUACAUGC | 7191 | CUUUACCGGCCUGGGCACG |
| 7063 | GACUCGGAUAGAGUCUGGG | 7106 | CUCGACCCAAUGGUCGAAG | 7149 | UACCAUCAGAAUACAUGCU | 7192 | UUUACCGGCCUGGGCACGG |
| 7064 | ACUCGGAUAGAGUCUGGGU | 7107 | UCGACCCAAUGGUCGAAGA | 7150 | ACCAUCAGAAUACAUGCUC | 7193 | UUACCGGCCUGGGCACGGC |
| 7065 | CUCGGAUAGAGUCUGGGUC | 7108 | CGACCCAAUGGUCGAAGAA | 7151 | CCAUCAGAAUACAUGCUCC | 7194 | UACCGGCCUGGGCACGGCC |
| 7066 | UCGGAUAGAGUCUGGGUCC | 7109 | GACCCAAUGGUCGAAGAAA | 7152 | CAUCAGAAUACAUGCUCCC | 7195 | ACCGGCCUGGGCACGGCCU |
| 7067 | CGGAUAGAGUCUGGGUCCA | 7110 | ACCCAAUGGUCGAAGAAAG | 7153 | AUCAGAAUACAUGCUCCCC | 7196 | CCGGCCUGGGCACGGCCUG |
| 7068 | GGAUAGAGUCUGGGUCCAA | 7111 | CCCAAUGGUCGAAGAAAGG | 7154 | UCAGAAUACAUGCUCCCCA | 7197 | CGGCCUGGGCACGGCCUGA |
| 7069 | GAUAGAGUCUGGGUCCAAA | 7112 | CCAAUGGUCGAAGAAAGGA | 7155 | CAGAAUACAUGCUCCCCAA | 7198 | GGCCUGGGCACGGCCUGAU |
| 7070 | AUAGAGUCUGGGUCCAAAG | 7113 | CAAUGGUCGAAGAAAGGAG | 7156 | AGAAUACAUGCUCCCCAAG | 7199 | GCCUGGGCACGGCCUGAUU |
| 7071 | UAGAGUCUGGGUCCAAAGU | 7114 | AAUGGUCGAAGAAAGGAGC | 7157 | GAAUACAUGCUCCCCAAGA | 7200 | CCUGGGCACGGCCUGAUUA |
| 7072 | AGAGUCUGGGUCCAAAGUG | 7115 | AUGGUCGAAGAAAGGAGCG | 7158 | AAUACAUGCUCCCCAAGAA | 7201 | CUGGGCACGGCCUGAUUAC |
| 7073 | GAGUCUGGGUCCAAAGUGG | 7116 | UGGUCGAAGAAAGGAGCGA | 7159 | AUACAUGCUCCCCAAGAAG | 7202 | UGGGCACGGCCUGAUUACA |
| 7074 | AGUCUGGGUCCAAAGUGGU | 7117 | GGUCGAAGAAAGGAGCGAC | 7160 | UACAUGCUCCCCAAGAAGA | 7203 | GGGCACGGCCUGAUUACAA |
| 7075 | GUCUGGGUCCAAAGUGGUC | 7118 | GUCGAAGAAAGGAGCGACC | 7161 | ACAUGCUCCCCAAGAAGAG | 7204 | GGCACGGCCUGAUUACAAC |
| 7076 | UCUGGGUCCAAAGUGGUCG | 7119 | UCGAAGAAAGGAGCGACCU | 7162 | CAUGCUCCCCAAGAAGAGG | 7205 | GCACGGCCUGAUUACAACC |
| 7077 | CUGGGUCCAAAGUGGUCGU | 7120 | CGAAGAAAGGAGCGACCUU | 7163 | AUGCUCCCCAAGAAGAGGU | 7206 | CACGGCCUGAUUACAACCC |
| 7078 | UGGGUCCAAAGUGGUCGUU | 7121 | GAAGAAAGGAGCGACCUUG | 7164 | UGCUCCCCAAGAAGAGGUU | 7207 | ACGGCCUGAUUACAACCCA |
| 7079 | GGGUCCAAAGUGGUCGUUC | 7122 | AAGAAAGGAGCGACCUUGA | 7165 | GCUCCCCAAGAAGAGGUUC | 7208 | CGGCCUGAUUACAACCCAC |
| 7080 | GGUCCAAAGUGGUCGUUCU | 7123 | AGAAAGGAGCGACCUUGAG | 7166 | CUCCCCAAGAAGAGGUUCC | 7209 | GGCCUGAUUACAACCCACC |
| 7081 | GUCCAAAGUGGUCGUUCUG | 7124 | GAAAGGAGCGACCUUGAGC | 7167 | UCCCCAAGAAGAGGUUCCC | 7210 | GCCUGAUUACAACCCACCG |
| 7082 | UCCAAAGUGGUCGUUCUGG | 7125 | AAAGGAGCGACCUUGAGCC | 7168 | CCCCAAGAAGAGGUUCCCA | 7211 | CCUGAUUACAACCCACCGC |
| 7083 | CCAAAGUGGUCGUUCUGGA | 7126 | AAGGAGCGACCUUGAGCCU | 7169 | CCCAAGAAGAGGUUCCCAC | 7212 | CUGAUUACAACCCACCGCU |
| 7084 | CAAAGUGGUCGUUCUGGAC | 7127 | AGGAGCGACCUUGAGCCUU | 7170 | CCAAGAAGAGGUUCCCACC | 7213 | UGAUUACAACCCACCGCUU |
| 7085 | AAAGUGGUCGUUCUGGACU | 7128 | GGAGCGACCUUGAGCCUUC | 7171 | CAAGAAGAGGUUCCCACCA | 7214 | GAUUACAACCCACCGCUUG |
| 7086 | AAGUGGUCGUUCUGGACUC | 7129 | GAGCGACCUUGAGCCUUCG | 7172 | AAGAAGAGGUUCCCACCAG | 7215 | AUUACAACCCACCGCUUGU |
| 7087 | AGUGGUCGUUCUGGACUCU | 7130 | AGCGACCUUGAGCCUUCGA | 7173 | AGAAGAGGUUCCCACCAGC | 7216 | UUACAACCCACCGCUUGUG |
| 7088 | GUGGUCGUUCUGGACUCUC | 7131 | GCGACCUUGAGCCUUCGAU | 7174 | GAAGAGGUUCCCACCAGCU | 7217 | UACAACCCACCGCUUGUGG |
| 7089 | UGGUCGUUCUGGACUCUCU | 7132 | CGACCUUGAGCCUUCGAUA | 7175 | AAGAGGUUCCCACCAGCUU | 7218 | ACAACCCACCGCUUGUGGA |
| 7090 | GGUCGUUCUGGACUCUCUC | 7133 | GACCUUGAGCCUUCGAUAC | 7176 | AGAGGUUCCCACCAGCUUU | 7219 | CAACCCACCGCUUGUGGAA |
| 7091 | GUCGUUCUGGACUCUCUCG | 7134 | ACCUUGAGCCUUCGAUACC | 7177 | GAGGUUCCCACCAGCUUUA | 7220 | AACCCACCGCUUGUGGAAU |
| 7092 | UCGUUCUGGACUCUCUCGA | 7135 | CCUUGAGCCUUCGAUACCA | 7178 | AGGUUCCCACCAGCUUUAC | 7221 | ACCCACCGCUUGUGGAAUC |
| 7093 | CGUUCUGGACUCUCUCGAC | 7136 | CUUGAGCCUUCGAUACCAU | 7179 | GGUUCCCACCAGCUUUACC | 7222 | CCCACCGCUUGUGGAAUCG |
| 7094 | GUUCUGGACUCUCUCGACC | 7137 | UUGAGCCUUCGAUACCAUC | 7180 | GUUCCCACCAGCUUUACCG | 7223 | CCACCGCUUGUGGAAUCGU |
| 7095 | UUCUGGACUCUCUCGACCC | 7138 | UGAGCCUUCGAUACCAUCA | 7181 | UUCCCACCAGCUUUACCGG | 7224 | CACCGCUUGUGGAAUCGUG |

**FIG. 3 (page 162 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7225 | ACCGCUUGUGGAAUCGUGG | 7268 | ACUGUUGCGGGCUGUGCUC | 7311 | CGCCUCCCCCAAGGAGGCG | 7354 | CUCCAUAGGAGAUGCCCUU |
| 7226 | CCGCUUGUGGAAUCGUGGA | 7269 | CUGUUGCGGGCUGUGCUCU | 7312 | GCCUCCCCCAAGGAGGCGC | 7355 | UCCAUAGGAGAUGCCCUUC |
| 7227 | CGCUUGUGGAAUCGUGGAA | 7270 | UGUUGCGGGCUGUGCUCUC | 7313 | CCUCCCCCAAGGAGGCGCC | 7356 | CCAUAGGAGAUGCCCUUCA |
| 7228 | GCUUGUGGAAUCGUGGAAA | 7271 | GUUGCGGGCUGUGCUCUCC | 7314 | CUCCCCCAAGGAGGCGCCG | 7357 | CAUAGGAGAUGCCCUUCAA |
| 7229 | CUUGUGGAAUCGUGGAAAA | 7272 | UUGCGGGCUGUGCUCUCCC | 7315 | UCCCCCAAGGAGGCGCCGG | 7358 | AUAGGAGAUGCCCUUCAAC |
| 7230 | UUGUGGAAUCGUGGAAAAG | 7273 | UGCGGGCUGUGCUCUCCCU | 7316 | CCCCCAAGGAGGCGCCGGA | 7359 | UAGGAGAUGCCCUUCAACA |
| 7231 | UGUGGAAUCGUGGAAAAGG | 7274 | GCGGGCUGUGCUCUCCCUC | 7317 | CCCCAAGGAGGCGCCGGAC | 7360 | AGGAGAUGCCCUUCAACAG |
| 7232 | GUGGAAUCGUGGAAAAGGC | 7275 | CGGGCUGUGCUCUCCCUCC | 7318 | CCCAAGGAGGCGCCGGACA | 7361 | GGAGAUGCCCUUCAACAGC |
| 7233 | UGGAAUCGUGGAAAAGGCC | 7276 | GGGCUGUGCUCUCCCUCCU | 7319 | CCAAGGAGGCGCCGGACAG | 7362 | GAGAUGCCCUUCAACAGCU |
| 7234 | GGAAUCGUGGAAAAGGCCA | 7277 | GGCUGUGCUCUCCCUCCUC | 7320 | CAAGGAGGCGCCGGACAGU | 7363 | AGAUGCCCUUCAACAGCUG |
| 7235 | GAAUCGUGGAAAAGGCCAG | 7278 | GCUGUGCUCUCCCUCCUCC | 7321 | AAGGAGGCGCCGGACAGUG | 7364 | GAUGCCCUUCAACAGCUGG |
| 7236 | AAUCGUGGAAAAGGCCAGA | 7279 | CUGUGCUCUCCCUCCUCCU | 7322 | AGGAGGCGCCGGACAGUGG | 7365 | AUGCCCUUCAACAGCUGGC |
| 7237 | AUCGUGGAAAAGGCCAGAU | 7280 | UGUGCUCUCCCUCCUCCUA | 7323 | GGAGGCGCCGGACAGUGGG | 7366 | UGCCCUUCAACAGCUGGCC |
| 7238 | UCGUGGAAAAGGCCAGAUU | 7281 | GUGCUCUCCCUCCUCCUAG | 7324 | GAGGCGCCGGACAGUGGGC | 7367 | GCCCUUCAACAGCUGGCCA |
| 7239 | CGUGGAAAAGGCCAGAUUA | 7282 | UGCUCUCCCUCCUCCUAGG | 7325 | AGGCGCCGGACAGUGGGCC | 7368 | CCCUUCAACAGCUGGCCAU |
| 7240 | GUGGAAAAGGCCAGAUUAC | 7283 | GCUCUCCCUCCUCCUAGGA | 7326 | GGCGCCGGACAGUGGGCCU | 7369 | CCUUCAACAGCUGGCCAUU |
| 7241 | UGGAAAAGGCCAGAUUACC | 7284 | CUCUCCCUCCUCCUAGGAA | 7327 | GCGCCGGACAGUGGGCCUA | 7370 | CUUCAACAGCUGGCCAUUA |
| 7242 | GGAAAAGGCCAGAUUACCA | 7285 | UCUCCCUCCUCCUAGGAAA | 7328 | CGCCGGACAGUGGGCCUAA | 7371 | UUCAACAGCUGGCCAUUAA |
| 7243 | GAAAAGGCCAGAUUACCAA | 7286 | CUCCCUCCUCCUAGGAAAA | 7329 | GCCGGACAGUGGGCCUAAG | 7372 | UCAACAGCUGGCCAUUAAG |
| 7244 | AAAAGGCCAGAUUACCAAC | 7287 | UCCCUCCUCCUAGGAAAAC | 7330 | CCGGACAGUGGGCCUAAGU | 7373 | CAACAGCUGGCCAUUAAGU |
| 7245 | AAAGGCCAGAUUACCAACC | 7288 | CCCUCCUCCUAGGAAAACC | 7331 | CGGACAGUGGGCCUAAGUG | 7374 | AACAGCUGGCCAUUAAGUC |
| 7246 | AAGGCCAGAUUACCAACCG | 7289 | CCUCCUCCUAGGAAAACCC | 7332 | GGACAGUGGGCCUAAGUGA | 7375 | ACAGCUGGCCAUUAAGUCC |
| 7247 | AGGCCAGAUUACCAACCGG | 7290 | CUCCUCCUAGGAAAACCCC | 7333 | GACAGUGGGCCUAAGUGAG | 7376 | CAGCUGGCCAUUAAGUCCU |
| 7248 | GGCCAGAUUACCAACCGGC | 7291 | UCCUCCUAGGAAAACCCCG | 7334 | ACAGUGGGCCUAAGUGAGG | 7377 | AGCUGGCCAUUAAGUCCUU |
| 7249 | GCCAGAUUACCAACCGGCC | 7292 | CCUCCUAGGAAAACCCCGA | 7335 | CAGUGGGCCUAAGUGAGGA | 7378 | GCUGGCCAUUAAGUCCUUU |
| 7250 | CCAGAUUACCAACCGGCCA | 7293 | CUCCUAGGAAAACCCCGAC | 7336 | AGUGGGCCUAAGUGAGGAC | 7379 | CUGGCCAUUAAGUCCUUUG |
| 7251 | CAGAUUACCAACCGGCCAC | 7294 | UCCUAGGAAAACCCCGACG | 7337 | GUGGGCCUAAGUGAGGACU | 7380 | UGGCCAUUAAGUCCUUUGG |
| 7252 | AGAUUACCAACCGGCCACU | 7295 | CCUAGGAAAACCCCGACGC | 7338 | UGGGCCUAAGUGAGGACUC | 7381 | GGCCAUUAAGUCCUUUGGC |
| 7253 | GAUUACCAACCGGCCACUG | 7296 | CUAGGAAAACCCCGACGCC | 7339 | GGGCCUAAGUGAGGACUCC | 7382 | GCCAUUAAGUCCUUUGGCC |
| 7254 | AUUACCAACCGGCCACUGU | 7297 | UAGGAAAACCCCGACGCCU | 7340 | GGCCUAAGUGAGGACUCCA | 7383 | CCAUUAAGUCCUUUGGCCA |
| 7255 | UUACCAACCGGCCACUGUU | 7298 | AGGAAAACCCCGACGCCUC | 7341 | GCCUAAGUGAGGACUCCAU | 7384 | CAUUAAGUCCUUUGGCCAG |
| 7256 | UACCAACCGGCCACUGUUG | 7299 | GGAAAACCCCGACGCCUCC | 7342 | CCUAAGUGAGGACUCCAUA | 7385 | AUUAAGUCCUUUGGCCAGC |
| 7257 | ACCAACCGGCCACUGUUGC | 7300 | GAAAACCCCGACGCCUCCC | 7343 | CUAAGUGAGGACUCCAUAG | 7386 | UUAAGUCCUUUGGCCAGCC |
| 7258 | CCAACCGGCCACUGUUGCG | 7301 | AAAACCCCGACGCCUCCCC | 7344 | UAAGUGAGGACUCCAUAGG | 7387 | UAAGUCCUUUGGCCAGCCC |
| 7259 | CAACCGGCCACUGUUGCGG | 7302 | AAACCCCGACGCCUCCCCC | 7345 | AAGUGAGGACUCCAUAGGA | 7388 | AAGUCCUUUGGCCAGCCCC |
| 7260 | AACCGGCCACUGUUGCGGG | 7303 | AACCCCGACGCCUCCCCCA | 7346 | AGUGAGGACUCCAUAGGAG | 7389 | AGUCCUUUGGCCAGCCCCC |
| 7261 | ACCGGCCACUGUUGCGGGC | 7304 | ACCCCGACGCCUCCCCCAA | 7347 | GUGAGGACUCCAUAGGAGA | 7390 | GUCCUUUGGCCAGCCCCCC |
| 7262 | CCGGCCACUGUUGCGGGCU | 7305 | CCCCGACGCCUCCCCCAAG | 7348 | UGAGGACUCCAUAGGAGAU | 7391 | UCCUUUGGCCAGCCCCCCC |
| 7263 | CGGCCACUGUUGCGGGCUG | 7306 | CCCGACGCCUCCCCCAAGG | 7349 | GAGGACUCCAUAGGAGAUG | 7392 | CCUUUGGCCAGCCCCCCCC |
| 7264 | GGCCACUGUUGCGGGCUGU | 7307 | CCGACGCCUCCCCCAAGGA | 7350 | AGGACUCCAUAGGAGAUGC | 7393 | CUUUGGCCAGCCCCCCCCA |
| 7265 | GCCACUGUUGCGGGCUGUG | 7308 | CGACGCCUCCCCCAAGGAG | 7351 | GGACUCCAUAGGAGAUGCC | 7394 | UUUGGCCAGCCCCCCCCAA |
| 7266 | CCACUGUUGCGGGCUGUGC | 7309 | GACGCCUCCCCCAAGGAGG | 7352 | GACUCCAUAGGAGAUGCCC | 7395 | UUGGCCAGCCCCCCCCAAG |
| 7267 | CACUGUUGCGGGCUGUGCU | 7310 | ACGCCUCCCCCAAGGAGGC | 7353 | ACUCCAUAGGAGAUGCCCU | 7396 | UGGCCAGCCCCCCCCAAGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7397 | GGCCAGCCCCCCCCCAAGCG | 7440 | CGGGCGCUGCCGAUUCCGG | 7483 | GGCCCUUUCGGAGACAGGU | 7526 | GAGGGGGAGCUUGGAGAUC |
| 7398 | GCCAGCCCCCCCCCAAGCGG | 7441 | GGGCGCUGCCGAUUCCGGC | 7484 | GCCCUUUCGGAGACAGGUU | 7527 | AGGGGGAGCUUGGAGAUCC |
| 7399 | CCAGCCCCCCCCCAAGCGGC | 7442 | GGCGCUGCCGAUUCCGGCA | 7485 | CCCUUUCGGAGACAGGUUC | 7528 | GGGGGAGCUUGGAGAUCCA |
| 7400 | CAGCCCCCCCCCAAGCGGCG | 7443 | GCGCUGCCGAUUCCGGCAG | 7486 | CCUUUCGGAGACAGGUUCC | 7529 | GGGGAGCUUGGAGAUCCAG |
| 7401 | AGCCCCCCCCCAAGCGGCGA | 7444 | CGCUGCCGAUUCCGGCAGU | 7487 | CUUUCGGAGACAGGUUCCA | 7530 | GGGAGCUUGGAGAUCCAGA |
| 7402 | GCCCCCCCCCAAGCGGCGAU | 7445 | GCUGCCGAUUCCGGCAGUC | 7488 | UUUCGGAGACAGGUUCCAU | 7531 | GGAGCUUGGAGAUCCAGAC |
| 7403 | CCCCCCCCCAAGCGGCGAUU | 7446 | CUGCCGAUUCCGGCAGUCA | 7489 | UUCGGAGACAGGUUCCAUC | 7532 | GAGCUUGGAGAUCCAGACC |
| 7404 | CCCCCCCAAGCGGCGAUUC | 7447 | UGCCGAUUCCGGCAGUCAG | 7490 | UCGGAGACAGGUUCCAUCU | 7533 | AGCUUGGAGAUCCAGACCU |
| 7405 | CCCCCCAAGCGGCGAUUCA | 7448 | GCCGAUUCCGGCAGUCAGA | 7491 | CGGAGACAGGUUCCAUCUC | 7534 | GCUUGGAGAUCCAGACCUG |
| 7406 | CCCCCAAGCGGCGAUUCAG | 7449 | CCGAUUCCGGCAGUCAGAC | 7492 | GGAGACAGGUUCCAUCUCU | 7535 | CUUGGAGAUCCAGACCUGG |
| 7407 | CCCCAAGCGGCGAUUCAGG | 7450 | CGAUUCCGGCAGUCAGACG | 7493 | GAGACAGGUUCCAUCUCUU | 7536 | UUGGAGAUCCAGACCUGGA |
| 7408 | CCCAAGCGGCGAUUCAGGC | 7451 | GAUUCCGGCAGUCAGACGC | 7494 | AGACAGGUUCCAUCUCUUC | 7537 | UGGAGAUCCAGACCUGGAG |
| 7409 | CCAAGCGGCGAUUCAGGCC | 7452 | AUUCCGGCAGUCAGACGCC | 7495 | GACAGGUUCCAUCUCUUCC | 7538 | GGAGAUCCAGACCUGGAGC |
| 7410 | CAAGCGGCGAUUCAGGCCU | 7453 | UUCCGGCAGUCAGACGCCU | 7496 | ACAGGUUCCAUCUCUUCCA | 7539 | GAGAUCCAGACCUGGAGCC |
| 7411 | AAGCGGCGAUUCAGGCCUU | 7454 | UCCGGCAGUCAGACGCCUC | 7497 | CAGGUUCCAUCUCUUCCAU | 7540 | AGAUCCAGACCUGGAGCCU |
| 7412 | AGCGGCGAUUCAGGCCUUU | 7455 | CCGGCAGUCAGACGCCUCC | 7498 | AGGUUCCAUCUCUUCCAUG | 7541 | GAUCCAGACCUGGAGCCUG |
| 7413 | GCGGCGAUUCAGGCCUUUC | 7456 | CGGCAGUCAGACGCCUCCU | 7499 | GGUUCCAUCUCUUCCAUGC | 7542 | AUCCAGACCUGGAGCCUGA |
| 7414 | CGGCGAUUCAGGCCUUUCC | 7457 | GGCAGUCAGACGCCUCCUG | 7500 | GUUCCAUCUCUUCCAUGCC | 7543 | UCCAGACCUGGAGCCUGAG |
| 7415 | GGCGAUUCAGGCCUUUCCA | 7458 | GCAGUCAGACGCCUCCUGA | 7501 | UUCCAUCUCUUCCAUGCCC | 7544 | CCAGACCUGGAGCCUGAGC |
| 7416 | GCGAUUCAGGCCUUUCCAC | 7459 | CAGUCAGACGCCUCCUGAU | 7502 | UCCAUCUCUUCCAUGCCCC | 7545 | CAGACCUGGAGCCUGAGCA |
| 7417 | CGAUUCAGGCCUUUCCACG | 7460 | AGUCAGACGCCUCCUGAUG | 7503 | CCAUCUCUUCCAUGCCCCC | 7546 | AGACCUGGAGCCUGAGCAG |
| 7418 | GAUUCAGGCCUUUCCACGG | 7461 | GUCAGACGCCUCCUGAUGA | 7504 | CAUCUCUUCCAUGCCCCCC | 7547 | GACCUGGAGCCUGAGCAGG |
| 7419 | AUUCAGGCCUUUCCACGGG | 7462 | UCAGACGCCUCCUGAUGAG | 7505 | AUCUCUUCCAUGCCCCCCC | 7548 | ACCUGGAGCCUGAGCAGGU |
| 7420 | UUCAGGCCUUUCCACGGGG | 7463 | CAGACGCCUCCUGAUGAGU | 7506 | UCUCUUCCAUGCCCCCCCU | 7549 | CCUGGAGCCUGAGCAGGUA |
| 7421 | UCAGGCCUUUCCACGGGGG | 7464 | AGACGCCUCCUGAUGAGUU | 7507 | CUCUUCCAUGCCCCCCCUC | 7550 | CUGGAGCCUGAGCAGGUAG |
| 7422 | CAGGCCUUUCCACGGGGGC | 7465 | GACGCCUCCUGAUGAGUUG | 7508 | UCUUCCAUGCCCCCCCUCG | 7551 | UGGAGCCUGAGCAGGUAGA |
| 7423 | AGGCCUUUCCACGGGGGCG | 7466 | ACGCCUCCUGAUGAGUUGG | 7509 | CUUCCAUGCCCCCCCUCGA | 7552 | GGAGCCUGAGCAGGUAGAG |
| 7424 | GGCCUUUCCACGGGGGCGG | 7467 | CGCCUCCUGAUGAGUUGGC | 7510 | UUCCAUGCCCCCCCUCGAG | 7553 | GAGCCUGAGCAGGUAGAGC |
| 7425 | GCCUUUCCACGGGGGCGGG | 7468 | GCCUCCUGAUGAGUUGGCC | 7511 | UCCAUGCCCCCCCUCGAGG | 7554 | AGCCUGAGCAGGUAGAGCC |
| 7426 | CCUUUCCACGGGGGCGGGC | 7469 | CCUCCUGAUGAGUUGGCCC | 7512 | CCAUGCCCCCCCUCGAGGG | 7555 | GCCUGAGCAGGUAGAGCCC |
| 7427 | CUUUCCACGGGGGCGGGCG | 7470 | CUCCUGAUGAGUUGGCCCU | 7513 | CAUGCCCCCCCUCGAGGGG | 7556 | CCUGAGCAGGUAGAGCCCC |
| 7428 | UUUCCACGGGGGCGGGCGC | 7471 | UCCUGAUGAGUUGGCCCUU | 7514 | AUGCCCCCCCUCGAGGGGG | 7557 | CUGAGCAGGUAGAGCCCCA |
| 7429 | UUCCACGGGGGCGGGCGCU | 7472 | CCUGAUGAGUUGGCCCUUU | 7515 | UGCCCCCCCUCGAGGGGGA | 7558 | UGAGCAGGUAGAGCCCCAA |
| 7430 | UCCACGGGGGCGGGCGCUG | 7473 | CUGAUGAGUUGGCCCUUUC | 7516 | GCCCCCCCUCGAGGGGGAG | 7559 | GAGCAGGUAGAGCCCCAAC |
| 7431 | CCACGGGGGCGGGCGCUGC | 7474 | UGAUGAGUUGGCCCUUUCG | 7517 | CCCCCCCUCGAGGGGGAGC | 7560 | AGCAGGUAGAGCCCCAACC |
| 7432 | CACGGGGGCGGGCGCUGCC | 7475 | GAUGAGUUGGCCCUUUCGG | 7518 | CCCCCCUCGAGGGGGAGCU | 7561 | GCAGGUAGAGCCCCAACCC |
| 7433 | ACGGGGGCGGGCGCUGCCG | 7476 | AUGAGUUGGCCCUUUCGGA | 7519 | CCCCCUCGAGGGGGAGCUU | 7562 | CAGGUAGAGCCCCAACCCC |
| 7434 | CGGGGGCGGGCGCUGCCGA | 7477 | UGAGUUGGCCCUUUCGGAG | 7520 | CCCCUCGAGGGGGAGCUUG | 7563 | AGGUAGAGCCCCAACCCCC |
| 7435 | GGGGGCGGGCGCUGCCGAU | 7478 | GAGUUGGCCCUUUCGGAGA | 7521 | CCCUCGAGGGGGAGCUUGG | 7564 | GGUAGAGCCCCAACCCCCC |
| 7436 | GGGGCGGGCGCUGCCGAUU | 7479 | AGUUGGCCCUUUCGGAGAC | 7522 | CCUCGAGGGGGAGCUUGGA | 7565 | GUAGAGCCCCAACCCCCCC |
| 7437 | GGGCGGGCGCUGCCGAUUC | 7480 | GUUGGCCCUUUCGGAGACA | 7523 | CUCGAGGGGGAGCUUGGAG | 7566 | UAGAGCCCCAACCCCCCCC |
| 7438 | GGCGGGCGCUGCCGAUUCC | 7481 | UUGGCCCUUUCGGAGACAG | 7524 | UCGAGGGGGAGCUUGGAGA | 7567 | AGAGCCCCAACCCCCCCCC |
| 7439 | GCGGGCGCUGCCGAUUCCG | 7482 | UGGCCCUUUCGGAGACAGG | 7525 | CGAGGGGGAGCUUGGAGAU | 7568 | GAGCCCCAACCCCCCCCCC |

**FIG. 3 (page 164 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7569 | AGCCCCAACCCCCCCCCCA | 7612 | GGACUCGGGGUCCUGGUCU | 7655 | GUCGUGUGCUGCUCCAUGU | 7698 | UAACUCCUUGUAGUCCCGA |
| 7570 | GCCCCAACCCCCCCCCCAG | 7613 | GACUCGGGGUCCUGGUCUA | 7656 | UCGUGUGCUGCUCCAUGUC | 7699 | AACUCCUUGUAGUCCCGAA |
| 7571 | CCCCAACCCCCCCCCCAGG | 7614 | ACUCGGGGUCCUGGUCUAC | 7657 | CGUGUGCUGCUCCAUGUCA | 7700 | ACUCCUUGUAGUCCCGAAG |
| 7572 | CCCAACCCCCCCCCCAGGG | 7615 | CUCGGGGUCCUGGUCUACU | 7658 | GUGUGCUGCUCCAUGUCAU | 7701 | CUCCUUGUAGUCCCGAAGA |
| 7573 | CCAACCCCCCCCCCAGGGG | 7616 | UCGGGGUCCUGGUCUACUU | 7659 | UGUGCUGCUCCAUGUCAUA | 7702 | UCCUUGUAGUCCCGAAGAG |
| 7574 | CAACCCCCCCCCCAGGGGG | 7617 | CGGGGUCCUGGUCUACUUG | 7660 | GUGCUGCUCCAUGUCAUAC | 7703 | CCUUGUAGUCCCGAAGAGG |
| 7575 | AACCCCCCCCCCAGGGGGG | 7618 | GGGGUCCUGGUCUACUUGC | 7661 | UGCUGCUCCAUGUCAUACU | 7704 | CUUGUAGUCCCGAAGAGGA |
| 7576 | ACCCCCCCCCCAGGGGGGG | 7619 | GGGUCCUGGUCUACUUGCU | 7662 | GCUGCUCCAUGUCAUACUC | 7705 | UUGUAGUCCCGAAGAGGAG |
| 7577 | CCCCCCCCCCAGGGGGGGG | 7620 | GGUCCUGGUCUACUUGCUC | 7663 | CUGCUCCAUGUCAUACUCC | 7706 | UGUAGUCCCGAAGAGGAGA |
| 7578 | CCCCCCCCCAGGGGGGGGU | 7621 | GUCCUGGUCUACUUGCUCC | 7664 | UGCUCCAUGUCAUACUCCU | 7707 | GUAGUCCCGAAGAGGAGAA |
| 7579 | CCCCCCCCAGGGGGGGGUG | 7622 | UCCUGGUCUACUUGCUCCG | 7665 | GCUCCAUGUCAUACUCCUG | 7708 | UAGUCCCGAAGAGGAGAAG |
| 7580 | CCCCCCCAGGGGGGGGUGG | 7623 | CCUGGUCUACUUGCUCCGA | 7666 | CUCCAUGUCAUACUCCUGG | 7709 | AGUCCCGAAGAGGAGAAGU |
| 7581 | CCCCCCAGGGGGGGGUGGC | 7624 | CUGGUCUACUUGCUCCGAG | 7667 | UCCAUGUCAUACUCCUGGA | 7710 | GUCCCGAAGAGGAGAAGUU |
| 7582 | CCCCCAGGGGGGGGUGGCA | 7625 | UGGUCUACUUGCUCCGAGG | 7668 | CCAUGUCAUACUCCUGGAC | 7711 | UCCCGAAGAGGAGAAGUUA |
| 7583 | CCCCAGGGGGGGGUGGCAG | 7626 | GGUCUACUUGCUCCGAGGA | 7669 | CAUGUCAUACUCCUGGACC | 7712 | CCCGAAGAGGAGAAGUUAC |
| 7584 | CCCAGGGGGGGGUGGCAGC | 7627 | GUCUACUUGCUCCGAGGAG | 7670 | AUGUCAUACUCCUGGACCG | 7713 | CCGAAGAGGAGAAGUUACC |
| 7585 | CCAGGGGGGGGUGGCAGCU | 7628 | UCUACUUGCUCCGAGGAGG | 7671 | UGUCAUACUCCUGGACCGG | 7714 | CGAAGAGGAGAAGUUACCG |
| 7586 | CAGGGGGGGGUGGCAGCUC | 7629 | CUACUUGCUCCGAGGAGGA | 7672 | GUCAUACUCCUGGACCGGG | 7715 | GAAGAGGAGAAGUUACCGA |
| 7587 | AGGGGGGGGUGGCAGCUCC | 7630 | UACUUGCUCCGAGGAGGAC | 7673 | UCAUACUCCUGGACCGGGG | 7716 | AAGAGGAGAAGUUACCGAU |
| 7588 | GGGGGGGGUGGCAGCUCCC | 7631 | ACUUGCUCCGAGGAGGACG | 7674 | CAUACUCCUGGACCGGGGC | 7717 | AGAGGAGAAGUUACCGAUU |
| 7589 | GGGGGGGUGGCAGCUCCCG | 7632 | CUUGCUCCGAGGAGGACGA | 7675 | AUACUCCUGGACCGGGGCU | 7718 | GAGGAGAAGUUACCGAUUA |
| 7590 | GGGGGGUGGCAGCUCCCGG | 7633 | UUGCUCCGAGGAGGACGAC | 7676 | UACUCCUGGACCGGGGCUC | 7719 | AGGAGAAGUUACCGAUUAA |
| 7591 | GGGGGUGGCAGCUCCCGGC | 7634 | UGCUCCGAGGAGGACGACU | 7677 | ACUCCUGGACCGGGGCUCU | 7720 | GGAGAAGUUACCGAUUAAC |
| 7592 | GGGGUGGCAGCUCCCGGCU | 7635 | GCUCCGAGGAGGACGACUC | 7678 | CUCCUGGACCGGGGCUCUA | 7721 | GAGAAGUUACCGAUUAACC |
| 7593 | GGGUGGCAGCUCCCGGCUC | 7636 | CUCCGAGGAGGACGACUCC | 7679 | UCCUGGACCGGGGCUCUAA | 7722 | AGAAGUUACCGAUUAACCC |
| 7594 | GGUGGCAGCUCCCGGCUCG | 7637 | UCCGAGGAGGACGACUCCG | 7680 | CCUGGACCGGGGCUCUAAU | 7723 | GAAGUUACCGAUUAACCCC |
| 7595 | GUGGCAGCUCCCGGCUCGG | 7638 | CCGAGGAGGACGACUCCGU | 7681 | CUGGACCGGGGCUCUAAUA | 7724 | AAGUUACCGAUUAACCCCU |
| 7596 | UGGCAGCUCCCGGCUCGGA | 7639 | CGAGGAGGACGACUCCGUC | 7682 | UGGACCGGGGCUCUAAUAA | 7725 | AGUUACCGAUUAACCCCUU |
| 7597 | GGCAGCUCCCGGCUCGGAC | 7640 | GAGGAGGACGACUCCGUCG | 7683 | GGACCGGGGCUCUAAUAAC | 7726 | GUUACCGAUUAACCCCUUG |
| 7598 | GCAGCUCCCGGCUCGGACU | 7641 | AGGAGGACGACUCCGUCGU | 7684 | GACCGGGGCUCUAAUAACU | 7727 | UUACCGAUUAACCCCUUGA |
| 7599 | CAGCUCCCGGCUCGGACUC | 7642 | GGAGGACGACUCCGUCGUG | 7685 | ACCGGGGCUCUAAUAACUC | 7728 | UACCGAUUAACCCCUUGAG |
| 7600 | AGCUCCCGGCUCGGACUCG | 7643 | GAGGACGACUCCGUCGUGU | 7686 | CCGGGGCUCUAAUAACUCC | 7729 | ACCGAUUAACCCCUUGAGC |
| 7601 | GCUCCCGGCUCGGACUCGG | 7644 | AGGACGACUCCGUCGUGUG | 7687 | CGGGGCUCUAAUAACUCCU | 7730 | CCGAUUAACCCCUUGAGCA |
| 7602 | CUCCCGGCUCGGACUCGGG | 7645 | GGACGACUCCGUCGUGUGC | 7688 | GGGGCUCUAAUAACUCCUU | 7731 | CGAUUAACCCCUUGAGCAA |
| 7603 | UCCCGGCUCGGACUCGGGG | 7646 | GACGACUCCGUCGUGUGCU | 7689 | GGGCUCUAAUAACUCCUUG | 7732 | GAUUAACCCCUUGAGCAAC |
| 7604 | CCCGGCUCGGACUCGGGGU | 7647 | ACGACUCCGUCGUGUGCUG | 7690 | GGCUCUAAUAACUCCUUGU | 7733 | AUUAACCCCUUGAGCAACU |
| 7605 | CCGGCUCGGACUCGGGGUC | 7648 | CGACUCCGUCGUGUGCUGC | 7691 | GCUCUAAUAACUCCUUGUA | 7734 | UUAACCCCUUGAGCAACUC |
| 7606 | CGGCUCGGACUCGGGGUCC | 7649 | GACUCCGUCGUGUGCUGCU | 7692 | CUCUAAUAACUCCUUGUAG | 7735 | UAACCCCUUGAGCAACUCC |
| 7607 | GGCUCGGACUCGGGGUCCU | 7650 | ACUCCGUCGUGUGCUGCUC | 7693 | UCUAAUAACUCCUUGUAGU | 7736 | AACCCCUUGAGCAACUCCC |
| 7608 | GCUCGGACUCGGGGUCCUG | 7651 | CUCCGUCGUGUGCUGCUCC | 7694 | CUAAUAACUCCUUGUAGUC | 7737 | ACCCCUUGAGCAACUCCCU |
| 7609 | CUCGGACUCGGGGUCCUGG | 7652 | UCCGUCGUGUGCUGCUCCA | 7695 | UAAUAACUCCUUGUAGUCC | 7738 | CCCCUUGAGCAACUCCCUG |
| 7610 | UCGGACUCGGGGUCCUGGU | 7653 | CCGUCGUGUGCUGCUCCAU | 7696 | AAUAACUCCUUGUAGUCCC | 7739 | CCCUUGAGCAACUCCCUGU |
| 7611 | CGGACUCGGGGUCCUGGUC | 7654 | CGUCGUGUGCUGCUCCAUG | 7697 | AUAACUCCUUGUAGUCCCG | 7740 | CCUUGAGCAACUCCCUGUU |

**FIG. 3 (page 165 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7741 | CUUGAGCAACUCCCUGUUG | 7784 | ACCACAACAAAGAGCGCCU | 7827 | UUGAUAGGAUGCAAGUGCU | 7870 | AAAGGACAUUAAGCUAGCG |
| 7742 | UUGAGCAACUCCCUGUUGC | 7785 | CCACAACAAAGAGCGCCUC | 7828 | UGAUAGGAUGCAAGUGCUC | 7871 | AAGGACAUUAAGCUAGCGG |
| 7743 | UGAGCAACUCCCUGUUGCG | 7786 | CACAACAAAGAGCGCCUCA | 7829 | GAUAGGAUGCAAGUGCUCG | 7872 | AGGACAUUAAGCUAGCGGC |
| 7744 | GAGCAACUCCCUGUUGCGA | 7787 | ACAACAAAGAGCGCCUCAC | 7830 | AUAGGAUGCAAGUGCUCGA | 7873 | GGACAUUAAGCUAGCGGCC |
| 7745 | AGCAACUCCCUGUUGCGAU | 7788 | CAACAAAGAGCGCCUCACU | 7831 | UAGGAUGCAAGUGCUCGAC | 7874 | GACAUUAAGCUAGCGGCCU |
| 7746 | GCAACUCCCUGUUGCGAUA | 7789 | AACAAAGAGCGCCUCACUA | 7832 | AGGAUGCAAGUGCUCGACU | 7875 | ACAUUAAGCUAGCGGCCUC |
| 7747 | CAACUCCCUGUUGCGAUAU | 7790 | ACAAAGAGCGCCUCACUAA | 7833 | GGAUGCAAGUGCUCGACUC | 7876 | CAUUAAGCUAGCGGCCUCC |
| 7748 | AACUCCCUGUUGCGAUAUC | 7791 | CAAAGAGCGCCUCACUAAG | 7834 | GAUGCAAGUGCUCGACUCC | 7877 | AUUAAGCUAGCGGCCUCCA |
| 7749 | ACUCCCUGUUGCGAUAUCA | 7792 | AAAGAGCGCCUCACUAAGG | 7835 | AUGCAAGUGCUCGACUCCU | 7878 | UUAAGCUAGCGGCCUCCAA |
| 7750 | CUCCCUGUUGCGAUAUCAC | 7793 | AAGAGCGCCUCACUAAGGG | 7836 | UGCAAGUGCUCGACUCCUA | 7879 | UAAGCUAGCGGCCUCCAAG |
| 7751 | UCCCUGUUGCGAUAUCACA | 7794 | AGAGCGCCUCACUAAGGGC | 7837 | GCAAGUGCUCGACUCCUAC | 7880 | AAGCUAGCGGCCUCCAAGG |
| 7752 | CCCUGUUGCGAUAUCACAA | 7795 | GAGCGCCUCACUAAGGGCU | 7838 | CAAGUGCUCGACUCCUACU | 7881 | AGCUAGCGGCCUCCAAGGU |
| 7753 | CCUGUUGCGAUAUCACAAC | 7796 | AGCGCCUCACUAAGGGCUA | 7839 | AAGUGCUCGACUCCUACUA | 7882 | GCUAGCGGCCUCCAAGGUC |
| 7754 | CUGUUGCGAUAUCACAACA | 7797 | GCGCCUCACUAAGGGCUAA | 7840 | AGUGCUCGACUCCUACUAC | 7883 | CUAGCGGCCUCCAAGGUCA |
| 7755 | UGUUGCGAUAUCACAACAA | 7798 | CGCCUCACUAAGGGCUAAA | 7841 | GUGCUCGACUCCUACUACG | 7884 | UAGCGGCCUCCAAGGUCAC |
| 7756 | GUUGCGAUAUCACAACAAG | 7799 | GCCUCACUAAGGGCUAAAA | 7842 | UGCUCGACUCCUACUACGA | 7885 | AGCGGCCUCCAAGGUCACC |
| 7757 | UUGCGAUAUCACAACAAGG | 7800 | CCUCACUAAGGGCUAAAAA | 7843 | GCUCGACUCCUACUACGAC | 7886 | GCGGCCUCCAAGGUCACCG |
| 7758 | UGCGAUAUCACAACAAGGU | 7801 | CUCACUAAGGGCUAAAAAG | 7844 | CUCGACUCCUACUACGACU | 7887 | CGGCCUCCAAGGUCACCGC |
| 7759 | GCGAUAUCACAACAAGGUG | 7802 | UCACUAAGGGCUAAAAAGG | 7845 | UCGACUCCUACUACGACUC | 7888 | GGCCUCCAAGGUCACCGCA |
| 7760 | CGAUAUCACAACAAGGUGU | 7803 | CACUAAGGGCUAAAAAGGU | 7846 | CGACUCCUACUACGACUCA | 7889 | GCCUCCAAGGUCACCGCAA |
| 7761 | GAUAUCACAACAAGGUGUA | 7804 | ACUAAGGGCUAAAAAGGUA | 7847 | GACUCCUACUACGACUCAG | 7890 | CCUCCAAGGUCACCGCAAG |
| 7762 | AUAUCACAACAAGGUGUAC | 7805 | CUAAGGGCUAAAAAGGUAA | 7848 | ACUCCUACUACGACUCAGU | 7891 | CUCCAAGGUCACCGCAAGG |
| 7763 | UAUCACAACAAGGUGUACU | 7806 | UAAGGGCUAAAAAGGUAAC | 7849 | CUCCUACUACGACUCAGUC | 7892 | UCCAAGGUCACCGCAAGGC |
| 7764 | AUCACAACAAGGUGUACUG | 7807 | AAGGGCUAAAAAGGUAACU | 7850 | UCCUACUACGACUCAGUCU | 7893 | CCAAGGUCACCGCAAGGCU |
| 7765 | UCACAACAAGGUGUACUGU | 7808 | AGGGCUAAAAAGGUAACUU | 7851 | CCUACUACGACUCAGUCUU | 7894 | CAAGGUCACCGCAAGGCUC |
| 7766 | CACAACAAGGUGUACUGUA | 7809 | GGGCUAAAAAGGUAACUUU | 7852 | CUACUACGACUCAGUCUUA | 7895 | AAGGUCACCGCAAGGCUCC |
| 7767 | ACAACAAGGUGUACUGUAC | 7810 | GGCUAAAAAGGUAACUUUU | 7853 | UACUACGACUCAGUCUUAA | 7896 | AGGUCACCGCAAGGCUCCU |
| 7768 | CAACAAGGUGUACUGUACC | 7811 | GCUAAAAAGGUAACUUUUG | 7854 | ACUACGACUCAGUCUUAAA | 7897 | GGUCACCGCAAGGCUCCUC |
| 7769 | AACAAGGUGUACUGUACCA | 7812 | CUAAAAAGGUAACUUUUGA | 7855 | CUACGACUCAGUCUUAAAG | 7898 | GUCACCGCAAGGCUCCUCA |
| 7770 | ACAAGGUGUACUGUACCAC | 7813 | UAAAAAGGUAACUUUUGAU | 7856 | UACGACUCAGUCUUAAAGG | 7899 | UCACCGCAAGGCUCCUCAC |
| 7771 | CAAGGUGUACUGUACCACA | 7814 | AAAAAGGUAACUUUUGAUA | 7857 | ACGACUCAGUCUUAAAGGA | 7900 | CACCGCAAGGCUCCUCACC |
| 7772 | AAGGUGUACUGUACCACAA | 7815 | AAAAGGUAACUUUUGAUAG | 7858 | CGACUCAGUCUUAAAGGAC | 7901 | ACCGCAAGGCUCCUCACCA |
| 7773 | AGGUGUACUGUACCACAAC | 7816 | AAAGGUAACUUUUGAUAGG | 7859 | GACUCAGUCUUAAAGGACA | 7902 | CCGCAAGGCUCCUCACCAU |
| 7774 | GGUGUACUGUACCACAACA | 7817 | AAGGUAACUUUUGAUAGGA | 7860 | ACUCAGUCUUAAAGGACAU | 7903 | CGCAAGGCUCCUCACCAUG |
| 7775 | GUGUACUGUACCACAACAA | 7818 | AGGUAACUUUUGAUAGGAU | 7861 | CUCAGUCUUAAAGGACAUU | 7904 | GCAAGGCUCCUCACCAUGG |
| 7776 | UGUACUGUACCACAACAAA | 7819 | GGUAACUUUUGAUAGGAUG | 7862 | UCAGUCUUAAAGGACAUUA | 7905 | CAAGGCUCCUCACCAUGGA |
| 7777 | GUACUGUACCACAACAAAG | 7820 | GUAACUUUUGAUAGGAUGC | 7863 | CAGUCUUAAAGGACAUUAA | 7906 | AAGGCUCCUCACCAUGGAG |
| 7778 | UACUGUACCACAACAAAGA | 7821 | UAACUUUUGAUAGGAUGCA | 7864 | AGUCUUAAAGGACAUUAAG | 7907 | AGGCUCCUCACCAUGGAGG |
| 7779 | ACUGUACCACAACAAAGAG | 7822 | AACUUUUGAUAGGAUGCAA | 7865 | GUCUUAAAGGACAUUAAGC | 7908 | GGCUCCUCACCAUGGAGGA |
| 7780 | CUGUACCACAACAAAGAGC | 7823 | ACUUUUGAUAGGAUGCAAG | 7866 | UCUUAAAGGACAUUAAGCU | 7909 | GCUCCUCACCAUGGAGGAG |
| 7781 | UGUACCACAACAAAGAGCG | 7824 | CUUUUGAUAGGAUGCAAGU | 7867 | CUUAAAGGACAUUAAGCUA | 7910 | CUCCUCACCAUGGAGGAGG |
| 7782 | GUACCACAACAAAGAGCGC | 7825 | UUUUGAUAGGAUGCAAGUG | 7868 | UUAAAGGACAUUAAGCUAG | 7911 | UCCUCACCAUGGAGGAGGC |
| 7783 | UACCACAACAAAGAGCGCC | 7826 | UUUGAUAGGAUGCAAGUGC | 7869 | UAAAGGACAUUAAGCUAGC | 7912 | CCUCACCAUGGAGGAGGCU |

**FIG. 3 (page 166 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7913 | CUCACCAUGGAGGAGGCUU | 7956 | CAAGAUCUAAAUAUGGGUU | 7999 | GUCCGGGAGGGCCGUUAAC | 8042 | CUCCUGGAGGACUCAGAAA |
| 7914 | UCACCAUGGAGGAGGCUUG | 7957 | AAGAUCUAAAUAUGGGUUU | 8000 | UCCGGGAGGGCCGUUAACC | 8043 | UCCUGGAGGACUCAGAAAC |
| 7915 | CACCAUGGAGGAGGCUUGC | 7958 | AGAUCUAAAUAUGGGUUUG | 8001 | CCGGGAGGGCCGUUAACCA | 8044 | CCUGGAGGACUCAGAAACA |
| 7916 | ACCAUGGAGGAGGCUUGCC | 7959 | GAUCUAAAUAUGGGUUUGG | 8002 | CGGGAGGGCCGUUAACCAC | 8045 | CUGGAGGACUCAGAAACAC |
| 7917 | CCAUGGAGGAGGCUUGCCA | 7960 | AUCUAAAUAUGGGUUUGGG | 8003 | GGGAGGGCCGUUAACCACA | 8046 | UGGAGGACUCAGAAACACC |
| 7918 | CAUGGAGGAGGCUUGCCAG | 7961 | UCUAAAUAUGGGUUUGGGG | 8004 | GGAGGGCCGUUAACCACAU | 8047 | GGAGGACUCAGAAACACCA |
| 7919 | AUGGAGGAGGCUUGCCAGU | 7962 | CUAAAUAUGGGUUUGGGGC | 8005 | GAGGGCCGUUAACCACAUC | 8048 | GAGGACUCAGAAACACCAA |
| 7920 | UGGAGGAGGCUUGCCAGUU | 7963 | UAAAUAUGGGUUUGGGGCU | 8006 | AGGGCCGUUAACCACAUCA | 8049 | AGGACUCAGAAACACCAAU |
| 7921 | GGAGGAGGCUUGCCAGUUA | 7964 | AAAUAUGGGUUUGGGGCUA | 8007 | GGGCCGUUAACCACAUCAA | 8050 | GGACUCAGAAACACCAAUU |
| 7922 | GAGGAGGCUUGCCAGUUAA | 7965 | AAUAUGGGUUUGGGGCUAA | 8008 | GGCCGUUAACCACAUCAAG | 8051 | GACUCAGAAACACCAAUUC |
| 7923 | AGGAGGCUUGCCAGUUAAC | 7966 | AUAUGGGUUUGGGGCUAAG | 8009 | GCCGUUAACCACAUCAAGU | 8052 | ACUCAGAAACACCAAUUCC |
| 7924 | GGAGGCUUGCCAGUUAACC | 7967 | UAUGGGUUUGGGGCUAAGG | 8010 | CCGUUAACCACAUCAAGUC | 8053 | CUCAGAAACACCAAUUCCC |
| 7925 | GAGGCUUGCCAGUUAACCC | 7968 | AUGGGUUUGGGGCUAAGGA | 8011 | CGUUAACCACAUCAAGUCC | 8054 | UCAGAAACACCAAUUCCCA |
| 7926 | AGGCUUGCCAGUUAACCCC | 7969 | UGGGUUUGGGGCUAAGGAG | 8012 | GUUAACCACAUCAAGUCCG | 8055 | CAGAAACACCAAUUCCCAC |
| 7927 | GGCUUGCCAGUUAACCCCA | 7970 | GGGUUUGGGGCUAAGGAGG | 8013 | UUAACCACAUCAAGUCCGU | 8056 | AGAAACACCAAUUCCCACA |
| 7928 | GCUUGCCAGUUAACCCCAC | 7971 | GGUUUGGGGCUAAGGAGGU | 8014 | UAACCACAUCAAGUCCGUG | 8057 | GAAACACCAAUUCCCACAA |
| 7929 | CUUGCCAGUUAACCCCACC | 7972 | GUUUGGGGCUAAGGAGGUC | 8015 | AACCACAUCAAGUCCGUGU | 8058 | AAACACCAAUUCCCACAAC |
| 7930 | UUGCCAGUUAACCCCACCC | 7973 | UUUGGGGCUAAGGAGGUCC | 8016 | ACCACAUCAAGUCCGUGUG | 8059 | AACACCAAUUCCCACAACC |
| 7931 | UGCCAGUUAACCCCACCCC | 7974 | UUGGGGCUAAGGAGGUCCG | 8017 | CCACAUCAAGUCCGUGUGG | 8060 | ACACCAAUUCCCACAACCA |
| 7932 | GCCAGUUAACCCCACCCCA | 7975 | UGGGGCUAAGGAGGUCCGC | 8018 | CACAUCAAGUCCGUGUGGA | 8061 | CACCAAUUCCCACAACCAU |
| 7933 | CCAGUUAACCCCACCCCAU | 7976 | GGGGCUAAGGAGGUCCGCA | 8019 | ACAUCAAGUCCGUGUGGAA | 8062 | ACCAAUUCCCACAACCAUU |
| 7934 | CAGUUAACCCCACCCCAUU | 7977 | GGGCUAAGGAGGUCCGCAG | 8020 | CAUCAAGUCCGUGUGGAAG | 8063 | CCAAUUCCCACAACCAUUA |
| 7935 | AGUUAACCCCACCCCAUUC | 7978 | GGCUAAGGAGGUCCGCAGC | 8021 | AUCAAGUCCGUGUGGAAGG | 8064 | CAAUUCCCACAACCAUUAU |
| 7936 | GUUAACCCCACCCCAUUCU | 7979 | GCUAAGGAGGUCCGCAGCU | 8022 | UCAAGUCCGUGUGGAAGGA | 8065 | AAUUCCCACAACCAUUAUG |
| 7937 | UUAACCCCACCCCAUUCUG | 7980 | CUAAGGAGGUCCGCAGCUU | 8023 | CAAGUCCGUGUGGAAGGAC | 8066 | AUUCCCACAACCAUUAUGG |
| 7938 | UAACCCCACCCCAUUCUGC | 7981 | UAAGGAGGUCCGCAGCUUG | 8024 | AAGUCCGUGUGGAAGGACC | 8067 | UUCCCACAACCAUUAUGGC |
| 7939 | AACCCCACCCCAUUCUGCA | 7982 | AAGGAGGUCCGCAGCUUGU | 8025 | AGUCCGUGUGGAAGGACCU | 8068 | UCCCACAACCAUUAUGGCC |
| 7940 | ACCCCACCCCAUUCUGCAA | 7983 | AGGAGGUCCGCAGCUUGUC | 8026 | GUCCGUGUGGAAGGACCUC | 8069 | CCCACAACCAUUAUGGCCA |
| 7941 | CCCCACCCCAUUCUGCAAG | 7984 | GGAGGUCCGCAGCUUGUCC | 8027 | UCCGUGUGGAAGGACCUCC | 8070 | CCACAACCAUUAUGGCCAA |
| 7942 | CCCACCCCAUUCUGCAAGA | 7985 | GAGGUCCGCAGCUUGUCCG | 8028 | CCGUGUGGAAGGACCUCCU | 8071 | CACAACCAUUAUGGCCAAA |
| 7943 | CCACCCCAUUCUGCAAGAU | 7986 | AGGUCCGCAGCUUGUCCGG | 8029 | CGUGUGGAAGGACCUCCUG | 8072 | ACAACCAUUAUGGCCAAAA |
| 7944 | CACCCCAUUCUGCAAGAUC | 7987 | GGUCCGCAGCUUGUCCGGG | 8030 | GUGUGGAAGGACCUCCUGG | 8073 | CAACCAUUAUGGCCAAAAA |
| 7945 | ACCCCAUUCUGCAAGAUCU | 7988 | GUCCGCAGCUUGUCCGGGA | 8031 | UGUGGAAGGACCUCCUGGA | 8074 | AACCAUUAUGGCCAAAAAU |
| 7946 | CCCCAUUCUGCAAGAUCUA | 7989 | UCCGCAGCUUGUCCGGGAG | 8032 | GUGGAAGGACCUCCUGGAG | 8075 | ACCAUUAUGGCCAAAAAUG |
| 7947 | CCCAUUCUGCAAGAUCUAA | 7990 | CCGCAGCUUGUCCGGGAGG | 8033 | UGGAAGGACCUCCUGGAGG | 8076 | CCAUUAUGGCCAAAAAUGA |
| 7948 | CCAUUCUGCAAGAUCUAAA | 7991 | CGCAGCUUGUCCGGGAGGG | 8034 | GGAAGGACCUCCUGGAGGA | 8077 | CAUUAUGGCCAAAAAUGAG |
| 7949 | CAUUCUGCAAGAUCUAAAU | 7992 | GCAGCUUGUCCGGGAGGGC | 8035 | GAAGGACCUCCUGGAGGAC | 8078 | AUUAUGGCCAAAAAUGAGG |
| 7950 | AUUCUGCAAGAUCUAAAUA | 7993 | CAGCUUGUCCGGGAGGGCC | 8036 | AAGGACCUCCUGGAGGACU | 8079 | UUAUGGCCAAAAAUGAGGU |
| 7951 | UUCUGCAAGAUCUAAAUAU | 7994 | AGCUUGUCCGGGAGGGCCG | 8037 | AGGACCUCCUGGAGGACUC | 8080 | UAUGGCCAAAAAUGAGGUG |
| 7952 | UCUGCAAGAUCUAAAUAUG | 7995 | GCUUGUCCGGGAGGGCCGU | 8038 | GGACCUCCUGGAGGACUCA | 8081 | AUGGCCAAAAAUGAGGUGU |
| 7953 | CUGCAAGAUCUAAAUAUGG | 7996 | CUUGUCCGGGAGGGCCGUU | 8039 | GACCUCCUGGAGGACUCAG | 8082 | UGGCCAAAAAUGAGGUGUU |
| 7954 | UGCAAGAUCUAAAUAUGGG | 7997 | UUGUCCGGGAGGGCCGUUA | 8040 | ACCUCCUGGAGGACUCAGA | 8083 | GGCCAAAAAUGAGGUGUUC |
| 7955 | GCAAGAUCUAAAUAUGGGU | 7998 | UGUCCGGGAGGGCCGUUAA | 8041 | CCUCCUGGAGGACUCAGAA | 8084 | GCCAAAAAUGAGGUGUUCU |

**FIG. 3 (page 167 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8085 | CCAAAAAUGAGGUGUUCUG | 8128 | GAAAGCAGCUCGCCUUAUC | 8171 | GUCUGCGAGAAGAUGGCCC | 8214 | CUCAGGCGGUGAUGGGGGC |
| 8086 | CAAAAAUGAGGUGUUCUGC | 8129 | AAAGCAGCUCGCCUUAUCG | 8172 | UCUGCGAGAAGAUGGCCCU | 8215 | UCAGGCGGUGAUGGGGGCU |
| 8087 | AAAAAUGAGGUGUUCUGCG | 8130 | AAGCAGCUCGCCUUAUCGU | 8173 | CUGCGAGAAGAUGGCCCUU | 8216 | CAGGCGGUGAUGGGGGCUU |
| 8088 | AAAAUGAGGUGUUCUGCGU | 8131 | AGCAGCUCGCCUUAUCGUU | 8174 | UGCGAGAAGAUGGCCCUUU | 8217 | AGGCGGUGAUGGGGGCUUC |
| 8089 | AAAUGAGGUGUUCUGCGUG | 8132 | GCAGCUCGCCUUAUCGUUU | 8175 | GCGAGAAGAUGGCCCUUUA | 8218 | GGCGGUGAUGGGGGCUUCU |
| 8090 | AAUGAGGUGUUCUGCGUGG | 8133 | CAGCUCGCCUUAUCGUUUA | 8176 | CGAGAAGAUGGCCCUUUAU | 8219 | GCGGUGAUGGGGGCUUCUU |
| 8091 | AUGAGGUGUUCUGCGUGGA | 8134 | AGCUCGCCUUAUCGUUUAC | 8177 | GAGAAGAUGGCCCUUUAUG | 8220 | CGGUGAUGGGGGCUUCUUA |
| 8092 | UGAGGUGUUCUGCGUGGAC | 8135 | GCUCGCCUUAUCGUUUACC | 8178 | AGAAGAUGGCCCUUUAUGA | 8221 | GGUGAUGGGGGCUUCUUAU |
| 8093 | GAGGUGUUCUGCGUGGACC | 8136 | CUCGCCUUAUCGUUUACCC | 8179 | GAAGAUGGCCCUUUAUGAC | 8222 | GUGAUGGGGGCUUCUUAUG |
| 8094 | AGGUGUUCUGCGUGGACCC | 8137 | UCGCCUUAUCGUUUACCCU | 8180 | AAGAUGGCCCUUUAUGACA | 8223 | UGAUGGGGGCUUCUUAUGG |
| 8095 | GGUGUUCUGCGUGGACCCC | 8138 | CGCCUUAUCGUUUACCCUG | 8181 | AGAUGGCCCUUUAUGACAU | 8224 | GAUGGGGGCUUCUUAUGGA |
| 8096 | GUGUUCUGCGUGGACCCCA | 8139 | GCCUUAUCGUUUACCCUGA | 8182 | GAUGGCCCUUUAUGACAUU | 8225 | AUGGGGGCUUCUUAUGGAU |
| 8097 | UGUUCUGCGUGGACCCCAC | 8140 | CCUUAUCGUUUACCCUGAC | 8183 | AUGGCCCUUUAUGACAUUA | 8226 | UGGGGGCUUCUUAUGGAUU |
| 8098 | GUUCUGCGUGGACCCCACC | 8141 | CUUAUCGUUUACCCUGACC | 8184 | UGGCCCUUUAUGACAUUAC | 8227 | GGGGGCUUCUUAUGGAUUC |
| 8099 | UUCUGCGUGGACCCCACCA | 8142 | UUAUCGUUUACCCUGACCU | 8185 | GGCCCUUUAUGACAUUACA | 8228 | GGGGCUUCUUAUGGAUUCC |
| 8100 | UCUGCGUGGACCCCACCAA | 8143 | UAUCGUUUACCCUGACCUC | 8186 | GCCCUUUAUGACAUUACAC | 8229 | GGGCUUCUUAUGGAUUCCA |
| 8101 | CUGCGUGGACCCCACCAAG | 8144 | AUCGUUUACCCUGACCUCG | 8187 | CCCUUUAUGACAUUACACA | 8230 | GGCUUCUUAUGGAUUCCAG |
| 8102 | UGCGUGGACCCCACCAAGG | 8145 | UCGUUUACCCUGACCUCGG | 8188 | CCUUUAUGACAUUACACAA | 8231 | GCUUCUUAUGGAUUCCAGU |
| 8103 | GCGUGGACCCCACCAAGGG | 8146 | CGUUUACCCUGACCUCGGC | 8189 | CUUUAUGACAUUACACAAA | 8232 | CUUCUUAUGGAUUCCAGUA |
| 8104 | CGUGGACCCCACCAAGGGG | 8147 | GUUUACCCUGACCUCGGCG | 8190 | UUUAUGACAUUACACAAAA | 8233 | UUCUUAUGGAUUCCAGUAU |
| 8105 | GUGGACCCCACCAAGGGGG | 8148 | UUUACCCUGACCUCGGCGU | 8191 | UUAUGACAUUACACAAAAA | 8234 | UCUUAUGGAUUCCAGUAUU |
| 8106 | UGGACCCCACCAAGGGGGG | 8149 | UUACCCUGACCUCGGCGUC | 8192 | UAUGACAUUACACAAAAAC | 8235 | CUUAUGGAUUCCAGUAUUC |
| 8107 | GGACCCCACCAAGGGGGGC | 8150 | UACCCUGACCUCGGCGUCA | 8193 | AUGACAUUACACAAAAACU | 8236 | UUAUGGAUUCCAGUAUUCC |
| 8108 | GACCCCACCAAGGGGGGCA | 8151 | ACCCUGACCUCGGCGUCAG | 8194 | UGACAUUACACAAAAACUU | 8237 | UAUGGAUUCCAGUAUUCCC |
| 8109 | ACCCCACCAAGGGGGGCAA | 8152 | CCCUGACCUCGGCGUCAGG | 8195 | GACAUUACACAAAAACUUC | 8238 | AUGGAUUCCAGUAUUCCCC |
| 8110 | CCCCACCAAGGGGGGCAAG | 8153 | CCUGACCUCGGCGUCAGGG | 8196 | ACAUUACACAAAAACUUCC | 8239 | UGGAUUCCAGUAUUCCCCC |
| 8111 | CCCACCAAGGGGGGCAAGA | 8154 | CUGACCUCGGCGUCAGGGU | 8197 | CAUUACACAAAAACUUCCU | 8240 | GGAUUCCAGUAUUCCCCCG |
| 8112 | CCACCAAGGGGGGCAAGAA | 8155 | UGACCUCGGCGUCAGGGUC | 8198 | AUUACACAAAAACUUCCUC | 8241 | GAUUCCAGUAUUCCCCCGC |
| 8113 | CACCAAGGGGGGCAAGAAA | 8156 | GACCUCGGCGUCAGGGUCU | 8199 | UUACACAAAAACUUCCUCA | 8242 | AUUCCAGUAUUCCCCCGCU |
| 8114 | ACCAAGGGGGGCAAGAAAG | 8157 | ACCUCGGCGUCAGGGUCUG | 8200 | UACACAAAAACUUCCUCAG | 8243 | UUCCAGUAUUCCCCCGCUC |
| 8115 | CCAAGGGGGGCAAGAAAGC | 8158 | CCUCGGCGUCAGGGUCUGC | 8201 | ACACAAAAACUUCCUCAGG | 8244 | UCCAGUAUUCCCCCGCUCA |
| 8116 | CAAGGGGGGCAAGAAAGCA | 8159 | CUCGGCGUCAGGGUCUGCG | 8202 | CACAAAAACUUCCUCAGGC | 8245 | CCAGUAUUCCCCCGCUCAG |
| 8117 | AAGGGGGGCAAGAAAGCAG | 8160 | UCGGCGUCAGGGUCUGCGA | 8203 | ACAAAAACUUCCUCAGGCG | 8246 | CAGUAUUCCCCCGCUCAGC |
| 8118 | AGGGGGGCAAGAAAGCAGC | 8161 | CGGCGUCAGGGUCUGCGAG | 8204 | CAAAAACUUCCUCAGGCGG | 8247 | AGUAUUCCCCCGCUCAGCG |
| 8119 | GGGGGGCAAGAAAGCAGCU | 8162 | GGCGUCAGGGUCUGCGAGA | 8205 | AAAAACUUCCUCAGGCGGU | 8248 | GUAUUCCCCCGCUCAGCGG |
| 8120 | GGGGGCAAGAAAGCAGCUC | 8163 | GCGUCAGGGUCUGCGAGAA | 8206 | AAAACUUCCUCAGGCGGUG | 8249 | UAUUCCCCCGCUCAGCGGG |
| 8121 | GGGGCAAGAAAGCAGCUCG | 8164 | CGUCAGGGUCUGCGAGAAG | 8207 | AAACUUCCUCAGGCGGUGA | 8250 | AUUCCCCCGCUCAGCGGGU |
| 8122 | GGGCAAGAAAGCAGCUCGC | 8165 | GUCAGGGUCUGCGAGAAGA | 8208 | AACUUCCUCAGGCGGUGAU | 8251 | UUCCCCCGCUCAGCGGGUA |
| 8123 | GGCAAGAAAGCAGCUCGCC | 8166 | UCAGGGUCUGCGAGAAGAU | 8209 | ACUUCCUCAGGCGGUGAUG | 8252 | UCCCCCGCUCAGCGGGUAG |
| 8124 | GCAAGAAAGCAGCUCGCCU | 8167 | CAGGGUCUGCGAGAAGAUG | 8210 | CUUCCUCAGGCGGUGAUGG | 8253 | CCCCCGCUCAGCGGGUAGA |
| 8125 | CAAGAAAGCAGCUCGCCUU | 8168 | AGGGUCUGCGAGAAGAUGG | 8211 | UUCCUCAGGCGGUGAUGGG | 8254 | CCCCGCUCAGCGGGUAGAG |
| 8126 | AAGAAAGCAGCUCGCCUUA | 8169 | GGGUCUGCGAGAAGAUGGC | 8212 | UCCUCAGGCGGUGAUGGGG | 8255 | CCCGCUCAGCGGGUAGAGU |
| 8127 | AGAAAGCAGCUCGCCUUAU | 8170 | GGUCUGCGAGAAGAUGGCC | 8213 | CCUCAGGCGGUGAUGGGGG | 8256 | CCGCUCAGCGGGUAGAGUU |

**FIG. 3 (page 168 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8257 | CGCUCAGCGGGUAGAGUUU | 8300 | AAGGACCCUAUGGGUUUUU | 8343 | CAACCGUCACUGAGAGAGA | 8386 | UCGGGCCUGCUCCUUGCCC |
| 8258 | GCUCAGCGGGUAGAGUUUC | 8301 | AGGACCCUAUGGGUUUUUC | 8344 | AACCGUCACUGAGAGAGAC | 8387 | CGGGCCUGCUCCUUGCCCG |
| 8259 | CUCAGCGGGUAGAGUUUCU | 8302 | GGACCCUAUGGGUUUUUCG | 8345 | ACCGUCACUGAGAGAGACA | 8388 | GGGCCUGCUCCUUGCCCGA |
| 8260 | UCAGCGGGUAGAGUUUCUC | 8303 | GACCCUAUGGGUUUUUCGU | 8346 | CCGUCACUGAGAGAGACAU | 8389 | GGCCUGCUCCUUGCCCGAG |
| 8261 | CAGCGGGUAGAGUUUCUCU | 8304 | ACCCUAUGGGUUUUUCGUA | 8347 | CGUCACUGAGAGAGACAUC | 8390 | GCCUGCUCCUUGCCCGAGG |
| 8262 | AGCGGGUAGAGUUUCUCUU | 8305 | CCCUAUGGGUUUUUCGUAU | 8348 | GUCACUGAGAGAGACAUCA | 8391 | CCUGCUCCUUGCCCGAGGA |
| 8263 | GCGGGUAGAGUUUCUCUUG | 8306 | CCUAUGGGUUUUUCGUAUG | 8349 | UCACUGAGAGAGACAUCAG | 8392 | CUGCUCCUUGCCCGAGGAG |
| 8264 | CGGGUAGAGUUUCUCUUGA | 8307 | CUAUGGGUUUUUCGUAUGA | 8350 | CACUGAGAGAGACAUCAGG | 8393 | UGCUCCUUGCCCGAGGAGG |
| 8265 | GGGUAGAGUUUCUCUUGAA | 8308 | UAUGGGUUUUUCGUAUGAU | 8351 | ACUGAGAGAGACAUCAGGA | 8394 | GCUCCUUGCCCGAGGAGGC |
| 8266 | GGUAGAGUUUCUCUUGAAA | 8309 | AUGGGUUUUUCGUAUGAUA | 8352 | CUGAGAGAGACAUCAGGAC | 8395 | CUCCUUGCCCGAGGAGGCC |
| 8267 | GUAGAGUUUCUCUUGAAAG | 8310 | UGGGUUUUUCGUAUGAUAC | 8353 | UGAGAGAGACAUCAGGACU | 8396 | UCCUUGCCCGAGGAGGCCC |
| 8268 | UAGAGUUUCUCUUGAAAGC | 8311 | GGGUUUUUCGUAUGAUACC | 8354 | GAGAGAGACAUCAGGACUG | 8397 | CCUUGCCCGAGGAGGCCCA |
| 8269 | AGAGUUUCUCUUGAAAGCA | 8312 | GGUUUUUCGUAUGAUACCC | 8355 | AGAGAGACAUCAGGACUGA | 8398 | CUUGCCCGAGGAGGCCCAC |
| 8270 | GAGUUUCUCUUGAAAGCAU | 8313 | GUUUUUCGUAUGAUACCCG | 8356 | GAGAGACAUCAGGACUGAG | 8399 | UUGCCCGAGGAGGCCCACA |
| 8271 | AGUUUCUCUUGAAAGCAUG | 8314 | UUUUUCGUAUGAUACCCGA | 8357 | AGAGACAUCAGGACUGAGG | 8400 | UGCCCGAGGAGGCCCACAC |
| 8272 | GUUUCUCUUGAAAGCAUGG | 8315 | UUUUCGUAUGAUACCCGAU | 8358 | GAGACAUCAGGACUGAGGA | 8401 | GCCCGAGGAGGCCCACACU |
| 8273 | UUUCUCUUGAAAGCAUGGG | 8316 | UUUCGUAUGAUACCCGAUG | 8359 | AGACAUCAGGACUGAGGAG | 8402 | CCCGAGGAGGCCCACACUG |
| 8274 | UUCUCUUGAAAGCAUGGGC | 8317 | UUCGUAUGAUACCCGAUGC | 8360 | GACAUCAGGACUGAGGAGU | 8403 | CCGAGGAGGCCCACACUGC |
| 8275 | UCUCUUGAAAGCAUGGGCG | 8318 | UCGUAUGAUACCCGAUGCU | 8361 | ACAUCAGGACUGAGGAGUC | 8404 | CGAGGAGGCCCACACUGCC |
| 8276 | CUCUUGAAAGCAUGGGCGG | 8319 | CGUAUGAUACCCGAUGCUU | 8362 | CAUCAGGACUGAGGAGUCC | 8405 | GAGGAGGCCCACACUGCCA |
| 8277 | UCUUGAAAGCAUGGGCGGA | 8320 | GUAUGAUACCCGAUGCUUU | 8363 | AUCAGGACUGAGGAGUCCA | 8406 | AGGAGGCCCACACUGCCAU |
| 8278 | CUUGAAAGCAUGGGCGGAA | 8321 | UAUGAUACCCGAUGCUUUG | 8364 | UCAGGACUGAGGAGUCCAU | 8407 | GGAGGCCCACACUGCCAUA |
| 8279 | UUGAAAGCAUGGGCGGAAA | 8322 | AUGAUACCCGAUGCUUUGA | 8365 | CAGGACUGAGGAGUCCAUA | 8408 | GAGGCCCACACUGCCAUAC |
| 8280 | UGAAAGCAUGGGCGGAAAA | 8323 | UGAUACCCGAUGCUUUGAC | 8366 | AGGACUGAGGAGUCCAUAU | 8409 | AGGCCCACACUGCCAUACA |
| 8281 | GAAAGCAUGGGCGGAAAAG | 8324 | GAUACCCGAUGCUUUGACU | 8367 | GGACUGAGGAGUCCAUAUA | 8410 | GGCCCACACUGCCAUACAC |
| 8282 | AAAGCAUGGGCGGAAAAGA | 8325 | AUACCCGAUGCUUUGACUC | 8368 | GACUGAGGAGUCCAUAUAU | 8411 | GCCCACACUGCCAUACACU |
| 8283 | AAGCAUGGGCGGAAAAGAA | 8326 | UACCCGAUGCUUUGACUCA | 8369 | ACUGAGGAGUCCAUAUAUC | 8412 | CCCACACUGCCAUACACUC |
| 8284 | AGCAUGGGCGGAAAAGAAG | 8327 | ACCCGAUGCUUUGACUCAA | 8370 | CUGAGGAGUCCAUAUAUCG | 8413 | CCACACUGCCAUACACUCG |
| 8285 | GCAUGGGCGGAAAAGAAGG | 8328 | CCCGAUGCUUUGACUCAAC | 8371 | UGAGGAGUCCAUAUAUCGG | 8414 | CACACUGCCAUACACUCGC |
| 8286 | CAUGGGCGGAAAAGAAGGA | 8329 | CCGAUGCUUUGACUCAACC | 8372 | GAGGAGUCCAUAUAUCGGG | 8415 | ACACUGCCAUACACUCGCU |
| 8287 | AUGGGCGGAAAAGAAGGAC | 8330 | CGAUGCUUUGACUCAACCG | 8373 | AGGAGUCCAUAUAUCGGGC | 8416 | CACUGCCAUACACUCGCUA |
| 8288 | UGGGCGGAAAAGAAGGACC | 8331 | GAUGCUUUGACUCAACCGU | 8374 | GGAGUCCAUAUAUCGGGCC | 8417 | ACUGCCAUACACUCGCUAA |
| 8289 | GGGCGGAAAAGAAGGACCC | 8332 | AUGCUUUGACUCAACCGUC | 8375 | GAGUCCAUAUAUCGGGCCU | 8418 | CUGCCAUACACUCGCUAAC |
| 8290 | GGCGGAAAAGAAGGACCCU | 8333 | UGCUUUGACUCAACCGUCA | 8376 | AGUCCAUAUAUCGGGCCUG | 8419 | UGCCAUACACUCGCUAACU |
| 8291 | GCGGAAAAGAAGGACCCUA | 8334 | GCUUUGACUCAACCGUCAC | 8377 | GUCCAUAUAUCGGGCCUGC | 8420 | GCCAUACACUCGCUAACUG |
| 8292 | CGGAAAAGAAGGACCCUAU | 8335 | CUUUGACUCAACCGUCACU | 8378 | UCCAUAUAUCGGGCCUGCU | 8421 | CCAUACACUCGCUAACUGA |
| 8293 | GGAAAAGAAGGACCCUAUG | 8336 | UUUGACUCAACCGUCACUG | 8379 | CCAUAUAUCGGGCCUGCUC | 8422 | CAUACACUCGCUAACUGAG |
| 8294 | GAAAAGAAGGACCCUAUGG | 8337 | UUGACUCAACCGUCACUGA | 8380 | CAUAUAUCGGGCCUGCUCC | 8423 | AUACACUCGCUAACUGAGA |
| 8295 | AAAAGAAGGACCCUAUGGG | 8338 | UGACUCAACCGUCACUGAG | 8381 | AUAUAUCGGGCCUGCUCCU | 8424 | UACACUCGCUAACUGAGAG |
| 8296 | AAAGAAGGACCCUAUGGGU | 8339 | GACUCAACCGUCACUGAGA | 8382 | UAUAUCGGGCCUGCUCCUU | 8425 | ACACUCGCUAACUGAGAGA |
| 8297 | AAGAAGGACCCUAUGGGUU | 8340 | ACUCAACCGUCACUGAGAG | 8383 | AUAUCGGGCCUGCUCCUUG | 8426 | CACUCGCUAACUGAGAGAC |
| 8298 | AGAAGGACCCUAUGGGUUU | 8341 | CUCAACCGUCACUGAGAGA | 8384 | UAUCGGGCCUGCUCCUUGC | 8427 | ACUCGCUAACUGAGAGACU |
| 8299 | GAAGGACCCUAUGGGUUUU | 8342 | UCAACCGUCACUGAGAGAG | 8385 | AUCGGGCCUGCUCCUUGCC | 8428 | CUCGCUAACUGAGAGACUU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8429 | UCGCUAACUGAGAGACUUU | 8472 | GCAAGGGCCAAACCUGCGG | 8515 | GGUGCUCACCACUAGCAUG | 8558 | AAAGCCUUAGCGGCUUGUA |
| 8430 | CGCUAACUGAGAGACUUUA | 8473 | CAAGGGCCAAACCUGCGGG | 8516 | GUGCUCACCACUAGCAUGG | 8559 | AAGCCUUAGCGGCUUGUAA |
| 8431 | GCUAACUGAGAGACUUUAC | 8474 | AAGGGCCAAACCUGCGGGU | 8517 | UGCUCACCACUAGCAUGGG | 8560 | AGCCUUAGCGGCUUGUAAA |
| 8432 | CUAACUGAGAGACUUUACG | 8475 | AGGGCCAAACCUGCGGGUA | 8518 | GCUCACCACUAGCAUGGGG | 8561 | GCCUUAGCGGCUUGUAAAG |
| 8433 | UAACUGAGAGACUUUACGU | 8476 | GGGCCAAACCUGCGGGUAC | 8519 | CUCACCACUAGCAUGGGGA | 8562 | CCUUAGCGGCUUGUAAAGC |
| 8434 | AACUGAGAGACUUUACGUG | 8477 | GGCCAAACCUGCGGGUACA | 8520 | UCACCACUAGCAUGGGGAA | 8563 | CUUAGCGGCUUGUAAAGCU |
| 8435 | ACUGAGAGACUUUACGUGG | 8478 | GCCAAACCUGCGGGUACAG | 8521 | CACCACUAGCAUGGGGAAC | 8564 | UUAGCGGCUUGUAAAGCUG |
| 8436 | CUGAGAGACUUUACGUGGG | 8479 | CCAAACCUGCGGGUACAGG | 8522 | ACCACUAGCAUGGGGAACA | 8565 | UAGCGGCUUGUAAAGCUGC |
| 8437 | UGAGAGACUUUACGUGGGA | 8480 | CAAACCUGCGGGUACAGGC | 8523 | CCACUAGCAUGGGGAACAC | 8566 | AGCGGCUUGUAAAGCUGCA |
| 8438 | GAGAGACUUUACGUGGGAG | 8481 | AAACCUGCGGGUACAGGCG | 8524 | CACUAGCAUGGGGAACACC | 8567 | GCGGCUUGUAAAGCUGCAG |
| 8439 | AGAGACUUUACGUGGGAGG | 8482 | AACCUGCGGGUACAGGCGU | 8525 | ACUAGCAUGGGGAACACCA | 8568 | CGGCUUGUAAAGCUGCAGG |
| 8440 | GAGACUUUACGUGGGAGGG | 8483 | ACCUGCGGGUACAGGCGUU | 8526 | CUAGCAUGGGGAACACCAU | 8569 | GGCUUGUAAAGCUGCAGGG |
| 8441 | AGACUUUACGUGGGAGGGC | 8484 | CCUGCGGGUACAGGCGUUG | 8527 | UAGCAUGGGGAACACCAUC | 8570 | GCUUGUAAAGCUGCAGGGA |
| 8442 | GACUUUACGUGGGAGGGCC | 8485 | CUGCGGGUACAGGCGUUGC | 8528 | AGCAUGGGGAACACCAUCA | 8571 | CUUGUAAAGCUGCAGGGAU |
| 8443 | ACUUUACGUGGGAGGGCCU | 8486 | UGCGGGUACAGGCGUUGCC | 8529 | GCAUGGGGAACACCAUCAC | 8572 | UUGUAAAGCUGCAGGGAUA |
| 8444 | CUUUACGUGGGAGGGCCUA | 8487 | GCGGGUACAGGCGUUGCCG | 8530 | CAUGGGGAACACCAUCACA | 8573 | UGUAAAGCUGCAGGGAUAA |
| 8445 | UUUACGUGGGAGGGCCUAU | 8488 | CGGGUACAGGCGUUGCCGC | 8531 | AUGGGGAACACCAUCACAU | 8574 | GUAAAGCUGCAGGGAUAAU |
| 8446 | UUACGUGGGAGGGCCUAUG | 8489 | GGGUACAGGCGUUGCCGCG | 8532 | UGGGGAACACCAUCACAUG | 8575 | UAAAGCUGCAGGGAUAAUC |
| 8447 | UACGUGGGAGGGCCUAUGU | 8490 | GGUACAGGCGUUGCCGCGC | 8533 | GGGGAACACCAUCACAUGC | 8576 | AAAGCUGCAGGGAUAAUCG |
| 8448 | ACGUGGGAGGGCCUAUGUU | 8491 | GUACAGGCGUUGCCGCGCC | 8534 | GGGAACACCAUCACAUGCU | 8577 | AAGCUGCAGGGAUAAUCGC |
| 8449 | CGUGGGAGGGCCUAUGUUC | 8492 | UACAGGCGUUGCCGCGCCA | 8535 | GGAACACCAUCACAUGCUA | 8578 | AGCUGCAGGGAUAAUCGCG |
| 8450 | GUGGGAGGGCCUAUGUUCA | 8493 | ACAGGCGUUGCCGCGCCAG | 8536 | GAACACCAUCACAUGCUAC | 8579 | GCUGCAGGGAUAAUCGCGC |
| 8451 | UGGGAGGGCCUAUGUUCAA | 8494 | CAGGCGUUGCCGCGCCAGC | 8537 | AACACCAUCACAUGCUACG | 8580 | CUGCAGGGAUAAUCGCGCC |
| 8452 | GGGAGGGCCUAUGUUCAAC | 8495 | AGGCGUUGCCGCGCCAGCG | 8538 | ACACCAUCACAUGCUACGU | 8581 | UGCAGGGAUAAUCGCGCCC |
| 8453 | GGAGGGCCUAUGUUCAACA | 8496 | GGCGUUGCCGCGCCAGCGG | 8539 | CACCAUCACAUGCUACGUG | 8582 | GCAGGGAUAAUCGCGCCCA |
| 8454 | GAGGGCCUAUGUUCAACAG | 8497 | GCGUUGCCGCGCCAGCGGG | 8540 | ACCAUCACAUGCUACGUGA | 8583 | CAGGGAUAAUCGCGCCCAC |
| 8455 | AGGGCCUAUGUUCAACAGC | 8498 | CGUUGCCGCGCCAGCGGGG | 8541 | CCAUCACAUGCUACGUGAA | 8584 | AGGGAUAAUCGCGCCCACA |
| 8456 | GGGCCUAUGUUCAACAGCA | 8499 | GUUGCCGCGCCAGCGGGGU | 8542 | CAUCACAUGCUACGUGAAA | 8585 | GGGAUAAUCGCGCCCACAA |
| 8457 | GGCCUAUGUUCAACAGCAA | 8500 | UUGCCGCGCCAGCGGGGUG | 8543 | AUCACAUGCUACGUGAAAG | 8586 | GGAUAAUCGCGCCCACAAU |
| 8458 | GCCUAUGUUCAACAGCAAG | 8501 | UGCCGCGCCAGCGGGGUGC | 8544 | UCACAUGCUACGUGAAAGC | 8587 | GAUAAUCGCGCCCACAAUG |
| 8459 | CCUAUGUUCAACAGCAAGG | 8502 | GCCGCGCCAGCGGGGUGCU | 8545 | CACAUGCUACGUGAAAGCC | 8588 | AUAAUCGCGCCCACAAUGC |
| 8460 | CUAUGUUCAACAGCAAGGG | 8503 | CCGCGCCAGCGGGGUGCUC | 8546 | ACAUGCUACGUGAAAGCCU | 8589 | UAAUCGCGCCCACAAUGCU |
| 8461 | UAUGUUCAACAGCAAGGGC | 8504 | CGCGCCAGCGGGGUGCUCA | 8547 | CAUGCUACGUGAAAGCCUU | 8590 | AAUCGCGCCCACAAUGCUG |
| 8462 | AUGUUCAACAGCAAGGGCC | 8505 | GCGCCAGCGGGGUGCUCAC | 8548 | AUGCUACGUGAAAGCCUUA | 8591 | AUCGCGCCCACAAUGCUGG |
| 8463 | UGUUCAACAGCAAGGGCCA | 8506 | CGCCAGCGGGGUGCUCACC | 8549 | UGCUACGUGAAAGCCUUAG | 8592 | UCGCGCCCACAAUGCUGGU |
| 8464 | GUUCAACAGCAAGGGCCAA | 8507 | GCCAGCGGGGUGCUCACCA | 8550 | GCUACGUGAAAGCCUUAGC | 8593 | CGCGCCCACAAUGCUGGUA |
| 8465 | UUCAACAGCAAGGGCCAAA | 8508 | CCAGCGGGGUGCUCACCAC | 8551 | CUACGUGAAAGCCUUAGCG | 8594 | GCGCCCACAAUGCUGGUAU |
| 8466 | UCAACAGCAAGGGCCAAAC | 8509 | CAGCGGGGUGCUCACCACU | 8552 | UACGUGAAAGCCUUAGCGG | 8595 | CGCCCACAAUGCUGGUAUG |
| 8467 | CAACAGCAAGGGCCAAACC | 8510 | AGCGGGGUGCUCACCACUA | 8553 | ACGUGAAAGCCUUAGCGGC | 8596 | GCCCACAAUGCUGGUAUGC |
| 8468 | AACAGCAAGGGCCAAACCU | 8511 | GCGGGGUGCUCACCACUAG | 8554 | CGUGAAAGCCUUAGCGGCU | 8597 | CCCACAAUGCUGGUAUGCG |
| 8469 | ACAGCAAGGGCCAAACCUG | 8512 | CGGGGUGCUCACCACUAGC | 8555 | GUGAAAGCCUUAGCGGCUU | 8598 | CCACAAUGCUGGUAUGCGG |
| 8470 | CAGCAAGGGCCAAACCUGC | 8513 | GGGGUGCUCACCACUAGCA | 8556 | UGAAAGCCUUAGCGGCUUG | 8599 | CACAAUGCUGGUAUGCGGC |
| 8471 | AGCAAGGGCCAAACCUGCG | 8514 | GGGUGCUCACCACUAGCAU | 8557 | GAAAGCCUUAGCGGCUUGU | 8600 | ACAAUGCUGGUAUGCGGCG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8601 | CAAUGCUGGUAUGCGGCGA | 8644 | CCAGGGGACCGAGGAGGAC | 8687 | GAGGCUAUGACCAGGUAUU | 8730 | GACCGGAGUAUGAUCUGGA |
| 8602 | AAUGCUGGUAUGCGGCGAU | 8645 | CAGGGGACCGAGGAGGACG | 8688 | AGGCUAUGACCAGGUAUUC | 8731 | ACCGGAGUAUGAUCUGGAG |
| 8603 | AUGCUGGUAUGCGGCGAUG | 8646 | AGGGGACCGAGGAGGACGA | 8689 | GGCUAUGACCAGGUAUUCU | 8732 | CCGGAGUAUGAUCUGGAGC |
| 8604 | UGCUGGUAUGCGGCGAUGA | 8647 | GGGGACCGAGGAGGACGAG | 8690 | GCUAUGACCAGGUAUUCUG | 8733 | CGGAGUAUGAUCUGGAGCU |
| 8605 | GCUGGUAUGCGGCGAUGAC | 8648 | GGGACCGAGGAGGACGAGC | 8691 | CUAUGACCAGGUAUUCUGC | 8734 | GGAGUAUGAUCUGGAGCUG |
| 8606 | CUGGUAUGCGGCGAUGACU | 8649 | GGACCGAGGAGGACGAGCG | 8692 | UAUGACCAGGUAUUCUGCC | 8735 | GAGUAUGAUCUGGAGCUGA |
| 8607 | UGGUAUGCGGCGAUGACUU | 8650 | GACCGAGGAGGACGAGCGG | 8693 | AUGACCAGGUAUUCUGCCC | 8736 | AGUAUGAUCUGGAGCUGAU |
| 8608 | GGUAUGCGGCGAUGACUUG | 8651 | ACCGAGGAGGACGAGCGGA | 8694 | UGACCAGGUAUUCUGCCCC | 8737 | GUAUGAUCUGGAGCUGAUA |
| 8609 | GUAUGCGGCGAUGACUUGG | 8652 | CCGAGGAGGACGAGCGGAA | 8695 | GACCAGGUAUUCUGCCCCU | 8738 | UAUGAUCUGGAGCUGAUAA |
| 8610 | UAUGCGGCGAUGACUUGGU | 8653 | CGAGGAGGACGAGCGGAAC | 8696 | ACCAGGUAUUCUGCCCCUC | 8739 | AUGAUCUGGAGCUGAUAAC |
| 8611 | AUGCGGCGAUGACUUGGUU | 8654 | GAGGAGGACGAGCGGAACC | 8697 | CCAGGUAUUCUGCCCCUCC | 8740 | UGAUCUGGAGCUGAUAACA |
| 8612 | UGCGGCGAUGACUUGGUUG | 8655 | AGGAGGACGAGCGGAACCU | 8698 | CAGGUAUUCUGCCCCUCCU | 8741 | GAUCUGGAGCUGAUAACAU |
| 8613 | GCGGCGAUGACUUGGUUGU | 8656 | GGAGGACGAGCGGAACCUG | 8699 | AGGUAUUCUGCCCCUCCUG | 8742 | AUCUGGAGCUGAUAACAUC |
| 8614 | CGGCGAUGACUUGGUUGUC | 8657 | GAGGACGAGCGGAACCUGA | 8700 | GGUAUUCUGCCCCUCCUGG | 8743 | UCUGGAGCUGAUAACAUCU |
| 8615 | GGCGAUGACUUGGUUGUCA | 8658 | AGGACGAGCGGAACCUGAG | 8701 | GUAUUCUGCCCCUCCUGGU | 8744 | CUGGAGCUGAUAACAUCUU |
| 8616 | GCGAUGACUUGGUUGUCAU | 8659 | GGACGAGCGGAACCUGAGA | 8702 | UAUUCUGCCCCUCCUGGUG | 8745 | UGGAGCUGAUAACAUCUUG |
| 8617 | CGAUGACUUGGUUGUCAUC | 8660 | GACGAGCGGAACCUGAGAG | 8703 | AUUCUGCCCCUCCUGGUGA | 8746 | GGAGCUGAUAACAUCUUGC |
| 8618 | GAUGACUUGGUUGUCAUCU | 8661 | ACGAGCGGAACCUGAGAGC | 8704 | UUCUGCCCCUCCUGGUGAC | 8747 | GAGCUGAUAACAUCUUGCU |
| 8619 | AUGACUUGGUUGUCAUCUC | 8662 | CGAGCGGAACCUGAGAGCC | 8705 | UCUGCCCCUCCUGGUGACC | 8748 | AGCUGAUAACAUCUUGCUC |
| 8620 | UGACUUGGUUGUCAUCUCA | 8663 | GAGCGGAACCUGAGAGCCU | 8706 | CUGCCCCUCCUGGUGACCC | 8749 | GCUGAUAACAUCUUGCUCC |
| 8621 | GACUUGGUUGUCAUCUCAG | 8664 | AGCGGAACCUGAGAGCCUU | 8707 | UGCCCCUCCUGGUGACCCC | 8750 | CUGAUAACAUCUUGCUCCU |
| 8622 | ACUUGGUUGUCAUCUCAGA | 8665 | GCGGAACCUGAGAGCCUUC | 8708 | GCCCCUCCUGGUGACCCCC | 8751 | UGAUAACAUCUUGCUCCUC |
| 8623 | CUUGGUUGUCAUCUCAGAA | 8666 | CGGAACCUGAGAGCCUUCA | 8709 | CCCCUCCUGGUGACCCCCC | 8752 | GAUAACAUCUUGCUCCUCA |
| 8624 | UUGGUUGUCAUCUCAGAAA | 8667 | GGAACCUGAGAGCCUUCAC | 8710 | CCCUCCUGGUGACCCCCCC | 8753 | AUAACAUCUUGCUCCUCAA |
| 8625 | UGGUUGUCAUCUCAGAAAG | 8668 | GAACCUGAGAGCCUUCACG | 8711 | CCUCCUGGUGACCCCCCCA | 8754 | UAACAUCUUGCUCCUCAAA |
| 8626 | GGUUGUCAUCUCAGAAAGC | 8669 | AACCUGAGAGCCUUCACGG | 8712 | CUCCUGGUGACCCCCCCAG | 8755 | AACAUCUUGCUCCUCAAAU |
| 8627 | GUUGUCAUCUCAGAAAGCC | 8670 | ACCUGAGAGCCUUCACGGA | 8713 | UCCUGGUGACCCCCCCAGA | 8756 | ACAUCUUGCUCCUCAAAUG |
| 8628 | UUGUCAUCUCAGAAAGCCA | 8671 | CCUGAGAGCCUUCACGGAG | 8714 | CCUGGUGACCCCCCCAGAC | 8757 | CAUCUUGCUCCUCAAAUGU |
| 8629 | UGUCAUCUCAGAAAGCCAG | 8672 | CUGAGAGCCUUCACGGAGG | 8715 | CUGGUGACCCCCCCAGACC | 8758 | AUCUUGCUCCUCAAAUGUG |
| 8630 | GUCAUCUCAGAAAGCCAGG | 8673 | UGAGAGCCUUCACGGAGGC | 8716 | UGGUGACCCCCCCAGACCG | 8759 | UCUUGCUCCUCAAAUGUGU |
| 8631 | UCAUCUCAGAAAGCCAGGG | 8674 | GAGAGCCUUCACGGAGGCU | 8717 | GGUGACCCCCCCAGACCGG | 8760 | CUUGCUCCUCAAAUGUGUC |
| 8632 | CAUCUCAGAAAGCCAGGGG | 8675 | AGAGCCUUCACGGAGGCUA | 8718 | GUGACCCCCCCAGACCGGA | 8761 | UUGCUCCUCAAAUGUGUCU |
| 8633 | AUCUCAGAAAGCCAGGGGA | 8676 | GAGCCUUCACGGAGGCUAU | 8719 | UGACCCCCCCAGACCGGAG | 8762 | UGCUCCUCAAAUGUGUCUG |
| 8634 | UCUCAGAAAGCCAGGGGAC | 8677 | AGCCUUCACGGAGGCUAUG | 8720 | GACCCCCCCAGACCGGAGU | 8763 | GCUCCUCAAAUGUGUCUGU |
| 8635 | CUCAGAAAGCCAGGGGACC | 8678 | GCCUUCACGGAGGCUAUGA | 8721 | ACCCCCCCAGACCGGAGUA | 8764 | CUCCUCAAAUGUGUCUGUG |
| 8636 | UCAGAAAGCCAGGGGACCG | 8679 | CCUUCACGGAGGCUAUGAC | 8722 | CCCCCCCAGACCGGAGUAU | 8765 | UCCUCAAAUGUGUCUGUGG |
| 8637 | CAGAAAGCCAGGGGACCGA | 8680 | CUUCACGGAGGCUAUGACC | 8723 | CCCCCCAGACCGGAGUAUG | 8766 | CCUCAAAUGUGUCUGUGGC |
| 8638 | AGAAAGCCAGGGGACCGAG | 8681 | UUCACGGAGGCUAUGACCA | 8724 | CCCCCAGACCGGAGUAUGA | 8767 | CUCAAAUGUGUCUGUGGCG |
| 8639 | GAAAGCCAGGGGACCGAGG | 8682 | UCACGGAGGCUAUGACCAG | 8725 | CCCCAGACCGGAGUAUGAU | 8768 | UCAAAUGUGUCUGUGGCGC |
| 8640 | AAAGCCAGGGGACCGAGGA | 8683 | CACGGAGGCUAUGACCAGG | 8726 | CCCAGACCGGAGUAUGAUC | 8769 | CAAAUGUGUCUGUGGCGCU |
| 8641 | AAGCCAGGGGACCGAGGAG | 8684 | ACGGAGGCUAUGACCAGGU | 8727 | CCAGACCGGAGUAUGAUCU | 8770 | AAAUGUGUCUGUGGCGCUG |
| 8642 | AGCCAGGGGACCGAGGAGG | 8685 | CGGAGGCUAUGACCAGGUA | 8728 | CAGACCGGAGUAUGAUCUG | 8771 | AAUGUGUCUGUGGCGCUGG |
| 8643 | GCCAGGGGACCGAGGAGGA | 8686 | GGAGGCUAUGACCAGGUAU | 8729 | AGACCGGAGUAUGAUCUGG | 8772 | AUGUGUCUGUGGCGCUGGG |

**FIG. 3 (page 171 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8773 | UGUGUCUGUGGCGCUGGGC | 8816 | CUGACCAGAGACCCUACCA | 8859 | AAACAGUUAGACACUCCCC | 8902 | CAUCCAGUACGCCCCGACC |
| 8774 | GUGUCUGUGGCGCUGGGCC | 8817 | UGACCAGAGACCCUACCAC | 8860 | AACAGUUAGACACUCCCCU | 8903 | AUCCAGUACGCCCCGACCA |
| 8775 | UGUCUGUGGCGCUGGGCCC | 8818 | GACCAGAGACCCUACCACU | 8861 | ACAGUUAGACACUCCCCUG | 8904 | UCCAGUACGCCCCGACCAU |
| 8776 | GUCUGUGGCGCUGGGCCCA | 8819 | ACCAGAGACCCUACCACUC | 8862 | CAGUUAGACACUCCCCUGU | 8905 | CCAGUACGCCCCGACCAUA |
| 8777 | UCUGUGGCGCUGGGCCCAC | 8820 | CCAGAGACCCUACCACUCC | 8863 | AGUUAGACACUCCCCUGUC | 8906 | CAGUACGCCCCGACCAUAU |
| 8778 | CUGUGGCGCUGGGCCCACA | 8821 | CAGAGACCCUACCACUCCA | 8864 | GUUAGACACUCCCCUGUCA | 8907 | AGUACGCCCCGACCAUAUG |
| 8779 | UGUGGCGCUGGGCCCACAA | 8822 | AGAGACCCUACCACUCCAA | 8865 | UUAGACACUCCCCUGUCAA | 8908 | GUACGCCCCGACCAUAUGG |
| 8780 | GUGGCGCUGGGCCCACAAG | 8823 | GAGACCCUACCACUCCAAU | 8866 | UAGACACUCCCCUGUCAAU | 8909 | UACGCCCCGACCAUAUGGG |
| 8781 | UGGCGCUGGGCCCACAAGG | 8824 | AGACCCUACCACUCCAAUC | 8867 | AGACACUCCCCUGUCAAUU | 8910 | ACGCCCCGACCAUAUGGGC |
| 8782 | GGCGCUGGGCCCACAAGGC | 8825 | GACCCUACCACUCCAAUCG | 8868 | GACACUCCCCUGUCAAUUC | 8911 | CGCCCCGACCAUAUGGGCU |
| 8783 | GCGCUGGGCCCACAAGGCC | 8826 | ACCCUACCACUCCAAUCGC | 8869 | ACACUCCCCUGUCAAUUCA | 8912 | GCCCCGACCAUAUGGGCUC |
| 8784 | CGCUGGGCCCACAAGGCCG | 8827 | CCCUACCACUCCAAUCGCC | 8870 | CACUCCCCUGUCAAUUCAU | 8913 | CCCCGACCAUAUGGGCUCG |
| 8785 | GCUGGGCCCACAAGGCCGC | 8828 | CCUACCACUCCAAUCGCCC | 8871 | ACUCCCCUGUCAAUUCAUG | 8914 | CCCGACCAUAUGGGCUCGC |
| 8786 | CUGGGCCCACAAGGCCGCC | 8829 | CUACCACUCCAAUCGCCCG | 8872 | CUCCCCUGUCAAUUCAUGG | 8915 | CCGACCAUAUGGGCUCGCA |
| 8787 | UGGGCCCACAAGGCCGCCG | 8830 | UACCACUCCAAUCGCCCGG | 8873 | UCCCCUGUCAAUUCAUGGC | 8916 | CGACCAUAUGGGCUCGCAU |
| 8788 | GGGCCCACAAGGCCGCCGC | 8831 | ACCACUCCAAUCGCCCGGG | 8874 | CCCCUGUCAAUUCAUGGCU | 8917 | GACCAUAUGGGCUCGCAUG |
| 8789 | GGCCCACAAGGCCGCCGCA | 8832 | CCACUCCAAUCGCCCGGGC | 8875 | CCCUGUCAAUUCAUGGCUG | 8918 | ACCAUAUGGGCUCGCAUGG |
| 8790 | GCCCACAAGGCCGCCGCAG | 8833 | CACUCCAAUCGCCCGGGCU | 8876 | CCUGUCAAUUCAUGGCUGG | 8919 | CCAUAUGGGCUCGCAUGGU |
| 8791 | CCCACAAGGCCGCCGCAGA | 8834 | ACUCCAAUCGCCCGGGCUG | 8877 | CUGUCAAUUCAUGGCUGGG | 8920 | CAUAUGGGCUCGCAUGGUC |
| 8792 | CCACAAGGCCGCCGCAGAU | 8835 | CUCCAAUCGCCCGGGCUGC | 8878 | UGUCAAUUCAUGGCUGGGA | 8921 | AUAUGGGCUCGCAUGGUCC |
| 8793 | CACAAGGCCGCCGCAGAUA | 8836 | UCCAAUCGCCCGGGCUGCC | 8879 | GUCAAUUCAUGGCUGGGAA | 8922 | UAUGGGCUCGCAUGGUCCU |
| 8794 | ACAAGGCCGCCGCAGAUAC | 8837 | CCAAUCGCCCGGGCUGCCU | 8880 | UCAAUUCAUGGCUGGGAAA | 8923 | AUGGGCUCGCAUGGUCCUG |
| 8795 | CAAGGCCGCCGCAGAUACU | 8838 | CAAUCGCCCGGGCUGCCUG | 8881 | CAAUUCAUGGCUGGGAAAC | 8924 | UGGGCUCGCAUGGUCCUGA |
| 8796 | AAGGCCGCCGCAGAUACUA | 8839 | AAUCGCCCGGGCUGCCUGG | 8882 | AAUUCAUGGCUGGGAAACA | 8925 | GGGCUCGCAUGGUCCUGAU |
| 8797 | AGGCCGCCGCAGAUACUAC | 8840 | AUCGCCCGGGCUGCCUGGG | 8883 | AUUCAUGGCUGGGAAACAU | 8926 | GGCUCGCAUGGUCCUGAUG |
| 8798 | GGCCGCCGCAGAUACUACC | 8841 | UCGCCCGGGCUGCCUGGGA | 8884 | UUCAUGGCUGGGAAACAUC | 8927 | GCUCGCAUGGUCCUGAUGA |
| 8799 | GCCGCCGCAGAUACUACCU | 8842 | CGCCCGGGCUGCCUGGGAA | 8885 | UCAUGGCUGGGAAACAUCA | 8928 | CUCGCAUGGUCCUGAUGAC |
| 8800 | CCGCCGCAGAUACUACCUG | 8843 | GCCCGGGCUGCCUGGGAAA | 8886 | CAUGGCUGGGAAACAUCAU | 8929 | UCGCAUGGUCCUGAUGACA |
| 8801 | CGCCGCAGAUACUACCUGA | 8844 | CCCGGGCUGCCUGGGAAAC | 8887 | AUGGCUGGGAAACAUCAUC | 8930 | CGCAUGGUCCUGAUGACAC |
| 8802 | GCCGCAGAUACUACCUGAC | 8845 | CCGGGCUGCCUGGGAAACA | 8888 | UGGCUGGGAAACAUCAUCC | 8931 | GCAUGGUCCUGAUGACACA |
| 8803 | CCGCAGAUACUACCUGACC | 8846 | CGGGCUGCCUGGGAAACAG | 8889 | GGCUGGGAAACAUCAUCCA | 8932 | CAUGGUCCUGAUGACACAC |
| 8804 | CGCAGAUACUACCUGACCA | 8847 | GGGCUGCCUGGGAAACAGU | 8890 | GCUGGGAAACAUCAUCCAG | 8933 | AUGGUCCUGAUGACACACU |
| 8805 | GCAGAUACUACCUGACCAG | 8848 | GGCUGCCUGGGAAACAGUU | 8891 | CUGGGAAACAUCAUCCAGU | 8934 | UGGUCCUGAUGACACACUU |
| 8806 | CAGAUACUACCUGACCAGA | 8849 | GCUGCCUGGGAAACAGUUA | 8892 | UGGGAAACAUCAUCCAGUA | 8935 | GGUCCUGAUGACACACUUC |
| 8807 | AGAUACUACCUGACCAGAG | 8850 | CUGCCUGGGAAACAGUUAG | 8893 | GGGAAACAUCAUCCAGUAC | 8936 | GUCCUGAUGACACACUUCU |
| 8808 | GAUACUACCUGACCAGAGA | 8851 | UGCCUGGGAAACAGUUAGA | 8894 | GGAAACAUCAUCCAGUACG | 8937 | UCCUGAUGACACACUUCUU |
| 8809 | AUACUACCUGACCAGAGAC | 8852 | GCCUGGGAAACAGUUAGAC | 8895 | GAAACAUCAUCCAGUACGC | 8938 | CCUGAUGACACACUUCUUC |
| 8810 | UACUACCUGACCAGAGACC | 8853 | CCUGGGAAACAGUUAGACA | 8896 | AAACAUCAUCCAGUACGCC | 8939 | CUGAUGACACACUUCUUCU |
| 8811 | ACUACCUGACCAGAGACCC | 8854 | CUGGGAAACAGUUAGACAC | 8897 | AACAUCAUCCAGUACGCCC | 8940 | UGAUGACACACUUCUUCUC |
| 8812 | CUACCUGACCAGAGACCCU | 8855 | UGGGAAACAGUUAGACACU | 8898 | ACAUCAUCCAGUACGCCCC | 8941 | GAUGACACACUUCUUCUCC |
| 8813 | UACCUGACCAGAGACCCUA | 8856 | GGGAAACAGUUAGACACUC | 8899 | CAUCAUCCAGUACGCCCCG | 8942 | AUGACACACUUCUUCUCCA |
| 8814 | ACCUGACCAGAGACCCUAC | 8857 | GGAAACAGUUAGACACUCC | 8900 | AUCAUCCAGUACGCCCCGA | 8943 | UGACACACUUCUUCUCCAU |
| 8815 | CCUGACCAGAGACCCUACC | 8858 | GAAACAGUUAGACACUCCC | 8901 | UCAUCCAGUACGCCCCGAC | 8944 | GACACACUUCUUCUCCAUU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8945 | ACACACUUCUUCUCCAUUC | 8988 | AGAACCUCAACUUUGAGAU | 9031 | UCCCUUGGACCUCCCAGCU | 9074 | GACGCUUUUUCUCUGCACA |
| 8946 | CACACUUCUUCUCCAUUCU | 8989 | GAACCUCAACUUUGAGAUG | 9032 | CCCUUGGACCUCCCAGCUA | 9075 | ACGCUUUUUCUCUGCACAC |
| 8947 | ACACUUCUUCUCCAUUCUC | 8990 | AACCUCAACUUUGAGAUGU | 9033 | CCUUGGACCUCCCAGCUAU | 9076 | CGCUUUUUCUCUGCACACA |
| 8948 | CACUUCUUCUCCAUUCUCA | 8991 | ACCUCAACUUUGAGAUGUA | 9034 | CUUGGACCUCCCAGCUAUA | 9077 | GCUUUUUCUCUGCACACAU |
| 8949 | ACUUCUUCUCCAUUCUCAU | 8992 | CCUCAACUUUGAGAUGUAC | 9035 | UUGGACCUCCCAGCUAUAA | 9078 | CUUUUUCUCUGCACACAUA |
| 8950 | CUUCUUCUCCAUUCUCAUG | 8993 | CUCAACUUUGAGAUGUACG | 9036 | UGGACCUCCCAGCUAUAAU | 9079 | UUUUUCUCUGCACACAUAC |
| 8951 | UUCUUCUCCAUUCUCAUGG | 8994 | UCAACUUUGAGAUGUACGG | 9037 | GGACCUCCCAGCUAUAAUU | 9080 | UUUUCUCUGCACACAUACA |
| 8952 | UCUUCUCCAUUCUCAUGGC | 8995 | CAACUUUGAGAUGUACGGA | 9038 | GACCUCCCAGCUAUAAUUG | 9081 | UUUCUCUGCACACAUACAC |
| 8953 | CUUCUCCAUUCUCAUGGCU | 8996 | AACUUUGAGAUGUACGGAG | 9039 | ACCUCCCAGCUAUAAUUGA | 9082 | UUCUCUGCACACAUACACU |
| 8954 | UUCUCCAUUCUCAUGGCUC | 8997 | ACUUUGAGAUGUACGGAGC | 9040 | CCUCCCAGCUAUAAUUGAA | 9083 | UCUCUGCACACAUACACUC |
| 8955 | UCUCCAUUCUCAUGGCUCA | 8998 | CUUUGAGAUGUACGGAGCG | 9041 | CUCCCAGCUAUAAUUGAAA | 9084 | CUCUGCACACAUACACUCC |
| 8956 | CUCCAUUCUCAUGGCUCAA | 8999 | UUUGAGAUGUACGGAGCGG | 9042 | UCCCAGCUAUAAUUGAAAG | 9085 | UCUGCACACAUACACUCCC |
| 8957 | UCCAUUCUCAUGGCUCAAG | 9000 | UUGAGAUGUACGGAGCGGU | 9043 | CCCAGCUAUAAUUGAAAGG | 9086 | CUGCACACAUACACUCCCC |
| 8958 | CCAUUCUCAUGGCUCAAGA | 9001 | UGAGAUGUACGGAGCGGUG | 9044 | CCAGCUAUAAUUGAAAGGU | 9087 | UGCACACAUACACUCCCCA |
| 8959 | CAUUCUCAUGGCUCAAGAC | 9002 | GAGAUGUACGGAGCGGUGU | 9045 | CAGCUAUAAUUGAAAGGUU | 9088 | GCACACAUACACUCCCCAC |
| 8960 | AUUCUCAUGGCUCAAGACA | 9003 | AGAUGUACGGAGCGGUGUA | 9046 | AGCUAUAAUUGAAAGGUUA | 9089 | CACACAUACACUCCCCACG |
| 8961 | UUCUCAUGGCUCAAGACAC | 9004 | GAUGUACGGAGCGGUGUAC | 9047 | GCUAUAAUUGAAAGGUUAC | 9090 | ACACAUACACUCCCCACGA |
| 8962 | UCUCAUGGCUCAAGACACG | 9005 | AUGUACGGAGCGGUGUACU | 9048 | CUAUAAUUGAAAGGUUACA | 9091 | CACAUACACUCCCCACGAA |
| 8963 | CUCAUGGCUCAAGACACGC | 9006 | UGUACGGAGCGGUGUACUC | 9049 | UAUAAUUGAAAGGUUACAU | 9092 | ACAUACACUCCCCACGAAC |
| 8964 | UCAUGGCUCAAGACACGCU | 9007 | GUACGGAGCGGUGUACUCC | 9050 | AUAAUUGAAAGGUUACAUG | 9093 | CAUACACUCCCCACGAACU |
| 8965 | CAUGGCUCAAGACACGCUG | 9008 | UACGGAGCGGUGUACUCCG | 9051 | UAAUUGAAAGGUUACAUGG | 9094 | AUACACUCCCCACGAACUG |
| 8966 | AUGGCUCAAGACACGCUGG | 9009 | ACGGAGCGGUGUACUCCGU | 9052 | AAUUGAAAGGUUACAUGGG | 9095 | UACACUCCCCACGAACUGA |
| 8967 | UGGCUCAAGACACGCUGGA | 9010 | CGGAGCGGUGUACUCCGUG | 9053 | AUUGAAAGGUUACAUGGGC | 9096 | ACACUCCCCACGAACUGAC |
| 8968 | GGCUCAAGACACGCUGGAC | 9011 | GGAGCGGUGUACUCCGUGA | 9054 | UUGAAAGGUUACAUGGGCU | 9097 | CACUCCCCACGAACUGACA |
| 8969 | GCUCAAGACACGCUGGACC | 9012 | GAGCGGUGUACUCCGUGAG | 9055 | UGAAAGGUUACAUGGGCUU | 9098 | ACUCCCCACGAACUGACAC |
| 8970 | CUCAAGACACGCUGGACCA | 9013 | AGCGGUGUACUCCGUGAGU | 9056 | GAAAGGUUACAUGGGCUUG | 9099 | CUCCCCACGAACUGACACG |
| 8971 | UCAAGACACGCUGGACCAG | 9014 | GCGGUGUACUCCGUGAGUC | 9057 | AAAGGUUACAUGGGCUUGA | 9100 | UCCCCACGAACUGACACGG |
| 8972 | CAAGACACGCUGGACCAGA | 9015 | CGGUGUACUCCGUGAGUCC | 9058 | AAGGUUACAUGGGCUUGAC | 9101 | CCCCACGAACUGACACGGG |
| 8973 | AAGACACGCUGGACCAGAA | 9016 | GGUGUACUCCGUGAGUCCC | 9059 | AGGUUACAUGGGCUUGACG | 9102 | CCCACGAACUGACACGGGU |
| 8974 | AGACACGCUGGACCAGAAC | 9017 | GUGUACUCCGUGAGUCCCU | 9060 | GGUUACAUGGGCUUGACGC | 9103 | CCACGAACUGACACGGGUG |
| 8975 | GACACGCUGGACCAGAACC | 9018 | UGUACUCCGUGAGUCCCUU | 9061 | GUUACAUGGGCUUGACGCU | 9104 | CACGAACUGACACGGGUGG |
| 8976 | ACACGCUGGACCAGAACCU | 9019 | GUACUCCGUGAGUCCCUUG | 9062 | UUACAUGGGCUUGACGCUU | 9105 | ACGAACUGACACGGGUGGC |
| 8977 | CACGCUGGACCAGAACCUC | 9020 | UACUCCGUGAGUCCCUUGG | 9063 | UACAUGGGCUUGACGCUUU | 9106 | CGAACUGACACGGGUGGCU |
| 8978 | ACGCUGGACCAGAACCUCA | 9021 | ACUCCGUGAGUCCCUUGGA | 9064 | ACAUGGGCUUGACGCUUUU | 9107 | GAACUGACACGGGUGGCUU |
| 8979 | CGCUGGACCAGAACCUCAA | 9022 | CUCCGUGAGUCCCUUGGAC | 9065 | CAUGGGCUUGACGCUUUUU | 9108 | AACUGACACGGGUGGCUUC |
| 8980 | GCUGGACCAGAACCUCAAC | 9023 | UCCGUGAGUCCCUUGGACC | 9066 | AUGGGCUUGACGCUUUUUC | 9109 | ACUGACACGGGUGGCUUCA |
| 8981 | CUGGACCAGAACCUCAACU | 9024 | CCGUGAGUCCCUUGGACCU | 9067 | UGGGCUUGACGCUUUUUCU | 9110 | CUGACACGGGUGGCUUCAG |
| 8982 | UGGACCAGAACCUCAACUU | 9025 | CGUGAGUCCCUUGGACCUC | 9068 | GGGCUUGACGCUUUUUCUC | 9111 | UGACACGGGUGGCUUCAGC |
| 8983 | GGACCAGAACCUCAACUUU | 9026 | GUGAGUCCCUUGGACCUCC | 9069 | GGCUUGACGCUUUUUCUCU | 9112 | GACACGGGUGGCUUCAGCC |
| 8984 | GACCAGAACCUCAACUUUG | 9027 | UGAGUCCCUUGGACCUCCC | 9070 | GCUUGACGCUUUUUCUCUG | 9113 | ACACGGGUGGCUUCAGCCC |
| 8985 | ACCAGAACCUCAACUUUGA | 9028 | GAGUCCCUUGGACCUCCCA | 9071 | CUUGACGCUUUUUCUCUGC | 9114 | CACGGGUGGCUUCAGCCCU |
| 8986 | CCAGAACCUCAACUUUGAG | 9029 | AGUCCCUUGGACCUCCCAG | 9072 | UUGACGCUUUUUCUCUGCA | 9115 | ACGGGUGGCUUCAGCCCUC |
| 8987 | CAGAACCUCAACUUUGAGA | 9030 | GUCCCUUGGACCUCCCAGC | 9073 | UGACGCUUUUUCUCUGCAC | 9116 | CGGGUGGCUUCAGCCCUCA |

**FIG. 3 (page 173 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9117 | GGGUGGCUUCAGCCCUCAG | 9160 | AGCGUGGAAGAGCCGGGCA | 9203 | UCCCGUGGGGGGAGAGCGG | 9246 | AUUGGGCGGUGAAGACCAA |
| 9118 | GGUGGCUUCAGCCCUCAGA | 9161 | GCGUGGAAGAGCCGGGCAC | 9204 | CCCGUGGGGGGAGAGCGGC | 9247 | UUGGGCGGUGAAGACCAAG |
| 9119 | GUGGCUUCAGCCCUCAGAA | 9162 | CGUGGAAGAGCCGGGCACG | 9205 | CCGUGGGGGGAGAGCGGCC | 9248 | UGGGCGGUGAAGACCAAGC |
| 9120 | UGGCUUCAGCCCUCAGAAA | 9163 | GUGGAAGAGCCGGGCACGU | 9206 | CGUGGGGGGAGAGCGGCCG | 9249 | GGGCGGUGAAGACCAAGCU |
| 9121 | GGCUUCAGCCCUCAGAAAA | 9164 | UGGAAGAGCCGGGCACGUG | 9207 | GUGGGGGGAGAGCGGCCGU | 9250 | GGCGGUGAAGACCAAGCUC |
| 9122 | GCUUCAGCCCUCAGAAAAC | 9165 | GGAAGAGCCGGGCACGUGC | 9208 | UGGGGGGAGAGCGGCCGUU | 9251 | GCGGUGAAGACCAAGCUCA |
| 9123 | CUUCAGCCCUCAGAAAACU | 9166 | GAAGAGCCGGGCACGUGCA | 9209 | GGGGGGAGAGCGGCCGUUU | 9252 | CGGUGAAGACCAAGCUCAA |
| 9124 | UUCAGCCCUCAGAAAACUU | 9167 | AAGAGCCGGGCACGUGCAG | 9210 | GGGGGAGAGCGGCCGUUUG | 9253 | GGUGAAGACCAAGCUCAAA |
| 9125 | UCAGCCCUCAGAAAACUUG | 9168 | AGAGCCGGGCACGUGCAGU | 9211 | GGGGAGAGCGGCCGUUUGC | 9254 | GUGAAGACCAAGCUCAAAC |
| 9126 | CAGCCCUCAGAAAACUUGG | 9169 | GAGCCGGGCACGUGCAGUC | 9212 | GGGAGAGCGGCCGUUUGCG | 9255 | UGAAGACCAAGCUCAAACU |
| 9127 | AGCCCUCAGAAAACUUGGG | 9170 | AGCCGGGCACGUGCAGUCA | 9213 | GGAGAGCGGCCGUUUGCGG | 9256 | GAAGACCAAGCUCAAACUC |
| 9128 | GCCCUCAGAAAACUUGGGG | 9171 | GCCGGGCACGUGCAGUCAG | 9214 | GAGAGCGGCCGUUUGCGGU | 9257 | AAGACCAAGCUCAAACUCA |
| 9129 | CCCUCAGAAAACUUGGGGC | 9172 | CCGGGCACGUGCAGUCAGG | 9215 | AGAGCGGCCGUUUGCGGUC | 9258 | AGACCAAGCUCAAACUCAC |
| 9130 | CCUCAGAAAACUUGGGGCG | 9173 | CGGGCACGUGCAGUCAGGG | 9216 | GAGCGGCCGUUUGCGGUCG | 9259 | GACCAAGCUCAAACUCACU |
| 9131 | CUCAGAAAACUUGGGGCGC | 9174 | GGGCACGUGCAGUCAGGGC | 9217 | AGCGGCCGUUUGCGGUCGA | 9260 | ACCAAGCUCAAACUCACUC |
| 9132 | UCAGAAAACUUGGGGCGCC | 9175 | GGCACGUGCAGUCAGGGCG | 9218 | GCGGCCGUUUGCGGUCGAU | 9261 | CCAAGCUCAAACUCACUCC |
| 9133 | CAGAAAACUUGGGGCGCCA | 9176 | GCACGUGCAGUCAGGGCGU | 9219 | CGGCCGUUUGCGGUCGAUA | 9262 | CAAGCUCAAACUCACUCCA |
| 9134 | AGAAAACUUGGGGCGCCAC | 9177 | CACGUGCAGUCAGGGCGUC | 9220 | GGCCGUUUGCGGUCGAUAU | 9263 | AAGCUCAAACUCACUCCAU |
| 9135 | GAAAACUUGGGGCGCCACC | 9178 | ACGUGCAGUCAGGGCGUCC | 9221 | GCCGUUUGCGGUCGAUAUC | 9264 | AGCUCAAACUCACUCCAUU |
| 9136 | AAAACUUGGGGCGCCACCC | 9179 | CGUGCAGUCAGGGCGUCCC | 9222 | CCGUUUGCGGUCGAUAUCU | 9265 | GCUCAAACUCACUCCAUUG |
| 9137 | AAACUUGGGGCGCCACCCC | 9180 | GUGCAGUCAGGGCGUCCCU | 9223 | CGUUUGCGGUCGAUAUCUC | 9266 | CUCAAACUCACUCCAUUGC |
| 9138 | AACUUGGGGCGCCACCCCU | 9181 | UGCAGUCAGGGCGUCCCUC | 9224 | GUUUGCGGUCGAUAUCUCU | 9267 | UCAAACUCACUCCAUUGCC |
| 9139 | ACUUGGGGCGCCACCCCUC | 9182 | GCAGUCAGGGCGUCCCUCA | 9225 | UUUGCGGUCGAUAUCUCUU | 9268 | CAAACUCACUCCAUUGCCG |
| 9140 | CUUGGGGCGCCACCCCUCA | 9183 | CAGUCAGGGCGUCCCUCAU | 9226 | UUGCGGUCGAUAUCUCUUC | 9269 | AAACUCACUCCAUUGCCGG |
| 9141 | UUGGGGCGCCACCCCUCAG | 9184 | AGUCAGGGCGUCCCUCAUC | 9227 | UGCGGUCGAUAUCUCUUCA | 9270 | AACUCACUCCAUUGCCGGA |
| 9142 | UGGGGCGCCACCCCUCAGA | 9185 | GUCAGGGCGUCCCUCAUCU | 9228 | GCGGUCGAUAUCUCUUCAA | 9271 | ACUCACUCCAUUGCCGGAA |
| 9143 | GGGGCGCCACCCCUCAGAG | 9186 | UCAGGGCGUCCCUCAUCUC | 9229 | CGGUCGAUAUCUCUUCAAU | 9272 | CUCACUCCAUUGCCGGAAG |
| 9144 | GGGCGCCACCCCUCAGAGC | 9187 | CAGGGCGUCCCUCAUCUCC | 9230 | GGUCGAUAUCUCUUCAAUU | 9273 | UCACUCCAUUGCCGGAAGC |
| 9145 | GGCGCCACCCCUCAGAGCG | 9188 | AGGGCGUCCCUCAUCUCCC | 9231 | GUCGAUAUCUCUUCAAUUG | 9274 | CACUCCAUUGCCGGAAGCG |
| 9146 | GCGCCACCCCUCAGAGCGU | 9189 | GGGCGUCCCUCAUCUCCCG | 9232 | UCGAUAUCUCUUCAAUUGG | 9275 | ACUCCAUUGCCGGAAGCGC |
| 9147 | CGCCACCCCUCAGAGCGUG | 9190 | GGCGUCCCUCAUCUCCCGU | 9233 | CGAUAUCUCUUCAAUUGGG | 9276 | CUCCAUUGCCGGAAGCGCG |
| 9148 | GCCACCCCUCAGAGCGUGG | 9191 | GCGUCCCUCAUCUCCCGUG | 9234 | GAUAUCUCUUCAAUUGGGC | 9277 | UCCAUUGCCGGAAGCGCGC |
| 9149 | CCACCCCUCAGAGCGUGGA | 9192 | CGUCCCUCAUCUCCCGUGG | 9235 | AUAUCUCUUCAAUUGGGCG | 9278 | CCAUUGCCGGAAGCGCGCC |
| 9150 | CACCCCUCAGAGCGUGGAA | 9193 | GUCCCUCAUCUCCCGUGGG | 9236 | UAUCUCUUCAAUUGGGCGG | 9279 | CAUUGCCGGAAGCGCGCCU |
| 9151 | ACCCCUCAGAGCGUGGAAG | 9194 | UCCCUCAUCUCCCGUGGGG | 9237 | AUCUCUUCAAUUGGGCGGU | 9280 | AUUGCCGGAAGCGCGCCUC |
| 9152 | CCCCUCAGAGCGUGGAAGA | 9195 | CCCUCAUCUCCCGUGGGGG | 9238 | UCUCUUCAAUUGGGCGGUG | 9281 | UUGCCGGAAGCGCGCCUCC |
| 9153 | CCCUCAGAGCGUGGAAGAG | 9196 | CCUCAUCUCCCGUGGGGGG | 9239 | CUCUUCAAUUGGGCGGUGA | 9282 | UGCCGGAAGCGCGCCUCCU |
| 9154 | CCUCAGAGCGUGGAAGAGC | 9197 | CUCAUCUCCCGUGGGGGGA | 9240 | UCUUCAAUUGGGCGGUGAA | 9283 | GCCGGAAGCGCGCCUCCUG |
| 9155 | CUCAGAGCGUGGAAGAGCC | 9198 | UCAUCUCCCGUGGGGGGAG | 9241 | CUUCAAUUGGGCGGUGAAG | 9284 | CCGGAAGCGCGCCUCCUGG |
| 9156 | UCAGAGCGUGGAAGAGCCG | 9199 | CAUCUCCCGUGGGGGGAGA | 9242 | UUCAAUUGGGCGGUGAAGA | 9285 | CGGAAGCGCGCCUCCUGGA |
| 9157 | CAGAGCGUGGAAGAGCCGG | 9200 | AUCUCCCGUGGGGGGAGAG | 9243 | UCAAUUGGGCGGUGAAGAC | 9286 | GGAAGCGCGCCUCCUGGAU |
| 9158 | AGAGCGUGGAAGAGCCGGG | 9201 | UCUCCCGUGGGGGGAGAGC | 9244 | CAAUUGGGCGGUGAAGACC | 9287 | GAAGCGCGCCUCCUGGAUU |
| 9159 | GAGCGUGGAAGAGCCGGGC | 9202 | CUCCCGUGGGGGGAGAGCG | 9245 | AAUUGGGCGGUGAAGACCA | 9288 | AAGCGCGCCUCCUGGAUUU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9289 | AGCGCGCCUCCUGGAUUUA | 9332 | GGCGGGGGCGACAUUUAUC | 9375 | GCUUAUUGCUCUUUGGCCU | 9418 | CCUUUUCCUACUCCCCGCU |
| 9290 | GCGCGCCUCCUGGAUUUAU | 9333 | GCGGGGGCGACAUUUAUCA | 9376 | CUUAUUGCUCUUUGGCCUA | 9419 | CUUUUCCUACUCCCCGCUC |
| 9291 | CGCGCCUCCUGGAUUUAUC | 9334 | CGGGGGCGACAUUUAUCAC | 9377 | UUAUUGCUCUUUGGCCUAC | 9420 | UUUUCCUACUCCCCGCUCG |
| 9292 | GCGCCUCCUGGAUUUAUCC | 9335 | GGGGGCGACAUUUAUCACA | 9378 | UAUUGCUCUUUGGCCUACU | 9421 | UUUCCUACUCCCCGCUCGG |
| 9293 | CGCCUCCUGGAUUUAUCCA | 9336 | GGGGCGACAUUUAUCACAG | 9379 | AUUGCUCUUUGGCCUACUC | 9422 | UUCCUACUCCCCGCUCGGU |
| 9294 | GCCUCCUGGAUUUAUCCAG | 9337 | GGGCGACAUUUAUCACAGC | 9380 | UUGCUCUUUGGCCUACUCC | 9423 | UCCUACUCCCCGCUCGGUA |
| 9295 | CCUCCUGGAUUUAUCCAGC | 9338 | GGCGACAUUUAUCACAGCG | 9381 | UGCUCUUUGGCCUACUCCU | 9424 | CCUACUCCCCGCUCGGUAG |
| 9296 | CUCCUGGAUUUAUCCAGCU | 9339 | GCGACAUUUAUCACAGCGU | 9382 | GCUCUUUGGCCUACUCCUA | 9425 | CUACUCCCCGCUCGGUAGA |
| 9297 | UCCUGGAUUUAUCCAGCUG | 9340 | CGACAUUUAUCACAGCGUG | 9383 | CUCUUUGGCCUACUCCUAC | 9426 | UACUCCCCGCUCGGUAGAG |
| 9298 | CCUGGAUUUAUCCAGCUGG | 9341 | GACAUUUAUCACAGCGUGU | 9384 | UCUUUGGCCUACUCCUACU | 9427 | ACUCCCCGCUCGGUAGAGC |
| 9299 | CUGGAUUUAUCCAGCUGGU | 9342 | ACAUUUAUCACAGCGUGUC | 9385 | CUUUGGCCUACUCCUACUU | 9428 | CUCCCCGCUCGGUAGAGCG |
| 9300 | UGGAUUUAUCCAGCUGGUU | 9343 | CAUUUAUCACAGCGUGUCG | 9386 | UUUGGCCUACUCCUACUUU | 9429 | UCCCCGCUCGGUAGAGCGG |
| 9301 | GGAUUUAUCCAGCUGGUUC | 9344 | AUUUAUCACAGCGUGUCGC | 9387 | UUGGCCUACUCCUACUUUU | 9430 | CCCCGCUCGGUAGAGCGGC |
| 9302 | GAUUUAUCCAGCUGGUUCA | 9345 | UUUAUCACAGCGUGUCGCG | 9388 | UGGCCUACUCCUACUUUUU | 9431 | CCCGCUCGGUAGAGCGGCA |
| 9303 | AUUUAUCCAGCUGGUUCAC | 9346 | UUAUCACAGCGUGUCGCGU | 9389 | GGCCUACUCCUACUUUUUG | 9432 | CCGCUCGGUAGAGCGGCAC |
| 9304 | UUUAUCCAGCUGGUUCACC | 9347 | UAUCACAGCGUGUCGCGUG | 9390 | GCCUACUCCUACUUUUUGU | 9433 | CGCUCGGUAGAGCGGCACA |
| 9305 | UUAUCCAGCUGGUUCACCG | 9348 | AUCACAGCGUGUCGCGUGC | 9391 | CCUACUCCUACUUUUUGUA | 9434 | GCUCGGUAGAGCGGCACAC |
| 9306 | UAUCCAGCUGGUUCACCGU | 9349 | UCACAGCGUGUCGCGUGCC | 9392 | CUACUCCUACUUUUUGUAG | 9435 | CUCGGUAGAGCGGCACACA |
| 9307 | AUCCAGCUGGUUCACCGUC | 9350 | CACAGCGUGUCGCGUGCCC | 9393 | UACUCCUACUUUUUGUAGG | 9436 | UCGGUAGAGCGGCACACAU |
| 9308 | UCCAGCUGGUUCACCGUCG | 9351 | ACAGCGUGUCGCGUGCCCG | 9394 | ACUCCUACUUUUUGUAGGG | 9437 | CGGUAGAGCGGCACACAUU |
| 9309 | CCAGCUGGUUCACCGUCGG | 9352 | CAGCGUGUCGCGUGCCCGA | 9395 | CUCCUACUUUUUGUAGGGG | 9438 | GGUAGAGCGGCACACAUUA |
| 9310 | CAGCUGGUUCACCGUCGGC | 9353 | AGCGUGUCGCGUGCCCGAC | 9396 | UCCUACUUUUUGUAGGGGU | 9439 | GUAGAGCGGCACACAUUAG |
| 9311 | AGCUGGUUCACCGUCGGCG | 9354 | GCGUGUCGCGUGCCCGACC | 9397 | CCUACUUUUUGUAGGGGUA | 9440 | UAGAGCGGCACACAUUAGC |
| 9312 | GCUGGUUCACCGUCGGCGC | 9355 | CGUGUCGCGUGCCCGACCC | 9398 | CUACUUUUUGUAGGGGUAG | 9441 | AGAGCGGCACACAUUAGCU |
| 9313 | CUGGUUCACCGUCGGCGCC | 9356 | GUGUCGCGUGCCCGACCCC | 9399 | UACUUUUUGUAGGGGUAGG | 9442 | GAGCGGCACACAUUAGCUA |
| 9314 | UGGUUCACCGUCGGCGCCG | 9357 | UGUCGCGUGCCCGACCCCG | 9400 | ACUUUUUGUAGGGGUAGGC | 9443 | AGCGGCACACAUUAGCUAC |
| 9315 | GGUUCACCGUCGGCGCCGG | 9358 | GUCGCGUGCCCGACCCCGC | 9401 | CUUUUUGUAGGGGUAGGCC | 9444 | GCGGCACACAUUAGCUACA |
| 9316 | GUUCACCGUCGGCGCCGGC | 9359 | UCGCGUGCCCGACCCCGCU | 9402 | UUUUUGUAGGGGUAGGCCU | 9445 | CGGCACACAUUAGCUACAC |
| 9317 | UUCACCGUCGGCGCCGGCG | 9360 | CGCGUGCCCGACCCCGCUU | 9403 | UUUUGUAGGGGUAGGCCUU | 9446 | GGCACACAUUAGCUACACU |
| 9318 | UCACCGUCGGCGCCGGCGG | 9361 | GCGUGCCCGACCCCGCUUA | 9404 | UUUGUAGGGGUAGGCCUUU | 9447 | GCACACAUUAGCUACACUC |
| 9319 | CACCGUCGGCGCCGGCGGG | 9362 | CGUGCCCGACCCCGCUUAU | 9405 | UUGUAGGGGUAGGCCUUUU | 9448 | CACACAUUAGCUACACUCC |
| 9320 | ACCGUCGGCGCCGGCGGGG | 9363 | GUGCCCGACCCCGCUUAUU | 9406 | UGUAGGGGUAGGCCUUUUC | 9449 | ACACAUUAGCUACACUCCA |
| 9321 | CCGUCGGCGCCGGCGGGGG | 9364 | UGCCCGACCCCGCUUAUUG | 9407 | GUAGGGGUAGGCCUUUUCC | 9450 | CACAUUAGCUACACUCCAU |
| 9322 | CGUCGGCGCCGGCGGGGGC | 9365 | GCCCGACCCCGCUUAUUGC | 9408 | UAGGGGUAGGCCUUUUCCU | 9451 | ACAUUAGCUACACUCCAUA |
| 9323 | GUCGGCGCCGGCGGGGGCG | 9366 | CCCGACCCCGCUUAUUGCU | 9409 | AGGGGUAGGCCUUUUCCUA | 9452 | CAUUAGCUACACUCCAUAG |
| 9324 | UCGGCGCCGGCGGGGGCGA | 9367 | CCGACCCCGCUUAUUGCUC | 9410 | GGGGUAGGCCUUUUCCUAC | 9453 | AUUAGCUACACUCCAUAGC |
| 9325 | CGGCGCCGGCGGGGGCGAC | 9368 | CGACCCCGCUUAUUGCUCU | 9411 | GGGUAGGCCUUUUCCUACU | 9454 | UUAGCUACACUCCAUAGCU |
| 9326 | GGCGCCGGCGGGGGCGACA | 9369 | GACCCCGCUUAUUGCUCUU | 9412 | GGUAGGCCUUUUCCUACUC | 9455 | UAGCUACACUCCAUAGCUA |
| 9327 | GCGCCGGCGGGGGCGACAU | 9370 | ACCCCGCUUAUUGCUCUUU | 9413 | GUAGGCCUUUUCCUACUCC | 9456 | AGCUACACUCCAUAGCUAA |
| 9328 | CGCCGGCGGGGGCGACAUU | 9371 | CCCCGCUUAUUGCUCUUUG | 9414 | UAGGCCUUUUCCUACUCCC | 9457 | GCUACACUCCAUAGCUAAC |
| 9329 | GCCGGCGGGGGCGACAUUU | 9372 | CCCGCUUAUUGCUCUUUGG | 9415 | AGGCCUUUUCCUACUCCCC | 9458 | CUACACUCCAUAGCUAACU |
| 9330 | CCGGCGGGGGCGACAUUUA | 9373 | CCGCUUAUUGCUCUUUGGC | 9416 | GGCCUUUUCCUACUCCCCG | 9459 | UACACUCCAUAGCUAACUG |
| 9331 | CGGCGGGGGCGACAUUUAU | 9374 | CGCUUAUUGCUCUUUGGCC | 9417 | GCCUUUUCCUACUCCCCGC | 9460 | ACACUCCAUAGCUAACUGU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9461 | CACUCCAUAGCUAACUGUC | 9504 | UUUUUUUUUUUUUUUUUUU | 9547 | UUUUUUUUUUUUUUUUUUU | 9590 | UUACCUUAUUUUACUUUCU |
| 9462 | ACUCCAUAGCUAACUGUCC | 9505 | UUUUUUUUUUUUUUUUUUU | 9548 | UUUUUUUUUUUUUUUUUUC | 9591 | UACCUUAUUUUACUUUCUU |
| 9463 | CUCCAUAGCUAACUGUCCC | 9506 | UUUUUUUUUUUUUUUUUUU | 9549 | UUUUUUUUUUUUUUUUUCU | 9592 | ACCUUAUUUUACUUUCUUU |
| 9464 | UCCAUAGCUAACUGUCCCU | 9507 | UUUUUUUUUUUUUUUUUUU | 9550 | UUUUUUUUUUUUUUUUUCUU | 9593 | CCUUAUUUUACUUUCUUUC |
| 9465 | CCAUAGCUAACUGUCCCUU | 9508 | UUUUUUUUUUUUUUUUUUU | 9551 | UUUUUUUUUUUUUUUUCUUU | 9594 | CUUAUUUUACUUUCUUUCC |
| 9466 | CAUAGCUAACUGUCCCUUU | 9509 | UUUUUUUUUUUUUUUUUUU | 9552 | UUUUUUUUUUUUUUUCUUUU | 9595 | UUAUUUUACUUUCUUUCCU |
| 9467 | AUAGCUAACUGUCCCUUUU | 9510 | UUUUUUUUUUUUUUUUUUU | 9553 | UUUUUUUUUUUUUUCUUUUU | 9596 | UAUUUUACUUUCUUUCCUG |
| 9468 | UAGCUAACUGUCCCUUUUU | 9511 | UUUUUUUUUUUUUUUUUUU | 9554 | UUUUUUUUUUUUUCUUUUUU | 9597 | AUUUUACUUUCUUUCCUGG |
| 9469 | AGCUAACUGUCCCUUUUUU | 9512 | UUUUUUUUUUUUUUUUUUU | 9555 | UUUUUUUUUUUUCUUUUUUU | 9598 | UUUUACUUUCUUUCCUGGU |
| 9470 | GCUAACUGUCCCUUUUUUU | 9513 | UUUUUUUUUUUUUUUUUUU | 9556 | UUUUUUUUUUUCUUUUUUUC | 9599 | UUUACUUUCUUUCCUGGUG |
| 9471 | CUAACUGUCCCUUUUUUUU | 9514 | UUUUUUUUUUUUUUUUUUU | 9557 | UUUUUUUUUUCUUUUUUUCU | 9600 | UUACUUUCUUUCCUGGUGG |
| 9472 | UAACUGUCCCUUUUUUUUU | 9515 | UUUUUUUUUUUUUUUUUUU | 9558 | UUUUUUUUUCUUUUUUUCUC | 9601 | UACUUUCUUUCCUGGUGGC |
| 9473 | AACUGUCCCUUUUUUUUUU | 9516 | UUUUUUUUUUUUUUUUUUU | 9559 | UUUUUUUUCUUUUUUUCUCU | 9602 | ACUUUCUUUCCUGGUGGCU |
| 9474 | ACUGUCCCUUUUUUUUUUU | 9517 | UUUUUUUUUUUUUUUUUUU | 9560 | UUUUUUUCUUUUUUUCUCUU | 9603 | CUUUCUUUCCUGGUGGCUC |
| 9475 | CUGUCCCUUUUUUUUUUUU | 9518 | UUUUUUUUUUUUUUUUUUU | 9561 | UUUUUUCUUUUUUUCUCUUU | 9604 | UUUCUUUCCUGGUGGCUCC |
| 9476 | UGUCCCUUUUUUUUUUUUU | 9519 | UUUUUUUUUUUUUUUUUUU | 9562 | UUUUUCUUUUUUUCUCUUUU | 9605 | UUCUUUCCUGGUGGCUCCA |
| 9477 | GUCCCUUUUUUUUUUUUUU | 9520 | UUUUUUUUUUUUUUUUUUU | 9563 | UUUUCUUUUUUUCUCUUUUC | 9606 | UCUUUCCUGGUGGCUCCAU |
| 9478 | UCCCUUUUUUUUUUUUUUU | 9521 | UUUUUUUUUUUUUUUUUUU | 9564 | UUUCUUUUUUUCUCUUUUCC | 9607 | CUUUCCUGGUGGCUCCAUC |
| 9479 | CCCUUUUUUUUUUUUUUUU | 9522 | UUUUUUUUUUUUUUUUUUU | 9565 | UUCUUUUUUUCUCUUUUCCU | 9608 | UUUCCUGGUGGCUCCAUCU |
| 9480 | CCUUUUUUUUUUUUUUUUU | 9523 | UUUUUUUUUUUUUUUUUUU | 9566 | UCUUUUUUUCUCUUUUCCUU | 9609 | UUCCUGGUGGCUCCAUCUU |
| 9481 | CUUUUUUUUUUUUUUUUUU | 9524 | UUUUUUUUUUUUUUUUUUU | 9567 | CUUUUUUUCUCUUUUCCUUC | 9610 | UCCUGGUGGCUCCAUCUUA |
| 9482 | UUUUUUUUUUUUUUUUUUU | 9525 | UUUUUUUUUUUUUUUUUUU | 9568 | UUUUUUCUCUUUUCCUUCU | 9611 | CCUGGUGGCUCCAUCUUAG |
| 9483 | UUUUUUUUUUUUUUUUUUU | 9526 | UUUUUUUUUUUUUUUUUUU | 9569 | UUUUUCUCUUUUCCUUCUU | 9612 | CUGGUGGCUCCAUCUUAGC |
| 9484 | UUUUUUUUUUUUUUUUUUU | 9527 | UUUUUUUUUUUUUUUUUUU | 9570 | UUUUCUCUUUUCCUUCUUU | 9613 | UGGUGGCUCCAUCUUAGCC |
| 9485 | UUUUUUUUUUUUUUUUUUU | 9528 | UUUUUUUUUUUUUUUUUUU | 9571 | UUUCUCUUUUCCUUCUUUC | 9614 | GGUGGCUCCAUCUUAGCCC |
| 9486 | UUUUUUUUUUUUUUUUUUU | 9529 | UUUUUUUUUUUUUUUUUUU | 9572 | UUCUCUUUUCCUUCUUUCU | 9615 | GUGGCUCCAUCUUAGCCCU |
| 9487 | UUUUUUUUUUUUUUUUUUU | 9530 | UUUUUUUUUUUUUUUUUUU | 9573 | UCUCUUUUCCUUCUUUCUU | 9616 | UGGCUCCAUCUUAGCCCUA |
| 9488 | UUUUUUUUUUUUUUUUUUU | 9531 | UUUUUUUUUUUUUUUUUUU | 9574 | CUCUUUUCCUUCUUUCUUA | 9617 | GGCUCCAUCUUAGCCCUAG |
| 9489 | UUUUUUUUUUUUUUUUUUU | 9532 | UUUUUUUUUUUUUUUUUUU | 9575 | UCUUUUCCUUCUUUCUUAC | 9618 | GCUCCAUCUUAGCCCUAGU |
| 9490 | UUUUUUUUUUUUUUUUUUU | 9533 | UUUUUUUUUUUUUUUUUUU | 9576 | CUUUUCCUUCUUUCUUACC | 9619 | CUCCAUCUUAGCCCUAGUC |
| 9491 | UUUUUUUUUUUUUUUUUUU | 9534 | UUUUUUUUUUUUUUUUUUU | 9577 | UUUUCCUUCUUUCUUACCU | 9620 | UCCAUCUUAGCCCUAGUCA |
| 9492 | UUUUUUUUUUUUUUUUUUU | 9535 | UUUUUUUUUUUUUUUUUUU | 9578 | UUUCCUUCUUUCUUACCUU | 9621 | CCAUCUUAGCCCUAGUCAC |
| 9493 | UUUUUUUUUUUUUUUUUUU | 9536 | UUUUUUUUUUUUUUUUUUU | 9579 | UUCCUUCUUUCUUACCUUA | 9622 | CAUCUUAGCCCUAGUCACG |
| 9494 | UUUUUUUUUUUUUUUUUUU | 9537 | UUUUUUUUUUUUUUUUUUU | 9580 | UCCUUCUUUCUUACCUUAU | 9623 | AUCUUAGCCCUAGUCACGG |
| 9495 | UUUUUUUUUUUUUUUUUUU | 9538 | UUUUUUUUUUUUUUUUUUU | 9581 | CCUUCUUUCUUACCUUAUU | 9624 | UCUUAGCCCUAGUCACGGC |
| 9496 | UUUUUUUUUUUUUUUUUUU | 9539 | UUUUUUUUUUUUUUUUUUU | 9582 | CUUCUUUCUUACCUUAUUU | 9625 | CUUAGCCCUAGUCACGGCU |
| 9497 | UUUUUUUUUUUUUUUUUUU | 9540 | UUUUUUUUUUUUUUUUUUU | 9583 | UUCUUUCUUACCUUAUUUU | 9626 | UUAGCCCUAGUCACGGCUA |
| 9498 | UUUUUUUUUUUUUUUUUUU | 9541 | UUUUUUUUUUUUUUUUUUU | 9584 | UCUUUCUUACCUUAUUUUA | 9627 | UAGCCCUAGUCACGGCUAG |
| 9499 | UUUUUUUUUUUUUUUUUUU | 9542 | UUUUUUUUUUUUUUUUUUU | 9585 | CUUUCUUACCUUAUUUUAC | 9628 | AGCCCUAGUCACGGCUAGC |
| 9500 | UUUUUUUUUUUUUUUUUUU | 9543 | UUUUUUUUUUUUUUUUUUU | 9586 | UUUCUUACCUUAUUUUACU | 9629 | GCCCUAGUCACGGCUAGCU |
| 9501 | UUUUUUUUUUUUUUUUUUU | 9544 | UUUUUUUUUUUUUUUUUUU | 9587 | UUCUUACCUUAUUUUACUU | 9630 | CCCUAGUCACGGCUAGCUG |
| 9502 | UUUUUUUUUUUUUUUUUUU | 9545 | UUUUUUUUUUUUUUUUUUU | 9588 | UCUUACCUUAUUUUACUUU | 9631 | CCUAGUCACGGCUAGCUGU |
| 9503 | UUUUUUUUUUUUUUUUUUU | 9546 | UUUUUUUUUUUUUUUUUUU | 9589 | CUUACCUUAUUUUACUUUC | 9632 | CUAGUCACGGCUAGCUGUG |

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| | | | |
|---|---|---|---|
| 9633 | UAGUCACGGCUAGCUGUGA | 9676 | AGAGAGUGCCGUAACUGGU |
| 9634 | AGUCACGGCUAGCUGUGAA | 9677 | GAGAGUGCCGUAACUGGUC |
| 9635 | GUCACGGCUAGCUGUGAAA | 9678 | AGAGUGCCGUAACUGGUCU |
| 9636 | UCACGGCUAGCUGUGAAAG | 9679 | GAGUGCCGUAACUGGUCUC |
| 9637 | CACGGCUAGCUGUGAAAGG | 9680 | AGUGCCGUAACUGGUCUCU |
| 9638 | ACGGCUAGCUGUGAAAGGU | 9681 | GUGCCGUAACUGGUCUCUC |
| 9639 | CGGCUAGCUGUGAAAGGUC | 9682 | UGCCGUAACUGGUCUCUCU |
| 9640 | GGCUAGCUGUGAAAGGUCC | 9683 | GCCGUAACUGGUCUCUCUG |
| 9641 | GCUAGCUGUGAAAGGUCCG | 9684 | CCGUAACUGGUCUCUCUGC |
| 9642 | CUAGCUGUGAAAGGUCCGU | 9685 | CGUAACUGGUCUCUCUGCA |
| 9643 | UAGCUGUGAAAGGUCCGUG | 9686 | GUAACUGGUCUCUCUGCAG |
| 9644 | AGCUGUGAAAGGUCCGUGA | 9687 | UAACUGGUCUCUCUGCAGA |
| 9645 | GCUGUGAAAGGUCCGUGAG | 9688 | AACUGGUCUCUCUGCAGAU |
| 9646 | CUGUGAAAGGUCCGUGAGC | 9689 | ACUGGUCUCUCUGCAGAUC |
| 9647 | UGUGAAAGGUCCGUGAGCC | 9690 | CUGGUCUCUCUGCAGAUCA |
| 9648 | GUGAAAGGUCCGUGAGCCG | 9691 | UGGUCUCUCUGCAGAUCAU |
| 9649 | UGAAAGGUCCGUGAGCCGC | 9692 | GGUCUCUCUGCAGAUCAUG |
| 9650 | GAAAGGUCCGUGAGCCGCA | 9693 | GUCUCUCUGCAGAUCAUGU |
| 9651 | AAAGGUCCGUGAGCCGCAU | | |
| 9652 | AAGGUCCGUGAGCCGCAUG | | |
| 9653 | AGGUCCGUGAGCCGCAUGA | | |
| 9654 | GGUCCGUGAGCCGCAUGAC | | |
| 9655 | GUCCGUGAGCCGCAUGACU | | |
| 9656 | UCCGUGAGCCGCAUGACUG | | |
| 9657 | CCGUGAGCCGCAUGACUGC | | |
| 9658 | CGUGAGCCGCAUGACUGCA | | |
| 9659 | GUGAGCCGCAUGACUGCAG | | |
| 9660 | UGAGCCGCAUGACUGCAGA | | |
| 9661 | GAGCCGCAUGACUGCAGAG | | |
| 9662 | AGCCGCAUGACUGCAGAGA | | |
| 9663 | GCCGCAUGACUGCAGAGAG | | |
| 9664 | CCGCAUGACUGCAGAGAGU | | |
| 9665 | CGCAUGACUGCAGAGAGUG | | |
| 9666 | GCAUGACUGCAGAGAGUGC | | |
| 9667 | CAUGACUGCAGAGAGUGCC | | |
| 9668 | AUGACUGCAGAGAGUGCCG | | |
| 9669 | UGACUGCAGAGAGUGCCGU | | |
| 9670 | GACUGCAGAGAGUGCCGUA | | |
| 9671 | ACUGCAGAGAGUGCCGUAA | | |
| 9672 | CUGCAGAGAGUGCCGUAAC | | |
| 9673 | UGCAGAGAGUGCCGUAACU | | |
| 9674 | GCAGAGAGUGCCGUAACUG | | |
| 9675 | CAGAGAGUGCCGUAACUGG | | |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | ACCUGCCUCUUACGAGGCG | 44 | UGUGAGGAACUUCUGUCUU | 87 | CGUUAGUACGAGUGUCGUG | 130 | GGAGAGCCAUAGUGGUCUG |
| 2 | CCUGCCUCUUACGAGGCGA | 45 | GUGAGGAACUUCUGUCUUC | 88 | GUUAGUACGAGUGUCGUGC | 131 | GAGAGCCAUAGUGGUCUGC |
| 3 | CUGCCUCUUACGAGGCGAC | 46 | UGAGGAACUUCUGUCUUCA | 89 | UUAGUACGAGUGUCGUGCA | 132 | AGAGCCAUAGUGGUCUGCG |
| 4 | UGCCUCUUACGAGGCGACA | 47 | GAGGAACUUCUGUCUUCAC | 90 | UAGUACGAGUGUCGUGCAG | 133 | GAGCCAUAGUGGUCUGCGG |
| 5 | GCCUCUUACGAGGCGACAC | 48 | AGGAACUUCUGUCUUCACG | 91 | AGUACGAGUGUCGUGCAGC | 134 | AGCCAUAGUGGUCUGCGGA |
| 6 | CCUCUUACGAGGCGACACU | 49 | GGAACUUCUGUCUUCACGC | 92 | GUACGAGUGUCGUGCAGCC | 135 | GCCAUAGUGGUCUGCGGAA |
| 7 | CUCUUACGAGGCGACACUC | 50 | GAACUUCUGUCUUCACGCG | 93 | UACGAGUGUCGUGCAGCCU | 136 | CCAUAGUGGUCUGCGGAAC |
| 8 | UCUUACGAGGCGACACUCC | 51 | AACUUCUGUCUUCACGCGG | 94 | ACGAGUGUCGUGCAGCCUC | 137 | CAUAGUGGUCUGCGGAACC |
| 9 | CUUACGAGGCGACACUCCA | 52 | ACUUCUGUCUUCACGCGGA | 95 | CGAGUGUCGUGCAGCCUCC | 138 | AUAGUGGUCUGCGGAACCG |
| 10 | UUACGAGGCGACACUCCAC | 53 | CUUCUGUCUUCACGCGGAA | 96 | GAGUGUCGUGCAGCCUCCA | 139 | UAGUGGUCUGCGGAACCGG |
| 11 | UACGAGGCGACACUCCACC | 54 | UUCUGUCUUCACGCGGAAA | 97 | AGUGUCGUGCAGCCUCCAG | 140 | AGUGGUCUGCGGAACCGGU |
| 12 | ACGAGGCGACACUCCACCA | 55 | UCUGUCUUCACGCGGAAAG | 98 | GUGUCGUGCAGCCUCCAGG | 141 | GUGGUCUGCGGAACCGGUG |
| 13 | CGAGGCGACACUCCACCAU | 56 | CUGUCUUCACGCGGAAAGC | 99 | UGUCGUGCAGCCUCCAGGA | 142 | UGGUCUGCGGAACCGGUGA |
| 14 | GAGGCGACACUCCACCAUG | 57 | UGUCUUCACGCGGAAAGCG | 100 | GUCGUGCAGCCUCCAGGAC | 143 | GGUCUGCGGAACCGGUGAG |
| 15 | AGGCGACACUCCACCAUGG | 58 | GUCUUCACGCGGAAAGCGC | 101 | UCGUGCAGCCUCCAGGACC | 144 | GUCUGCGGAACCGGUGAGU |
| 16 | GGCGACACUCCACCAUGGA | 59 | UCUUCACGCGGAAAGCGCC | 102 | CGUGCAGCCUCCAGGACCC | 145 | UCUGCGGAACCGGUGAGUA |
| 17 | GCGACACUCCACCAUGGAU | 60 | CUUCACGCGGAAAGCGCCU | 103 | GUGCAGCCUCCAGGACCCC | 146 | CUGCGGAACCGGUGAGUAC |
| 18 | CGACACUCCACCAUGGAUC | 61 | UUCACGCGGAAAGCGCCUA | 104 | UGCAGCCUCCAGGACCCCC | 147 | UGCGGAACCGGUGAGUACA |
| 19 | GACACUCCACCAUGGAUCA | 62 | UCACGCGGAAAGCGCCUAG | 105 | GCAGCCUCCAGGACCCCCC | 148 | GCGGAACCGGUGAGUACAC |
| 20 | ACACUCCACCAUGGAUCAC | 63 | CACGCGGAAAGCGCCUAGC | 106 | CAGCCUCCAGGACCCCCCC | 149 | CGGAACCGGUGAGUACACC |
| 21 | CACUCCACCAUGGAUCACU | 64 | ACGCGGAAAGCGCCUAGCC | 107 | AGCCUCCAGGACCCCCCCU | 150 | GGAACCGGUGAGUACACCG |
| 22 | ACUCCACCAUGGAUCACUC | 65 | CGCGGAAAGCGCCUAGCCA | 108 | GCCUCCAGGACCCCCCCUC | 151 | GAACCGGUGAGUACACCGG |
| 23 | CUCCACCAUGGAUCACUCC | 66 | GCGGAAAGCGCCUAGCCAU | 109 | CCUCCAGGACCCCCCCUCC | 152 | AACCGGUGAGUACACCGGA |
| 24 | UCCACCAUGGAUCACUCCC | 67 | CGGAAAGCGCCUAGCCAUG | 110 | CUCCAGGACCCCCCCUCCC | 153 | ACCGGUGAGUACACCGGAA |
| 25 | CCACCAUGGAUCACUCCCC | 68 | GGAAAGCGCCUAGCCAUGG | 111 | UCCAGGACCCCCCCUCCCG | 154 | CCGGUGAGUACACCGGAAU |
| 26 | CACCAUGGAUCACUCCCCU | 69 | GAAAGCGCCUAGCCAUGGC | 112 | CCAGGACCCCCCCUCCCGG | 155 | CGGUGAGUACACCGGAAUC |
| 27 | ACCAUGGAUCACUCCCCUG | 70 | AAAGCGCCUAGCCAUGGCG | 113 | CAGGACCCCCCCUCCCGGG | 156 | GGUGAGUACACCGGAAUCG |
| 28 | CCAUGGAUCACUCCCCUGU | 71 | AAGCGCCUAGCCAUGGCGU | 114 | AGGACCCCCCCUCCCGGGA | 157 | GUGAGUACACCGGAAUCGC |
| 29 | CAUGGAUCACUCCCCUGUG | 72 | AGCGCCUAGCCAUGGCGUU | 115 | GGACCCCCCCUCCCGGGAG | 158 | UGAGUACACCGGAAUCGCU |
| 30 | AUGGAUCACUCCCCUGUGA | 73 | GCGCCUAGCCAUGGCGUUA | 116 | GACCCCCCCUCCCGGGAGA | 159 | GAGUACACCGGAAUCGCUG |
| 31 | UGGAUCACUCCCCUGUGAG | 74 | CGCCUAGCCAUGGCGUUAG | 117 | ACCCCCCCUCCCGGGAGAG | 160 | AGUACACCGGAAUCGCUGG |
| 32 | GGAUCACUCCCCUGUGAGG | 75 | GCCUAGCCAUGGCGUUAGU | 118 | CCCCCCCUCCCGGGAGAGC | 161 | GUACACCGGAAUCGCUGGG |
| 33 | GAUCACUCCCCUGUGAGGA | 76 | CCUAGCCAUGGCGUUAGUA | 119 | CCCCCCUCCCGGGAGAGCC | 162 | UACACCGGAAUCGCUGGGG |
| 34 | AUCACUCCCCUGUGAGGAA | 77 | CUAGCCAUGGCGUUAGUAC | 120 | CCCCCUCCCGGGAGAGCCA | 163 | ACACCGGAAUCGCUGGGGU |
| 35 | UCACUCCCCUGUGAGGAAC | 78 | UAGCCAUGGCGUUAGUACG | 121 | CCCCUCCCGGGAGAGCCAU | 164 | CACCGGAAUCGCUGGGGUG |
| 36 | CACUCCCCUGUGAGGAACU | 79 | AGCCAUGGCGUUAGUACGA | 122 | CCCUCCCGGGAGAGCCAUA | 165 | ACCGGAAUCGCUGGGGUGA |
| 37 | ACUCCCCUGUGAGGAACUU | 80 | GCCAUGGCGUUAGUACGAG | 123 | CCUCCCGGGAGAGCCAUAG | 166 | CCGGAAUCGCUGGGGUGAC |
| 38 | CUCCCCUGUGAGGAACUUC | 81 | CCAUGGCGUUAGUACGAGU | 124 | CUCCCGGGAGAGCCAUAGU | 167 | CGGAAUCGCUGGGGUGACC |
| 39 | UCCCCUGUGAGGAACUUCU | 82 | CAUGGCGUUAGUACGAGUG | 125 | UCCCGGGAGAGCCAUAGUG | 168 | GGAAUCGCUGGGGUGACCG |
| 40 | CCCCUGUGAGGAACUUCUG | 83 | AUGGCGUUAGUACGAGUGU | 126 | CCCGGGAGAGCCAUAGUGG | 169 | GAAUCGCUGGGGUGACCGG |
| 41 | CCCUGUGAGGAACUUCUGU | 84 | UGGCGUUAGUACGAGUGUC | 127 | CCGGGAGAGCCAUAGUGGU | 170 | AAUCGCUGGGGUGACCGGG |
| 42 | CCUGUGAGGAACUUCUGUC | 85 | GGCGUUAGUACGAGUGUCG | 128 | CGGGAGAGCCAUAGUGGUC | 171 | AUCGCUGGGGUGACCGGGU |
| 43 | CUGUGAGGAACUUCUGUCU | 86 | GCGUUAGUACGAGUGUCGU | 129 | GGGAGAGCCAUAGUGGUCU | 172 | UCGCUGGGGUGACCGGGUC |

**FIG. 4 (page 178 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 173 | CGCUGGGGUGACCGGGUCC | 216 | CCCAGAAAUUUGGGCGUGC | 259 | GUGUUGGGUCGCGAAAGGC | 302 | CUUGCGAGUGCCCCGGGAG |
| 174 | GCUGGGGUGACCGGGUCCU | 217 | CCAGAAAUUUGGGCGUGCC | 260 | UGUUGGGUCGCGAAAGGCC | 303 | UUGCGAGUGCCCCGGGAGG |
| 175 | CUGGGGUGACCGGGUCCUU | 218 | CAGAAAUUUGGGCGUGCCC | 261 | GUUGGGUCGCGAAAGGCCU | 304 | UGCGAGUGCCCCGGGAGGU |
| 176 | UGGGGUGACCGGGUCCUUU | 219 | AGAAAUUUGGGCGUGCCCC | 262 | UUGGGUCGCGAAAGGCCUU | 305 | GCGAGUGCCCCGGGAGGUC |
| 177 | GGGGUGACCGGGUCCUUUC | 220 | GAAAUUUGGGCGUGCCCCC | 263 | UGGGUCGCGAAAGGCCUUG | 306 | CGAGUGCCCCGGGAGGUCU |
| 178 | GGGUGACCGGGUCCUUUCU | 221 | AAAUUUGGGCGUGCCCCCG | 264 | GGGUCGCGAAAGGCCUUGU | 307 | GAGUGCCCCGGGAGGUCUC |
| 179 | GGUGACCGGGUCCUUUCUU | 222 | AAUUUGGGCGUGCCCCCGC | 265 | GGUCGCGAAAGGCCUUGUG | 308 | AGUGCCCCGGGAGGUCUCG |
| 180 | GUGACCGGGUCCUUUCUUG | 223 | AUUUGGGCGUGCCCCCGCG | 266 | GUCGCGAAAGGCCUUGUGG | 309 | GUGCCCCGGGAGGUCUCGU |
| 181 | UGACCGGGUCCUUUCUUGG | 224 | UUUGGGCGUGCCCCCGCGA | 267 | UCGCGAAAGGCCUUGUGGU | 310 | UGCCCCGGGAGGUCUCGUA |
| 182 | GACCGGGUCCUUUCUUGGA | 225 | UUGGGCGUGCCCCCGCGAG | 268 | CGCGAAAGGCCUUGUGGUA | 311 | GCCCCGGGAGGUCUCGUAG |
| 183 | ACCGGGUCCUUUCUUGGAG | 226 | UGGGCGUGCCCCCGCGAGA | 269 | GCGAAAGGCCUUGUGGUAC | 312 | CCCCGGGAGGUCUCGUAGA |
| 184 | CCGGGUCCUUUCUUGGAGC | 227 | GGGCGUGCCCCCGCGAGAU | 270 | CGAAAGGCCUUGUGGUACU | 313 | CCCGGGAGGUCUCGUAGAC |
| 185 | CGGGUCCUUUCUUGGAGCA | 228 | GGCGUGCCCCCGCGAGAUC | 271 | GAAAGGCCUUGUGGUACUG | 314 | CCGGGAGGUCUCGUAGACC |
| 186 | GGGUCCUUUCUUGGAGCAA | 229 | GCGUGCCCCCGCGAGAUCA | 272 | AAAGGCCUUGUGGUACUGC | 315 | CGGGAGGUCUCGUAGACCG |
| 187 | GGUCCUUUCUUGGAGCAAC | 230 | CGUGCCCCCGCGAGAUCAC | 273 | AAGGCCUUGUGGUACUGCC | 316 | GGGAGGUCUCGUAGACCGU |
| 188 | GUCCUUUCUUGGAGCAACC | 231 | GUGCCCCCGCGAGAUCACU | 274 | AGGCCUUGUGGUACUGCCU | 317 | GGAGGUCUCGUAGACCGUG |
| 189 | UCCUUUCUUGGAGCAACCC | 232 | UGCCCCCGCGAGAUCACUA | 275 | GGCCUUGUGGUACUGCCUG | 318 | GAGGUCUCGUAGACCGUGC |
| 190 | CCUUUCUUGGAGCAACCCG | 233 | GCCCCCGCGAGAUCACUAG | 276 | GCCUUGUGGUACUGCCUGA | 319 | AGGUCUCGUAGACCGUGCA |
| 191 | CUUUCUUGGAGCAACCCGC | 234 | CCCCCGCGAGAUCACUAGC | 277 | CCUUGUGGUACUGCCUGAU | 320 | GGUCUCGUAGACCGUGCAA |
| 192 | UUUCUUGGAGCAACCCGCU | 235 | CCCCGCGAGAUCACUAGCC | 278 | CUUGUGGUACUGCCUGAUA | 321 | GUCUCGUAGACCGUGCAAC |
| 193 | UUCUUGGAGCAACCCGCUC | 236 | CCCGCGAGAUCACUAGCCG | 279 | UUGUGGUACUGCCUGAUAG | 322 | UCUCGUAGACCGUGCAACA |
| 194 | UCUUGGAGCAACCCGCUCA | 237 | CCGCGAGAUCACUAGCCGA | 280 | UGUGGUACUGCCUGAUAGG | 323 | CUCGUAGACCGUGCAACAU |
| 195 | CUUGGAGCAACCCGCUCAA | 238 | CGCGAGAUCACUAGCCGAG | 281 | GUGGUACUGCCUGAUAGGG | 324 | UCGUAGACCGUGCAACAUG |
| 196 | UUGGAGCAACCCGCUCAAU | 239 | GCGAGAUCACUAGCCGAGU | 282 | UGGUACUGCCUGAUAGGGU | 325 | CGUAGACCGUGCAACAUGA |
| 197 | UGGAGCAACCCGCUCAAUA | 240 | CGAGAUCACUAGCCGAGUA | 283 | GGUACUGCCUGAUAGGGUG | 326 | GUAGACCGUGCAACAUGAG |
| 198 | GGAGCAACCCGCUCAAUAC | 241 | GAGAUCACUAGCCGAGUAG | 284 | GUACUGCCUGAUAGGGUGC | 327 | UAGACCGUGCAACAUGAGC |
| 199 | GAGCAACCCGCUCAAUACC | 242 | AGAUCACUAGCCGAGUAGU | 285 | UACUGCCUGAUAGGGUGCU | 328 | AGACCGUGCAACAUGAGCA |
| 200 | AGCAACCCGCUCAAUACCC | 243 | GAUCACUAGCCGAGUAGUG | 286 | ACUGCCUGAUAGGGUGCUU | 329 | GACCGUGCAACAUGAGCAC |
| 201 | GCAACCCGCUCAAUACCCA | 244 | AUCACUAGCCGAGUAGUGU | 287 | CUGCCUGAUAGGGUGCUUG | 330 | ACCGUGCAACAUGAGCACA |
| 202 | CAACCCGCUCAAUACCCAG | 245 | UCACUAGCCGAGUAGUGUU | 288 | UGCCUGAUAGGGUGCUUGC | 331 | CCGUGCAACAUGAGCACAC |
| 203 | AACCCGCUCAAUACCCAGA | 246 | CACUAGCCGAGUAGUGUUG | 289 | GCCUGAUAGGGUGCUUGCG | 332 | CGUGCAACAUGAGCACACU |
| 204 | ACCCGCUCAAUACCCAGAA | 247 | ACUAGCCGAGUAGUGUUGG | 290 | CCUGAUAGGGUGCUUGCGA | 333 | GUGCAACAUGAGCACACUU |
| 205 | CCCGCUCAAUACCCAGAAA | 248 | CUAGCCGAGUAGUGUUGGG | 291 | CUGAUAGGGUGCUUGCGAG | 334 | UGCAACAUGAGCACACUUC |
| 206 | CCGCUCAAUACCCAGAAAU | 249 | UAGCCGAGUAGUGUUGGGU | 292 | UGAUAGGGUGCUUGCGAGU | 335 | GCAACAUGAGCACACUUCC |
| 207 | CGCUCAAUACCCAGAAAUU | 250 | AGCCGAGUAGUGUUGGGUC | 293 | GAUAGGGUGCUUGCGAGUG | 336 | CAACAUGAGCACACUUCCU |
| 208 | GCUCAAUACCCAGAAAUUU | 251 | GCCGAGUAGUGUUGGGUCG | 294 | AUAGGGUGCUUGCGAGUGC | 337 | AACAUGAGCACACUUCCUA |
| 209 | CUCAAUACCCAGAAAUUUG | 252 | CCGAGUAGUGUUGGGUCGC | 295 | UAGGGUGCUUGCGAGUGCC | 338 | ACAUGAGCACACUUCCUAA |
| 210 | UCAAUACCCAGAAAUUUGG | 253 | CGAGUAGUGUUGGGUCGCG | 296 | AGGGUGCUUGCGAGUGCCC | 339 | CAUGAGCACACUUCCUAAA |
| 211 | CAAUACCCAGAAAUUUGGG | 254 | GAGUAGUGUUGGGUCGCGA | 297 | GGGUGCUUGCGAGUGCCCC | 340 | AUGAGCACACUUCCUAAAC |
| 212 | AAUACCCAGAAAUUUGGGC | 255 | AGUAGUGUUGGGUCGCGAA | 298 | GGUGCUUGCGAGUGCCCCG | 341 | UGAGCACACUUCCUAAACC |
| 213 | AUACCCAGAAAUUUGGGCG | 256 | GUAGUGUUGGGUCGCGAAA | 299 | GUGCUUGCGAGUGCCCCGG | 342 | GAGCACACUUCCUAAACCU |
| 214 | UACCCAGAAAUUUGGGCGU | 257 | UAGUGUUGGGUCGCGAAAG | 300 | UGCUUGCGAGUGCCCCGGG | 343 | AGCACACUUCCUAAACCUC |
| 215 | ACCCAGAAAUUUGGGCGUG | 258 | AGUGUUGGGUCGCGAAAGG | 301 | GCUUGCGAGUGCCCCGGGA | 344 | GCACACUUCCUAAACCUCA |

**FIG. 4 (page 179 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 345 | CACACUUCCUAAACCUCAA | 388 | CGUCGCCCACAGGACGUCA | 431 | UUGGUGGAGUAUACGUGUU | 474 | UGUGCGCGCGACGCGUAAA |
| 346 | ACACUUCCUAAACCUCAAA | 389 | GUCGCCCACAGGACGUCAA | 432 | UGGUGGAGUAUACGUGUUG | 475 | GUGCGCGCGACGCGUAAAA |
| 347 | CACUUCCUAAACCUCAAAG | 390 | UCGCCCACAGGACGUCAAG | 433 | GGUGGAGUAUACGUGUUGC | 476 | UGCGCGCGACGCGUAAAAC |
| 348 | ACUUCCUAAACCUCAAAGA | 391 | CGCCCACAGGACGUCAAGU | 434 | GUGGAGUAUACGUGUUGCC | 477 | GCGCGCGACGCGUAAAACU |
| 349 | CUUCCUAAACCUCAAAGAA | 392 | GCCCACAGGACGUCAAGUU | 435 | UGGAGUAUACGUGUUGCCG | 478 | CGCGCGACGCGUAAAACUU |
| 350 | UUCCUAAACCUCAAAGAAA | 393 | CCCACAGGACGUCAAGUUC | 436 | GGAGUAUACGUGUUGCCGC | 479 | GCGCGACGCGUAAAACUUC |
| 351 | UCCUAAACCUCAAAGAAAA | 394 | CCACAGGACGUCAAGUUCC | 437 | GAGUAUACGUGUUGCCGCG | 480 | CGCGACGCGUAAAACUUCU |
| 352 | CCUAAACCUCAAAGAAAAA | 395 | CACAGGACGUCAAGUUCCC | 438 | AGUAUACGUGUUGCCGCGC | 481 | GCGACGCGUAAAACUUCUG |
| 353 | CUAAACCUCAAAGAAAAAC | 396 | ACAGGACGUCAAGUUCCCG | 439 | GUAUACGUGUUGCCGCGCA | 482 | CGACGCGUAAAACUUCUGA |
| 354 | UAAACCUCAAAGAAAAACC | 397 | CAGGACGUCAAGUUCCCGG | 440 | UAUACGUGUUGCCGCGCAG | 483 | GACGCGUAAAACUUCUGAA |
| 355 | AAACCUCAAAGAAAAACCA | 398 | AGGACGUCAAGUUCCCGGG | 441 | AUACGUGUUGCCGCGCAGG | 484 | ACGCGUAAAACUUCUGAAC |
| 356 | AACCUCAAAGAAAAACCAA | 399 | GGACGUCAAGUUCCCGGGU | 442 | UACGUGUUGCCGCGCAGGG | 485 | CGCGUAAAACUUCUGAACG |
| 357 | ACCUCAAAGAAAAACCAAA | 400 | GACGUCAAGUUCCCGGGUG | 443 | ACGUGUUGCCGCGCAGGGG | 486 | GCGUAAAACUUCUGAACGG |
| 358 | CCUCAAAGAAAAACCAAAA | 401 | ACGUCAAGUUCCCGGGUGG | 444 | CGUGUUGCCGCGCAGGGGC | 487 | CGUAAAACUUCUGAACGGU |
| 359 | CUCAAAGAAAAACCAAAAG | 402 | CGUCAAGUUCCCGGGUGGC | 445 | GUGUUGCCGCGCAGGGGCC | 488 | GUAAAACUUCUGAACGGUC |
| 360 | UCAAAGAAAAACCAAAAGA | 403 | GUCAAGUUCCCGGGUGGCG | 446 | UGUUGCCGCGCAGGGGCCC | 489 | UAAAACUUCUGAACGGUCA |
| 361 | CAAAGAAAAACCAAAAGAA | 404 | UCAAGUUCCCGGGUGGCGG | 447 | GUUGCCGCGCAGGGGCCCA | 490 | AAAACUUCUGAACGGUCAC |
| 362 | AAAGAAAAACCAAAAGAAA | 405 | CAAGUUCCCGGGUGGCGGA | 448 | UUGCCGCGCAGGGGCCCAC | 491 | AAACUUCUGAACGGUCACA |
| 363 | AAGAAAAACCAAAAGAAAC | 406 | AAGUUCCCGGGUGGCGGAC | 449 | UGCCGCGCAGGGGCCCACG | 492 | AACUUCUGAACGGUCACAG |
| 364 | AGAAAAACCAAAAGAAACA | 407 | AGUUCCCGGGUGGCGGACA | 450 | GCCGCGCAGGGGCCCACGA | 493 | ACUUCUGAACGGUCACAGC |
| 365 | GAAAAACCAAAAGAAACAC | 408 | GUUCCCGGGUGGCGGACAG | 451 | CCGCGCAGGGGCCCACGAU | 494 | CUUCUGAACGGUCACAGCC |
| 366 | AAAAACCAAAAGAAACACC | 409 | UUCCCGGGUGGCGGACAGA | 452 | CGCGCAGGGGCCCACGAUU | 495 | UUCUGAACGGUCACAGCCU |
| 367 | AAAACCAAAAGAAACACCA | 410 | UCCCGGGUGGCGGACAGAU | 453 | GCGCAGGGGCCCACGAUUG | 496 | UCUGAACGGUCACAGCCUC |
| 368 | AAACCAAAAGAAACACCAU | 411 | CCCGGGUGGCGGACAGAUC | 454 | CGCAGGGGCCCACGAUUGG | 497 | CUGAACGGUCACAGCCUCG |
| 369 | AACCAAAAGAAACACCAUC | 412 | CCGGGUGGCGGACAGAUCG | 455 | GCAGGGGCCCACGAUUGGG | 498 | UGAACGGUCACAGCCUCGC |
| 370 | ACCAAAAGAAACACCAUCC | 413 | CGGGUGGCGGACAGAUCGU | 456 | CAGGGGCCCACGAUUGGGU | 499 | GAACGGUCACAGCCUCGCG |
| 371 | CCAAAAGAAACACCAUCCG | 414 | GGGUGGCGGACAGAUCGUU | 457 | AGGGGCCCACGAUUGGGUG | 500 | AACGGUCACAGCCUCGCGG |
| 372 | CAAAAGAAACACCAUCCGU | 415 | GGUGGCGGACAGAUCGUUG | 458 | GGGGCCCACGAUUGGGUGU | 501 | ACGGUCACAGCCUCGCGGA |
| 373 | AAAAGAAACACCAUCCGUC | 416 | GUGGCGGACAGAUCGUUGG | 459 | GGGCCCACGAUUGGGUGUG | 502 | CGGUCACAGCCUCGCGGAC |
| 374 | AAAGAAACACCAUCCGUCG | 417 | UGGCGGACAGAUCGUUGGU | 460 | GGCCCACGAUUGGGUGUGC | 503 | GGUCACAGCCUCGCGGACG |
| 375 | AAGAAACACCAUCCGUCGC | 418 | GGCGGACAGAUCGUUGGUG | 461 | GCCCACGAUUGGGUGUGCG | 504 | GUCACAGCCUCGCGGACGA |
| 376 | AGAAACACCAUCCGUCGCC | 419 | GCGGACAGAUCGUUGGUGG | 462 | CCCACGAUUGGGUGUGCGC | 505 | UCACAGCCUCGCGGACGAC |
| 377 | GAAACACCAUCCGUCGCCC | 420 | CGGACAGAUCGUUGGUGGA | 463 | CCACGAUUGGGUGUGCGCG | 506 | CACAGCCUCGCGGACGACG |
| 378 | AAACACCAUCCGUCGCCCA | 421 | GGACAGAUCGUUGGUGGAG | 464 | CACGAUUGGGUGUGCGCGC | 507 | ACAGCCUCGCGGACGACGA |
| 379 | AACACCAUCCGUCGCCCAC | 422 | GACAGAUCGUUGGUGGAGU | 465 | ACGAUUGGGUGUGCGCGCG | 508 | CAGCCUCGCGGACGACGAC |
| 380 | ACACCAUCCGUCGCCCACA | 423 | ACAGAUCGUUGGUGGAGUA | 466 | CGAUUGGGUGUGCGCGCGA | 509 | AGCCUCGCGGACGACGACA |
| 381 | CACCAUCCGUCGCCCACAG | 424 | CAGAUCGUUGGUGGAGUAU | 467 | GAUUGGGUGUGCGCGCGAC | 510 | GCCUCGCGGACGACGACAG |
| 382 | ACCAUCCGUCGCCCACAGG | 425 | AGAUCGUUGGUGGAGUAUA | 468 | AUUGGGUGUGCGCGCGACG | 511 | CCUCGCGGACGACGACAGC |
| 383 | CCAUCCGUCGCCCACAGGA | 426 | GAUCGUUGGUGGAGUAUAC | 469 | UUGGGUGUGCGCGCGACGC | 512 | CUCGCGGACGACGACAGCC |
| 384 | CAUCCGUCGCCCACAGGAC | 427 | AUCGUUGGUGGAGUAUACG | 470 | UGGGUGUGCGCGCGACGCG | 513 | UCGCGGACGACGACAGCCU |
| 385 | AUCCGUCGCCCACAGGACG | 428 | UCGUUGGUGGAGUAUACGU | 471 | GGGUGUGCGCGCGACGCGU | 514 | CGCGGACGACGACAGCCUA |
| 386 | UCCGUCGCCCACAGGACGU | 429 | CGUUGGUGGAGUAUACGUG | 472 | GGUGUGCGCGCGACGCGUA | 515 | GCGGACGACGACAGCCUAU |
| 387 | CCGUCGCCCACAGGACGUC | 430 | GUUGGUGGAGUAUACGUGU | 473 | GUGUGCGCGCGACGCGUAA | 516 | CGGACGACGACAGCCUAUC |

**FIG. 4 (page 180 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 517 | GGACGACGACAGCCUAUCC | 560 | GGUCCUGGGCUCAGCCCGG | 603 | CGAGGGCUGCGGGUGGGCA | 646 | UCCCGUCCAUCCUGGGGCC |
| 518 | GACGACGACAGCCUAUCCC | 561 | GUCCUGGGCUCAGCCCGGG | 604 | GAGGGCUGCGGGUGGGCAG | 647 | CCCGUCCAUCCUGGGGCCC |
| 519 | ACGACGACAGCCUAUCCCC | 562 | UCCUGGGCUCAGCCCGGGU | 605 | AGGGCUGCGGGUGGGCAGG | 648 | CCGUCCAUCCUGGGGCCCA |
| 520 | CGACGACAGCCUAUCCCCA | 563 | CCUGGGCUCAGCCCGGGUA | 606 | GGGCUGCGGGUGGGCAGGG | 649 | CGUCCAUCCUGGGGCCCAA |
| 521 | GACGACAGCCUAUCCCCAA | 564 | CUGGGCUCAGCCCGGGUAC | 607 | GGCUGCGGGUGGGCAGGGU | 650 | GUCCAUCCUGGGGCCCAAA |
| 522 | ACGACAGCCUAUCCCCAAG | 565 | UGGGCUCAGCCCGGGUACC | 608 | GCUGCGGGUGGGCAGGGUG | 651 | UCCAUCCUGGGGCCCAAAU |
| 523 | CGACAGCCUAUCCCCAAGG | 566 | GGGCUCAGCCCGGGUACCC | 609 | CUGCGGGUGGGCAGGGUGG | 652 | CCAUCCUGGGGCCCAAAUG |
| 524 | GACAGCCUAUCCCCAAGGC | 567 | GGCUCAGCCCGGGUACCCU | 610 | UGCGGGUGGGCAGGGUGGC | 653 | CAUCCUGGGGCCCAAAUGA |
| 525 | ACAGCCUAUCCCCAAGGCG | 568 | GCUCAGCCCGGGUACCCUU | 611 | GCGGGUGGGCAGGGUGGCU | 654 | AUCCUGGGGCCCAAAUGAC |
| 526 | CAGCCUAUCCCCAAGGCGC | 569 | CUCAGCCCGGGUACCCUUG | 612 | CGGGUGGGCAGGGUGGCUC | 655 | UCCUGGGGCCCAAAUGACC |
| 527 | AGCCUAUCCCCAAGGCGCG | 570 | UCAGCCCGGGUACCCUUGG | 613 | GGGUGGGCAGGGUGGCUCC | 656 | CCUGGGGCCCAAAUGACCC |
| 528 | GCCUAUCCCCAAGGCGCGU | 571 | CAGCCCGGGUACCCUUGGC | 614 | GGUGGGCAGGGUGGCUCCU | 657 | CUGGGGCCCAAAUGACCCC |
| 529 | CCUAUCCCCAAGGCGCGUC | 572 | AGCCCGGGUACCCUUGGCC | 615 | GUGGGCAGGGUGGCUCCUG | 658 | UGGGGCCCAAAUGACCCCC |
| 530 | CUAUCCCCAAGGCGCGUCG | 573 | GCCCGGGUACCCUUGGCCC | 616 | UGGGCAGGGUGGCUCCUGU | 659 | GGGGCCCAAAUGACCCCCG |
| 531 | UAUCCCCAAGGCGCGUCGG | 574 | CCCGGGUACCCUUGGCCCC | 617 | GGGCAGGGUGGCUCCUGUC | 660 | GGGCCCAAAUGACCCCCGG |
| 532 | AUCCCCAAGGCGCGUCGGA | 575 | CCGGGUACCCUUGGCCCCU | 618 | GGCAGGGUGGCUCCUGUCC | 661 | GGCCCAAAUGACCCCCGGC |
| 533 | UCCCCAAGGCGCGUCGGAG | 576 | CGGGUACCCUUGGCCCCUC | 619 | GCAGGGUGGCUCCUGUCCC | 662 | GCCCAAAUGACCCCCGGCG |
| 534 | CCCCAAGGCGCGUCGGAGC | 577 | GGGUACCCUUGGCCCCUCU | 620 | CAGGGUGGCUCCUGUCCCC | 663 | CCCAAAUGACCCCCGGCGG |
| 535 | CCCAAGGCGCGUCGGAGCG | 578 | GGUACCCUUGGCCCCUCUA | 621 | AGGGUGGCUCCUGUCCCCA | 664 | CCAAAUGACCCCCGGCGGA |
| 536 | CCAAGGCGCGUCGGAGCGA | 579 | GUACCCUUGGCCCCUCUAU | 622 | GGGUGGCUCCUGUCCCCAC | 665 | CAAAUGACCCCCGGCGGAG |
| 537 | CAAGGCGCGUCGGAGCGAA | 580 | UACCCUUGGCCCCUCUAUG | 623 | GGUGGCUCCUGUCCCCACG | 666 | AAAUGACCCCCGGCGGAGG |
| 538 | AAGGCGCGUCGGAGCGAAG | 581 | ACCCUUGGCCCCUCUAUGG | 624 | GUGGCUCCUGUCCCCACGC | 667 | AAUGACCCCCGGCGGAGGU |
| 539 | AGGCGCGUCGGAGCGAAGG | 582 | CCCUUGGCCCCUCUAUGGU | 625 | UGGCUCCUGUCCCCACGCG | 668 | AUGACCCCCGGCGGAGGUC |
| 540 | GGCGCGUCGGAGCGAAGGC | 583 | CCUUGGCCCCUCUAUGGUA | 626 | GGCUCCUGUCCCCACGCGG | 669 | UGACCCCCGGCGGAGGUCC |
| 541 | GCGCGUCGGAGCGAAGGCC | 584 | CUUGGCCCCUCUAUGGUAA | 627 | GCUCCUGUCCCCACGCGGC | 670 | GACCCCCGGCGGAGGUCCC |
| 542 | CGCGUCGGAGCGAAGGCCG | 585 | UUGGCCCCUCUAUGGUAAC | 628 | CUCCUGUCCCCACGCGGCU | 671 | ACCCCCGGCGGAGGUCCCG |
| 543 | GCGUCGGAGCGAAGGCCGG | 586 | UGGCCCCUCUAUGGUAACG | 629 | UCCUGUCCCCACGCGGCUC | 672 | CCCCCGGCGGAGGUCCCGC |
| 544 | CGUCGGAGCGAAGGCCGGU | 587 | GGCCCCUCUAUGGUAACGA | 630 | CCUGUCCCCACGCGGCUCC | 673 | CCCCGGCGGAGGUCCCGCA |
| 545 | GUCGGAGCGAAGGCCGGUC | 588 | GCCCCUCUAUGGUAACGAG | 631 | CUGUCCCCACGCGGCUCCC | 674 | CCCGGCGGAGGUCCCGCAA |
| 546 | UCGGAGCGAAGGCCGGUCC | 589 | CCCCUCUAUGGUAACGAGG | 632 | UGUCCCCACGCGGCUCCCG | 675 | CCGGCGGAGGUCCCGCAAU |
| 547 | CGGAGCGAAGGCCGGUCCU | 590 | CCCUCUAUGGUAACGAGGG | 633 | GUCCCCACGCGGCUCCCGU | 676 | CGGCGGAGGUCCCGCAAUU |
| 548 | GGAGCGAAGGCCGGUCCUG | 591 | CCUCUAUGGUAACGAGGGC | 634 | UCCCCACGCGGCUCCCGUC | 677 | GGCGGAGGUCCCGCAAUUU |
| 549 | GAGCGAAGGCCGGUCCUGG | 592 | CUCUAUGGUAACGAGGGCU | 635 | CCCCACGCGGCUCCCGUCC | 678 | GCGGAGGUCCCGCAAUUUG |
| 550 | AGCGAAGGCCGGUCCUGGG | 593 | UCUAUGGUAACGAGGGCUG | 636 | CCCACGCGGCUCCCGUCCA | 679 | CGGAGGUCCCGCAAUUUGG |
| 551 | GCGAAGGCCGGUCCUGGGC | 594 | CUAUGGUAACGAGGGCUGC | 637 | CCACGCGGCUCCCGUCCAU | 680 | GGAGGUCCCGCAAUUUGGG |
| 552 | CGAAGGCCGGUCCUGGGCU | 595 | UAUGGUAACGAGGGCUGCG | 638 | CACGCGGCUCCCGUCCAUC | 681 | GAGGUCCCGCAAUUUGGGU |
| 553 | GAAGGCCGGUCCUGGGCUC | 596 | AUGGUAACGAGGGCUGCGG | 639 | ACGCGGCUCCCGUCCAUCC | 682 | AGGUCCCGCAAUUUGGGUA |
| 554 | AAGGCCGGUCCUGGGCUCA | 597 | UGGUAACGAGGGCUGCGGG | 640 | CGCGGCUCCCGUCCAUCCU | 683 | GGUCCCGCAAUUUGGGUAA |
| 555 | AGGCCGGUCCUGGGCUCAG | 598 | GGUAACGAGGGCUGCGGGU | 641 | GCGGCUCCCGUCCAUCCUG | 684 | GUCCCGCAAUUUGGGUAAA |
| 556 | GGCCGGUCCUGGGCUCAGC | 599 | GUAACGAGGGCUGCGGGUG | 642 | CGGCUCCCGUCCAUCCUGG | 685 | UCCCGCAAUUUGGGUAAAG |
| 557 | GCCGGUCCUGGGCUCAGCC | 600 | UAACGAGGGCUGCGGGUGG | 643 | GGCUCCCGUCCAUCCUGGG | 686 | CCCGCAAUUUGGGUAAAGU |
| 558 | CCGGUCCUGGGCUCAGCCC | 601 | AACGAGGGCUGCGGGUGGG | 644 | GCUCCCGUCCAUCCUGGGG | 687 | CCGCAAUUUGGGUAAAGUC |
| 559 | CGGUCCUGGGCUCAGCCCG | 602 | ACGAGGGCUGCGGGUGGGC | 645 | CUCCCGUCCAUCCUGGGGC | 688 | CGCAAUUUGGGUAAAGUCA |

**FIG. 4 (page 181 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 689 | GCAAUUUGGGUAAAGUCAU | 732 | CGACCUCAUGGGGUACAUC | 775 | GGCGUCGCAAGAGCCCUCG | 818 | ACGGGAUAAAUUUCGCAAC |
| 690 | CAAUUUGGGUAAAGUCAUC | 733 | GACCUCAUGGGGUACAUCC | 776 | GCGUCGCAAGAGCCCUCGC | 819 | CGGGAUAAAUUUCGCAACA |
| 691 | AAUUUGGGUAAAGUCAUCG | 734 | ACCUCAUGGGGUACAUCCC | 777 | CGUCGCAAGAGCCCUCGCG | 820 | GGGAUAAAUUUCGCAACAG |
| 692 | AUUUGGGUAAAGUCAUCGA | 735 | CCUCAUGGGGUACAUCCCG | 778 | GUCGCAAGAGCCCUCGCGC | 821 | GGAUAAAUUUCGCAACAGG |
| 693 | UUUGGGUAAAGUCAUCGAU | 736 | CUCAUGGGGUACAUCCCGC | 779 | UCGCAAGAGCCCUCGCGCA | 822 | GAUAAAUUUCGCAACAGGG |
| 694 | UUGGGUAAAGUCAUCGAUA | 737 | UCAUGGGGUACAUCCCGCU | 780 | CGCAAGAGCCCUCGCGCAU | 823 | AUAAAUUUCGCAACAGGGA |
| 695 | UGGGUAAAGUCAUCGAUAC | 738 | CAUGGGGUACAUCCCGCUC | 781 | GCAAGAGCCCUCGCGCAUG | 824 | UAAAUUUCGCAACAGGGAA |
| 696 | GGGUAAAGUCAUCGAUACC | 739 | AUGGGGUACAUCCCGCUCG | 782 | CAAGAGCCCUCGCGCAUGG | 825 | AAAUUUCGCAACAGGGAAC |
| 697 | GGUAAAGUCAUCGAUACCC | 740 | UGGGGUACAUCCCGCUCGU | 783 | AAGAGCCCUCGCGCAUGGC | 826 | AAUUUCGCAACAGGGAACU |
| 698 | GUAAAGUCAUCGAUACCCU | 741 | GGGGUACAUCCCGCUCGUC | 784 | AGAGCCCUCGCGCAUGGCG | 827 | AUUUCGCAACAGGGAACUU |
| 699 | UAAAGUCAUCGAUACCCUA | 742 | GGGUACAUCCCGCUCGUCG | 785 | GAGCCCUCGCGCAUGGCGU | 828 | UUUCGCAACAGGGAACUUG |
| 700 | AAAGUCAUCGAUACCCUAA | 743 | GGUACAUCCCGCUCGUCGG | 786 | AGCCCUCGCGCAUGGCGUG | 829 | UUCGCAACAGGGAACUUGC |
| 701 | AAGUCAUCGAUACCCUAAC | 744 | GUACAUCCCGCUCGUCGGC | 787 | GCCCUCGCGCAUGGCGUGA | 830 | UCGCAACAGGGAACUUGCC |
| 702 | AGUCAUCGAUACCCUAACG | 745 | UACAUCCCGCUCGUCGGCG | 788 | CCCUCGCGCAUGGCGUGAG | 831 | CGCAACAGGGAACUUGCCC |
| 703 | GUCAUCGAUACCCUAACGU | 746 | ACAUCCCGCUCGUCGGCGC | 789 | CCUCGCGCAUGGCGUGAGG | 832 | GCAACAGGGAACUUGCCCG |
| 704 | UCAUCGAUACCCUAACGUG | 747 | CAUCCCGCUCGUCGGCGCU | 790 | CUCGCGCAUGGCGUGAGGG | 833 | CAACAGGGAACUUGCCCGG |
| 705 | CAUCGAUACCCUAACGUGC | 748 | AUCCCGCUCGUCGGCGCUC | 791 | UCGCGCAUGGCGUGAGGGC | 834 | AACAGGGAACUUGCCCGGU |
| 706 | AUCGAUACCCUAACGUGCG | 749 | UCCCGCUCGUCGGCGCUCC | 792 | CGCGCAUGGCGUGAGGGCC | 835 | ACAGGGAACUUGCCCGGUU |
| 707 | UCGAUACCCUAACGUGCGG | 750 | CCCGCUCGUCGGCGCUCCU | 793 | GCGCAUGGCGUGAGGGCCC | 836 | CAGGGAACUUGCCCGGUUG |
| 708 | CGAUACCCUAACGUGCGGA | 751 | CCGCUCGUCGGCGCUCCUG | 794 | CGCAUGGCGUGAGGGCCCU | 837 | AGGGAACUUGCCCGGUUGC |
| 709 | GAUACCCUAACGUGCGGAU | 752 | CGCUCGUCGGCGCUCCUGU | 795 | GCAUGGCGUGAGGGCCCUU | 838 | GGGAACUUGCCCGGUUGCU |
| 710 | AUACCCUAACGUGCGGAUU | 753 | GCUCGUCGGCGCUCCUGUA | 796 | CAUGGCGUGAGGGCCCUUG | 839 | GGAACUUGCCCGGUUGCUC |
| 711 | UACCCUAACGUGCGGAUUC | 754 | CUCGUCGGCGCUCCUGUAG | 797 | AUGGCGUGAGGGCCCUUGA | 840 | GAACUUGCCCGGUUGCUCC |
| 712 | ACCCUAACGUGCGGAUUCG | 755 | UCGUCGGCGCUCCUGUAGG | 798 | UGGCGUGAGGGCCCUUGAA | 841 | AACUUGCCCGGUUGCUCCU |
| 713 | CCCUAACGUGCGGAUUCGC | 756 | CGUCGGCGCUCCUGUAGGA | 799 | GGCGUGAGGGCCCUUGAAG | 842 | ACUUGCCCGGUUGCUCCUU |
| 714 | CCUAACGUGCGGAUUCGCC | 757 | GUCGGCGCUCCUGUAGGAG | 800 | GCGUGAGGGCCCUUGAAGA | 843 | CUUGCCCGGUUGCUCCUUU |
| 715 | CUAACGUGCGGAUUCGCCG | 758 | UCGGCGCUCCUGUAGGAGG | 801 | CGUGAGGGCCCUUGAAGAC | 844 | UUGCCCGGUUGCUCCUUUU |
| 716 | UAACGUGCGGAUUCGCCGA | 759 | CGGCGCUCCUGUAGGAGGC | 802 | GUGAGGGCCCUUGAAGACG | 845 | UGCCCGGUUGCUCCUUUUC |
| 717 | AACGUGCGGAUUCGCCGAC | 760 | GGCGCUCCUGUAGGAGGCG | 803 | UGAGGGCCCUUGAAGACGG | 846 | GCCCGGUUGCUCCUUUUCU |
| 718 | ACGUGCGGAUUCGCCGACC | 761 | GCGCUCCUGUAGGAGGCGU | 804 | GAGGGCCCUUGAAGACGGG | 847 | CCCGGUUGCUCCUUUUCUA |
| 719 | CGUGCGGAUUCGCCGACCU | 762 | CGCUCCUGUAGGAGGCGUC | 805 | AGGGCCCUUGAAGACGGGA | 848 | CCGGUUGCUCCUUUUCUAU |
| 720 | GUGCGGAUUCGCCGACCUC | 763 | GCUCCUGUAGGAGGCGUCG | 806 | GGGCCCUUGAAGACGGGAU | 849 | CGGUUGCUCCUUUUCUAUC |
| 721 | UGCGGAUUCGCCGACCUCA | 764 | CUCCUGUAGGAGGCGUCGC | 807 | GGCCCUUGAAGACGGGAUA | 850 | GGUUGCUCCUUUUCUAUCU |
| 722 | GCGGAUUCGCCGACCUCAU | 765 | UCCUGUAGGAGGCGUCGCA | 808 | GCCCUUGAAGACGGGAUAA | 851 | GUUGCUCCUUUUCUAUCUU |
| 723 | CGGAUUCGCCGACCUCAUG | 766 | CCUGUAGGAGGCGUCGCAA | 809 | CCCUUGAAGACGGGAUAAA | 852 | UUGCUCCUUUUCUAUCUUC |
| 724 | GGAUUCGCCGACCUCAUGG | 767 | CUGUAGGAGGCGUCGCAAG | 810 | CCUUGAAGACGGGAUAAAU | 853 | UGCUCCUUUUCUAUCUUCC |
| 725 | GAUUCGCCGACCUCAUGGG | 768 | UGUAGGAGGCGUCGCAAGA | 811 | CUUGAAGACGGGAUAAAUU | 854 | GCUCCUUUUCUAUCUUCCU |
| 726 | AUUCGCCGACCUCAUGGGG | 769 | GUAGGAGGCGUCGCAAGAG | 812 | UUGAAGACGGGAUAAAUUU | 855 | CUCCUUUUCUAUCUUCCUU |
| 727 | UUCGCCGACCUCAUGGGGU | 770 | UAGGAGGCGUCGCAAGAGC | 813 | UGAAGACGGGAUAAAUUUC | 856 | UCCUUUUCUAUCUUCCUUC |
| 728 | UCGCCGACCUCAUGGGGUA | 771 | AGGAGGCGUCGCAAGAGCC | 814 | GAAGACGGGAUAAAUUUCG | 857 | CCUUUUCUAUCUUCCUUCU |
| 729 | CGCCGACCUCAUGGGGUAC | 772 | GGAGGCGUCGCAAGAGCCC | 815 | AAGACGGGAUAAAUUUCGC | 858 | CUUUUCUAUCUUCCUUCUU |
| 730 | GCCGACCUCAUGGGGUACA | 773 | GAGGCGUCGCAAGAGCCCU | 816 | AGACGGGAUAAAUUUCGCA | 859 | UUUUCUAUCUUCCUUCUUG |
| 731 | CCGACCUCAUGGGGUACAU | 774 | AGGCGUCGCAAGAGCCCUC | 817 | GACGGGAUAAAUUUCGCAA | 860 | UUUCUAUCUUCCUUCUUGC |

**FIG. 4 (page 182 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 861 | UUCUAUCUUCCUUCUUGCU | 904 | GCAGCCAGUCUAGAGUGGC | 947 | UUACCAACGACUGUUCCAA | 990 | UGAUGUCAUUCUGCACACA |
| 862 | UCUAUCUUCCUUCUUGCUC | 905 | CAGCCAGUCUAGAGUGGCG | 948 | UACCAACGACUGUUCCAAU | 991 | GAUGUCAUUCUGCACACAC |
| 863 | CUAUCUUCCUUCUUGCUCU | 906 | AGCCAGUCUAGAGUGGCGG | 949 | ACCAACGACUGUUCCAAUA | 992 | AUGUCAUUCUGCACACACC |
| 864 | UAUCUUCCUUCUUGCUCUG | 907 | GCCAGUCUAGAGUGGCGGA | 950 | CCAACGACUGUUCCAAUAG | 993 | UGUCAUUCUGCACACACCC |
| 865 | AUCUUCCUUCUUGCUCUGU | 908 | CCAGUCUAGAGUGGCGGAA | 951 | CAACGACUGUUCCAAUAGC | 994 | GUCAUUCUGCACACACCCG |
| 866 | UCUUCCUUCUUGCUCUGUU | 909 | CAGUCUAGAGUGGCGGAAU | 952 | AACGACUGUUCCAAUAGCA | 995 | UCAUUCUGCACACACCCGG |
| 867 | CUUCCUUCUUGCUCUGUUC | 910 | AGUCUAGAGUGGCGGAAUA | 953 | ACGACUGUUCCAAUAGCAG | 996 | CAUUCUGCACACACCCGGC |
| 868 | UUCCUUCUUGCUCUGUUCU | 911 | GUCUAGAGUGGCGGAAUAC | 954 | CGACUGUUCCAAUAGCAGU | 997 | AUUCUGCACACACCCGGCU |
| 869 | UCCUUCUUGCUCUGUUCUC | 912 | UCUAGAGUGGCGGAAUACG | 955 | GACUGUUCCAAUAGCAGUA | 998 | UUCUGCACACACCCGGCUG |
| 870 | CCUUCUUGCUCUGUUCUCU | 913 | CUAGAGUGGCGGAAUACGU | 956 | ACUGUUCCAAUAGCAGUAU | 999 | UCUGCACACACCCGGCUGU |
| 871 | CUUCUUGCUCUGUUCUCUU | 914 | UAGAGUGGCGGAAUACGUC | 957 | CUGUUCCAAUAGCAGUAUU | 1000 | CUGCACACACCCGGCUGUG |
| 872 | UUCUUGCUCUGUUCUCUUG | 915 | AGAGUGGCGGAAUACGUCU | 958 | UGUUCCAAUAGCAGUAUUG | 1001 | UGCACACACCCGGCUGUGU |
| 873 | UCUUGCUCUGUUCUCUUGC | 916 | GAGUGGCGGAAUACGUCUG | 959 | GUUCCAAUAGCAGUAUUGU | 1002 | GCACACACCCGGCUGUGUA |
| 874 | CUUGCUCUGUUCUCUUGCU | 917 | AGUGGCGGAAUACGUCUGG | 960 | UUCCAAUAGCAGUAUUGUG | 1003 | CACACACCCGGCUGUGUAC |
| 875 | UUGCUCUGUUCUCUUGCUU | 918 | GUGGCGGAAUACGUCUGGC | 961 | UCCAAUAGCAGUAUUGUGU | 1004 | ACACACCCGGCUGUGUACC |
| 876 | UGCUCUGUUCUCUUGCUUA | 919 | UGGCGGAAUACGUCUGGCC | 962 | CCAAUAGCAGUAUUGUGUA | 1005 | CACACCCGGCUGUGUACCU |
| 877 | GCUCUGUUCUCUUGCUUAA | 920 | GGCGGAAUACGUCUGGCCU | 963 | CAAUAGCAGUAUUGUGUAU | 1006 | ACACCCGGCUGUGUACCUU |
| 878 | CUCUGUUCUCUUGCUUAAU | 921 | GCGGAAUACGUCUGGCCUC | 964 | AAUAGCAGUAUUGUGUAUG | 1007 | CACCCGGCUGUGUACCUUG |
| 879 | UCUGUUCUCUUGCUUAAUU | 922 | CGGAAUACGUCUGGCCUCU | 965 | AUAGCAGUAUUGUGUAUGA | 1008 | ACCCGGCUGUGUACCUUGU |
| 880 | CUGUUCUCUUGCUUAAUUC | 923 | GGAAUACGUCUGGCCUCUA | 966 | UAGCAGUAUUGUGUAUGAG | 1009 | CCCGGCUGUGUACCUUGUG |
| 881 | UGUUCUCUUGCUUAAUUCA | 924 | GAAUACGUCUGGCCUCUAC | 967 | AGCAGUAUUGUGUAUGAGG | 1010 | CCGGCUGUGUACCUUGUGU |
| 882 | GUUCUCUUGCUUAAUUCAU | 925 | AAUACGUCUGGCCUCUACG | 968 | GCAGUAUUGUGUAUGAGGC | 1011 | CGGCUGUGUACCUUGUGUC |
| 883 | UUCUCUUGCUUAAUUCAUC | 926 | AUACGUCUGGCCUCUACGU | 969 | CAGUAUUGUGUAUGAGGCC | 1012 | GGCUGUGUACCUUGUGUCC |
| 884 | UCUCUUGCUUAAUUCAUCC | 927 | UACGUCUGGCCUCUACGUC | 970 | AGUAUUGUGUAUGAGGCCG | 1013 | GCUGUGUACCUUGUGUCCA |
| 885 | CUCUUGCUUAAUUCAUCCA | 928 | ACGUCUGGCCUCUACGUCC | 971 | GUAUUGUGUAUGAGGCCGA | 1014 | CUGUGUACCUUGUGUCCAG |
| 886 | UCUUGCUUAAUUCAUCCAG | 929 | CGUCUGGCCUCUACGUCCU | 972 | UAUUGUGUAUGAGGCCGAU | 1015 | UGUGUACCUUGUGUCCAGG |
| 887 | CUUGCUUAAUUCAUCCAGC | 930 | GUCUGGCCUCUACGUCCUU | 973 | AUUGUGUAUGAGGCCGAUG | 1016 | GUGUACCUUGUGUCCAGGA |
| 888 | UUGCUUAAUUCAUCCAGCA | 931 | UCUGGCCUCUACGUCCUUA | 974 | UUGUGUAUGAGGCCGAUGA | 1017 | UGUACCUUGUGUCCAGGAC |
| 889 | UGCUUAAUUCAUCCAGCAG | 932 | CUGGCCUCUACGUCCUUAC | 975 | UGUGUAUGAGGCCGAUGAU | 1018 | GUACCUUGUGUCCAGGACG |
| 890 | GCUUAAUUCAUCCAGCAGC | 933 | UGGCCUCUACGUCCUUACC | 976 | GUGUAUGAGGCCGAUGAUG | 1019 | UACCUUGUGUCCAGGACGG |
| 891 | CUUAAUUCAUCCAGCAGCC | 934 | GGCCUCUACGUCCUUACCA | 977 | UGUAUGAGGCCGAUGAUGU | 1020 | ACCUUGUGUCCAGGACGGC |
| 892 | UUAAUUCAUCCAGCAGCCA | 935 | GCCUCUACGUCCUUACCAA | 978 | GUAUGAGGCCGAUGAUGUC | 1021 | CCUUGUGUCCAGGACGGCA |
| 893 | UAAUUCAUCCAGCAGCCAG | 936 | CCUCUACGUCCUUACCAAC | 979 | UAUGAGGCCGAUGAUGUCA | 1022 | CUUGUGUCCAGGACGGCAA |
| 894 | AAUUCAUCCAGCAGCCAGU | 937 | CUCUACGUCCUUACCAACG | 980 | AUGAGGCCGAUGAUGUCAU | 1023 | UUGUGUCCAGGACGGCAAU |
| 895 | AUUCAUCCAGCAGCCAGUC | 938 | UCUACGUCCUUACCAACGA | 981 | UGAGGCCGAUGAUGUCAUU | 1024 | UGUGUCCAGGACGGCAAUA |
| 896 | UUCAUCCAGCAGCCAGUCU | 939 | CUACGUCCUUACCAACGAC | 982 | GAGGCCGAUGAUGUCAUUC | 1025 | GUGUCCAGGACGGCAAUAC |
| 897 | UCAUCCAGCAGCCAGUCUA | 940 | UACGUCCUUACCAACGACU | 983 | AGGCCGAUGAUGUCAUUCU | 1026 | UGUCCAGGACGGCAAUACA |
| 898 | CAUCCAGCAGCCAGUCUAG | 941 | ACGUCCUUACCAACGACUG | 984 | GGCCGAUGAUGUCAUUCUG | 1027 | GUCCAGGACGGCAAUACAU |
| 899 | AUCCAGCAGCCAGUCUAGA | 942 | CGUCCUUACCAACGACUGU | 985 | GCCGAUGAUGUCAUUCUGC | 1028 | UCCAGGACGGCAAUACAUC |
| 900 | UCCAGCAGCCAGUCUAGAG | 943 | GUCCUUACCAACGACUGUU | 986 | CCGAUGAUGUCAUUCUGCA | 1029 | CCAGGACGGCAAUACAUCU |
| 901 | CCAGCAGCCAGUCUAGAGU | 944 | UCCUUACCAACGACUGUUC | 987 | CGAUGAUGUCAUUCUGCAC | 1030 | CAGGACGGCAAUACAUCUA |
| 902 | CAGCAGCCAGUCUAGAGUG | 945 | CCUUACCAACGACUGUUCC | 988 | GAUGAUGUCAUUCUGCACA | 1031 | AGGACGGCAAUACAUCUAC |
| 903 | AGCAGCCAGUCUAGAGUGG | 946 | CUUACCAACGACUGUUCCA | 989 | AUGAUGUCAUUCUGCACAC | 1032 | GGACGGCAAUACAUCUACG |

**FIG. 4 (page 183 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1033 | GACGGCAAUACAUCUACGU | 1076 | UGGCAGUCAGGUACGUCGG | 1119 | UCAUGUGGACCUAUUAGUA | 1162 | CUCUACGUGGGUGAUAUGU |
| 1034 | ACGGCAAUACAUCUACGUG | 1077 | GGCAGUCAGGUACGUCGGA | 1120 | CAUGUGGACCUAUUAGUAG | 1163 | UCUACGUGGGUGAUAUGUG |
| 1035 | CGGCAAUACAUCUACGUGC | 1078 | GCAGUCAGGUACGUCGGAG | 1121 | AUGUGGACCUAUUAGUAGG | 1164 | CUACGUGGGUGAUAUGUGU |
| 1036 | GGCAAUACAUCUACGUGCU | 1079 | CAGUCAGGUACGUCGGAGC | 1122 | UGUGGACCUAUUAGUAGGC | 1165 | UACGUGGGUGAUAUGUGUG |
| 1037 | GCAAUACAUCUACGUGCUG | 1080 | AGUCAGGUACGUCGGAGCA | 1123 | GUGGACCUAUUAGUAGGCG | 1166 | ACGUGGGUGAUAUGUGUGG |
| 1038 | CAAUACAUCUACGUGCUGG | 1081 | GUCAGGUACGUCGGAGCAA | 1124 | UGGACCUAUUAGUAGGCGC | 1167 | CGUGGGUGAUAUGUGUGGG |
| 1039 | AAUACAUCUACGUGCUGGA | 1082 | UCAGGUACGUCGGAGCAAC | 1125 | GGACCUAUUAGUAGGCGCG | 1168 | GUGGGUGAUAUGUGUGGGG |
| 1040 | AUACAUCUACGUGCUGGAC | 1083 | CAGGUACGUCGGAGCAACU | 1126 | GACCUAUUAGUAGGCGCGG | 1169 | UGGGUGAUAUGUGUGGGGC |
| 1041 | UACAUCUACGUGCUGGACC | 1084 | AGGUACGUCGGAGCAACUA | 1127 | ACCUAUUAGUAGGCGCGGC | 1170 | GGGUGAUAUGUGUGGGGCU |
| 1042 | ACAUCUACGUGCUGGACCC | 1085 | GGUACGUCGGAGCAACUAC | 1128 | CCUAUUAGUAGGCGCGGCC | 1171 | GGUGAUAUGUGUGGGGCUG |
| 1043 | CAUCUACGUGCUGGACCCC | 1086 | GUACGUCGGAGCAACUACU | 1129 | CUAUUAGUAGGCGCGGCCA | 1172 | GUGAUAUGUGUGGGGCUGU |
| 1044 | AUCUACGUGCUGGACCCCA | 1087 | UACGUCGGAGCAACUACUG | 1130 | UAUUAGUAGGCGCGGCCAC | 1173 | UGAUAUGUGUGGGGCUGUC |
| 1045 | UCUACGUGCUGGACCCCAG | 1088 | ACGUCGGAGCAACUACUGC | 1131 | AUUAGUAGGCGCGGCCACG | 1174 | GAUAUGUGUGGGGCUGUCU |
| 1046 | CUACGUGCUGGACCCCAGU | 1089 | CGUCGGAGCAACUACUGCU | 1132 | UUAGUAGGCGCGGCCACGA | 1175 | AUAUGUGUGGGGCUGUCUU |
| 1047 | UACGUGCUGGACCCCAGUG | 1090 | GUCGGAGCAACUACUGCUU | 1133 | UAGUAGGCGCGGCCACGAU | 1176 | UAUGUGUGGGGCUGUCUUU |
| 1048 | ACGUGCUGGACCCCAGUGA | 1091 | UCGGAGCAACUACUGCUUC | 1134 | AGUAGGCGCGGCCACGAUG | 1177 | AUGUGUGGGGCUGUCUUUC |
| 1049 | CGUGCUGGACCCCAGUGAC | 1092 | CGGAGCAACUACUGCUUCG | 1135 | GUAGGCGCGGCCACGAUGU | 1178 | UGUGUGGGGCUGUCUUUCU |
| 1050 | GUGCUGGACCCCAGUGACA | 1093 | GGAGCAACUACUGCUUCGA | 1136 | UAGGCGCGGCCACGAUGUG | 1179 | GUGUGGGGCUGUCUUUCUC |
| 1051 | UGCUGGACCCCAGUGACAC | 1094 | GAGCAACUACUGCUUCGAU | 1137 | AGGCGCGGCCACGAUGUGC | 1180 | UGUGGGGCUGUCUUUCUCG |
| 1052 | GCUGGACCCCAGUGACACC | 1095 | AGCAACUACUGCUUCGAUA | 1138 | GGCGCGGCCACGAUGUGCU | 1181 | GUGGGGCUGUCUUUCUCGU |
| 1053 | CUGGACCCCAGUGACACCU | 1096 | GCAACUACUGCUUCGAUAC | 1139 | GCGCGGCCACGAUGUGCUC | 1182 | UGGGGCUGUCUUUCUCGUG |
| 1054 | UGGACCCCAGUGACACCUA | 1097 | CAACUACUGCUUCGAUACG | 1140 | CGCGGCCACGAUGUGCUCU | 1183 | GGGGCUGUCUUUCUCGUGG |
| 1055 | GGACCCCAGUGACACCUAC | 1098 | AACUACUGCUUCGAUACGC | 1141 | GCGGCCACGAUGUGCUCUG | 1184 | GGGCUGUCUUUCUCGUGGG |
| 1056 | GACCCCAGUGACACCUACA | 1099 | ACUACUGCUUCGAUACGCA | 1142 | CGGCCACGAUGUGCUCUGC | 1185 | GGCUGUCUUUCUCGUGGGA |
| 1057 | ACCCCAGUGACACCUACAG | 1100 | CUACUGCUUCGAUACGCAG | 1143 | GGCCACGAUGUGCUCUGCG | 1186 | GCUGUCUUUCUCGUGGGAC |
| 1058 | CCCCAGUGACACCUACAGU | 1101 | UACUGCUUCGAUACGCAGU | 1144 | GCCACGAUGUGCUCUGCGC | 1187 | CUGUCUUUCUCGUGGGACA |
| 1059 | CCCAGUGACACCUACAGUG | 1102 | ACUGCUUCGAUACGCAGUC | 1145 | CCACGAUGUGCUCUGCGCU | 1188 | UGUCUUUCUCGUGGGACAA |
| 1060 | CCAGUGACACCUACAGUGG | 1103 | CUGCUUCGAUACGCAGUCA | 1146 | CACGAUGUGCUCUGCGCUC | 1189 | GUCUUUCUCGUGGGACAAG |
| 1061 | CAGUGACACCUACAGUGGC | 1104 | UGCUUCGAUACGCAGUCAU | 1147 | ACGAUGUGCUCUGCGCUCU | 1190 | UCUUUCUCGUGGGACAAGC |
| 1062 | AGUGACACCUACAGUGGCA | 1105 | GCUUCGAUACGCAGUCAUG | 1148 | CGAUGUGCUCUGCGCUCUA | 1191 | CUUUCUCGUGGGACAAGCC |
| 1063 | GUGACACCUACAGUGGCAG | 1106 | CUUCGAUACGCAGUCAUGU | 1149 | GAUGUGCUCUGCGCUCUAC | 1192 | UUUCUCGUGGGACAAGCCU |
| 1064 | UGACACCUACAGUGGCAGU | 1107 | UUCGAUACGCAGUCAUGUG | 1150 | AUGUGCUCUGCGCUCUACG | 1193 | UUCUCGUGGGACAAGCCUU |
| 1065 | GACACCUACAGUGGCAGUC | 1108 | UCGAUACGCAGUCAUGUGG | 1151 | UGUGCUCUGCGCUCUACGU | 1194 | UCUCGUGGGACAAGCCUUC |
| 1066 | ACACCUACAGUGGCAGUCA | 1109 | CGAUACGCAGUCAUGUGGA | 1152 | GUGCUCUGCGCUCUACGUG | 1195 | CUCGUGGGACAAGCCUUCA |
| 1067 | CACCUACAGUGGCAGUCAG | 1110 | GAUACGCAGUCAUGUGGAC | 1153 | UGCUCUGCGCUCUACGUGG | 1196 | UCGUGGGACAAGCCUUCAC |
| 1068 | ACCUACAGUGGCAGUCAGG | 1111 | AUACGCAGUCAUGUGGACC | 1154 | GCUCUGCGCUCUACGUGGG | 1197 | CGUGGGACAAGCCUUCACG |
| 1069 | CCUACAGUGGCAGUCAGGU | 1112 | UACGCAGUCAUGUGGACCU | 1155 | CUCUGCGCUCUACGUGGGU | 1198 | GUGGGACAAGCCUUCACGU |
| 1070 | CUACAGUGGCAGUCAGGUA | 1113 | ACGCAGUCAUGUGGACCUA | 1156 | UCUGCGCUCUACGUGGGUG | 1199 | UGGGACAAGCCUUCACGUU |
| 1071 | UACAGUGGCAGUCAGGUAC | 1114 | CGCAGUCAUGUGGACCUAU | 1157 | CUGCGCUCUACGUGGGUGA | 1200 | GGGACAAGCCUUCACGUUC |
| 1072 | ACAGUGGCAGUCAGGUACG | 1115 | GCAGUCAUGUGGACCUAUU | 1158 | UGCGCUCUACGUGGGUGAU | 1201 | GGACAAGCCUUCACGUUCA |
| 1073 | CAGUGGCAGUCAGGUACGU | 1116 | CAGUCAUGUGGACCUAUUA | 1159 | GCGCUCUACGUGGGUGAUA | 1202 | GACAAGCCUUCACGUUCAG |
| 1074 | AGUGGCAGUCAGGUACGUC | 1117 | AGUCAUGUGGACCUAUUAG | 1160 | CGCUCUACGUGGGUGAUAU | 1203 | ACAAGCCUUCACGUUCAGA |
| 1075 | GUGGCAGUCAGGUACGUCG | 1118 | GUCAUGUGGACCUAUUAGU | 1161 | GCUCUACGUGGGUGAUAUG | 1204 | CAAGCCUUCACGUUCAGAC |

**FIG. 4 (page 184 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1205 | AAGCCUUCACGUUCAGACC | 1248 | CUGUAACUGCUCGCUGUAC | 1291 | AUGGCUUGGGAUAUGAUGA | 1334 | UGGUGGUGGCGCAUGUCCU |
| 1206 | AGCCUUCACGUUCAGACCU | 1249 | UGUAACUGCUCGCUGUACC | 1292 | UGGCUUGGGAUAUGAUGAU | 1335 | GGUGGUGGCGCAUGUCCUG |
| 1207 | GCCUUCACGUUCAGACCUC | 1250 | GUAACUGCUCGCUGUACCC | 1293 | GGCUUGGGAUAUGAUGAUG | 1336 | GUGGUGGCGCAUGUCCUGC |
| 1208 | CCUUCACGUUCAGACCUCG | 1251 | UAACUGCUCGCUGUACCCA | 1294 | GCUUGGGAUAUGAUGAUGA | 1337 | UGGUGGCGCAUGUCCUGCG |
| 1209 | CUUCACGUUCAGACCUCGA | 1252 | AACUGCUCGCUGUACCCAG | 1295 | CUUGGGAUAUGAUGAUGAA | 1338 | GGUGGCGCAUGUCCUGCGU |
| 1210 | UUCACGUUCAGACCUCGAC | 1253 | ACUGCUCGCUGUACCCAGG | 1296 | UUGGGAUAUGAUGAUGAAU | 1339 | GUGGCGCAUGUCCUGCGUU |
| 1211 | UCACGUUCAGACCUCGACG | 1254 | CUGCUCGCUGUACCCAGGC | 1297 | UGGGAUAUGAUGAUGAAUU | 1340 | UGGCGCAUGUCCUGCGUUU |
| 1212 | CACGUUCAGACCUCGACGC | 1255 | UGCUCGCUGUACCCAGGCC | 1298 | GGGAUAUGAUGAUGAAUUG | 1341 | GGCGCAUGUCCUGCGUUUA |
| 1213 | ACGUUCAGACCUCGACGCC | 1256 | GCUCGCUGUACCCAGGCCA | 1299 | GGAUAUGAUGAUGAAUUGG | 1342 | GCGCAUGUCCUGCGUUUAC |
| 1214 | CGUUCAGACCUCGACGCCA | 1257 | CUCGCUGUACCCAGGCCAU | 1300 | GAUAUGAUGAUGAAUUGGU | 1343 | CGCAUGUCCUGCGUUUACC |
| 1215 | GUUCAGACCUCGACGCCAU | 1258 | UCGCUGUACCCAGGCCAUC | 1301 | AUAUGAUGAUGAAUUGGUC | 1344 | GCAUGUCCUGCGUUUACCC |
| 1216 | UUCAGACCUCGACGCCAUC | 1259 | CGCUGUACCCAGGCCAUCU | 1302 | UAUGAUGAUGAAUUGGUCC | 1345 | CAUGUCCUGCGUUUACCCC |
| 1217 | UCAGACCUCGACGCCAUCA | 1260 | GCUGUACCCAGGCCAUCUU | 1303 | AUGAUGAUGAAUUGGUCCC | 1346 | AUGUCCUGCGUUUACCCCA |
| 1218 | CAGACCUCGACGCCAUCAA | 1261 | CUGUACCCAGGCCAUCUUU | 1304 | UGAUGAUGAAUUGGUCCCC | 1347 | UGUCCUGCGUUUACCCCAG |
| 1219 | AGACCUCGACGCCAUCAAA | 1262 | UGUACCCAGGCCAUCUUUC | 1305 | GAUGAUGAAUUGGUCCCCC | 1348 | GUCCUGCGUUUACCCCAGA |
| 1220 | GACCUCGACGCCAUCAAAC | 1263 | GUACCCAGGCCAUCUUUCA | 1306 | AUGAUGAAUUGGUCCCCCG | 1349 | UCCUGCGUUUACCCCAGAC |
| 1221 | ACCUCGACGCCAUCAAACG | 1264 | UACCCAGGCCAUCUUUCAG | 1307 | UGAUGAAUUGGUCCCCCGC | 1350 | CCUGCGUUUACCCCAGACC |
| 1222 | CCUCGACGCCAUCAAACGG | 1265 | ACCCAGGCCAUCUUUCAGG | 1308 | GAUGAAUUGGUCCCCCGCU | 1351 | CUGCGUUUACCCCAGACCU |
| 1223 | CUCGACGCCAUCAAACGGU | 1266 | CCCAGGCCAUCUUUCAGGA | 1309 | AUGAAUUGGUCCCCCGCUG | 1352 | UGCGUUUACCCCAGACCUU |
| 1224 | UCGACGCCAUCAAACGGUC | 1267 | CCAGGCCAUCUUUCAGGAC | 1310 | UGAAUUGGUCCCCCGCUGU | 1353 | GCGUUUACCCCAGACCUUG |
| 1225 | CGACGCCAUCAAACGGUCC | 1268 | CAGGCCAUCUUUCAGGACA | 1311 | GAAUUGGUCCCCCGCUGUG | 1354 | CGUUUACCCCAGACCUUGU |
| 1226 | GACGCCAUCAAACGGUCCA | 1269 | AGGCCAUCUUUCAGGACAU | 1312 | AAUUGGUCCCCCGCUGUGG | 1355 | GUUUACCCCAGACCUUGUU |
| 1227 | ACGCCAUCAAACGGUCCAG | 1270 | GGCCAUCUUUCAGGACAUC | 1313 | AUUGGUCCCCCGCUGUGGG | 1356 | UUUACCCCAGACCUUGUUC |
| 1228 | CGCCAUCAAACGGUCCAGA | 1271 | GCCAUCUUUCAGGACAUCG | 1314 | UUGGUCCCCCGCUGUGGGU | 1357 | UUACCCCAGACCUUGUUCG |
| 1229 | GCCAUCAAACGGUCCAGAC | 1272 | CCAUCUUUCAGGACAUCGA | 1315 | UGGUCCCCCGCUGUGGGUA | 1358 | UACCCCAGACCUUGUUCGA |
| 1230 | CCAUCAAACGGUCCAGACC | 1273 | CAUCUUUCAGGACAUCGAA | 1316 | GGUCCCCCGCUGUGGGUAU | 1359 | ACCCCAGACCUUGUUCGAC |
| 1231 | CAUCAAACGGUCCAGACCU | 1274 | AUCUUUCAGGACAUCGAAU | 1317 | GUCCCCCGCUGUGGGUAUG | 1360 | CCCCAGACCUUGUUCGACA |
| 1232 | AUCAAACGGUCCAGACCUG | 1275 | UCUUUCAGGACAUCGAAUG | 1318 | UCCCCCGCUGUGGGUAUGG | 1361 | CCCAGACCUUGUUCGACAU |
| 1233 | UCAAACGGUCCAGACCUGU | 1276 | CUUUCAGGACAUCGAAUGG | 1319 | CCCCCGCUGUGGGUAUGGU | 1362 | CCAGACCUUGUUCGACAUA |
| 1234 | CAAACGGUCCAGACCUGUA | 1277 | UUUCAGGACAUCGAAUGGC | 1320 | CCCCGCUGUGGGUAUGGUG | 1363 | CAGACCUUGUUCGACAUAA |
| 1235 | AAACGGUCCAGACCUGUAA | 1278 | UUCAGGACAUCGAAUGGCU | 1321 | CCCGCUGUGGGUAUGGUGG | 1364 | AGACCUUGUUCGACAUAAU |
| 1236 | AACGGUCCAGACCUGUAAC | 1279 | UCAGGACAUCGAAUGGCUU | 1322 | CCGCUGUGGGUAUGGUGGU | 1365 | GACCUUGUUCGACAUAAUG |
| 1237 | ACGGUCCAGACCUGUAACU | 1280 | CAGGACAUCGAAUGGCUUG | 1323 | CGCUGUGGGUAUGGUGGUG | 1366 | ACCUUGUUCGACAUAAUGG |
| 1238 | CGGUCCAGACCUGUAACUG | 1281 | AGGACAUCGAAUGGCUUGG | 1324 | GCUGUGGGUAUGGUGGUGG | 1367 | CCUUGUUCGACAUAAUGGC |
| 1239 | GGUCCAGACCUGUAACUGC | 1282 | GGACAUCGAAUGGCUUGGG | 1325 | CUGUGGGUAUGGUGGUGGC | 1368 | CUUGUUCGACAUAAUGGCC |
| 1240 | GUCCAGACCUGUAACUGCU | 1283 | GACAUCGAAUGGCUUGGGA | 1326 | UGUGGGUAUGGUGGUGGCG | 1369 | UUGUUCGACAUAAUGGCCG |
| 1241 | UCCAGACCUGUAACUGCUC | 1284 | ACAUCGAAUGGCUUGGGAU | 1327 | GUGGGUAUGGUGGUGGCGC | 1370 | UGUUCGACAUAAUGGCCGG |
| 1242 | CCAGACCUGUAACUGCUCG | 1285 | CAUCGAAUGGCUUGGGAUA | 1328 | UGGGUAUGGUGGUGGCGCA | 1371 | GUUCGACAUAAUGGCCGGG |
| 1243 | CAGACCUGUAACUGCUCGC | 1286 | AUCGAAUGGCUUGGGAUAU | 1329 | GGGUAUGGUGGUGGCGCAU | 1372 | UUCGACAUAAUGGCCGGGG |
| 1244 | AGACCUGUAACUGCUCGCU | 1287 | UCGAAUGGCUUGGGAUAUG | 1330 | GGUAUGGUGGUGGCGCAUG | 1373 | UCGACAUAAUGGCCGGGGC |
| 1245 | GACCUGUAACUGCUCGCUG | 1288 | CGAAUGGCUUGGGAUAUGA | 1331 | GUAUGGUGGUGGCGCAUGU | 1374 | CGACAUAAUGGCCGGGGCC |
| 1246 | ACCUGUAACUGCUCGCUGU | 1289 | GAAUGGCUUGGGAUAUGAU | 1332 | UAUGGUGGUGGCGCAUGUC | 1375 | GACAUAAUGGCCGGGGCCC |
| 1247 | CCUGUAACUGCUCGCUGUA | 1290 | AAUGGCUUGGGAUAUGAUG | 1333 | AUGGUGGUGGCGCAUGUCC | 1376 | ACAUAAUGGCCGGGGCCCA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1377 | CAUAAUGGCCGGGGCCCAU | 1420 | UAUUACUCCAUGCAGGGCA | 1463 | UGGUUAUGUUCUCAGGGGU | 1506 | UGGCACUGCAUCUCGUCAU |
| 1378 | AUAAUGGCCGGGGCCCAUU | 1421 | AUUACUCCAUGCAGGGCAA | 1464 | GGUUAUGUUCUCAGGGGUC | 1507 | GGCACUGCAUCUCGUCAUA |
| 1379 | UAAUGGCCGGGGCCCAUUG | 1422 | UUACUCCAUGCAGGGCAAC | 1465 | GUUAUGUUCUCAGGGGUCG | 1508 | GCACUGCAUCUCGUCAUAC |
| 1380 | AAUGGCCGGGGCCCAUUGG | 1423 | UACUCCAUGCAGGGCAACU | 1466 | UUAUGUUCUCAGGGGUCGA | 1509 | CACUGCAUCUCGUCAUACC |
| 1381 | AUGGCCGGGGCCCAUUGGG | 1424 | ACUCCAUGCAGGGCAACUG | 1467 | UAUGUUCUCAGGGGUCGAU | 1510 | ACUGCAUCUCGUCAUACCC |
| 1382 | UGGCCGGGGCCCAUUGGGG | 1425 | CUCCAUGCAGGGCAACUGG | 1468 | AUGUUCUCAGGGGUCGAUG | 1511 | CUGCAUCUCGUCAUACCCA |
| 1383 | GGCCGGGGCCCAUUGGGGC | 1426 | UCCAUGCAGGGCAACUGGG | 1469 | UGUUCUCAGGGGUCGAUGC | 1512 | UGCAUCUCGUCAUACCCAA |
| 1384 | GCCGGGGCCCAUUGGGGCA | 1427 | CCAUGCAGGGCAACUGGGC | 1470 | GUUCUCAGGGGUCGAUGCC | 1513 | GCAUCUCGUCAUACCCAAG |
| 1385 | CCGGGGCCCAUUGGGGCAU | 1428 | CAUGCAGGGCAACUGGGCC | 1471 | UUCUCAGGGGUCGAUGCCC | 1514 | CAUCUCGUCAUACCCAAGC |
| 1386 | CGGGGCCCAUUGGGGCAUC | 1429 | AUGCAGGGCAACUGGGCCA | 1472 | UCUCAGGGGUCGAUGCCCA | 1515 | AUCUCGUCAUACCCAAGCG |
| 1387 | GGGGCCCAUUGGGGCAUCU | 1430 | UGCAGGGCAACUGGGCCAA | 1473 | CUCAGGGGUCGAUGCCCAC | 1516 | UCUCGUCAUACCCAAGCGU |
| 1388 | GGGCCCAUUGGGGCAUCUU | 1431 | GCAGGGCAACUGGGCCAAG | 1474 | UCAGGGGUCGAUGCCCACA | 1517 | CUCGUCAUACCCAAGCGUU |
| 1389 | GGCCCAUUGGGGCAUCUUG | 1432 | CAGGGCAACUGGGCCAAGG | 1475 | CAGGGGUCGAUGCCCACAC | 1518 | UCGUCAUACCCAAGCGUUU |
| 1390 | GCCCAUUGGGGCAUCUUGG | 1433 | AGGGCAACUGGGCCAAGGU | 1476 | AGGGGUCGAUGCCCACACA | 1519 | CGUCAUACCCAAGCGUUUG |
| 1391 | CCCAUUGGGGCAUCUUGGC | 1434 | GGGCAACUGGGCCAAGGUC | 1477 | GGGGUCGAUGCCCACACAU | 1520 | GUCAUACCCAAGCGUUUGC |
| 1392 | CCAUUGGGGCAUCUUGGCG | 1435 | GGCAACUGGGCCAAGGUCG | 1478 | GGGUCGAUGCCCACACAUA | 1521 | UCAUACCCAAGCGUUUGCU |
| 1393 | CAUUGGGGCAUCUUGGCGG | 1436 | GCAACUGGGCCAAGGUCGC | 1479 | GGUCGAUGCCCACACAUAU | 1522 | CAUACCCAAGCGUUUGCUG |
| 1394 | AUUGGGGCAUCUUGGCGGG | 1437 | CAACUGGGCCAAGGUCGCA | 1480 | GUCGAUGCCCACACAUAUA | 1523 | AUACCCAAGCGUUUGCUGG |
| 1395 | UUGGGGCAUCUUGGCGGGC | 1438 | AACUGGGCCAAGGUCGCAA | 1481 | UCGAUGCCCACACAUAUAC | 1524 | UACCCAAGCGUUUGCUGGU |
| 1396 | UGGGGCAUCUUGGCGGGCC | 1439 | ACUGGGCCAAGGUCGCAAU | 1482 | CGAUGCCCACACAUAUACC | 1525 | ACCCAAGCGUUUGCUGGUC |
| 1397 | GGGGCAUCUUGGCGGGCCU | 1440 | CUGGGCCAAGGUCGCAAUC | 1483 | GAUGCCCACACAUAUACCA | 1526 | CCCAAGCGUUUGCUGGUCU |
| 1398 | GGGCAUCUUGGCGGGCCUG | 1441 | UGGGCCAAGGUCGCAAUCA | 1484 | AUGCCCACACAUAUACCAC | 1527 | CCAAGCGUUUGCUGGUCUU |
| 1399 | GGCAUCUUGGCGGGCCUGG | 1442 | GGGCCAAGGUCGCAAUCAU | 1485 | UGCCCACACAUAUACCACC | 1528 | CAAGCGUUUGCUGGUCUUU |
| 1400 | GCAUCUUGGCGGGCCUGGC | 1443 | GGCCAAGGUCGCAAUCAUC | 1486 | GCCCACACAUAUACCACCG | 1529 | AAGCGUUUGCUGGUCUUUU |
| 1401 | CAUCUUGGCGGGCCUGGCC | 1444 | GCCAAGGUCGCAAUCAUCA | 1487 | CCCACACAUAUACCACCGG | 1530 | AGCGUUUGCUGGUCUUUUU |
| 1402 | AUCUUGGCGGGCCUGGCCU | 1445 | CCAAGGUCGCAAUCAUCAU | 1488 | CCACACAUAUACCACCGGU | 1531 | GCGUUUGCUGGUCUUUUUG |
| 1403 | UCUUGGCGGGCCUGGCCUA | 1446 | CAAGGUCGCAAUCAUCAUG | 1489 | CACACAUAUACCACCGGUG | 1532 | CGUUUGCUGGUCUUUUUGA |
| 1404 | CUUGGCGGGCCUGGCCUAU | 1447 | AAGGUCGCAAUCAUCAUGG | 1490 | ACACAUAUACCACCGGUGG | 1533 | GUUUGCUGGUCUUUUUGAC |
| 1405 | UUGGCGGGCCUGGCCUAUU | 1448 | AGGUCGCAAUCAUCAUGGU | 1491 | CACAUAUACCACCGGUGGC | 1534 | UUUGCUGGUCUUUUUGACA |
| 1406 | UGGCGGGCCUGGCCUAUUA | 1449 | GGUCGCAAUCAUCAUGGUU | 1492 | ACAUAUACCACCGGUGGCA | 1535 | UUGCUGGUCUUUUUGACAU |
| 1407 | GGCGGGCCUGGCCUAUUAC | 1450 | GUCGCAAUCAUCAUGGUUA | 1493 | CAUAUACCACCGGUGGCAC | 1536 | UGCUGGUCUUUUUGACAUA |
| 1408 | GCGGGCCUGGCCUAUUACU | 1451 | UCGCAAUCAUCAUGGUUAU | 1494 | AUAUACCACCGGUGGCACU | 1537 | GCUGGUCUUUUUGACAUAG |
| 1409 | CGGGCCUGGCCUAUUACUC | 1452 | CGCAAUCAUCAUGGUUAUG | 1495 | UAUACCACCGGUGGCACUG | 1538 | CUGGUCUUUUUGACAUAGG |
| 1410 | GGGCCUGGCCUAUUACUCC | 1453 | GCAAUCAUCAUGGUUAUGU | 1496 | AUACCACCGGUGGCACUGC | 1539 | UGGUCUUUUUGACAUAGGC |
| 1411 | GGCCUGGCCUAUUACUCCA | 1454 | CAAUCAUCAUGGUUAUGUU | 1497 | UACCACCGGUGGCACUGCA | 1540 | GGUCUUUUUGACAUAGGCC |
| 1412 | GCCUGGCCUAUUACUCCAU | 1455 | AAUCAUCAUGGUUAUGUUC | 1498 | ACCACCGGUGGCACUGCAU | 1541 | GUCUUUUUGACAUAGGCCC |
| 1413 | CCUGGCCUAUUACUCCAUG | 1456 | AUCAUCAUGGUUAUGUUCU | 1499 | CCACCGGUGGCACUGCAUC | 1542 | UCUUUUUGACAUAGGCCCC |
| 1414 | CUGGCCUAUUACUCCAUGC | 1457 | UCAUCAUGGUUAUGUUCUC | 1500 | CACCGGUGGCACUGCAUCU | 1543 | CUUUUUGACAUAGGCCCCC |
| 1415 | UGGCCUAUUACUCCAUGCA | 1458 | CAUCAUGGUUAUGUUCUCA | 1501 | ACCGGUGGCACUGCAUCUC | 1544 | UUUUUGACAUAGGCCCCCA |
| 1416 | GGCCUAUUACUCCAUGCAG | 1459 | AUCAUGGUUAUGUUCUCAG | 1502 | CCGGUGGCACUGCAUCUCG | 1545 | UUUUGACAUAGGCCCCCAA |
| 1417 | GCCUAUUACUCCAUGCAGG | 1460 | UCAUGGUUAUGUUCUCAGG | 1503 | CGGUGGCACUGCAUCUCGU | 1546 | UUUGACAUAGGCCCCCAAC |
| 1418 | CCUAUUACUCCAUGCAGGG | 1461 | CAUGGUUAUGUUCUCAGGG | 1504 | GGUGGCACUGCAUCUCGUC | 1547 | UUGACAUAGGCCCCCAACA |
| 1419 | CUAUUACUCCAUGCAGGGC | 1462 | AUGGUUAUGUUCUCAGGGG | 1505 | GUGGCACUGCAUCUCGUCA | 1548 | UGACAUAGGCCCCCAACAG |

**FIG. 4 (page 186 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1549 | GACAUAGGCCCCCAACAGA | 1592 | GCUCGUGGCACAUCAACAG | 1635 | CAUAAACACCGGGUUUAUA | 1678 | UUCAACUCUACUGGAUGUC |
| 1550 | ACAUAGGCCCCCAACAGAA | 1593 | CUCGUGGCACAUCAACAGU | 1636 | AUAAACACCGGGUUUAUAG | 1679 | UCAACUCUACUGGAUGUCC |
| 1551 | CAUAGGCCCCCAACAGAAA | 1594 | UCGUGGCACAUCAACAGUA | 1637 | UAAACACCGGGUUUAUAGC | 1680 | CAACUCUACUGGAUGUCCU |
| 1552 | AUAGGCCCCCAACAGAAAC | 1595 | CGUGGCACAUCAACAGUAC | 1638 | AAACACCGGGUUUAUAGCU | 1681 | AACUCUACUGGAUGUCCUC |
| 1553 | UAGGCCCCCAACAGAAACU | 1596 | GUGGCACAUCAACAGUACU | 1639 | AACACCGGGUUUAUAGCUG | 1682 | ACUCUACUGGAUGUCCUCA |
| 1554 | AGGCCCCCAACAGAAACUG | 1597 | UGGCACAUCAACAGUACUG | 1640 | ACACCGGGUUUAUAGCUGG | 1683 | CUCUACUGGAUGUCCUCAA |
| 1555 | GGCCCCCAACAGAAACUGC | 1598 | GGCACAUCAACAGUACUGC | 1641 | CACCGGGUUUAUAGCUGGG | 1684 | UCUACUGGAUGUCCUCAAA |
| 1556 | GCCCCCAACAGAAACUGCA | 1599 | GCACAUCAACAGUACUGCC | 1642 | ACCGGGUUUAUAGCUGGGU | 1685 | CUACUGGAUGUCCUCAAAG |
| 1557 | CCCCCAACAGAAACUGCAG | 1600 | CACAUCAACAGUACUGCCC | 1643 | CCGGGUUUAUAGCUGGGUU | 1686 | UACUGGAUGUCCUCAAAGG |
| 1558 | CCCCAACAGAAACUGCAGC | 1601 | ACAUCAACAGUACUGCCCU | 1644 | CGGGUUUAUAGCUGGGUUG | 1687 | ACUGGAUGUCCUCAAAGGC |
| 1559 | CCCAACAGAAACUGCAGCU | 1602 | CAUCAACAGUACUGCCCUA | 1645 | GGGUUUAUAGCUGGGUUGU | 1688 | CUGGAUGUCCUCAAAGGCU |
| 1560 | CCAACAGAAACUGCAGCUG | 1603 | AUCAACAGUACUGCCCUAA | 1646 | GGUUUAUAGCUGGGUUGUU | 1689 | UGGAUGUCCUCAAAGGCUC |
| 1561 | CAACAGAAACUGCAGCUGG | 1604 | UCAACAGUACUGCCCUAAA | 1647 | GUUUAUAGCUGGGUUGUUU | 1690 | GGAUGUCCUCAAAGGCUCA |
| 1562 | AACAGAAACUGCAGCUGGU | 1605 | CAACAGUACUGCCCUAAAU | 1648 | UUUAUAGCUGGGUUGUUUU | 1691 | GAUGUCCUCAAAGGCUCAG |
| 1563 | ACAGAAACUGCAGCUGGUC | 1606 | AACAGUACUGCCCUAAAUU | 1649 | UUAUAGCUGGGUUGUUUUA | 1692 | AUGUCCUCAAAGGCUCAGC |
| 1564 | CAGAAACUGCAGCUGGUCA | 1607 | ACAGUACUGCCCUAAAUUG | 1650 | UAUAGCUGGGUUGUUUUAU | 1693 | UGUCCUCAAAGGCUCAGCA |
| 1565 | AGAAACUGCAGCUGGUCAA | 1608 | CAGUACUGCCCUAAAUUGC | 1651 | AUAGCUGGGUUGUUUUAUU | 1694 | GUCCUCAAAGGCUCAGCAG |
| 1566 | GAAACUGCAGCUGGUCAAC | 1609 | AGUACUGCCCUAAAUUGCA | 1652 | UAGCUGGGUUGUUUUAUUA | 1695 | UCCUCAAAGGCUCAGCAGC |
| 1567 | AAACUGCAGCUGGUCAACA | 1610 | GUACUGCCCUAAAUUGCAA | 1653 | AGCUGGGUUGUUUUAUUAC | 1696 | CCUCAAAGGCUCAGCAGCU |
| 1568 | AACUGCAGCUGGUCAACAC | 1611 | UACUGCCCUAAAUUGCAAU | 1654 | GCUGGGUUGUUUUAUUACC | 1697 | CUCAAAGGCUCAGCAGCUG |
| 1569 | ACUGCAGCUGGUCAACACC | 1612 | ACUGCCCUAAAUUGCAAUG | 1655 | CUGGGUUGUUUUAUUACCA | 1698 | UCAAAGGCUCAGCAGCUGC |
| 1570 | CUGCAGCUGGUCAACACCA | 1613 | CUGCCCUAAAUUGCAAUGA | 1656 | UGGGUUGUUUUAUUACCAU | 1699 | CAAAGGCUCAGCAGCUGCA |
| 1571 | UGCAGCUGGUCAACACCAA | 1614 | UGCCCUAAAUUGCAAUGAG | 1657 | GGGUUGUUUUAUUACCAUA | 1700 | AAAGGCUCAGCAGCUGCAA |
| 1572 | GCAGCUGGUCAACACCAAU | 1615 | GCCCUAAAUUGCAAUGAGU | 1658 | GGUUGUUUUAUUACCAUAA | 1701 | AAGGCUCAGCAGCUGCAAG |
| 1573 | CAGCUGGUCAACACCAAUG | 1616 | CCCUAAAUUGCAAUGAGUC | 1659 | GUUGUUUUAUUACCAUAAG | 1702 | AGGCUCAGCAGCUGCAAGC |
| 1574 | AGCUGGUCAACACCAAUGG | 1617 | CCUAAAUUGCAAUGAGUCC | 1660 | UUGUUUUAUUACCAUAAGU | 1703 | GGCUCAGCAGCUGCAAGCC |
| 1575 | GCUGGUCAACACCAAUGGC | 1618 | CUAAAUUGCAAUGAGUCCA | 1661 | UGUUUUAUUACCAUAAGUU | 1704 | GCUCAGCAGCUGCAAGCCC |
| 1576 | CUGGUCAACACCAAUGGCU | 1619 | UAAAUUGCAAUGAGUCCAU | 1662 | GUUUUAUUACCAUAAGUUC | 1705 | CUCAGCAGCUGCAAGCCCA |
| 1577 | UGGUCAACACCAAUGGCUC | 1620 | AAAUUGCAAUGAGUCCAUA | 1663 | UUUUAUUACCAUAAGUUCA | 1706 | UCAGCAGCUGCAAGCCCAU |
| 1578 | GGUCAACACCAAUGGCUCG | 1621 | AAUUGCAAUGAGUCCAUAA | 1664 | UUUAUUACCAUAAGUUCAA | 1707 | CAGCAGCUGCAAGCCCAUC |
| 1579 | GUCAACACCAAUGGCUCGU | 1622 | AUUGCAAUGAGUCCAUAAA | 1665 | UUAUUACCAUAAGUUCAAC | 1708 | AGCAGCUGCAAGCCCAUCA |
| 1580 | UCAACACCAAUGGCUCGUG | 1623 | UUGCAAUGAGUCCAUAAAC | 1666 | UAUUACCAUAAGUUCAACU | 1709 | GCAGCUGCAAGCCCAUCAC |
| 1581 | CAACACCAAUGGCUCGUGG | 1624 | UGCAAUGAGUCCAUAAACA | 1667 | AUUACCAUAAGUUCAACUC | 1710 | CAGCUGCAAGCCCAUCACU |
| 1582 | AACACCAAUGGCUCGUGGC | 1625 | GCAAUGAGUCCAUAAACAC | 1668 | UUACCAUAAGUUCAACUCU | 1711 | AGCUGCAAGCCCAUCACUU |
| 1583 | ACACCAAUGGCUCGUGGCA | 1626 | CAAUGAGUCCAUAAACACC | 1669 | UACCAUAAGUUCAACUCUA | 1712 | GCUGCAAGCCCAUCACUUU |
| 1584 | CACCAAUGGCUCGUGGCAC | 1627 | AAUGAGUCCAUAAACACCG | 1670 | ACCAUAAGUUCAACUCUAC | 1713 | CUGCAAGCCCAUCACUUUC |
| 1585 | ACCAAUGGCUCGUGGCACA | 1628 | AUGAGUCCAUAAACACCGG | 1671 | CCAUAAGUUCAACUCUACU | 1714 | UGCAAGCCCAUCACUUUCU |
| 1586 | CCAAUGGCUCGUGGCACAU | 1629 | UGAGUCCAUAAACACCGGG | 1672 | CAUAAGUUCAACUCUACUG | 1715 | GCAAGCCCAUCACUUUCUU |
| 1587 | CAAUGGCUCGUGGCACAUC | 1630 | GAGUCCAUAAACACCGGGU | 1673 | AUAAGUUCAACUCUACUGG | 1716 | CAAGCCCAUCACUUUCUUC |
| 1588 | AAUGGCUCGUGGCACAUCA | 1631 | AGUCCAUAAACACCGGGUU | 1674 | UAAGUUCAACUCUACUGGA | 1717 | AAGCCCAUCACUUUCUUCA |
| 1589 | AUGGCUCGUGGCACAUCAA | 1632 | GUCCAUAAACACCGGGUUU | 1675 | AAGUUCAACUCUACUGGAU | 1718 | AGCCCAUCACUUUCUUCAG |
| 1590 | UGGCUCGUGGCACAUCAAC | 1633 | UCCAUAAACACCGGGUUUA | 1676 | AGUUCAACUCUACUGGAUG | 1719 | GCCCAUCACUUUCUUCAGG |
| 1591 | GGCUCGUGGCACAUCAACA | 1634 | CCAUAAACACCGGGUUUAU | 1677 | GUUCAACUCUACUGGAUGU | 1720 | CCCAUCACUUUCUUCAGGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1721 | CCAUCACUUUCUUCAGGCA | 1764 | UAACAUCACCGGUCCUUCU | 1807 | UACGCACCUAGACCUUGUG | 1850 | GCGGCCCUGUGUACUGCUU |
| 1722 | CAUCACUUUCUUCAGGCAG | 1765 | AACAUCACCGGUCCUUCUG | 1808 | ACGCACCUAGACCUUGUGA | 1851 | CGGCCCUGUGUACUGCUUC |
| 1723 | AUCACUUUCUUCAGGCAGG | 1766 | ACAUCACCGGUCCUUCUGA | 1809 | CGCACCUAGACCUUGUGAC | 1852 | GGCCCUGUGUACUGCUUCA |
| 1724 | UCACUUUCUUCAGGCAGGG | 1767 | CAUCACCGGUCCUUCUGAU | 1810 | GCACCUAGACCUUGUGACA | 1853 | GCCCUGUGUACUGCUUCAC |
| 1725 | CACUUUCUUCAGGCAGGGA | 1768 | AUCACCGGUCCUUCUGAUG | 1811 | CACCUAGACCUUGUGACAU | 1854 | CCCUGUGUACUGCUUCACA |
| 1726 | ACUUUCUUCAGGCAGGGAU | 1769 | UCACCGGUCCUUCUGAUGA | 1812 | ACCUAGACCUUGUGACAUU | 1855 | CCUGUGUACUGCUUCACAC |
| 1727 | CUUUCUUCAGGCAGGGAUG | 1770 | CACCGGUCCUUCUGAUGAC | 1813 | CCUAGACCUUGUGACAUUG | 1856 | CUGUGUACUGCUUCACACC |
| 1728 | UUUCUUCAGGCAGGGAUGG | 1771 | ACCGGUCCUUCUGAUGACA | 1814 | CUAGACCUUGUGACAUUGU | 1857 | UGUGUACUGCUUCACACCA |
| 1729 | UUCUUCAGGCAGGGAUGGG | 1772 | CCGGUCCUUCUGAUGACAG | 1815 | UAGACCUUGUGACAUUGUC | 1858 | GUGUACUGCUUCACACCAU |
| 1730 | UCUUCAGGCAGGGAUGGGG | 1773 | CGGUCCUUCUGAUGACAGA | 1816 | AGACCUUGUGACAUUGUCC | 1859 | UGUACUGCUUCACACCAUC |
| 1731 | CUUCAGGCAGGGAUGGGGC | 1774 | GGUCCUUCUGAUGACAGAC | 1817 | GACCUUGUGACAUUGUCCC | 1860 | GUACUGCUUCACACCAUCG |
| 1732 | UUCAGGCAGGGAUGGGGCC | 1775 | GUCCUUCUGAUGACAGACC | 1818 | ACCUUGUGACAUUGUCCCG | 1861 | UACUGCUUCACACCAUCGC |
| 1733 | UCAGGCAGGGAUGGGGCCC | 1776 | UCCUUCUGAUGACAGACCA | 1819 | CCUUGUGACAUUGUCCCGG | 1862 | ACUGCUUCACACCAUCGCC |
| 1734 | CAGGCAGGGAUGGGGCCCC | 1777 | CCUUCUGAUGACAGACCAU | 1820 | CUUGUGACAUUGUCCCGGC | 1863 | CUGCUUCACACCAUCGCCA |
| 1735 | AGGCAGGGAUGGGGCCCCU | 1778 | CUUCUGAUGACAGACCAUA | 1821 | UUGUGACAUUGUCCCGGCA | 1864 | UGCUUCACACCAUCGCCAG |
| 1736 | GGCAGGGAUGGGGCCCCUU | 1779 | UUCUGAUGACAGACCAUAC | 1822 | UGUGACAUUGUCCCGGCAU | 1865 | GCUUCACACCAUCGCCAGU |
| 1737 | GCAGGGAUGGGGCCCCUUA | 1780 | UCUGAUGACAGACCAUACU | 1823 | GUGACAUUGUCCCGGCAUC | 1866 | CUUCACACCAUCGCCAGUG |
| 1738 | CAGGGAUGGGGCCCCUUAA | 1781 | CUGAUGACAGACCAUACUG | 1824 | UGACAUUGUCCCGGCAUCA | 1867 | UUCACACCAUCGCCAGUGG |
| 1739 | AGGGAUGGGGCCCCUUAAC | 1782 | UGAUGACAGACCAUACUGC | 1825 | GACAUUGUCCCGGCAUCAA | 1868 | UCACACCAUCGCCAGUGGU |
| 1740 | GGGAUGGGGCCCCUUAACA | 1783 | GAUGACAGACCAUACUGCU | 1826 | ACAUUGUCCCGGCAUCAAG | 1869 | CACACCAUCGCCAGUGGUC |
| 1741 | GGAUGGGGCCCCUUAACAG | 1784 | AUGACAGACCAUACUGCUG | 1827 | CAUUGUCCCGGCAUCAAGU | 1870 | ACACCAUCGCCAGUGGUCG |
| 1742 | GAUGGGGCCCCUUAACAGA | 1785 | UGACAGACCAUACUGCUGG | 1828 | AUUGUCCCGGCAUCAAGUG | 1871 | CACCAUCGCCAGUGGUCGU |
| 1743 | AUGGGGCCCCUUAACAGAU | 1786 | GACAGACCAUACUGCUGGC | 1829 | UUGUCCCGGCAUCAAGUGU | 1872 | ACCAUCGCCAGUGGUCGUA |
| 1744 | UGGGGCCCCUUAACAGAUG | 1787 | ACAGACCAUACUGCUGGCA | 1830 | UGUCCCGGCAUCAAGUGUC | 1873 | CCAUCGCCAGUGGUCGUAG |
| 1745 | GGGGCCCCUUAACAGAUGC | 1788 | CAGACCAUACUGCUGGCAC | 1831 | GUCCCGGCAUCAAGUGUCU | 1874 | CAUCGCCAGUGGUCGUAGG |
| 1746 | GGGCCCCUUAACAGAUGCU | 1789 | AGACCAUACUGCUGGCACU | 1832 | UCCCGGCAUCAAGUGUCUG | 1875 | AUCGCCAGUGGUCGUAGGC |
| 1747 | GGCCCCUUAACAGAUGCUA | 1790 | GACCAUACUGCUGGCACUA | 1833 | CCCGGCAUCAAGUGUCUGC | 1876 | UCGCCAGUGGUCGUAGGCA |
| 1748 | GCCCCUUAACAGAUGCUAA | 1791 | ACCAUACUGCUGGCACUAC | 1834 | CCGGCAUCAAGUGUCUGCG | 1877 | CGCCAGUGGUCGUAGGCAC |
| 1749 | CCCCUUAACAGAUGCUAAC | 1792 | CCAUACUGCUGGCACUACG | 1835 | CGGCAUCAAGUGUCUGCGG | 1878 | GCCAGUGGUCGUAGGCACU |
| 1750 | CCCUUAACAGAUGCUAACA | 1793 | CAUACUGCUGGCACUACGC | 1836 | GGCAUCAAGUGUCUGCGGC | 1879 | CCAGUGGUCGUAGGCACUA |
| 1751 | CCUUAACAGAUGCUAACAU | 1794 | AUACUGCUGGCACUACGCA | 1837 | GCAUCAAGUGUCUGCGGCC | 1880 | CAGUGGUCGUAGGCACUAC |
| 1752 | CUUAACAGAUGCUAACAUC | 1795 | UACUGCUGGCACUACGCAC | 1838 | CAUCAAGUGUCUGCGGCCC | 1881 | AGUGGUCGUAGGCACUACU |
| 1753 | UUAACAGAUGCUAACAUCA | 1796 | ACUGCUGGCACUACGCACC | 1839 | AUCAAGUGUCUGCGGCCCU | 1882 | GUGGUCGUAGGCACUACUG |
| 1754 | UAACAGAUGCUAACAUCAC | 1797 | CUGCUGGCACUACGCACCU | 1840 | UCAAGUGUCUGCGGCCCUG | 1883 | UGGUCGUAGGCACUACUGA |
| 1755 | AACAGAUGCUAACAUCACC | 1798 | UGCUGGCACUACGCACCUA | 1841 | CAAGUGUCUGCGGCCCUGU | 1884 | GGUCGUAGGCACUACUGAU |
| 1756 | ACAGAUGCUAACAUCACCG | 1799 | GCUGGCACUACGCACCUAG | 1842 | AAGUGUCUGCGGCCCUGUG | 1885 | GUCGUAGGCACUACUGAUG |
| 1757 | CAGAUGCUAACAUCACCGG | 1800 | CUGGCACUACGCACCUAGA | 1843 | AGUGUCUGCGGCCCUGUGU | 1886 | UCGUAGGCACUACUGAUGC |
| 1758 | AGAUGCUAACAUCACCGGU | 1801 | UGGCACUACGCACCUAGAC | 1844 | GUGUCUGCGGCCCUGUGUA | 1887 | CGUAGGCACUACUGAUGCC |
| 1759 | GAUGCUAACAUCACCGGUC | 1802 | GGCACUACGCACCUAGACC | 1845 | UGUCUGCGGCCCUGUGUAC | 1888 | GUAGGCACUACUGAUGCCA |
| 1760 | AUGCUAACAUCACCGGUCC | 1803 | GCACUACGCACCUAGACCU | 1846 | GUCUGCGGCCCUGUGUACU | 1889 | UAGGCACUACUGAUGCCAG |
| 1761 | UGCUAACAUCACCGGUCCU | 1804 | CACUACGCACCUAGACCUU | 1847 | UCUGCGGCCCUGUGUACUG | 1890 | AGGCACUACUGAUGCCAGG |
| 1762 | GCUAACAUCACCGGUCCUU | 1805 | ACUACGCACCUAGACCUUG | 1848 | CUGCGGCCCUGUGUACUGC | 1891 | GGCACUACUGAUGCCAGGG |
| 1763 | CUAACAUCACCGGUCCUUC | 1806 | CUACGCACCUAGACCUUGU | 1849 | UGCGGCCCUGUGUACUGCU | 1892 | GCACUACUGAUGCCAGGGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1893 | CACUACUGAUGCCAGGGGC | 1936 | AAUGAGAAAGAUGUGUUCC | 1979 | GUGGUCGGUGGUUUGGGUG | 2022 | UCUCAAGACGUGCGGAGCU |
| 1894 | ACUACUGAUGCCAGGGGCG | 1937 | AUGAGAAAGAUGUGUUCCU | 1980 | UGGUCGGUGGUUUGGGUGC | 2023 | CUCAAGACGUGCGGAGCUC |
| 1895 | CUACUGAUGCCAGGGGCGU | 1938 | UGAGAAAGAUGUGUUCCUG | 1981 | GGUCGGUGGUUUGGGUGCU | 2024 | UCAAGACGUGCGGAGCUCC |
| 1896 | UACUGAUGCCAGGGGCGUG | 1939 | GAGAAAGAUGUGUUCCUGC | 1982 | GUCGGUGGUUUGGGUGCUC | 2025 | CAAGACGUGCGGAGCUCCC |
| 1897 | ACUGAUGCCAGGGGCGUGC | 1940 | AGAAAGAUGUGUUCCUGCU | 1983 | UCGGUGGUUUGGGUGCUCG | 2026 | AAGACGUGCGGAGCUCCCC |
| 1898 | CUGAUGCCAGGGGCGUGCC | 1941 | GAAAGAUGUGUUCCUGCUG | 1984 | CGGUGGUUUGGGUGCUCGU | 2027 | AGACGUGCGGAGCUCCCCC |
| 1899 | UGAUGCCAGGGGCGUGCCA | 1942 | AAAGAUGUGUUCCUGCUGA | 1985 | GGUGGUUUGGGUGCUCGUG | 2028 | GACGUGCGGAGCUCCCCCC |
| 1900 | GAUGCCAGGGGCGUGCCAA | 1943 | AAGAUGUGUUCCUGCUGAA | 1986 | GUGGUUUGGGUGCUCGUGG | 2029 | ACGUGCGGAGCUCCCCCCU |
| 1901 | AUGCCAGGGGCGUGCCAAC | 1944 | AGAUGUGUUCCUGCUGAAG | 1987 | UGGUUUGGGUGCUCGUGGA | 2030 | CGUGCGGAGCUCCCCCCUG |
| 1902 | UGCCAGGGGCGUGCCAACC | 1945 | GAUGUGUUCCUGCUGAAGU | 1988 | GGUUUGGGUGCUCGUGGAU | 2031 | GUGCGGAGCUCCCCCCUGU |
| 1903 | GCCAGGGGCGUGCCAACCU | 1946 | AUGUGUUCCUGCUGAAGUC | 1989 | GUUUGGGUGCUCGUGGAUG | 2032 | UGCGGAGCUCCCCCCUGUA |
| 1904 | CCAGGGGCGUGCCAACCUA | 1947 | UGUGUUCCUGCUGAAGUCC | 1990 | UUUGGGUGCUCGUGGAUGA | 2033 | GCGGAGCUCCCCCCUGUAA |
| 1905 | CAGGGGCGUGCCAACCUAC | 1948 | GUGUUCCUGCUGAAGUCCC | 1991 | UUGGGUGCUCGUGGAUGAA | 2034 | CGGAGCUCCCCCCUGUAAC |
| 1906 | AGGGGCGUGCCAACCUACA | 1949 | UGUUCCUGCUGAAGUCCCA | 1992 | UGGGUGCUCGUGGAUGAAC | 2035 | GGAGCUCCCCCCUGUAACA |
| 1907 | GGGGCGUGCCAACCUACAC | 1950 | GUUCCUGCUGAAGUCCCAG | 1993 | GGGUGCUCGUGGAUGAACU | 2036 | GAGCUCCCCCCUGUAACAU |
| 1908 | GGGCGUGCCAACCUACACC | 1951 | UUCCUGCUGAAGUCCCAGC | 1994 | GGUGCUCGUGGAUGAACUC | 2037 | AGCUCCCCCCUGUAACAUC |
| 1909 | GGCGUGCCAACCUACACCU | 1952 | UCCUGCUGAAGUCCCAGCG | 1995 | GUGCUCGUGGAUGAACUCC | 2038 | GCUCCCCCCUGUAACAUCU |
| 1910 | GCGUGCCAACCUACACCUG | 1953 | CCUGCUGAAGUCCCAGCGG | 1996 | UGCUCGUGGAUGAACUCCA | 2039 | CUCCCCCCUGUAACAUCUA |
| 1911 | CGUGCCAACCUACACCUGG | 1954 | CUGCUGAAGUCCCAGCGGC | 1997 | GCUCGUGGAUGAACUCCAC | 2040 | UCCCCCCUGUAACAUCUAU |
| 1912 | GUGCCAACCUACACCUGGG | 1955 | UGCUGAAGUCCCAGCGGCC | 1998 | CUCGUGGAUGAACUCCACG | 2041 | CCCCCCUGUAACAUCUAUG |
| 1913 | UGCCAACCUACACCUGGGG | 1956 | GCUGAAGUCCCAGCGGCCU | 1999 | UCGUGGAUGAACUCCACGG | 2042 | CCCCCUGUAACAUCUAUGG |
| 1914 | GCCAACCUACACCUGGGGU | 1957 | CUGAAGUCCCAGCGGCCUC | 2000 | CGUGGAUGAACUCCACGGG | 2043 | CCCCUGUAACAUCUAUGGG |
| 1915 | CCAACCUACACCUGGGGUG | 1958 | UGAAGUCCCAGCGGCCUCC | 2001 | GUGGAUGAACUCCACGGGG | 2044 | CCCUGUAACAUCUAUGGGG |
| 1916 | CAACCUACACCUGGGGUGA | 1959 | GAAGUCCCAGCGGCCUCCC | 2002 | UGGAUGAACUCCACGGGGU | 2045 | CCUGUAACAUCUAUGGGGG |
| 1917 | AACCUACACCUGGGGUGAG | 1960 | AAGUCCCAGCGGCCUCCCA | 2003 | GGAUGAACUCCACGGGGUU | 2046 | CUGUAACAUCUAUGGGGGC |
| 1918 | ACCUACACCUGGGGUGAGA | 1961 | AGUCCCAGCGGCCUCCCAG | 2004 | GAUGAACUCCACGGGGUUU | 2047 | UGUAACAUCUAUGGGGGCG |
| 1919 | CCUACACCUGGGGUGAGAA | 1962 | GUCCCAGCGGCCUCCCAGU | 2005 | AUGAACUCCACGGGGUUUC | 2048 | GUAACAUCUAUGGGGGCGA |
| 1920 | CUACACCUGGGGUGAGAAU | 1963 | UCCCAGCGGCCUCCCAGUG | 2006 | UGAACUCCACGGGGUUUCU | 2049 | UAACAUCUAUGGGGGCGAG |
| 1921 | UACACCUGGGGUGAGAAUG | 1964 | CCCAGCGGCCUCCCAGUGG | 2007 | GAACUCCACGGGGUUUCUC | 2050 | AACAUCUAUGGGGGCGAGG |
| 1922 | ACACCUGGGGUGAGAAUGA | 1965 | CCAGCGGCCUCCCAGUGGU | 2008 | AACUCCACGGGGUUUCUCA | 2051 | ACAUCUAUGGGGGCGAGGG |
| 1923 | CACCUGGGGUGAGAAUGAG | 1966 | CAGCGGCCUCCCAGUGGUC | 2009 | ACUCCACGGGGUUUCUCAA | 2052 | CAUCUAUGGGGGCGAGGGG |
| 1924 | ACCUGGGGUGAGAAUGAGA | 1967 | AGCGGCCUCCCAGUGGUCG | 2010 | CUCCACGGGGUUUCUCAAG | 2053 | AUCUAUGGGGGCGAGGGGA |
| 1925 | CCUGGGGUGAGAAUGAGAA | 1968 | GCGGCCUCCCAGUGGUCGG | 2011 | UCCACGGGGUUUCUCAAGA | 2054 | UCUAUGGGGGCGAGGGGAA |
| 1926 | CUGGGGUGAGAAUGAGAAA | 1969 | CGGCCUCCCAGUGGUCGGU | 2012 | CCACGGGGUUUCUCAAGAC | 2055 | CUAUGGGGGCGAGGGGAAU |
| 1927 | UGGGGUGAGAAUGAGAAAG | 1970 | GGCCUCCCAGUGGUCGGUG | 2013 | CACGGGGUUUCUCAAGACG | 2056 | UAUGGGGGCGAGGGGAAUC |
| 1928 | GGGGUGAGAAUGAGAAAGA | 1971 | GCCUCCCAGUGGUCGGUGG | 2014 | ACGGGGUUUCUCAAGACGU | 2057 | AUGGGGGCGAGGGGAAUCC |
| 1929 | GGGUGAGAAUGAGAAAGAU | 1972 | CCUCCCAGUGGUCGGUGGU | 2015 | CGGGGUUUCUCAAGACGUG | 2058 | UGGGGGCGAGGGGAAUCCC |
| 1930 | GGUGAGAAUGAGAAAGAUG | 1973 | CUCCCAGUGGUCGGUGGUU | 2016 | GGGGUUUCUCAAGACGUGC | 2059 | GGGGGCGAGGGGAAUCCCC |
| 1931 | GUGAGAAUGAGAAAGAUGU | 1974 | UCCCAGUGGUCGGUGGUUU | 2017 | GGGUUUCUCAAGACGUGCG | 2060 | GGGGCGAGGGGAAUCCCCA |
| 1932 | UGAGAAUGAGAAAGAUGUG | 1975 | CCCAGUGGUCGGUGGUUUG | 2018 | GGUUUCUCAAGACGUGCGG | 2061 | GGGCGAGGGGAAUCCCCAC |
| 1933 | GAGAAUGAGAAAGAUGUGU | 1976 | CCAGUGGUCGGUGGUUUGG | 2019 | GUUUCUCAAGACGUGCGGA | 2062 | GGCGAGGGGAAUCCCCACA |
| 1934 | AGAAUGAGAAAGAUGUGUU | 1977 | CAGUGGUCGGUGGUUUGGG | 2020 | UUUCUCAAGACGUGCGGAG | 2063 | GCGAGGGGAAUCCCCACAA |
| 1935 | GAAUGAGAAAGAUGUGUUC | 1978 | AGUGGUCGGUGGUUUGGGU | 2021 | UUCUCAAGACGUGCGGAGC | 2064 | CGAGGGGAAUCCCCACAAU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2065 | GAGGGGAAUCCCCACAAUG | 2108 | ACUGCUUCAGGAAACAUCC | 2151 | UGCAGGGCCCUGGUUGACA | 2194 | UACCGGCUUUGGCAUUACC |
| 2066 | AGGGGAAUCCCCACAAUGA | 2109 | CUGCUUCAGGAAACAUCCC | 2152 | GCAGGGCCCUGGUUGACAC | 2195 | ACCGGCUUUGGCAUUACCC |
| 2067 | GGGGAAUCCCCACAAUGAA | 2110 | UGCUUCAGGAAACAUCCCG | 2153 | CAGGGCCCUGGUUGACACC | 2196 | CCGGCUUUGGCAUUACCCA |
| 2068 | GGGAAUCCCCACAAUGAAU | 2111 | GCUUCAGGAAACAUCCCGA | 2154 | AGGGCCCUGGUUGACACCU | 2197 | CGGCUUUGGCAUUACCCAU |
| 2069 | GGAAUCCCCACAAUGAAUC | 2112 | CUUCAGGAAACAUCCCGAG | 2155 | GGGCCCUGGUUGACACCUC | 2198 | GGCUUUGGCAUUACCCAUG |
| 2070 | GAAUCCCCACAAUGAAUCA | 2113 | UUCAGGAAACAUCCCGAGA | 2156 | GGCCCUGGUUGACACCUCG | 2199 | GCUUUGGCAUUACCCAUGU |
| 2071 | AAUCCCCACAAUGAAUCAG | 2114 | UCAGGAAACAUCCCGAGAC | 2157 | GCCCUGGUUGACACCUCGU | 2200 | CUUUGGCAUUACCCAUGUA |
| 2072 | AUCCCCACAAUGAAUCAGA | 2115 | CAGGAAACAUCCCGAGACC | 2158 | CCCUGGUUGACACCUCGUU | 2201 | UUUGGCAUUACCCAUGUAC |
| 2073 | UCCCCACAAUGAAUCAGAU | 2116 | AGGAAACAUCCCGAGACCA | 2159 | CCUGGUUGACACCUCGUUG | 2202 | UUGGCAUUACCCAUGUACA |
| 2074 | CCCCACAAUGAAUCAGAUC | 2117 | GGAAACAUCCCGAGACCAC | 2160 | CUGGUUGACACCUCGUUGC | 2203 | UGGCAUUACCCAUGUACAG |
| 2075 | CCCACAAUGAAUCAGAUCU | 2118 | GAAACAUCCCGAGACCACG | 2161 | UGGUUGACACCUCGUUGCA | 2204 | GGCAUUACCCAUGUACAGU |
| 2076 | CCACAAUGAAUCAGAUCUU | 2119 | AAACAUCCCGAGACCACGU | 2162 | GGUUGACACCUCGUUGCAU | 2205 | GCAUUACCCAUGUACAGUC |
| 2077 | CACAAUGAAUCAGAUCUUU | 2120 | AACAUCCCGAGACCACGUA | 2163 | GUUGACACCUCGUUGCAUG | 2206 | CAUUACCCAUGUACAGUCG |
| 2078 | ACAAUGAAUCAGAUCUUUU | 2121 | ACAUCCCGAGACCACGUAC | 2164 | UUGACACCUCGUUGCAUGG | 2207 | AUUACCCAUGUACAGUCGA |
| 2079 | CAAUGAAUCAGAUCUUUUC | 2122 | CAUCCCGAGACCACGUACA | 2165 | UGACACCUCGUUGCAUGGU | 2208 | UUACCCAUGUACAGUCGAU |
| 2080 | AAUGAAUCAGAUCUUUUCU | 2123 | AUCCCGAGACCACGUACAG | 2166 | GACACCUCGUUGCAUGGUU | 2209 | UACCCAUGUACAGUCGAUU |
| 2081 | AUGAAUCAGAUCUUUUCUG | 2124 | UCCCGAGACCACGUACAGC | 2167 | ACACCUCGUUGCAUGGUUG | 2210 | ACCCAUGUACAGUCGAUUU |
| 2082 | UGAAUCAGAUCUUUUCUGC | 2125 | CCCGAGACCACGUACAGCC | 2168 | CACCUCGUUGCAUGGUUGA | 2211 | CCCAUGUACAGUCGAUUUC |
| 2083 | GAAUCAGAUCUUUUCUGCC | 2126 | CCGAGACCACGUACAGCCG | 2169 | ACCUCGUUGCAUGGUUGAC | 2212 | CCAUGUACAGUCGAUUUCA |
| 2084 | AAUCAGAUCUUUUCUGCCC | 2127 | CGAGACCACGUACAGCCGG | 2170 | CCUCGUUGCAUGGUUGACU | 2213 | CAUGUACAGUCGAUUUCAG |
| 2085 | AUCAGAUCUUUUCUGCCCC | 2128 | GAGACCACGUACAGCCGGU | 2171 | CUCGUUGCAUGGUUGACUA | 2214 | AUGUACAGUCGAUUUCAGA |
| 2086 | UCAGAUCUUUUCUGCCCCA | 2129 | AGACCACGUACAGCCGGUG | 2172 | UCGUUGCAUGGUUGACUAC | 2215 | UGUACAGUCGAUUUCAGAU |
| 2087 | CAGAUCUUUUCUGCCCCAC | 2130 | GACCACGUACAGCCGGUGU | 2173 | CGUUGCAUGGUUGACUACC | 2216 | GUACAGUCGAUUUCAGAUU |
| 2088 | AGAUCUUUUCUGCCCCACU | 2131 | ACCACGUACAGCCGGUGUG | 2174 | GUUGCAUGGUUGACUACCC | 2217 | UACAGUCGAUUUCAGAUUG |
| 2089 | GAUCUUUUCUGCCCCACUG | 2132 | CCACGUACAGCCGGUGUGG | 2175 | UUGCAUGGUUGACUACCCA | 2218 | ACAGUCGAUUUCAGAUUGU |
| 2090 | AUCUUUUCUGCCCCACUGA | 2133 | CACGUACAGCCGGUGUGGU | 2176 | UGCAUGGUUGACUACCCAU | 2219 | CAGUCGAUUUCAGAUUGUU |
| 2091 | UCUUUUCUGCCCCACUGAC | 2134 | ACGUACAGCCGGUGUGGUG | 2177 | GCAUGGUUGACUACCCAUA | 2220 | AGUCGAUUUCAGAUUGUUC |
| 2092 | CUUUUCUGCCCCACUGACU | 2135 | CGUACAGCCGGUGUGGUGC | 2178 | CAUGGUUGACUACCCAUAC | 2221 | GUCGAUUUCAGAUUGUUCA |
| 2093 | UUUUCUGCCCCACUGACUG | 2136 | GUACAGCCGGUGUGGUGCA | 2179 | AUGGUUGACUACCCAUACC | 2222 | UCGAUUUCAGAUUGUUCAA |
| 2094 | UUUCUGCCCCACUGACUGC | 2137 | UACAGCCGGUGUGGUGCAG | 2180 | UGGUUGACUACCCAUACCG | 2223 | CGAUUUCAGAUUGUUCAAG |
| 2095 | UUCUGCCCCACUGACUGCU | 2138 | ACAGCCGGUGUGGUGCAGG | 2181 | GGUUGACUACCCAUACCGG | 2224 | GAUUUCAGAUUGUUCAAGG |
| 2096 | UCUGCCCCACUGACUGCUU | 2139 | CAGCCGGUGUGGUGCAGGG | 2182 | GUUGACUACCCAUACCGGC | 2225 | AUUUCAGAUUGUUCAAGGU |
| 2097 | CUGCCCCACUGACUGCUUC | 2140 | AGCCGGUGUGGUGCAGGGC | 2183 | UUGACUACCCAUACCGGCU | 2226 | UUUCAGAUUGUUCAAGGUG |
| 2098 | UGCCCCACUGACUGCUUCA | 2141 | GCCGGUGUGGUGCAGGGCC | 2184 | UGACUACCCAUACCGGCUU | 2227 | UUCAGAUUGUUCAAGGUGA |
| 2099 | GCCCCACUGACUGCUUCAG | 2142 | CCGGUGUGGUGCAGGGCCC | 2185 | GACUACCCAUACCGGCUUU | 2228 | UCAGAUUGUUCAAGGUGAG |
| 2100 | CCCCACUGACUGCUUCAGG | 2143 | CGGUGUGGUGCAGGGCCCU | 2186 | ACUACCCAUACCGGCUUUG | 2229 | CAGAUUGUUCAAGGUGAGG |
| 2101 | CCCACUGACUGCUUCAGGA | 2144 | GGUGUGGUGCAGGGCCCUG | 2187 | CUACCCAUACCGGCUUUGG | 2230 | AGAUUGUUCAAGGUGAGGA |
| 2102 | CCACUGACUGCUUCAGGAA | 2145 | GUGUGGUGCAGGGCCCUGG | 2188 | UACCCAUACCGGCUUUGGC | 2231 | GAUUGUUCAAGGUGAGGAU |
| 2103 | CACUGACUGCUUCAGGAAA | 2146 | UGUGGUGCAGGGCCCUGGU | 2189 | ACCCAUACCGGCUUUGGCA | 2232 | AUUGUUCAAGGUGAGGAUG |
| 2104 | ACUGACUGCUUCAGGAAAC | 2147 | GUGGUGCAGGGCCCUGGUU | 2190 | CCCAUACCGGCUUUGGCAU | 2233 | UUGUUCAAGGUGAGGAUGU |
| 2105 | CUGACUGCUUCAGGAAACA | 2148 | UGGUGCAGGGCCCUGGUUG | 2191 | CCAUACCGGCUUUGGCAUU | 2234 | UGUUCAAGGUGAGGAUGUU |
| 2106 | UGACUGCUUCAGGAAACAU | 2149 | GGUGCAGGGCCCUGGUUGA | 2192 | CAUACCGGCUUUGGCAUUA | 2235 | GUUCAAGGUGAGGAUGUUU |
| 2107 | GACUGCUUCAGGAAACAUC | 2150 | GUGCAGGGCCCUGGUUGAC | 2193 | AUACCGGCUUUGGCAUUAC | 2236 | UUCAAGGUGAGGAUGUUUG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2237 | UCAAGGUGAGGAUGUUUGU | 2280 | CGCCGCUUGCAACUGGACC | 2322 | GGAUCGUGACCGCAGUGAG | 2350 | CUGCUGCAUUCAACAACUG |
| 2238 | CAAGGUGAGGAUGUUUGUG | 2281 | GCCGCUUGCAACUGGACCA | | | 2351 | UGCUGCAUUCAACAACUGA |
| 2239 | AAGGUGAGGAUGUUUGUGG | 2282 | CCGCUUGCAACUGGACCAG | 2323 | GAUCGUGACCGCAGUGAGC | 2352 | GCUGCAUUCAACAACUGAG |
| 2240 | AGGUGAGGAUGUUUGUGGG | 2283 | CGCUUGCAACUGGACCAGG | | | 2353 | CUGCAUUCAACAACUGAGC |
| 2241 | GGUGAGGAUGUUUGUGGGU | 2284 | GCUUGCAACUGGACCAGGG | 2324 | AUCGUGACCGCAGUGAGCA | 2354 | UGCAUUCAACAACUGAGCU |
| 2242 | GUGAGGAUGUUUGUGGGUG | 2285 | CUUGCAACUGGACCAGGGG | | | 2355 | GCAUUCAACAACUGAGCUU |
| 2243 | UGAGGAUGUUUGUGGGUGG | 2286 | UUGCAACUGGACCAGGGGG | 2325 | UCGUGACCGCAGUGAGCAA | 2356 | CAUUCAACAACUGAGCUUG |
| 2244 | GAGGAUGUUUGUGGGUGGG | 2287 | UGCAACUGGACCAGGGGGG | | | 2357 | AUUCAACAACUGAGCUUGC |
| 2245 | AGGAUGUUUGUGGGUGGGU | 2288 | GCAACUGGACCAGGGGGGA | 2326 | CGUGACCGCAGUGAGCAAC | 2358 | UUCAACAACUGAGCUUGCU |
| 2246 | GGAUGUUUGUGGGUGGGUU | 2289 | CAACUGGACCAGGGGGGAG | | | 2359 | UCAACAACUGAGCUUGCUA |
| 2247 | GAUGUUUGUGGGUGGGUUU | 2290 | AACUGGACCAGGGGGGAGC | 2327 | GUGACCGCAGUGAGCAACA | 2360 | CAACAACUGAGCUUGCUAU |
| 2248 | AUGUUUGUGGGUGGGUUUG | 2291 | ACUGGACCAGGGGGGAGCG | | | 2361 | AACAACUGAGCUUGCUAUA |
| 2249 | UGUUUGUGGGUGGGUUUGA | 2292 | CUGGACCAGGGGGGAGCGC | 2328 | UGACCGCAGUGAGCAACAU | 2362 | ACAACUGAGCUUGCUAUAC |
| 2250 | GUUUGUGGGUGGGUUUGAA | 2293 | UGGACCAGGGGGGAGCGCU | | | 2363 | CAACUGAGCUUGCUAUACU |
| 2251 | UUUGUGGGUGGGUUUGAAC | 2294 | GGACCAGGGGGGAGCGCUG | 2329 | GACCGCAGUGAGCAACAUC | 2364 | AACUGAGCUUGCUAUACUG |
| 2252 | UUGUGGGUGGGUUUGAACA | 2295 | GACCAGGGGGGAGCGCUGC | | | 2365 | ACUGAGCUUGCUAUACUGC |
| 2253 | UGUGGGUGGGUUUGAACAU | 2296 | ACCAGGGGGGAGCGCUGCG | 2330 | ACCGCAGUGAGCAACAUCC | 2366 | CUGAGCUUGCUAUACUGCC |
| 2254 | GUGGGUGGGUUUGAACAUC | 2297 | CCAGGGGGGAGCGCUGCGA | | | 2367 | UGAGCUUGCUAUACUGCCU |
| 2255 | UGGGUGGGUUUGAACAUCG | 2298 | CAGGGGGGAGCGCUGCGAU | 2331 | CCGCAGUGAGCAACAUCCG | 2368 | GAGCUUGCUAUACUGCCUU |
| 2256 | GGGUGGGUUUGAACAUCGA | 2299 | AGGGGGGAGCGCUGCGAUA | | | 2369 | AGCUUGCUAUACUGCCUUG |
| 2257 | GGUGGGUUUGAACAUCGAU | 2300 | GGGGGGAGCGCUGCGAUAU | 2332 | CGCAGUGAGCAACAUCCGC | 2370 | GCUUGCUAUACUGCCUUGC |
| 2258 | GUGGGUUUGAACAUCGAUU | 2301 | GGGGGAGCGCUGCGAUAUC | | | 2371 | CUUGCUAUACUGCCUUGCU |
| 2259 | UGGGUUUGAACAUCGAUUU | 2302 | GGGGAGCGCUGCGAUAUCG | 2333 | GCAGUGAGCAACAUCCGCU | 2372 | UUGCUAUACUGCCUUGCUC |
| 2260 | GGGUUUGAACAUCGAUUUA | 2303 | GGGAGCGCUGCGAUAUCGA | | | 2373 | UGCUAUACUGCCUUGCUCU |
| 2261 | GGUUUGAACAUCGAUUUAC | 2304 | GGAGCGCUGCGAUAUCGAG | 2334 | CAGUGAGCAACAUCCGCUG | 2374 | GCUAUACUGCCUUGCUCUU |
| 2262 | GUUUGAACAUCGAUUUACC | 2305 | GAGCGCUGCGAUAUCGAGG | | | 2375 | CUAUACUGCCUUGCUCUUU |
| 2263 | UUUGAACAUCGAUUUACCG | 2306 | AGCGCUGCGAUAUCGAGGA | 2335 | AGUGAGCAACAUCCGCUGC | 2376 | UAUACUGCCUUGCUCUUUC |
| 2264 | UUGAACAUCGAUUUACCGC | 2307 | GCGCUGCGAUAUCGAGGAU | | | 2377 | AUACUGCCUUGCUCUUUCA |
| 2265 | UGAACAUCGAUUUACCGCC | 2308 | CGCUGCGAUAUCGAGGAUC | 2336 | GUGAGCAACAUCCGCUGCU | 2378 | UACUGCCUUGCUCUUUCAC |
| 2266 | GAACAUCGAUUUACCGCCG | 2309 | GCUGCGAUAUCGAGGAUCG | | | 2379 | ACUGCCUUGCUCUUUCACG |
| 2267 | AACAUCGAUUUACCGCCGC | 2310 | CUGCGAUAUCGAGGAUCGU | 2337 | UGAGCAACAUCCGCUGCUG | 2380 | CUGCCUUGCUCUUUCACGC |
| 2268 | ACAUCGAUUUACCGCCGCU | 2311 | UGCGAUAUCGAGGAUCGUG | 2338 | GAGCAACAUCCGCUGCUGC | 2381 | UGCCUUGCUCUUUCACGCC |
| 2269 | CAUCGAUUUACCGCCGCUU | 2312 | GCGAUAUCGAGGAUCGUGA | 2339 | AGCAACAUCCGCUGCUGCA | 2382 | GCCUUGCUCUUUCACGCCC |
| 2270 | AUCGAUUUACCGCCGCUUG | 2313 | CGAUAUCGAGGAUCGUGAC | 2340 | GCAACAUCCGCUGCUGCAU | 2383 | CCUUGCUCUUUCACGCCCA |
| 2271 | UCGAUUUACCGCCGCUUGC | 2314 | GAUAUCGAGGAUCGUGACC | 2341 | CAACAUCCGCUGCUGCAUU | 2384 | CUUGCUCUUUCACGCCCAU |
| 2272 | CGAUUUACCGCCGCUUGCA | 2315 | AUAUCGAGGAUCGUGACCG | 2342 | AACAUCCGCUGCUGCAUUC | 2385 | UUGCUCUUUCACGCCCAUG |
| 2273 | GAUUUACCGCCGCUUGCAA | 2316 | UAUCGAGGAUCGUGACCGC | 2343 | ACAUCCGCUGCUGCAUUCA | 2386 | UGCUCUUUCACGCCCAUGC |
| 2274 | AUUUACCGCCGCUUGCAAC | 2317 | AUCGAGGAUCGUGACCGCA | 2344 | CAUCCGCUGCUGCAUUCAA | 2387 | GCUCUUUCACGCCCAUGCC |
| 2275 | UUUACCGCCGCUUGCAACU | 2318 | UCGAGGAUCGUGACCGCAG | 2345 | AUCCGCUGCUGCAUUCAAC | 2388 | CUCUUUCACGCCCAUGCCU |
| 2276 | UUACCGCCGCUUGCAACUG | 2319 | CGAGGAUCGUGACCGCAGU | 2346 | UCCGCUGCUGCAUUCAACA | 2389 | UCUUUCACGCCCAUGCCUG |
| 2277 | UACCGCCGCUUGCAACUGG | 2320 | GAGGAUCGUGACCGCAGUG | 2347 | CCGCUGCUGCAUUCAACAA | 2390 | CUUUCACGCCCAUGCCUGC |
| 2278 | ACCGCCGCUUGCAACUGGA | 2321 | AGGAUCGUGACCGCAGUGA | 2348 | CGCUGCUGCAUUCAACAAC | 2391 | UUUCACGCCCAUGCCUGCG |
| 2279 | CCGCCGCUUGCAACUGGAC | | | 2349 | GCUGCUGCAUUCAACAACU | 2392 | UUCACGCCCAUGCCUGCGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2393 | UCACGCCCAUGCCUGCGCU | 2436 | CCAAAACAUCGUGGAUGUC | 2479 | GGCAUGGUGGGAUGGGCGC | 2522 | UUUUCCUCCUUCUGGCGGA |
| 2394 | CACGCCCAUGCCUGCGCUG | 2437 | CAAAACAUCGUGGAUGUCC | 2480 | GCAUGGUGGGAUGGGCGCU | 2523 | UUUCCUCCUUCUGGCGGAC |
| 2395 | ACGCCCAUGCCUGCGCUGU | 2438 | AAAACAUCGUGGAUGUCCA | 2481 | CAUGGUGGGAUGGGCGCUG | 2524 | UUCCUCCUUCUGGCGGACG |
| 2396 | CGCCCAUGCCUGCGCUGUC | 2439 | AAACAUCGUGGAUGUCCAA | 2482 | AUGGUGGGAUGGGCGCUGA | 2525 | UCCUCCUUCUGGCGGACGC |
| 2397 | GCCCAUGCCUGCGCUGUCA | 2440 | AACAUCGUGGAUGUCCAAU | 2483 | UGGUGGGAUGGGCGCUGAA | 2526 | CCUCCUUCUGGCGGACGCA |
| 2398 | CCCAUGCCUGCGCUGUCAA | 2441 | ACAUCGUGGAUGUCCAAUA | 2484 | GGUGGGAUGGGCGCUGAAA | 2527 | CUCCUUCUGGCGGACGCAC |
| 2399 | CCAUGCCUGCGCUGUCAAC | 2442 | CAUCGUGGAUGUCCAAUAC | 2485 | GUGGGAUGGGCGCUGAAAU | 2528 | UCCUUCUGGCGGACGCACG |
| 2400 | CAUGCCUGCGCUGUCAACA | 2443 | AUCGUGGAUGUCCAAUACC | 2486 | UGGGAUGGGCGCUGAAAUG | 2529 | CCUUCUGGCGGACGCACGC |
| 2401 | AUGCCUGCGCUGUCAACAG | 2444 | UCGUGGAUGUCCAAUACCU | 2487 | GGGAUGGGCGCUGAAAUGG | 2530 | CUUCUGGCGGACGCACGCG |
| 2402 | UGCCUGCGCUGUCAACAGG | 2445 | CGUGGAUGUCCAAUACCUU | 2488 | GGAUGGGCGCUGAAAUGGG | 2531 | UUCUGGCGGACGCACGCGU |
| 2403 | GCCUGCGCUGUCAACAGGU | 2446 | GUGGAUGUCCAAUACCUUU | 2489 | GAUGGGCGCUGAAAUGGGA | 2532 | UCUGGCGGACGCACGCGUG |
| 2404 | CCUGCGCUGUCAACAGGUC | 2447 | UGGAUGUCCAAUACCUUUA | 2490 | AUGGGCGCUGAAAUGGGAG | 2533 | CUGGCGGACGCACGCGUGU |
| 2405 | CUGCGCUGUCAACAGGUCU | 2448 | GGAUGUCCAAUACCUUUAU | 2491 | UGGGCGCUGAAAUGGGAGU | 2534 | UGGCGGACGCACGCGUGUG |
| 2406 | UGCGCUGUCAACAGGUCUG | 2449 | GAUGUCCAAUACCUUUAUG | 2492 | GGGCGCUGAAAUGGGAGUU | 2535 | GGCGGACGCACGCGUGUGC |
| 2407 | GCGCUGUCAACAGGUCUGA | 2450 | AUGUCCAAUACCUUUAUGG | 2493 | GGCGCUGAAAUGGGAGUUC | 2536 | GCGGACGCACGCGUGUGCG |
| 2408 | CGCUGUCAACAGGUCUGAU | 2451 | UGUCCAAUACCUUUAUGGC | 2494 | GCGCUGAAAUGGGAGUUCG | 2537 | CGGACGCACGCGUGUGCGU |
| 2409 | GCUGUCAACAGGUCUGAUA | 2452 | GUCCAAUACCUUUAUGGCG | 2495 | CGCUGAAAUGGGAGUUCGU | 2538 | GGACGCACGCGUGUGCGUU |
| 2410 | CUGUCAACAGGUCUGAUAC | 2453 | UCCAAUACCUUUAUGGCGU | 2496 | GCUGAAAUGGGAGUUCGUC | 2539 | GACGCACGCGUGUGCGUUG |
| 2411 | UGUCAACAGGUCUGAUACA | 2454 | CCAAUACCUUUAUGGCGUU | 2497 | CUGAAAUGGGAGUUCGUCA | 2540 | ACGCACGCGUGUGCGUUGC |
| 2412 | GUCAACAGGUCUGAUACAC | 2455 | CAAUACCUUUAUGGCGUUG | 2498 | UGAAAUGGGAGUUCGUCAU | 2541 | CGCACGCGUGUGCGUUGCC |
| 2413 | UCAACAGGUCUGAUACACC | 2456 | AAUACCUUUAUGGCGUUGG | 2499 | GAAAUGGGAGUUCGUCAUC | 2542 | GCACGCGUGUGCGUUGCCC |
| 2414 | CAACAGGUCUGAUACACCU | 2457 | AUACCUUUAUGGCGUUGGA | 2500 | AAAUGGGAGUUCGUCAUCC | 2543 | CACGCGUGUGCGUUGCCCU |
| 2415 | AACAGGUCUGAUACACCUC | 2458 | UACCUUUAUGGCGUUGGAU | 2501 | AAUGGGAGUUCGUCAUCCU | 2544 | ACGCGUGUGCGUUGCCCUU |
| 2416 | ACAGGUCUGAUACACCUCC | 2459 | ACCUUUAUGGCGUUGGAUC | 2502 | AUGGGAGUUCGUCAUCCUC | 2545 | CGCGUGUGCGUUGCCCUUU |
| 2417 | CAGGUCUGAUACACCUCCA | 2460 | CCUUUAUGGCGUUGGAUCU | 2503 | UGGGAGUUCGUCAUCCUCG | 2546 | GCGUGUGCGUUGCCCUUUG |
| 2418 | AGGUCUGAUACACCUCCAC | 2461 | CUUUAUGGCGUUGGAUCUG | 2504 | GGGAGUUCGUCAUCCUCGU | 2547 | CGUGUGCGUUGCCCUUUGG |
| 2419 | GGUCUGAUACACCUCCACC | 2462 | UUUAUGGCGUUGGAUCUGG | 2505 | GGAGUUCGUCAUCCUCGUU | 2548 | GUGUGCGUUGCCCUUUGGC |
| 2420 | GUCUGAUACACCUCCACCA | 2463 | UUAUGGCGUUGGAUCUGGC | 2506 | GAGUUCGUCAUCCUCGUUU | 2549 | UGUGCGUUGCCCUUUGGCU |
| 2421 | UCUGAUACACCUCCACCAA | 2464 | UAUGGCGUUGGAUCUGGCA | 2507 | AGUUCGUCAUCCUCGUUUU | 2550 | GUGCGUUGCCCUUUGGCUG |
| 2422 | CUGAUACACCUCCACCAAA | 2465 | AUGGCGUUGGAUCUGGCAU | 2508 | GUUCGUCAUCCUCGUUUUC | 2551 | UGCGUUGCCCUUUGGCUGA |
| 2423 | UGAUACACCUCCACCAAAA | 2466 | UGGCGUUGGAUCUGGCAUG | 2509 | UUCGUCAUCCUCGUUUUCC | 2552 | GCGUUGCCCUUUGGCUGAU |
| 2424 | GAUACACCUCCACCAAAAC | 2467 | GGCGUUGGAUCUGGCAUGG | 2510 | UCGUCAUCCUCGUUUUCCU | 2553 | CGUUGCCCUUUGGCUGAUG |
| 2425 | AUACACCUCCACCAAAACA | 2468 | GCGUUGGAUCUGGCAUGGU | 2511 | CGUCAUCCUCGUUUUCCUC | 2554 | GUUGCCCUUUGGCUGAUGC |
| 2426 | UACACCUCCACCAAAACAU | 2469 | CGUUGGAUCUGGCAUGGUG | 2512 | GUCAUCCUCGUUUUCCUCC | 2555 | UUGCCCUUUGGCUGAUGCU |
| 2427 | ACACCUCCACCAAAACAUC | 2470 | GUUGGAUCUGGCAUGGUGG | 2513 | UCAUCCUCGUUUUCCUCCU | 2556 | UGCCCUUUGGCUGAUGCUG |
| 2428 | CACCUCCACCAAAACAUCG | 2471 | UUGGAUCUGGCAUGGUGGG | 2514 | CAUCCUCGUUUUCCUCCUU | 2557 | GCCCUUUGGCUGAUGCUGA |
| 2429 | ACCUCCACCAAAACAUCGU | 2472 | UGGAUCUGGCAUGGUGGGA | 2515 | AUCCUCGUUUUCCUCCUUC | 2558 | CCCUUUGGCUGAUGCUGAU |
| 2430 | CCUCCACCAAAACAUCGUG | 2473 | GGAUCUGGCAUGGUGGGAU | 2516 | UCCUCGUUUUCCUCCUUCU | 2559 | CCUUUGGCUGAUGCUGAUG |
| 2431 | CUCCACCAAAACAUCGUGG | 2474 | GAUCUGGCAUGGUGGGAUG | 2517 | CCUCGUUUUCCUCCUUCUG | 2560 | CUUUGGCUGAUGCUGAUGA |
| 2432 | UCCACCAAAACAUCGUGGA | 2475 | AUCUGGCAUGGUGGGAUGG | 2518 | CUCGUUUUCCUCCUUCUGG | 2561 | UUUGGCUGAUGCUGAUGAU |
| 2433 | CCACCAAAACAUCGUGGAU | 2476 | UCUGGCAUGGUGGGAUGGG | 2519 | UCGUUUUCCUCCUUCUGGC | 2562 | UUGGCUGAUGCUGAUGAUA |
| 2434 | CACCAAAACAUCGUGGAUG | 2477 | CUGGCAUGGUGGGAUGGGC | 2520 | CGUUUUCCUCCUUCUGGCG | 2563 | UGGCUGAUGCUGAUGAUAU |
| 2435 | ACCAAAACAUCGUGGAUGU | 2478 | UGGCAUGGUGGGAUGGGCG | 2521 | GUUUUCCUCCUUCUGGCGG | 2564 | GGCUGAUGCUGAUGAUAUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2565 | GCUGAUGCUGAUGAUAUCA | 2608 | CUGGUCACGCUGAACGCCG | 2651 | UCGGCUGGUACCUGGUAGC | 2694 | GGGUAAACUCGUCCCGCUG |
| 2566 | CUGAUGCUGAUGAUAUCAC | 2609 | UGGUCACGCUGAACGCCGU | 2652 | CGGCUGGUACCUGGUAGCU | 2695 | GGUAAACUCGUCCCGCUGG |
| 2567 | UGAUGCUGAUGAUAUCACA | 2610 | GGUCACGCUGAACGCCGUC | 2653 | GGCUGGUACCUGGUAGCUU | 2696 | GUAAACUCGUCCCGCUGGU |
| 2568 | GAUGCUGAUGAUAUCACAG | 2611 | GUCACGCUGAACGCCGUCG | 2654 | GCUGGUACCUGGUAGCUUU | 2697 | UAAACUCGUCCCGCUGGUG |
| 2569 | AUGCUGAUGAUAUCACAGA | 2612 | UCACGCUGAACGCCGUCGC | 2655 | CUGGUACCUGGUAGCUUUU | 2698 | AAACUCGUCCCGCUGGUGA |
| 2570 | UGCUGAUGAUAUCACAGAC | 2613 | CACGCUGAACGCCGUCGCU | 2656 | UGGUACCUGGUAGCUUUUU | 2699 | AACUCGUCCCGCUGGUGAC |
| 2571 | GCUGAUGAUAUCACAGACA | 2614 | ACGCUGAACGCCGUCGCUG | 2657 | GGUACCUGGUAGCUUUUUG | 2700 | ACUCGUCCCGCUGGUGACC |
| 2572 | CUGAUGAUAUCACAGACAG | 2615 | CGCUGAACGCCGUCGCUGC | 2658 | GUACCUGGUAGCUUUUUGC | 2701 | CUCGUCCCGCUGGUGACCU |
| 2573 | UGAUGAUAUCACAGACAGA | 2616 | GCUGAACGCCGUCGCUGCU | 2659 | UACCUGGUAGCUUUUUGCG | 2702 | UCGUCCCGCUGGUGACCUA |
| 2574 | GAUGAUAUCACAGACAGAA | 2617 | CUGAACGCCGUCGCUGCUG | 2660 | ACCUGGUAGCUUUUUGCGC | 2703 | CGUCCCGCUGGUGACCUAC |
| 2575 | AUGAUAUCACAGACAGAAG | 2618 | UGAACGCCGUCGCUGCUGC | 2661 | CCUGGUAGCUUUUUGCGCG | 2704 | GUCCCGCUGGUGACCUACA |
| 2576 | UGAUAUCACAGACAGAAGC | 2619 | GAACGCCGUCGCUGCUGCU | 2662 | CUGGUAGCUUUUUGCGCGG | 2705 | UCCCGCUGGUGACCUACAG |
| 2577 | GAUAUCACAGACAGAAGCA | 2620 | AACGCCGUCGCUGCUGCUG | 2663 | UGGUAGCUUUUUGCGCGGC | 2706 | CCCGCUGGUGACCUACAGC |
| 2578 | AUAUCACAGACAGAAGCAG | 2621 | ACGCCGUCGCUGCUGCUGG | 2664 | GGUAGCUUUUUGCGCGGCG | 2707 | CCGCUGGUGACCUACAGCC |
| 2579 | UAUCACAGACAGAAGCAGC | 2622 | CGCCGUCGCUGCUGCUGGG | 2665 | GUAGCUUUUUGCGCGGCGU | 2708 | CGCUGGUGACCUACAGCCU |
| 2580 | AUCACAGACAGAAGCAGCC | 2623 | GCCGUCGCUGCUGCUGGGA | 2666 | UAGCUUUUUGCGCGGCGUG | 2709 | GCUGGUGACCUACAGCCUG |
| 2581 | UCACAGACAGAAGCAGCCU | 2624 | CCGUCGCUGCUGCUGGGAC | 2667 | AGCUUUUUGCGCGGCGUGG | 2710 | CUGGUGACCUACAGCCUGA |
| 2582 | CACAGACAGAAGCAGCCUU | 2625 | CGUCGCUGCUGCUGGGACA | 2668 | GCUUUUUGCGCGGCGUGGU | 2711 | UGGUGACCUACAGCCUGAC |
| 2583 | ACAGACAGAAGCAGCCUUG | 2626 | GUCGCUGCUGCUGGGACAC | 2669 | CUUUUUGCGCGGCGUGGUA | 2712 | GGUGACCUACAGCCUGACG |
| 2584 | CAGACAGAAGCAGCCUUGG | 2627 | UCGCUGCUGCUGGGACACA | 2670 | UUUUUGCGCGGCGUGGUAC | 2713 | GUGACCUACAGCCUGACGG |
| 2585 | AGACAGAAGCAGCCUUGGA | 2628 | CGCUGCUGCUGGGACACAU | 2671 | UUUUGCGCGGCGUGGUACG | 2714 | UGACCUACAGCCUGACGGG |
| 2586 | GACAGAAGCAGCCUUGGAG | 2629 | GCUGCUGCUGGGACACAUG | 2672 | UUUGCGCGGCGUGGUACGU | 2715 | GACCUACAGCCUGACGGGU |
| 2587 | ACAGAAGCAGCCUUGGAGA | 2630 | CUGCUGCUGGGACACAUGG | 2673 | UUGCGCGGCGUGGUACGUG | 2716 | ACCUACAGCCUGACGGGUC |
| 2588 | CAGAAGCAGCCUUGGAGAA | 2631 | UGCUGCUGGGACACAUGGU | 2674 | UGCGCGGCGUGGUACGUGC | 2717 | CCUACAGCCUGACGGGUCU |
| 2589 | AGAAGCAGCCUUGGAGAAC | 2632 | GCUGCUGGGACACAUGGUA | 2675 | GCGCGGCGUGGUACGUGCG | 2718 | CUACAGCCUGACGGGUCUU |
| 2590 | GAAGCAGCCUUGGAGAACC | 2633 | CUGCUGGGACACAUGGUAU | 2676 | CGCGGCGUGGUACGUGCGG | 2719 | UACAGCCUGACGGGUCUUU |
| 2591 | AAGCAGCCUUGGAGAACCU | 2634 | UGCUGGGACACAUGGUAUC | 2677 | GCGGCGUGGUACGUGCGGG | 2720 | ACAGCCUGACGGGUCUUUG |
| 2592 | AGCAGCCUUGGAGAACCUG | 2635 | GCUGGGACACAUGGUAUCG | 2678 | CGGCGUGGUACGUGCGGGG | 2721 | CAGCCUGACGGGUCUUUGG |
| 2593 | GCAGCCUUGGAGAACCUGG | 2636 | CUGGGACACAUGGUAUCGG | 2679 | GGCGUGGUACGUGCGGGGU | 2722 | AGCCUGACGGGUCUUUGGU |
| 2594 | CAGCCUUGGAGAACCUGGU | 2637 | UGGGACACAUGGUAUCGGC | 2680 | GCGUGGUACGUGCGGGGUA | 2723 | GCCUGACGGGUCUUUGGUC |
| 2595 | AGCCUUGGAGAACCUGGUC | 2638 | GGGACACAUGGUAUCGGCU | 2681 | CGUGGUACGUGCGGGGUAA | 2724 | CCUGACGGGUCUUUGGUCC |
| 2596 | GCCUUGGAGAACCUGGUCA | 2639 | GGACACAUGGUAUCGGCUG | 2682 | GUGGUACGUGCGGGGUAAA | 2725 | CUGACGGGUCUUUGGUCCC |
| 2597 | CCUUGGAGAACCUGGUCAC | 2640 | GACACAUGGUAUCGGCUGG | 2683 | UGGUACGUGCGGGGUAAAC | 2726 | UGACGGGUCUUUGGUCCCU |
| 2598 | CUUGGAGAACCUGGUCACG | 2641 | ACACAUGGUAUCGGCUGGU | 2684 | GGUACGUGCGGGGUAAACU | 2727 | GACGGGUCUUUGGUCCCUA |
| 2599 | UUGGAGAACCUGGUCACGC | 2642 | CACAUGGUAUCGGCUGGUA | 2685 | GUACGUGCGGGGUAAACUC | 2728 | ACGGGUCUUUGGUCCCUAG |
| 2600 | UGGAGAACCUGGUCACGCU | 2643 | ACAUGGUAUCGGCUGGUAC | 2686 | UACGUGCGGGGUAAACUCG | 2729 | CGGGUCUUUGGUCCCUAGC |
| 2601 | GGAGAACCUGGUCACGCUG | 2644 | CAUGGUAUCGGCUGGUACC | 2687 | ACGUGCGGGGUAAACUCGU | 2730 | GGGUCUUUGGUCCCUAGCA |
| 2602 | GAGAACCUGGUCACGCUGA | 2645 | AUGGUAUCGGCUGGUACCU | 2688 | CGUGCGGGGUAAACUCGUC | 2731 | GGUCUUUGGUCCCUAGCAU |
| 2603 | AGAACCUGGUCACGCUGAA | 2646 | UGGUAUCGGCUGGUACCUG | 2689 | GUGCGGGGUAAACUCGUCC | 2732 | GUCUUUGGUCCCUAGCAUU |
| 2604 | GAACCUGGUCACGCUGAAC | 2647 | GGUAUCGGCUGGUACCUGG | 2690 | UGCGGGGUAAACUCGUCCC | 2733 | UCUUUGGUCCCUAGCAUUG |
| 2605 | AACCUGGUCACGCUGAACG | 2648 | GUAUCGGCUGGUACCUGGU | 2691 | GCGGGGUAAACUCGUCCCG | 2734 | CUUUGGUCCCUAGCAUUGC |
| 2606 | ACCUGGUCACGCUGAACGC | 2649 | UAUCGGCUGGUACCUGGUA | 2692 | CGGGGUAAACUCGUCCCGC | 2735 | UUUGGUCCCUAGCAUUGCU |
| 2607 | CCUGGUCACGCUGAACGCC | 2650 | AUCGGCUGGUACCUGGUAG | 2693 | GGGGUAAACUCGUCCCGCU | 2736 | UUGGUCCCUAGCAUUGCUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2737 | UGGUCCCUAGCAUUGCUCG | 2780 | AUGCUUGGUCGGGUGAAGA | 2823 | CUUGGUCCUCUUCGGCUUC | 2866 | CAUUGGAUCGGCCGCCUCA |
| 2738 | GGUCCCUAGCAUUGCUCGU | 2781 | UGCUUGGUCGGGUGAAGAC | 2824 | UUGGUCCUCUUCGGCUUCU | 2867 | AUUGGAUCGGCCGCCUCAU |
| 2739 | GUCCCUAGCAUUGCUCGUC | 2782 | GCUUGGUCGGGUGAAGACA | 2825 | UGGUCCUCUUCGGCUUCUU | 2868 | UUGGAUCGGCCGCCUCAUG |
| 2740 | UCCCUAGCAUUGCUCGUCC | 2783 | CUUGGUCGGGUGAAGACAG | 2826 | GGUCCUCUUCGGCUUCUUU | 2869 | UGGAUCGGCCGCCUCAUGU |
| 2741 | CCCUAGCAUUGCUCGUCCU | 2784 | UUGGUCGGGUGAAGACAGC | 2827 | GUCCUCUUCGGCUUCUUUA | 2870 | GGAUCGGCCGCCUCAUGUG |
| 2742 | CCUAGCAUUGCUCGUCCUC | 2785 | UGGUCGGGUGAAGACAGCG | 2828 | UCCUCUUCGGCUUCUUUAC | 2871 | GAUCGGCCGCCUCAUGUGG |
| 2743 | CUAGCAUUGCUCGUCCUCU | 2786 | GGUCGGGUGAAGACAGCGC | 2829 | CCUCUUCGGCUUCUUUACC | 2872 | AUCGGCCGCCUCAUGUGGU |
| 2744 | UAGCAUUGCUCGUCCUCUU | 2787 | GUCGGGUGAAGACAGCGCC | 2830 | CUCUUCGGCUUCUUUACCU | 2873 | UCGGCCGCCUCAUGUGGUG |
| 2745 | AGCAUUGCUCGUCCUCUUG | 2788 | UCGGGUGAAGACAGCGCCA | 2831 | UCUUCGGCUUCUUUACCUU | 2874 | CGGCCGCCUCAUGUGGUGG |
| 2746 | GCAUUGCUCGUCCUCUUGC | 2789 | CGGGUGAAGACAGCGCCAC | 2832 | CUUCGGCUUCUUUACCUUG | 2875 | GGCCGCCUCAUGUGGUGGA |
| 2747 | CAUUGCUCGUCCUCUUGCU | 2790 | GGGUGAAGACAGCGCCACU | 2833 | UUCGGCUUCUUUACCUUGU | 2876 | GCCGCCUCAUGUGGUGGAA |
| 2748 | AUUGCUCGUCCUCUUGCUC | 2791 | GGUGAAGACAGCGCCACUC | 2834 | UCGGCUUCUUUACCUUGUC | 2877 | CCGCCUCAUGUGGUGGAAC |
| 2749 | UUGCUCGUCCUCUUGCUCC | 2792 | GUGAAGACAGCGCCACUCU | 2835 | CGGCUUCUUUACCUUGUCA | 2878 | CGCCUCAUGUGGUGGAACC |
| 2750 | UGCUCGUCCUCUUGCUCCC | 2793 | UGAAGACAGCGCCACUCUU | 2836 | GGCUUCUUUACCUUGUCAC | 2879 | GCCUCAUGUGGUGGAACCA |
| 2751 | GCUCGUCCUCUUGCUCCCC | 2794 | GAAGACAGCGCCACUCUUG | 2837 | GCUUCUUUACCUUGUCACC | 2880 | CCUCAUGUGGUGGAACCAG |
| 2752 | CUCGUCCUCUUGCUCCCCC | 2795 | AAGACAGCGCCACUCUUGG | 2838 | CUUCUUUACCUUGUCACCC | 2881 | CUCAUGUGGUGGAACCAGU |
| 2753 | UCGUCCUCUUGCUCCCCCA | 2796 | AGACAGCGCCACUCUUGGC | 2839 | UUCUUUACCUUGUCACCCU | 2882 | UCAUGUGGUGGAACCAGUA |
| 2754 | CGUCCUCUUGCUCCCCCAA | 2797 | GACAGCGCCACUCUUGGCG | 2840 | UCUUUACCUUGUCACCCUG | 2883 | CAUGUGGUGGAACCAGUAC |
| 2755 | GUCCUCUUGCUCCCCCAAC | 2798 | ACAGCGCCACUCUUGGCGC | 2841 | CUUUACCUUGUCACCCUGG | 2884 | AUGUGGUGGAACCAGUACA |
| 2756 | UCCUCUUGCUCCCCCAACG | 2799 | CAGCGCCACUCUUGGCGCU | 2842 | UUUACCUUGUCACCCUGGU | 2885 | UGUGGUGGAACCAGUACAC |
| 2757 | CCUCUUGCUCCCCCAACGU | 2800 | AGCGCCACUCUUGGCGCUG | 2843 | UUACCUUGUCACCCUGGUA | 2886 | GUGGUGGAACCAGUACACC |
| 2758 | CUCUUGCUCCCCCAACGUG | 2801 | GCGCCACUCUUGGCGCUGG | 2844 | UACCUUGUCACCCUGGUAU | 2887 | UGGUGGAACCAGUACACCA |
| 2759 | UCUUGCUCCCCCAACGUGC | 2802 | CGCCACUCUUGGCGCUGGG | 2845 | ACCUUGUCACCCUGGUAUA | 2888 | GGUGGAACCAGUACACCAU |
| 2760 | CUUGCUCCCCCAACGUGCG | 2803 | GCCACUCUUGGCGCUGGGG | 2846 | CCUUGUCACCCUGGUAUAA | 2889 | GUGGAACCAGUACACCAUA |
| 2761 | UUGCUCCCCCAACGUGCGU | 2804 | CCACUCUUGGCGCUGGGGU | 2847 | CUUGUCACCCUGGUAUAAG | 2890 | UGGAACCAGUACACCAUAU |
| 2762 | UGCUCCCCCAACGUGCGUA | 2805 | CACUCUUGGCGCUGGGGUC | 2848 | UUGUCACCCUGGUAUAAGC | 2891 | GGAACCAGUACACCAUAUG |
| 2763 | GCUCCCCCAACGUGCGUAU | 2806 | ACUCUUGGCGCUGGGGUCU | 2849 | UGUCACCCUGGUAUAAGCA | 2892 | GAACCAGUACACCAUAUGC |
| 2764 | CUCCCCCAACGUGCGUAUG | 2807 | CUCUUGGCGCUGGGGUCUU | 2850 | GUCACCCUGGUAUAAGCAU | 2893 | AACCAGUACACCAUAUGCA |
| 2765 | UCCCCCAACGUGCGUAUGC | 2808 | UCUUGGCGCUGGGGUCUUG | 2851 | UCACCCUGGUAUAAGCAUU | 2894 | ACCAGUACACCAUAUGCAG |
| 2766 | CCCCCAACGUGCGUAUGCU | 2809 | CUUGGCGCUGGGGUCUUGG | 2852 | CACCCUGGUAUAAGCAUUG | 2895 | CCAGUACACCAUAUGCAGA |
| 2767 | CCCCAACGUGCGUAUGCUU | 2810 | UUGGCGCUGGGGUCUUGGU | 2853 | ACCCUGGUAUAAGCAUUGG | 2896 | CAGUACACCAUAUGCAGAU |
| 2768 | CCCAACGUGCGUAUGCUUG | 2811 | UGGCGCUGGGGUCUUGGUC | 2854 | CCCUGGUAUAAGCAUUGGA | 2897 | AGUACACCAUAUGCAGAUG |
| 2769 | CCAACGUGCGUAUGCUUGG | 2812 | GGCGCUGGGGUCUUGGUCC | 2855 | CCUGGUAUAAGCAUUGGAU | 2898 | GUACACCAUAUGCAGAUGC |
| 2770 | CAACGUGCGUAUGCUUGGU | 2813 | GCGCUGGGGUCUUGGUCCU | 2856 | CUGGUAUAAGCAUUGGAUC | 2899 | UACACCAUAUGCAGAUGCG |
| 2771 | AACGUGCGUAUGCUUGGUC | 2814 | CGCUGGGGUCUUGGUCCUC | 2857 | UGGUAUAAGCAUUGGAUCG | 2900 | ACACCAUAUGCAGAUGCGA |
| 2772 | ACGUGCGUAUGCUUGGUCG | 2815 | GCUGGGGUCUUGGUCCUCU | 2858 | GGUAUAAGCAUUGGAUCGG | 2901 | CACCAUAUGCAGAUGCGAG |
| 2773 | CGUGCGUAUGCUUGGUCGG | 2816 | CUGGGGUCUUGGUCCUCUU | 2859 | GUAUAAGCAUUGGAUCGGC | 2902 | ACCAUAUGCAGAUGCGAGU |
| 2774 | GUGCGUAUGCUUGGUCGGG | 2817 | UGGGGUCUUGGUCCUCUUC | 2860 | UAUAAGCAUUGGAUCGGCC | 2903 | CCAUAUGCAGAUGCGAGUC |
| 2775 | UGCGUAUGCUUGGUCGGGU | 2818 | GGGGUCUUGGUCCUCUUCG | 2861 | AUAAGCAUUGGAUCGGCCG | 2904 | CAUAUGCAGAUGCGAGUCC |
| 2776 | GCGUAUGCUUGGUCGGGUG | 2819 | GGGUCUUGGUCCUCUUCGG | 2862 | UAAGCAUUGGAUCGGCCGC | 2905 | AUAUGCAGAUGCGAGUCCG |
| 2777 | CGUAUGCUUGGUCGGGUGA | 2820 | GGUCUUGGUCCUCUUCGGC | 2863 | AAGCAUUGGAUCGGCCGCC | 2906 | UAUGCAGAUGCGAGUCCGC |
| 2778 | GUAUGCUUGGUCGGGUGAA | 2821 | GUCUUGGUCCUCUUCGGCU | 2864 | AGCAUUGGAUCGGCCGCCU | 2907 | AUGCAGAUGCGAGUCCGCC |
| 2779 | UAUGCUUGGUCGGGUGAAG | 2822 | UCUUGGUCCUCUUCGGCUU | 2865 | GCAUUGGAUCGGCCGCCUC | 2908 | UGCAGAUGCGAGUCCGCCC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2909 | GCAGAUGCGAGUCCGCCCU | 2952 | CGCACGCGGGAGUAGGGAU | 2995 | CUUUAUCCAUCCUUAAUUU | 3038 | CAGUAUUGGGCCCAUUAUA |
| 2910 | CAGAUGCGAGUCCGCCCUU | 2953 | GCACGCGGGAGUAGGGAUG | 2996 | UUUAUCCAUCCUUAAUUUU | 3039 | AGUAUUGGGCCCAUUAUAC |
| 2911 | AGAUGCGAGUCCGCCCUUC | 2954 | CACGCGGGAGUAGGGAUGG | 2997 | UUAUCCAUCCUUAAUUUUU | 3040 | GUAUUGGGCCCAUUAUACU |
| 2912 | GAUGCGAGUCCGCCCUUCA | 2955 | ACGCGGGAGUAGGGAUGGU | 2998 | UAUCCAUCCUUAAUUUUUG | 3041 | UAUUGGGCCCAUUAUACUU |
| 2913 | AUGCGAGUCCGCCCUUCAC | 2956 | CGCGGGAGUAGGGAUGGUG | 2999 | AUCCAUCCUUAAUUUUUGA | 3042 | AUUGGGCCCAUUAUACUUA |
| 2914 | UGCGAGUCCGCCCUUCACG | 2957 | GCGGGAGUAGGGAUGGUGU | 3000 | UCCAUCCUUAAUUUUUGAC | 3043 | UUGGGCCCAUUAUACUUAA |
| 2915 | GCGAGUCCGCCCUUCACGU | 2958 | CGGGAGUAGGGAUGGUGUC | 3001 | CCAUCCUUAAUUUUUGACA | 3044 | UGGGCCCAUUAUACUUAAU |
| 2916 | CGAGUCCGCCCUUCACGUG | 2959 | GGGAGUAGGGAUGGUGUCA | 3002 | CAUCCUUAAUUUUUGACAU | 3045 | GGGCCCAUUAUACUUAAUA |
| 2917 | GAGUCCGCCCUUCACGUGU | 2960 | GGAGUAGGGAUGGUGUCAU | 3003 | AUCCUUAAUUUUUGACAUC | 3046 | GGCCCAUUAUACUUAAUAC |
| 2918 | AGUCCGCCCUUCACGUGUG | 2961 | GAGUAGGGAUGGUGUCAUC | 3004 | UCCUUAAUUUUUGACAUCA | 3047 | GCCCAUUAUACUUAAUACA |
| 2919 | GUCCGCCCUUCACGUGUGG | 2962 | AGUAGGGAUGGUGUCAUCC | 3005 | CCUUAAUUUUUGACAUCAC | 3048 | CCCAUUAUACUUAAUACAG |
| 2920 | UCCGCCCUUCACGUGUGGG | 2963 | GUAGGGAUGGUGUCAUCCU | 3006 | CUUAAUUUUUGACAUCACU | 3049 | CCAUUAUACUUAAUACAGG |
| 2921 | CCGCCCUUCACGUGUGGGU | 2964 | UAGGGAUGGUGUCAUCCUG | 3007 | UUAAUUUUUGACAUCACUA | 3050 | CAUUAUACUUAAUACAGGC |
| 2922 | CGCCCUUCACGUGUGGGUU | 2965 | AGGGAUGGUGUCAUCCUGC | 3008 | UAAUUUUUGACAUCACUAA | 3051 | AUUAUACUUAAUACAGGCU |
| 2923 | GCCCUUCACGUGUGGGUUC | 2966 | GGGAUGGUGUCAUCCUGCU | 3009 | AAUUUUUGACAUCACUAAG | 3052 | UUAUACUUAAUACAGGCUA |
| 2924 | CCCUUCACGUGUGGGUUCC | 2967 | GGAUGGUGUCAUCCUGCUA | 3010 | AUUUUUGACAUCACUAAGC | 3053 | UAUACUUAAUACAGGCUAC |
| 2925 | CCUUCACGUGUGGGUUCCC | 2968 | GAUGGUGUCAUCCUGCUAA | 3011 | UUUUUGACAUCACUAAGCU | 3054 | AUACUUAAUACAGGCUACC |
| 2926 | CUUCACGUGUGGGUUCCCC | 2969 | AUGGUGUCAUCCUGCUAAC | 3012 | UUUUGACAUCACUAAGCUG | 3055 | UACUUAAUACAGGCUACCA |
| 2927 | UUCACGUGUGGGUUCCCCC | 2970 | UGGUGUCAUCCUGCUAACA | 3013 | UUUGACAUCACUAAGCUGC | 3056 | ACUUAAUACAGGCUACCAU |
| 2928 | UCACGUGUGGGUUCCCCCC | 2971 | GGUGUCAUCCUGCUAACAA | 3014 | UUGACAUCACUAAGCUGCU | 3057 | CUUAAUACAGGCUACCAUU |
| 2929 | CACGUGUGGGUUCCCCCCU | 2972 | GUGUCAUCCUGCUAACAAG | 3015 | UGACAUCACUAAGCUGCUG | 3058 | UUAAUACAGGCUACCAUUA |
| 2930 | ACGUGUGGGUUCCCCCCUU | 2973 | UGUCAUCCUGCUAACAAGC | 3016 | GACAUCACUAAGCUGCUGA | 3059 | UAAUACAGGCUACCAUUAC |
| 2931 | CGUGUGGGUUCCCCCCUUA | 2974 | GUCAUCCUGCUAACAAGCC | 3017 | ACAUCACUAAGCUGCUGAU | 3060 | AAUACAGGCUACCAUUACU |
| 2932 | GUGUGGGUUCCCCCCUUAC | 2975 | UCAUCCUGCUAACAAGCCU | 3018 | CAUCACUAAGCUGCUGAUG | 3061 | AUACAGGCUACCAUUACUA |
| 2933 | UGUGGGUUCCCCCCUUACU | 2976 | CAUCCUGCUAACAAGCCUG | 3019 | AUCACUAAGCUGCUGAUGG | 3062 | UACAGGCUACCAUUACUAC |
| 2934 | GUGGGUUCCCCCCUUACUC | 2977 | AUCCUGCUAACAAGCCUGC | 3020 | UCACUAAGCUGCUGAUGGC | 3063 | ACAGGCUACCAUUACUACC |
| 2935 | UGGGUUCCCCCCUUACUCG | 2978 | UCCUGCUAACAAGCCUGCU | 3021 | CACUAAGCUGCUGAUGGCA | 3064 | CAGGCUACCAUUACUACCA |
| 2936 | GGGUUCCCCCCUUACUCGC | 2979 | CCUGCUAACAAGCCUGCUU | 3022 | ACUAAGCUGCUGAUGGCAG | 3065 | AGGCUACCAUUACUACCAC |
| 2937 | GGUUCCCCCCUUACUCGCA | 2980 | CUGCUAACAAGCCUGCUUU | 3023 | CUAAGCUGCUGAUGGCAGU | 3066 | GGCUACCAUUACUACCACC |
| 2938 | GUUCCCCCCUUACUCGCAC | 2981 | UGCUAACAAGCCUGCUUUA | 3024 | UAAGCUGCUGAUGGCAGUA | 3067 | GCUACCAUUACUACCACCC |
| 2939 | UUCCCCCCUUACUCGCACG | 2982 | GCUAACAAGCCUGCUUUAU | 3025 | AAGCUGCUGAUGGCAGUAU | 3068 | CUACCAUUACUACCACCCC |
| 2940 | UCCCCCCUUACUCGCACGC | 2983 | CUAACAAGCCUGCUUUAUC | 3026 | AGCUGCUGAUGGCAGUAUU | 3069 | UACCAUUACUACCACCCCC |
| 2941 | CCCCCCUUACUCGCACGCG | 2984 | UAACAAGCCUGCUUUAUCC | 3027 | GCUGCUGAUGGCAGUAUUG | 3070 | ACCAUUACUACCACCCCCU |
| 2942 | CCCCCUUACUCGCACGCGG | 2985 | AACAAGCCUGCUUUAUCCA | 3028 | CUGCUGAUGGCAGUAUUGG | 3071 | CCAUUACUACCACCCCCUA |
| 2943 | CCCCUUACUCGCACGCGGG | 2986 | ACAAGCCUGCUUUAUCCAU | 3029 | UGCUGAUGGCAGUAUUGGG | 3072 | CAUUACUACCACCCCCUAC |
| 2944 | CCCUUACUCGCACGCGGGA | 2987 | CAAGCCUGCUUUAUCCAUC | 3030 | GCUGAUGGCAGUAUUGGGC | 3073 | AUUACUACCACCCCCUACU |
| 2945 | CCUUACUCGCACGCGGGAG | 2988 | AAGCCUGCUUUAUCCAUCC | 3031 | CUGAUGGCAGUAUUGGGCC | 3074 | UUACUACCACCCCCUACUU |
| 2946 | CUUACUCGCACGCGGGAGU | 2989 | AGCCUGCUUUAUCCAUCCU | 3032 | UGAUGGCAGUAUUGGGCCC | 3075 | UACUACCACCCCCUACUUU |
| 2947 | UUACUCGCACGCGGGAGUA | 2990 | GCCUGCUUUAUCCAUCCUU | 3033 | GAUGGCAGUAUUGGGCCCA | 3076 | ACUACCACCCCCUACUUUG |
| 2948 | UACUCGCACGCGGGAGUAG | 2991 | CCUGCUUUAUCCAUCCUUA | 3034 | AUGGCAGUAUUGGGCCCAU | 3077 | CUACCACCCCCUACUUUGU |
| 2949 | ACUCGCACGCGGGAGUAGG | 2992 | CUGCUUUAUCCAUCCUUAA | 3035 | UGGCAGUAUUGGGCCCAUU | 3078 | UACCACCCCCUACUUUGUG |
| 2950 | CUCGCACGCGGGAGUAGGG | 2993 | UGCUUUAUCCAUCCUUAAU | 3036 | GGCAGUAUUGGGCCCAUUA | 3079 | ACCACCCCCUACUUUGUGC |
| 2951 | UCGCACGCGGGAGUAGGGA | 2994 | GCUUUAUCCAUCCUUAAUU | 3037 | GCAGUAUUGGGCCCAUUAU | 3080 | CCACCCCCUACUUUGUGCG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3081 | CACCCCCUACUUUGUGCGU | 3124 | AUGCUCGUGCGCUCCGUGA | 3167 | UCAUACUGAGCAUUGGCAG | 3210 | CCACCUAGCGCCAAUGCAA |
| 3082 | ACCCCCUACUUUGUGCGUG | 3125 | UGCUCGUGCGCUCCGUGAU | 3168 | CAUACUGAGCAUUGGCAGA | 3211 | CACCUAGCGCCAAUGCAAC |
| 3083 | CCCCCUACUUUGUGCGUGC | 3126 | GCUCGUGCGCUCCGUGAUA | 3169 | AUACUGAGCAUUGGCAGAU | 3212 | ACCUAGCGCCAAUGCAACA |
| 3084 | CCCCUACUUUGUGCGUGCG | 3127 | CUCGUGCGCUCCGUGAUAG | 3170 | UACUGAGCAUUGGCAGAUG | 3213 | CCUAGCGCCAAUGCAACAC |
| 3085 | CCCUACUUUGUGCGUGCGC | 3128 | UCGUGCGCUCCGUGAUAGG | 3171 | ACUGAGCAUUGGCAGAUGG | 3214 | CUAGCGCCAAUGCAACACU |
| 3086 | CCUACUUUGUGCGUGCGCA | 3129 | CGUGCGCUCCGUGAUAGGG | 3172 | CUGAGCAUUGGCAGAUGGU | 3215 | UAGCGCCAAUGCAACACUG |
| 3087 | CUACUUUGUGCGUGCGCAU | 3130 | GUGCGCUCCGUGAUAGGGG | 3173 | UGAGCAUUGGCAGAUGGUU | 3216 | AGCGCCAAUGCAACACUGG |
| 3088 | UACUUUGUGCGUGCGCAUG | 3131 | UGCGCUCCGUGAUAGGGGG | 3174 | GAGCAUUGGCAGAUGGUUC | 3217 | GCGCCAAUGCAACACUGGG |
| 3089 | ACUUUGUGCGUGCGCAUGU | 3132 | GCGCUCCGUGAUAGGGGGG | 3175 | AGCAUUGGCAGAUGGUUCA | 3218 | CGCCAAUGCAACACUGGGC |
| 3090 | CUUUGUGCGUGCGCAUGUA | 3133 | CGCUCCGUGAUAGGGGGGA | 3176 | GCAUUGGCAGAUGGUUCAA | 3219 | GCCAAUGCAACACUGGGCC |
| 3091 | UUUGUGCGUGCGCAUGUAC | 3134 | GCUCCGUGAUAGGGGGGAA | 3177 | CAUUGGCAGAUGGUUCAAC | 3220 | CCAAUGCAACACUGGGCCG |
| 3092 | UUGUGCGUGCGCAUGUACU | 3135 | CUCCGUGAUAGGGGGGAAA | 3178 | AUUGGCAGAUGGUUCAACA | 3221 | CAAUGCAACACUGGGCCGC |
| 3093 | UGUGCGUGCGCAUGUACUG | 3136 | UCCGUGAUAGGGGGGAAAU | 3179 | UUGGCAGAUGGUUCAACAC | 3222 | AAUGCAACACUGGGCCGCU |
| 3094 | GUGCGUGCGCAUGUACUGG | 3137 | CCGUGAUAGGGGGGAAAUA | 3180 | UGGCAGAUGGUUCAACACC | 3223 | AUGCAACACUGGGCCGCUG |
| 3095 | UGCGUGCGCAUGUACUGGU | 3138 | CGUGAUAGGGGGGAAAUAC | 3181 | GGCAGAUGGUUCAACACCU | 3224 | UGCAACACUGGGCCGCUGC |
| 3096 | GCGUGCGCAUGUACUGGUC | 3139 | GUGAUAGGGGGGAAAUACU | 3182 | GCAGAUGGUUCAACACCUA | 3225 | GCAACACUGGGCCGCUGCU |
| 3097 | CGUGCGCAUGUACUGGUCC | 3140 | UGAUAGGGGGGAAAUACUU | 3183 | CAGAUGGUUCAACACCUAC | 3226 | CAACACUGGGCCGCUGCUG |
| 3098 | GUGCGCAUGUACUGGUCCG | 3141 | GAUAGGGGGGAAAUACUUC | 3184 | AGAUGGUUCAACACCUACC | 3227 | AACACUGGGCCGCUGCUGG |
| 3099 | UGCGCAUGUACUGGUCCGC | 3142 | AUAGGGGGGAAAUACUUCC | 3185 | GAUGGUUCAACACCUACCU | 3228 | ACACUGGGCCGCUGCUGGU |
| 3100 | GCGCAUGUACUGGUCCGCC | 3143 | UAGGGGGGAAAUACUUCCA | 3186 | AUGGUUCAACACCUACCUA | 3229 | CACUGGGCCGCUGCUGGUC |
| 3101 | CGCAUGUACUGGUCCGCCU | 3144 | AGGGGGGAAAUACUUCCAG | 3187 | UGGUUCAACACCUACCUAU | 3230 | ACUGGGCCGCUGCUGGUCU |
| 3102 | GCAUGUACUGGUCCGCCUU | 3145 | GGGGGGAAAUACUUCCAGA | 3188 | GGUUCAACACCUACCUAUA | 3231 | CUGGGCCGCUGCUGGUCUC |
| 3103 | CAUGUACUGGUCCGCCUUU | 3146 | GGGGGAAAUACUUCCAGAU | 3189 | GUUCAACACCUACCUAUAC | 3232 | UGGGCCGCUGCUGGUCUCA |
| 3104 | AUGUACUGGUCCGCCUUUG | 3147 | GGGGAAAUACUUCCAGAUG | 3190 | UUCAACACCUACCUAUACG | 3233 | GGGCCGCUGCUGGUCUCAA |
| 3105 | UGUACUGGUCCGCCUUUGC | 3148 | GGGAAAUACUUCCAGAUGA | 3191 | UCAACACCUACCUAUACGA | 3234 | GGCCGCUGCUGGUCUCAAA |
| 3106 | GUACUGGUCCGCCUUUGCA | 3149 | GGAAAUACUUCCAGAUGAU | 3192 | CAACACCUACCUAUACGAC | 3235 | GCCGCUGCUGGUCUCAAAG |
| 3107 | UACUGGUCCGCCUUUGCAU | 3150 | GAAAUACUUCCAGAUGAUC | 3193 | AACACCUACCUAUACGACC | 3236 | CCGCUGCUGGUCUCAAAGA |
| 3108 | ACUGGUCCGCCUUUGCAUG | 3151 | AAAUACUUCCAGAUGAUCA | 3194 | ACACCUACCUAUACGACCA | 3237 | CGCUGCUGGUCUCAAAGAC |
| 3109 | CUGGUCCGCCUUUGCAUGC | 3152 | AAUACUUCCAGAUGAUCAU | 3195 | CACCUACCUAUACGACCAC | 3238 | GCUGCUGGUCUCAAAGACC |
| 3110 | UGGUCCGCCUUUGCAUGCU | 3153 | AUACUUCCAGAUGAUCAUA | 3196 | ACCUACCUAUACGACCACC | 3239 | CUGCUGGUCUCAAAGACCU |
| 3111 | GGUCCGCCUUUGCAUGCUC | 3154 | UACUUCCAGAUGAUCAUAC | 3197 | CCUACCUAUACGACCACCU | 3240 | UGCUGGUCUCAAAGACCUA |
| 3112 | GUCCGCCUUUGCAUGCUCG | 3155 | ACUUCCAGAUGAUCAUACU | 3198 | CUACCUAUACGACCACCUA | 3241 | GCUGGUCUCAAAGACCUAG |
| 3113 | UCCGCCUUUGCAUGCUCGU | 3156 | CUUCCAGAUGAUCAUACUG | 3199 | UACCUAUACGACCACCUAG | 3242 | CUGGUCUCAAAGACCUAGC |
| 3114 | CCGCCUUUGCAUGCUCGUG | 3157 | UUCCAGAUGAUCAUACUGA | 3200 | ACCUAUACGACCACCUAGC | 3243 | UGGUCUCAAAGACCUAGCA |
| 3115 | CGCCUUUGCAUGCUCGUGC | 3158 | UCCAGAUGAUCAUACUGAG | 3201 | CCUAUACGACCACCUAGCG | 3244 | GGUCUCAAAGACCUAGCAG |
| 3116 | GCCUUUGCAUGCUCGUGCG | 3159 | CCAGAUGAUCAUACUGAGC | 3202 | CUAUACGACCACCUAGCGC | 3245 | GUCUCAAAGACCUAGCAGU |
| 3117 | CCUUUGCAUGCUCGUGCGC | 3160 | CAGAUGAUCAUACUGAGCA | 3203 | UAUACGACCACCUAGCGCC | 3246 | UCUCAAAGACCUAGCAGUG |
| 3118 | CUUUGCAUGCUCGUGCGCU | 3161 | AGAUGAUCAUACUGAGCAU | 3204 | AUACGACCACCUAGCGCCA | 3247 | CUCAAAGACCUAGCAGUGG |
| 3119 | UUUGCAUGCUCGUGCGCUC | 3162 | GAUGAUCAUACUGAGCAUU | 3205 | UACGACCACCUAGCGCCAA | 3248 | UCAAAGACCUAGCAGUGGC |
| 3120 | UUGCAUGCUCGUGCGCUCC | 3163 | AUGAUCAUACUGAGCAUUG | 3206 | ACGACCACCUAGCGCCAAU | 3249 | CAAAGACCUAGCAGUGGCC |
| 3121 | UGCAUGCUCGUGCGCUCCG | 3164 | UGAUCAUACUGAGCAUUGG | 3207 | CGACCACCUAGCGCCAAUG | 3250 | AAAGACCUAGCAGUGGCCA |
| 3122 | GCAUGCUCGUGCGCUCCGU | 3165 | GAUCAUACUGAGCAUUGGC | 3208 | GACCACCUAGCGCCAAUGC | 3251 | AAGACCUAGCAGUGGCCAC |
| 3123 | CAUGCUCGUGCGCUCCGUG | 3166 | AUCAUACUGAGCAUUGGCA | 3209 | ACCACCUAGCGCCAAUGCA | 3252 | AGACCUAGCAGUGGCCACU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3253 | GACCUAGCAGUGGCCACUG | 3296 | AAAUCAAGGUCAUCACCUG | 3339 | AGAUAUUCUUUGCGGGCUG | 3382 | GAGGUGUUGUUGGGACCUG |
| 3254 | ACCUAGCAGUGGCCACUGA | 3297 | AAUCAAGGUCAUCACCUGG | 3340 | GAUAUUCUUUGCGGGCUGC | 3383 | AGGUGUUGUUGGGACCUGC |
| 3255 | CCUAGCAGUGGCCACUGAA | 3298 | AUCAAGGUCAUCACCUGGG | 3341 | AUAUUCUUUGCGGGCUGCC | 3384 | GGUGUUGUUGGGACCUGCU |
| 3256 | CUAGCAGUGGCCACUGAAC | 3299 | UCAAGGUCAUCACCUGGGG | 3342 | UAUUCUUUGCGGGCUGCCC | 3385 | GUGUUGUUGGGACCUGCUG |
| 3257 | UAGCAGUGGCCACUGAACC | 3300 | CAAGGUCAUCACCUGGGGU | 3343 | AUUCUUUGCGGGCUGCCCG | 3386 | UGUUGUUGGGACCUGCUGA |
| 3258 | AGCAGUGGCCACUGAACCU | 3301 | AAGGUCAUCACCUGGGGUG | 3344 | UUCUUUGCGGGCUGCCCGU | 3387 | GUUGUUGGGACCUGCUGAU |
| 3259 | GCAGUGGCCACUGAACCUG | 3302 | AGGUCAUCACCUGGGGUGC | 3345 | UCUUUGCGGGCUGCCCGUC | 3388 | UUGUUGGGACCUGCUGAUG |
| 3260 | CAGUGGCCACUGAACCUGU | 3303 | GGUCAUCACCUGGGGUGCG | 3346 | CUUUGCGGGCUGCCCGUCU | 3389 | UGUUGGGACCUGCUGAUGA |
| 3261 | AGUGGCCACUGAACCUGUA | 3304 | GUCAUCACCUGGGGUGCGG | 3347 | UUUGCGGGCUGCCCGUCUC | 3390 | GUUGGGACCUGCUGAUGAC |
| 3262 | GUGGCCACUGAACCUGUAA | 3305 | UCAUCACCUGGGGUGCGGA | 3348 | UUGCGGGCUGCCCGUCUCU | 3391 | UUGGGACCUGCUGAUGACU |
| 3263 | UGGCCACUGAACCUGUAAU | 3306 | CAUCACCUGGGGUGCGGAU | 3349 | UGCGGGCUGCCCGUCUCUG | 3392 | UGGGACCUGCUGAUGACUA |
| 3264 | GGCCACUGAACCUGUAAUA | 3307 | AUCACCUGGGGUGCGGAUA | 3350 | GCGGGCUGCCCGUCUCUGC | 3393 | GGGACCUGCUGAUGACUAU |
| 3265 | GCCACUGAACCUGUAAUAU | 3308 | UCACCUGGGGUGCGGAUAC | 3351 | CGGGCUGCCCGUCUCUGCA | 3394 | GGACCUGCUGAUGACUAUC |
| 3266 | CCACUGAACCUGUAAUAUU | 3309 | CACCUGGGGUGCGGAUACA | 3352 | GGGCUGCCCGUCUCUGCAC | 3395 | GACCUGCUGAUGACUAUCG |
| 3267 | CACUGAACCUGUAAUAUUU | 3310 | ACCUGGGGUGCGGAUACAG | 3353 | GGCUGCCCGUCUCUGCACG | 3396 | ACCUGCUGAUGACUAUCGG |
| 3268 | ACUGAACCUGUAAUAUUUA | 3311 | CCUGGGGUGCGGAUACAGC | 3354 | GCUGCCCGUCUCUGCACGA | 3397 | CCUGCUGAUGACUAUCGGG |
| 3269 | CUGAACCUGUAAUAUUUAG | 3312 | CUGGGGUGCGGAUACAGCG | 3355 | CUGCCCGUCUCUGCACGAU | 3398 | CUGCUGAUGACUAUCGGGA |
| 3270 | UGAACCUGUAAUAUUUAGU | 3313 | UGGGGUGCGGAUACAGCGG | 3356 | UGCCCGUCUCUGCACGAUU | 3399 | UGCUGAUGACUAUCGGGAG |
| 3271 | GAACCUGUAAUAUUUAGUC | 3314 | GGGGUGCGGAUACAGCGGC | 3357 | GCCCGUCUCUGCACGAUUA | 3400 | GCUGAUGACUAUCGGGAGA |
| 3272 | AACCUGUAAUAUUUAGUCC | 3315 | GGGUGCGGAUACAGCGGCU | 3358 | CCCGUCUCUGCACGAUUAG | 3401 | CUGAUGACUAUCGGGAGAU |
| 3273 | ACCUGUAAUAUUUAGUCCC | 3316 | GGUGCGGAUACAGCGGCUU | 3359 | CCGUCUCUGCACGAUUAGG | 3402 | UGAUGACUAUCGGGAGAUG |
| 3274 | CCUGUAAUAUUUAGUCCCA | 3317 | GUGCGGAUACAGCGGCUUG | 3360 | CGUCUCUGCACGAUUAGGC | 3403 | GAUGACUAUCGGGAGAUGG |
| 3275 | CUGUAAUAUUUAGUCCCAU | 3318 | UGCGGAUACAGCGGCUUGC | 3361 | GUCUCUGCACGAUUAGGCC | 3404 | AUGACUAUCGGGAGAUGGG |
| 3276 | UGUAAUAUUUAGUCCCAUG | 3319 | GCGGAUACAGCGGCUUGCG | 3362 | UCUCUGCACGAUUAGGCCG | 3405 | UGACUAUCGGGAGAUGGGC |
| 3277 | GUAAUAUUUAGUCCCAUGG | 3320 | CGGAUACAGCGGCUUGCGG | 3363 | CUCUGCACGAUUAGGCCGU | 3406 | GACUAUCGGGAGAUGGGCU |
| 3278 | UAAUAUUUAGUCCCAUGGA | 3321 | GGAUACAGCGGCUUGCGGA | 3364 | UCUGCACGAUUAGGCCGUG | 3407 | ACUAUCGGGAGAUGGGCUG |
| 3279 | AAUAUUUAGUCCCAUGGAA | 3322 | GAUACAGCGGCUUGCGGAG | 3365 | CUGCACGAUUAGGCCGUGA | 3408 | CUAUCGGGAGAUGGGCUGG |
| 3280 | AUAUUUAGUCCCAUGGAAA | 3323 | AUACAGCGGCUUGCGGAGA | 3366 | UGCACGAUUAGGCCGUGAG | 3409 | UAUCGGGAGAUGGGCUGGC |
| 3281 | UAUUUAGUCCCAUGGAAAU | 3324 | UACAGCGGCUUGCGGAGAU | 3367 | GCACGAUUAGGCCGUGAGG | 3410 | AUCGGGAGAUGGGCUGGCG |
| 3282 | AUUUAGUCCCAUGGAAAUC | 3325 | ACAGCGGCUUGCGGAGAUA | 3368 | CACGAUUAGGCCGUGAGGU | 3411 | UCGGGAGAUGGGCUGGCGU |
| 3283 | UUUAGUCCCAUGGAAAUCA | 3326 | CAGCGGCUUGCGGAGAUAU | 3369 | ACGAUUAGGCCGUGAGGUG | 3412 | CGGGAGAUGGGCUGGCGUC |
| 3284 | UUAGUCCCAUGGAAAUCAA | 3327 | AGCGGCUUGCGGAGAUAUU | 3370 | CGAUUAGGCCGUGAGGUGU | 3413 | GGGAGAUGGGCUGGCGUCU |
| 3285 | UAGUCCCAUGGAAAUCAAG | 3328 | GCGGCUUGCGGAGAUAUUC | 3371 | GAUUAGGCCGUGAGGUGUU | 3414 | GGAGAUGGGCUGGCGUCUG |
| 3286 | AGUCCCAUGGAAAUCAAGG | 3329 | CGGCUUGCGGAGAUAUUCU | 3372 | AUUAGGCCGUGAGGUGUUG | 3415 | GAGAUGGGCUGGCGUCUGU |
| 3287 | GUCCCAUGGAAAUCAAGGU | 3330 | GGCUUGCGGAGAUAUUCUU | 3373 | UUAGGCCGUGAGGUGUUGU | 3416 | AGAUGGGCUGGCGUCUGUU |
| 3288 | UCCCAUGGAAAUCAAGGUC | 3331 | GCUUGCGGAGAUAUUCUUU | 3374 | UAGGCCGUGAGGUGUUGUU | 3417 | GAUGGGCUGGCGUCUGUUG |
| 3289 | CCCAUGGAAAUCAAGGUCA | 3332 | CUUGCGGAGAUAUUCUUUG | 3375 | AGGCCGUGAGGUGUUGUUG | 3418 | AUGGGCUGGCGUCUGUUGG |
| 3290 | CCAUGGAAAUCAAGGUCAU | 3333 | UUGCGGAGAUAUUCUUUGC | 3376 | GGCCGUGAGGUGUUGUUGG | 3419 | UGGGCUGGCGUCUGUUGGC |
| 3291 | CAUGGAAAUCAAGGUCAUC | 3334 | UGCGGAGAUAUUCUUUGCG | 3377 | GCCGUGAGGUGUUGUUGGG | 3420 | GGGCUGGCGUCUGUUGGCC |
| 3292 | AUGGAAAUCAAGGUCAUCA | 3335 | GCGGAGAUAUUCUUUGCGG | 3378 | CCGUGAGGUGUUGUUGGGA | 3421 | GGCUGGCGUCUGUUGGCCC |
| 3293 | UGGAAAUCAAGGUCAUCAC | 3336 | CGGAGAUAUUCUUUGCGGG | 3379 | CGUGAGGUGUUGUUGGGAC | 3422 | GCUGGCGUCUGUUGGCCCC |
| 3294 | GGAAAUCAAGGUCAUCACC | 3337 | GGAGAUAUUCUUUGCGGGC | 3380 | GUGAGGUGUUGUUGGGACC | 3423 | CUGGCGUCUGUUGGCCCCG |
| 3295 | GAAAUCAAGGUCAUCACCU | 3338 | GAGAUAUUCUUUGCGGGCU | 3381 | UGAGGUGUUGUUGGGACCU | 3424 | UGGCGUCUGUUGGCCCCGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3425 | GGCGUCUGUUGGCCCCGAU | 3468 | GGGCCUUCUUGGGACUAUU | 3511 | AAGAACGUGGUGACCGGUG | 3554 | CCCAGACCUUCCUAGGUAC |
| 3426 | GCGUCUGUUGGCCCCGAUU | 3469 | GGCCUUCUUGGGACUAUUG | 3512 | AGAACGUGGUGACCGGUGA | 3555 | CCAGACCUUCCUAGGUACA |
| 3427 | CGUCUGUUGGCCCCGAUUA | 3470 | GCCUUCUUGGGACUAUUGU | 3513 | GAACGUGGUGACCGGUGAA | 3556 | CAGACCUUCCUAGGUACAA |
| 3428 | GUCUGUUGGCCCCGAUUAC | 3471 | CCUUCUUGGGACUAUUGUG | 3514 | AACGUGGUGACCGGUGAAG | 3557 | AGACCUUCCUAGGUACAAC |
| 3429 | UCUGUUGGCCCCGAUUACA | 3472 | CUUCUUGGGACUAUUGUGA | 3515 | ACGUGGUGACCGGUGAAGU | 3558 | GACCUUCCUAGGUACAACA |
| 3430 | CUGUUGGCCCCGAUUACAG | 3473 | UUCUUGGGACUAUUGUGAC | 3516 | CGUGGUGACCGGUGAAGUG | 3559 | ACCUUCCUAGGUACAACAG |
| 3431 | UGUUGGCCCCGAUUACAGC | 3474 | UCUUGGGACUAUUGUGACU | 3517 | GUGGUGACCGGUGAAGUGC | 3560 | CCUUCCUAGGUACAACAGU |
| 3432 | GUUGGCCCCGAUUACAGCA | 3475 | CUUGGGACUAUUGUGACUA | 3518 | UGGUGACCGGUGAAGUGCA | 3561 | CUUCCUAGGUACAACAGUA |
| 3433 | UUGGCCCCGAUUACAGCAU | 3476 | UUGGGACUAUUGUGACUAG | 3519 | GGUGACCGGUGAAGUGCAG | 3562 | UUCCUAGGUACAACAGUAG |
| 3434 | UGGCCCCGAUUACAGCAUA | 3477 | UGGGACUAUUGUGACUAGC | 3520 | GUGACCGGUGAAGUGCAGG | 3563 | UCCUAGGUACAACAGUAGG |
| 3435 | GGCCCCGAUUACAGCAUAC | 3478 | GGGACUAUUGUGACUAGCU | 3521 | UGACCGGUGAAGUGCAGGU | 3564 | CCUAGGUACAACAGUAGGG |
| 3436 | GCCCCGAUUACAGCAUACG | 3479 | GGACUAUUGUGACUAGCUU | 3522 | GACCGGUGAAGUGCAGGUG | 3565 | CUAGGUACAACAGUAGGGG |
| 3437 | CCCCGAUUACAGCAUACGC | 3480 | GACUAUUGUGACUAGCUUG | 3523 | ACCGGUGAAGUGCAGGUGC | 3566 | UAGGUACAACAGUAGGGGG |
| 3438 | CCCGAUUACAGCAUACGCC | 3481 | ACUAUUGUGACUAGCUUGA | 3524 | CCGGUGAAGUGCAGGUGCU | 3567 | AGGUACAACAGUAGGGGGG |
| 3439 | CCGAUUACAGCAUACGCCC | 3482 | CUAUUGUGACUAGCUUGAC | 3525 | CGGUGAAGUGCAGGUGCUU | 3568 | GGUACAACAGUAGGGGGGG |
| 3440 | CGAUUACAGCAUACGCCCA | 3483 | UAUUGUGACUAGCUUGACU | 3526 | GGUGAAGUGCAGGUGCUUU | 3569 | GUACAACAGUAGGGGGGGU |
| 3441 | GAUUACAGCAUACGCCCAG | 3484 | AUUGUGACUAGCUUGACUG | 3527 | GUGAAGUGCAGGUGCUUUC | 3570 | UACAACAGUAGGGGGGGUU |
| 3442 | AUUACAGCAUACGCCCAGC | 3485 | UUGUGACUAGCUUGACUGG | 3528 | UGAAGUGCAGGUGCUUUCU | 3571 | ACAACAGUAGGGGGGGUUA |
| 3443 | UUACAGCAUACGCCCAGCA | 3486 | UGUGACUAGCUUGACUGGC | 3529 | GAAGUGCAGGUGCUUUCUA | 3572 | CAACAGUAGGGGGGGUUAU |
| 3444 | UACAGCAUACGCCCAGCAA | 3487 | GUGACUAGCUUGACUGGCA | 3530 | AAGUGCAGGUGCUUUCUAC | 3573 | AACAGUAGGGGGGGUUAUA |
| 3445 | ACAGCAUACGCCCAGCAAA | 3488 | UGACUAGCUUGACUGGCAG | 3531 | AGUGCAGGUGCUUUCUACG | 3574 | ACAGUAGGGGGGGUUAUAU |
| 3446 | CAGCAUACGCCCAGCAAAC | 3489 | GACUAGCUUGACUGGCAGA | 3532 | GUGCAGGUGCUUUCUACGG | 3575 | CAGUAGGGGGGGUUAUAUG |
| 3447 | AGCAUACGCCCAGCAAACU | 3490 | ACUAGCUUGACUGGCAGAG | 3533 | UGCAGGUGCUUUCUACGGC | 3576 | AGUAGGGGGGGUUAUAUGG |
| 3448 | GCAUACGCCCAGCAAACUA | 3491 | CUAGCUUGACUGGCAGAGA | 3534 | GCAGGUGCUUUCUACGGCU | 3577 | GUAGGGGGGGUUAUAUGGA |
| 3449 | CAUACGCCCAGCAAACUAG | 3492 | UAGCUUGACUGGCAGAGAC | 3535 | CAGGUGCUUUCUACGGCUA | 3578 | UAGGGGGGGUUAUAUGGAC |
| 3450 | AUACGCCCAGCAAACUAGG | 3493 | AGCUUGACUGGCAGAGACA | 3536 | AGGUGCUUUCUACGGCUAC | 3579 | AGGGGGGGUUAUAUGGACU |
| 3451 | UACGCCCAGCAAACUAGGG | 3494 | GCUUGACUGGCAGAGACAA | 3537 | GGUGCUUUCUACGGCUACC | 3580 | GGGGGGGUUAUAUGGACUG |
| 3452 | ACGCCCAGCAAACUAGGGG | 3495 | CUUGACUGGCAGAGACAAG | 3538 | GUGCUUUCUACGGCUACCC | 3581 | GGGGGGUUAUAUGGACUGU |
| 3453 | CGCCCAGCAAACUAGGGGC | 3496 | UUGACUGGCAGAGACAAGA | 3539 | UGCUUUCUACGGCUACCCA | 3582 | GGGGGUUAUAUGGACUGUU |
| 3454 | GCCCAGCAAACUAGGGGCC | 3497 | UGACUGGCAGAGACAAGAA | 3540 | GCUUUCUACGGCUACCCAG | 3583 | GGGGUUAUAUGGACUGUUU |
| 3455 | CCCAGCAAACUAGGGGCCU | 3498 | GACUGGCAGAGACAAGAAC | 3541 | CUUUCUACGGCUACCCAGA | 3584 | GGGUUAUAUGGACUGUUUA |
| 3456 | CCAGCAAACUAGGGGCCUU | 3499 | ACUGGCAGAGACAAGAACG | 3542 | UUUCUACGGCUACCCAGAC | 3585 | GGUUAUAUGGACUGUUUAU |
| 3457 | CAGCAAACUAGGGGCCUUC | 3500 | CUGGCAGAGACAAGAACGU | 3543 | UUCUACGGCUACCCAGACC | 3586 | GUUAUAUGGACUGUUUAUC |
| 3458 | AGCAAACUAGGGGCCUUCU | 3501 | UGGCAGAGACAAGAACGUG | 3544 | UCUACGGCUACCCAGACCU | 3587 | UUAUAUGGACUGUUUAUCA |
| 3459 | GCAAACUAGGGGCCUUCUU | 3502 | GGCAGAGACAAGAACGUGG | 3545 | CUACGGCUACCCAGACCUU | 3588 | UAUAUGGACUGUUUAUCAU |
| 3460 | CAAACUAGGGGCCUUCUUG | 3503 | GCAGAGACAAGAACGUGGU | 3546 | UACGGCUACCCAGACCUUC | 3589 | AUAUGGACUGUUUAUCAUG |
| 3461 | AAACUAGGGGCCUUCUUGG | 3504 | CAGAGACAAGAACGUGGUG | 3547 | ACGGCUACCCAGACCUUCC | 3590 | UAUGGACUGUUUAUCAUGG |
| 3462 | AACUAGGGGCCUUCUUGGG | 3505 | AGAGACAAGAACGUGGUGA | 3548 | CGGCUACCCAGACCUUCCU | 3591 | AUGGACUGUUUAUCAUGGA |
| 3463 | ACUAGGGGCCUUCUUGGGA | 3506 | GAGACAAGAACGUGGUGAC | 3549 | GGCUACCCAGACCUUCCUA | 3592 | UGGACUGUUUAUCAUGGAG |
| 3464 | CUAGGGGCCUUCUUGGGAC | 3507 | AGACAAGAACGUGGUGACC | 3550 | GCUACCCAGACCUUCCUAG | 3593 | GGACUGUUUAUCAUGGAGC |
| 3465 | UAGGGGCCUUCUUGGGACU | 3508 | GACAAGAACGUGGUGACCG | 3551 | CUACCCAGACCUUCCUAGG | 3594 | GACUGUUUAUCAUGGAGCA |
| 3466 | AGGGGCCUUCUUGGGACUA | 3509 | ACAAGAACGUGGUGACCGG | 3552 | UACCCAGACCUUCCUAGGU | 3595 | ACUGUUUAUCAUGGAGCAG |
| 3467 | GGGGCCUUCUUGGGACUAU | 3510 | CAAGAACGUGGUGACCGGU | 3553 | ACCCAGACCUUCCUAGGUA | 3596 | CUGUUUAUCAUGGAGCAGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3597 | UGUUUAUCAUGGAGCAGGU | 3640 | CAUCCCGCGCUCCAAAUGU | 3683 | UUGGGUGGCCAGCCCCUCC | 3726 | CGCCUGCGGGUCUUCAGAC |
| 3598 | GUUUAUCAUGGAGCAGGUU | 3641 | AUCCCGCGCUCCAAAUGUA | 3684 | UGGGUGGCCAGCCCCUCCA | 3727 | GCCUGCGGGUCUUCAGACU |
| 3599 | UUUAUCAUGGAGCAGGUUC | 3642 | UCCCGCGCUCCAAAUGUAC | 3685 | GGGUGGCCAGCCCCUCCAG | 3728 | CCUGCGGGUCUUCAGACUU |
| 3600 | UUAUCAUGGAGCAGGUUCG | 3643 | CCCGCGCUCCAAAUGUACA | 3686 | GGUGGCCAGCCCCUCCAGG | 3729 | CUGCGGGUCUUCAGACUUA |
| 3601 | UAUCAUGGAGCAGGUUCGA | 3644 | CCGCGCUCCAAAUGUACAC | 3687 | GUGGCCAGCCCCUCCAGGG | 3730 | UGCGGGUCUUCAGACUUAU |
| 3602 | AUCAUGGAGCAGGUUCGAG | 3645 | CGCGCUCCAAAUGUACACA | 3688 | UGGCCAGCCCCUCCAGGGG | 3731 | GCGGGUCUUCAGACUUAUA |
| 3603 | UCAUGGAGCAGGUUCGAGA | 3646 | GCGCUCCAAAUGUACACAA | 3689 | GGCCAGCCCCUCCAGGGGC | 3732 | CGGGUCUUCAGACUUAUAC |
| 3604 | CAUGGAGCAGGUUCGAGAA | 3647 | CGCUCCAAAUGUACACAAA | 3690 | GCCAGCCCCUCCAGGGGCC | 3733 | GGGUCUUCAGACUUAUACU |
| 3605 | AUGGAGCAGGUUCGAGAAC | 3648 | GCUCCAAAUGUACACAAAU | 3691 | CCAGCCCCUCCAGGGGCCA | 3734 | GGUCUUCAGACUUAUACUU |
| 3606 | UGGAGCAGGUUCGAGAACG | 3649 | CUCCAAAUGUACACAAAUG | 3692 | CAGCCCCUCCAGGGGCCAA | 3735 | GUCUUCAGACUUAUACUUG |
| 3607 | GGAGCAGGUUCGAGAACGC | 3650 | UCCAAAUGUACACAAAUGU | 3693 | AGCCCCUCCAGGGGCCAAG | 3736 | UCUUCAGACUUAUACUUGG |
| 3608 | GAGCAGGUUCGAGAACGCU | 3651 | CCAAAUGUACACAAAUGUA | 3694 | GCCCCUCCAGGGGCCAAGU | 3737 | CUUCAGACUUAUACUUGGU |
| 3609 | AGCAGGUUCGAGAACGCUC | 3652 | CAAAUGUACACAAAUGUAG | 3695 | CCCCUCCAGGGGCCAAGUC | 3738 | UUCAGACUUAUACUUGGUU |
| 3610 | GCAGGUUCGAGAACGCUCG | 3653 | AAAUGUACACAAAUGUAGA | 3696 | CCCUCCAGGGGCCAAGUCU | 3739 | UCAGACUUAUACUUGGUUA |
| 3611 | CAGGUUCGAGAACGCUCGC | 3654 | AAUGUACACAAAUGUAGAU | 3697 | CCUCCAGGGGCCAAGUCUC | 3740 | CAGACUUAUACUUGGUUAC |
| 3612 | AGGUUCGAGAACGCUCGCG | 3655 | AUGUACACAAAUGUAGAUC | 3698 | CUCCAGGGGCCAAGUCUCU | 3741 | AGACUUAUACUUGGUUACC |
| 3613 | GGUUCGAGAACGCUCGCGG | 3656 | UGUACACAAAUGUAGAUCA | 3699 | UCCAGGGGCCAAGUCUCUU | 3742 | GACUUAUACUUGGUUACCC |
| 3614 | GUUCGAGAACGCUCGCGGG | 3657 | GUACACAAAUGUAGAUCAG | 3700 | CCAGGGGCCAAGUCUCUUG | 3743 | ACUUAUACUUGGUUACCCG |
| 3615 | UUCGAGAACGCUCGCGGGC | 3658 | UACACAAAUGUAGAUCAGG | 3701 | CAGGGGCCAAGUCUCUUGA | 3744 | CUUAUACUUGGUUACCCGC |
| 3616 | UCGAGAACGCUCGCGGGCG | 3659 | ACACAAAUGUAGAUCAGGA | 3702 | AGGGGCCAAGUCUCUUGAA | 3745 | UUAUACUUGGUUACCCGCG |
| 3617 | CGAGAACGCUCGCGGGCGC | 3660 | CACAAAUGUAGAUCAGGAC | 3703 | GGGGCCAAGUCUCUUGAAC | 3746 | UAUACUUGGUUACCCGCGA |
| 3618 | GAGAACGCUCGCGGGCGCC | 3661 | ACAAAUGUAGAUCAGGACC | 3704 | GGGCCAAGUCUCUUGAACC | 3747 | AUACUUGGUUACCCGCGAU |
| 3619 | AGAACGCUCGCGGGCGCCA | 3662 | CAAAUGUAGAUCAGGACCU | 3705 | GGCCAAGUCUCUUGAACCG | 3748 | UACUUGGUUACCCGCGAUG |
| 3620 | GAACGCUCGCGGGCGCCAA | 3663 | AAAUGUAGAUCAGGACCUC | 3706 | GCCAAGUCUCUUGAACCGU | 3749 | ACUUGGUUACCCGCGAUGC |
| 3621 | AACGCUCGCGGGCGCCAAA | 3664 | AAUGUAGAUCAGGACCUCG | 3707 | CCAAGUCUCUUGAACCGUG | 3750 | CUUGGUUACCCGCGAUGCC |
| 3622 | ACGCUCGCGGGCGCCAAAC | 3665 | AUGUAGAUCAGGACCUCGU | 3708 | CAAGUCUCUUGAACCGUGC | 3751 | UUGGUUACCCGCGAUGCCG |
| 3623 | CGCUCGCGGGCGCCAAACA | 3666 | UGUAGAUCAGGACCUCGUU | 3709 | AAGUCUCUUGAACCGUGCG | 3752 | UGGUUACCCGCGAUGCCGA |
| 3624 | GCUCGCGGGCGCCAAACAU | 3667 | GUAGAUCAGGACCUCGUUG | 3710 | AGUCUCUUGAACCGUGCGC | 3753 | GGUUACCCGCGAUGCCGAU |
| 3625 | CUCGCGGGCGCCAAACAUC | 3668 | UAGAUCAGGACCUCGUUGG | 3711 | GUCUCUUGAACCGUGCGCC | 3754 | GUUACCCGCGAUGCCGAUG |
| 3626 | UCGCGGGCGCCAAACAUCC | 3669 | AGAUCAGGACCUCGUUGGG | 3712 | UCUCUUGAACCGUGCGCCU | 3755 | UUACCCGCGAUGCCGAUGU |
| 3627 | CGCGGGCGCCAAACAUCCC | 3670 | GAUCAGGACCUCGUUGGGU | 3713 | CUCUUGAACCGUGCGCCUG | 3756 | UACCCGCGAUGCCGAUGUC |
| 3628 | GCGGGCGCCAAACAUCCCG | 3671 | AUCAGGACCUCGUUGGGUG | 3714 | UCUUGAACCGUGCGCCUGC | 3757 | ACCCGCGAUGCCGAUGUCA |
| 3629 | CGGGCGCCAAACAUCCCGC | 3672 | UCAGGACCUCGUUGGGUGG | 3715 | CUUGAACCGUGCGCCUGCG | 3758 | CCCGCGAUGCCGAUGUCAU |
| 3630 | GGGCGCCAAACAUCCCGCG | 3673 | CAGGACCUCGUUGGGUGGC | 3716 | UUGAACCGUGCGCCUGCGG | 3759 | CCGCGAUGCCGAUGUCAUC |
| 3631 | GGCGCCAAACAUCCCGCGC | 3674 | AGGACCUCGUUGGGUGGCC | 3717 | UGAACCGUGCGCCUGCGGG | 3760 | CGCGAUGCCGAUGUCAUCC |
| 3632 | GCGCCAAACAUCCCGCGCU | 3675 | GGACCUCGUUGGGUGGCCA | 3718 | GAACCGUGCGCCUGCGGGU | 3761 | GCGAUGCCGAUGUCAUCCC |
| 3633 | CGCCAAACAUCCCGCGCUC | 3676 | GACCUCGUUGGGUGGCCAG | 3719 | AACCGUGCGCCUGCGGGUC | 3762 | CGAUGCCGAUGUCAUCCCU |
| 3634 | GCCAAACAUCCCGCGCUCC | 3677 | ACCUCGUUGGGUGGCCAGC | 3720 | ACCGUGCGCCUGCGGGUCU | 3763 | GAUGCCGAUGUCAUCCCUG |
| 3635 | CCAAACAUCCCGCGCUCCA | 3678 | CCUCGUUGGGUGGCCAGCC | 3721 | CCGUGCGCCUGCGGGUCUU | 3764 | AUGCCGAUGUCAUCCCUGC |
| 3636 | CAAACAUCCCGCGCUCCAA | 3679 | CUCGUUGGGUGGCCAGCCC | 3722 | CGUGCGCCUGCGGGUCUUC | 3765 | UGCCGAUGUCAUCCCUGCU |
| 3637 | AAACAUCCCGCGCUCCAAA | 3680 | UCGUUGGGUGGCCAGCCCC | 3723 | GUGCGCCUGCGGGUCUUCA | 3766 | GCCGAUGUCAUCCCUGCUC |
| 3638 | AACAUCCCGCGCUCCAAAU | 3681 | CGUUGGGUGGCCAGCCCCU | 3724 | UGCGCCUGCGGGUCUUCAG | 3767 | CCGAUGUCAUCCCUGCUCG |
| 3639 | ACAUCCCGCGCUCCAAAUG | 3682 | GUUGGGUGGCCAGCCCCUC | 3725 | GCGCCUGCGGGUCUUCAGA | 3768 | CGAUGUCAUCCCUGCUCGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3769 | GAUGUCAUCCCUGCUCGGC | 3812 | UGCUCAGUCCUAGGCCUCU | 3855 | AGGUCCCGUUAUGUGCCCU | 3898 | AGGGCUGCUGUGUGCACCA |
| 3770 | AUGUCAUCCCUGCUCGGCG | 3813 | GCUCAGUCCUAGGCCUCUC | 3856 | GGUCCCGUUAUGUGCCCUU | 3899 | GGGCUGCUGUGUGCACCAG |
| 3771 | UGUCAUCCCUGCUCGGCGC | 3814 | CUCAGUCCUAGGCCUCUCG | 3857 | GUCCCGUUAUGUGCCCUUC | 3900 | GGCUGCUGUGUGCACCAGA |
| 3772 | GUCAUCCCUGCUCGGCGCA | 3815 | UCAGUCCUAGGCCUCUCGC | 3858 | UCCCGUUAUGUGCCCUUCG | 3901 | GCUGCUGUGUGCACCAGAG |
| 3773 | UCAUCCCUGCUCGGCGCAG | 3816 | CAGUCCUAGGCCUCUCGCC | 3859 | CCCGUUAUGUGCCCUUCGG | 3902 | CUGCUGUGUGCACCAGAGG |
| 3774 | CAUCCCUGCUCGGCGCAGA | 3817 | AGUCCUAGGCCUCUCGCCU | 3860 | CCGUUAUGUGCCCUUCGGG | 3903 | UGCUGUGUGCACCAGAGGU |
| 3775 | AUCCCUGCUCGGCGCAGAG | 3818 | GUCCUAGGCCUCUCGCCUG | 3861 | CGUUAUGUGCCCUUCGGGG | 3904 | GCUGUGUGCACCAGAGGUG |
| 3776 | UCCCUGCUCGGCGCAGAGG | 3819 | UCCUAGGCCUCUCGCCUGU | 3862 | GUUAUGUGCCCUUCGGGGC | 3905 | CUGUGUGCACCAGAGGUGU |
| 3777 | CCCUGCUCGGCGCAGAGGG | 3820 | CCUAGGCCUCUCGCCUGUC | 3863 | UUAUGUGCCCUUCGGGGCA | 3906 | UGUGUGCACCAGAGGUGUA |
| 3778 | CCUGCUCGGCGCAGAGGGG | 3821 | CUAGGCCUCUCGCCUGUCU | 3864 | UAUGUGCCCUUCGGGGCAU | 3907 | GUGUGCACCAGAGGUGUAG |
| 3779 | CUGCUCGGCGCAGAGGGGA | 3822 | UAGGCCUCUCGCCUGUCUC | 3865 | AUGUGCCCUUCGGGGCAUG | 3908 | UGUGCACCAGAGGUGUAGC |
| 3780 | UGCUCGGCGCAGAGGGGAC | 3823 | AGGCCUCUCGCCUGUCUCA | 3866 | UGUGCCCUUCGGGGCAUGU | 3909 | GUGCACCAGAGGUGUAGCA |
| 3781 | GCUCGGCGCAGAGGGGACU | 3824 | GGCCUCUCGCCUGUCUCAA | 3867 | GUGCCCUUCGGGGCAUGUU | 3910 | UGCACCAGAGGUGUAGCAA |
| 3782 | CUCGGCGCAGAGGGGACUC | 3825 | GCCUCUCGCCUGUCUCAAG | 3868 | UGCCCUUCGGGGCAUGUUG | 3911 | GCACCAGAGGUGUAGCAAA |
| 3783 | UCGGCGCAGAGGGGACUCC | 3826 | CCUCUCGCCUGUCUCAAGG | 3869 | GCCCUUCGGGGCAUGUUGC | 3912 | CACCAGAGGUGUAGCAAAA |
| 3784 | CGGCGCAGAGGGGACUCCA | 3827 | CUCUCGCCUGUCUCAAGGG | 3870 | CCCUUCGGGGCAUGUUGCG | 3913 | ACCAGAGGUGUAGCAAAAU |
| 3785 | GGCGCAGAGGGGACUCCAC | 3828 | UCUCGCCUGUCUCAAGGGU | 3871 | CCUUCGGGGCAUGUUGCGG | 3914 | CCAGAGGUGUAGCAAAAUC |
| 3786 | GCGCAGAGGGGACUCCACA | 3829 | CUCGCCUGUCUCAAGGGUU | 3872 | CUUCGGGGCAUGUUGCGGG | 3915 | CAGAGGUGUAGCAAAAUCC |
| 3787 | CGCAGAGGGGACUCCACAG | 3830 | UCGCCUGUCUCAAGGGUUC | 3873 | UUCGGGGCAUGUUGCGGGG | 3916 | AGAGGUGUAGCAAAAUCCC |
| 3788 | GCAGAGGGGACUCCACAGC | 3831 | CGCCUGUCUCAAGGGUUCC | 3874 | UCGGGGCAUGUUGCGGGGA | 3917 | GAGGUGUAGCAAAAUCCCU |
| 3789 | CAGAGGGGACUCCACAGCG | 3832 | GCCUGUCUCAAGGGUUCCU | 3875 | CGGGGCAUGUUGCGGGGAU | 3918 | AGGUGUAGCAAAAUCCCUA |
| 3790 | AGAGGGGACUCCACAGCGA | 3833 | CCUGUCUCAAGGGUUCCUC | 3876 | GGGGCAUGUUGCGGGGAUC | 3919 | GGUGUAGCAAAAUCCCUAC |
| 3791 | GAGGGGACUCCACAGCGAG | 3834 | CUGUCUCAAGGGUUCCUCU | 3877 | GGGCAUGUUGCGGGGAUCU | 3920 | GUGUAGCAAAAUCCCUACA |
| 3792 | AGGGGACUCCACAGCGAGC | 3835 | UGUCUCAAGGGUUCCUCUG | 3878 | GGCAUGUUGCGGGGAUCUU | 3921 | UGUAGCAAAAUCCCUACAG |
| 3793 | GGGGACUCCACAGCGAGCU | 3836 | GUCUCAAGGGUUCCUCUGG | 3879 | GCAUGUUGCGGGGAUCUUU | 3922 | GUAGCAAAAUCCCUACAGU |
| 3794 | GGGACUCCACAGCGAGCUU | 3837 | UCUCAAGGGUUCCUCUGGA | 3880 | CAUGUUGCGGGGAUCUUUA | 3923 | UAGCAAAAUCCCUACAGUU |
| 3795 | GGACUCCACAGCGAGCUUG | 3838 | CUCAAGGGUUCCUCUGGAG | 3881 | AUGUUGCGGGGAUCUUUAG | 3924 | AGCAAAAUCCCUACAGUUC |
| 3796 | GACUCCACAGCGAGCUUGC | 3839 | UCAAGGGUUCCUCUGGAGG | 3882 | UGUUGCGGGGAUCUUUAGG | 3925 | GCAAAAUCCCUACAGUUCA |
| 3797 | ACUCCACAGCGAGCUUGCU | 3840 | CAAGGGUUCCUCUGGAGGU | 3883 | GUUGCGGGGAUCUUUAGGG | 3926 | CAAAAUCCCUACAGUUCAU |
| 3798 | CUCCACAGCGAGCUUGCUC | 3841 | AAGGGUUCCUCUGGAGGUC | 3884 | UUGCGGGGAUCUUUAGGGC | 3927 | AAAAUCCCUACAGUUCAUA |
| 3799 | UCCACAGCGAGCUUGCUCA | 3842 | AGGGUUCCUCUGGAGGUCC | 3885 | UGCGGGGAUCUUUAGGGCU | 3928 | AAAUCCCUACAGUUCAUAC |
| 3800 | CCACAGCGAGCUUGCUCAG | 3843 | GGGUUCCUCUGGAGGUCCC | 3886 | GCGGGGAUCUUUAGGGCUG | 3929 | AAUCCCUACAGUUCAUACC |
| 3801 | CACAGCGAGCUUGCUCAGU | 3844 | GGUUCCUCUGGAGGUCCCG | 3887 | CGGGGAUCUUUAGGGCUGC | 3930 | AUCCCUACAGUUCAUACCA |
| 3802 | ACAGCGAGCUUGCUCAGUC | 3845 | GUUCCUCUGGAGGUCCCGU | 3888 | GGGGAUCUUUAGGGCUGCU | 3931 | UCCCUACAGUUCAUACCAG |
| 3803 | CAGCGAGCUUGCUCAGUCC | 3846 | UUCCUCUGGAGGUCCCGUU | 3889 | GGGAUCUUUAGGGCUGCUG | 3932 | CCCUACAGUUCAUACCAGU |
| 3804 | AGCGAGCUUGCUCAGUCCU | 3847 | UCCUCUGGAGGUCCCGUUA | 3890 | GGAUCUUUAGGGCUGCUGU | 3933 | CCUACAGUUCAUACCAGUG |
| 3805 | GCGAGCUUGCUCAGUCCUA | 3848 | CCUCUGGAGGUCCCGUUAU | 3891 | GAUCUUUAGGGCUGCUGUG | 3934 | CUACAGUUCAUACCAGUGG |
| 3806 | CGAGCUUGCUCAGUCCUAG | 3849 | CUCUGGAGGUCCCGUUAUG | 3892 | AUCUUUAGGGCUGCUGUGU | 3935 | UACAGUUCAUACCAGUGGA |
| 3807 | GAGCUUGCUCAGUCCUAGG | 3850 | UCUGGAGGUCCCGUUAUGU | 3893 | UCUUUAGGGCUGCUGUGUG | 3936 | ACAGUUCAUACCAGUGGAA |
| 3808 | AGCUUGCUCAGUCCUAGGC | 3851 | CUGGAGGUCCCGUUAUGUG | 3894 | CUUUAGGGCUGCUGUGUGC | 3937 | CAGUUCAUACCAGUGGAAA |
| 3809 | GCUUGCUCAGUCCUAGGCC | 3852 | UGGAGGUCCCGUUAUGUGC | 3895 | UUUAGGGCUGCUGUGUGCA | 3938 | AGUUCAUACCAGUGGAAAC |
| 3810 | CUUGCUCAGUCCUAGGCCU | 3853 | GGAGGUCCCGUUAUGUGCC | 3896 | UUAGGGCUGCUGUGUGCAC | 3939 | GUUCAUACCAGUGGAAACC |
| 3811 | UUGCUCAGUCCUAGGCCUC | 3854 | GAGGUCCCGUUAUGUGCCC | 3897 | UAGGGCUGCUGUGUGCACC | 3940 | UUCAUACCAGUGGAAACCC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3941 | UCAUACCAGUGGAAACCCU | 3984 | UUUCUCUGACAAUUCAACU | 4027 | CAAGUAGGAUACCUCCAUG | 4070 | CAAAGGUCCCGGCCGCUUA |
| 3942 | CAUACCAGUGGAAACCCUU | 3985 | UUCUCUGACAAUUCAACUC | 4028 | AAGUAGGAUACCUCCAUGC | 4071 | AAAGGUCCCGGCCGCUUAU |
| 3943 | AUACCAGUGGAAACCCUUA | 3986 | UCUCUGACAAUUCAACUCC | 4029 | AGUAGGAUACCUCCAUGCC | 4072 | AAGGUCCCGGCCGCUUAUG |
| 3944 | UACCAGUGGAAACCCUUAG | 3987 | CUCUGACAAUUCAACUCCU | 4030 | GUAGGAUACCUCCAUGCCC | 4073 | AGGUCCCGGCCGCUUAUGU |
| 3945 | ACCAGUGGAAACCCUUAGC | 3988 | UCUGACAAUUCAACUCCUC | 4031 | UAGGAUACCUCCAUGCCCC | 4074 | GGUCCCGGCCGCUUAUGUA |
| 3946 | CCAGUGGAAACCCUUAGCA | 3989 | CUGACAAUUCAACUCCUCC | 4032 | AGGAUACCUCCAUGCCCCG | 4075 | GUCCCGGCCGCUUAUGUAG |
| 3947 | CAGUGGAAACCCUUAGCAC | 3990 | UGACAAUUCAACUCCUCCU | 4033 | GGAUACCUCCAUGCCCCGA | 4076 | UCCCGGCCGCUUAUGUAGC |
| 3948 | AGUGGAAACCCUUAGCACG | 3991 | GACAAUUCAACUCCUCCUG | 4034 | GAUACCUCCAUGCCCCGAC | 4077 | CCCGGCCGCUUAUGUAGCA |
| 3949 | GUGGAAACCCUUAGCACGC | 3992 | ACAAUUCAACUCCUCCUGC | 4035 | AUACCUCCAUGCCCCGACC | 4078 | CCGGCCGCUUAUGUAGCAC |
| 3950 | UGGAAACCCUUAGCACGCA | 3993 | CAAUUCAACUCCUCCUGCU | 4036 | UACCUCCAUGCCCCGACCG | 4079 | CGGCCGCUUAUGUAGCACA |
| 3951 | GGAAACCCUUAGCACGCAG | 3994 | AAUUCAACUCCUCCUGCUG | 4037 | ACCUCCAUGCCCCGACCGG | 4080 | GGCCGCUUAUGUAGCACAA |
| 3952 | GAAACCCUUAGCACGCAGG | 3995 | AUUCAACUCCUCCUGCUGU | 4038 | CCUCCAUGCCCCGACCGGC | 4081 | GCCGCUUAUGUAGCACAAG |
| 3953 | AAACCCUUAGCACGCAGGC | 3996 | UUCAACUCCUCCUGCUGUU | 4039 | CUCCAUGCCCCGACCGGCA | 4082 | CCGCUUAUGUAGCACAAGG |
| 3954 | AACCCUUAGCACGCAGGCU | 3997 | UCAACUCCUCCUGCUGUUC | 4040 | UCCAUGCCCCGACCGGCAG | 4083 | CGCUUAUGUAGCACAAGGA |
| 3955 | ACCCUUAGCACGCAGGCUA | 3998 | CAACUCCUCCUGCUGUUCC | 4041 | CCAUGCCCCGACCGGCAGC | 4084 | GCUUAUGUAGCACAAGGAU |
| 3956 | CCCUUAGCACGCAGGCUAG | 3999 | AACUCCUCCUGCUGUUCCA | 4042 | CAUGCCCCGACCGGCAGCG | 4085 | CUUAUGUAGCACAAGGAUA |
| 3957 | CCUUAGCACGCAGGCUAGG | 4000 | ACUCCUCCUGCUGUUCCAC | 4043 | AUGCCCCGACCGGCAGCGG | 4086 | UUAUGUAGCACAAGGAUAU |
| 3958 | CUUAGCACGCAGGCUAGGU | 4001 | CUCCUCCUGCUGUUCCACA | 4044 | UGCCCCGACCGGCAGCGGU | 4087 | UAUGUAGCACAAGGAUAUA |
| 3959 | UUAGCACGCAGGCUAGGUC | 4002 | UCCUCCUGCUGUUCCACAG | 4045 | GCCCCGACCGGCAGCGGUA | 4088 | AUGUAGCACAAGGAUAUAA |
| 3960 | UAGCACGCAGGCUAGGUCU | 4003 | CCUCCUGCUGUUCCACAGA | 4046 | CCCCGACCGGCAGCGGUAA | 4089 | UGUAGCACAAGGAUAUAAU |
| 3961 | AGCACGCAGGCUAGGUCUC | 4004 | CUCCUGCUGUUCCACAGAG | 4047 | CCCGACCGGCAGCGGUAAG | 4090 | GUAGCACAAGGAUAUAAUG |
| 3962 | GCACGCAGGCUAGGUCUCC | 4005 | UCCUGCUGUUCCACAGAGC | 4048 | CCGACCGGCAGCGGUAAGA | 4091 | UAGCACAAGGAUAUAAUGU |
| 3963 | CACGCAGGCUAGGUCUCCA | 4006 | CCUGCUGUUCCACAGAGCU | 4049 | CGACCGGCAGCGGUAAGAG | 4092 | AGCACAAGGAUAUAAUGUC |
| 3964 | ACGCAGGCUAGGUCUCCAU | 4007 | CUGCUGUUCCACAGAGCUA | 4050 | GACCGGCAGCGGUAAGAGC | 4093 | GCACAAGGAUAUAAUGUCC |
| 3965 | CGCAGGCUAGGUCUCCAUC | 4008 | UGCUGUUCCACAGAGCUAU | 4051 | ACCGGCAGCGGUAAGAGCA | 4094 | CACAAGGAUAUAAUGUCCU |
| 3966 | GCAGGCUAGGUCUCCAUCU | 4009 | GCUGUUCCACAGAGCUAUC | 4052 | CCGGCAGCGGUAAGAGCAC | 4095 | ACAAGGAUAUAAUGUCCUC |
| 3967 | CAGGCUAGGUCUCCAUCUU | 4010 | CUGUUCCACAGAGCUAUCA | 4053 | CGGCAGCGGUAAGAGCACA | 4096 | CAAGGAUAUAAUGUCCUCG |
| 3968 | AGGCUAGGUCUCCAUCUUU | 4011 | UGUUCCACAGAGCUAUCAA | 4054 | GGCAGCGGUAAGAGCACAA | 4097 | AAGGAUAUAAUGUCCUCGU |
| 3969 | GGCUAGGUCUCCAUCUUUC | 4012 | GUUCCACAGAGCUAUCAAG | 4055 | GCAGCGGUAAGAGCACAAA | 4098 | AGGAUAUAAUGUCCUCGUA |
| 3970 | GCUAGGUCUCCAUCUUUCU | 4013 | UUCCACAGAGCUAUCAAGU | 4056 | CAGCGGUAAGAGCACAAAG | 4099 | GGAUAUAAUGUCCUCGUAC |
| 3971 | CUAGGUCUCCAUCUUUCUC | 4014 | UCCACAGAGCUAUCAAGUA | 4057 | AGCGGUAAGAGCACAAAGG | 4100 | GAUAUAAUGUCCUCGUACU |
| 3972 | UAGGUCUCCAUCUUUCUCU | 4015 | CCACAGAGCUAUCAAGUAG | 4058 | GCGGUAAGAGCACAAAGGU | 4101 | AUAUAAUGUCCUCGUACUA |
| 3973 | AGGUCUCCAUCUUUCUCUG | 4016 | CACAGAGCUAUCAAGUAGG | 4059 | CGGUAAGAGCACAAAGGUC | 4102 | UAUAAUGUCCUCGUACUAA |
| 3974 | GGUCUCCAUCUUUCUCUGA | 4017 | ACAGAGCUAUCAAGUAGGA | 4060 | GGUAAGAGCACAAAGGUCC | 4103 | AUAAUGUCCUCGUACUAAA |
| 3975 | GUCUCCAUCUUUCUCUGAC | 4018 | CAGAGCUAUCAAGUAGGAU | 4061 | GUAAGAGCACAAAGGUCCC | 4104 | UAAUGUCCUCGUACUAAAU |
| 3976 | UCUCCAUCUUUCUCUGACA | 4019 | AGAGCUAUCAAGUAGGAUA | 4062 | UAAGAGCACAAAGGUCCCG | 4105 | AAUGUCCUCGUACUAAAUC |
| 3977 | CUCCAUCUUUCUCUGACAA | 4020 | GAGCUAUCAAGUAGGAUAC | 4063 | AAGAGCACAAAGGUCCCGG | 4106 | AUGUCCUCGUACUAAAUCC |
| 3978 | UCCAUCUUUCUCUGACAAU | 4021 | AGCUAUCAAGUAGGAUACC | 4064 | AGAGCACAAAGGUCCCGGC | 4107 | UGUCCUCGUACUAAAUCCA |
| 3979 | CCAUCUUUCUCUGACAAUU | 4022 | GCUAUCAAGUAGGAUACCU | 4065 | GAGCACAAAGGUCCCGGCC | 4108 | GUCCUCGUACUAAAUCCAU |
| 3980 | CAUCUUUCUCUGACAAUUC | 4023 | CUAUCAAGUAGGAUACCUC | 4066 | AGCACAAAGGUCCCGGCCG | 4109 | UCCUCGUACUAAAUCCAUC |
| 3981 | AUCUUUCUCUGACAAUUCA | 4024 | UAUCAAGUAGGAUACCUCC | 4067 | GCACAAAGGUCCCGGCCGC | 4110 | CCUCGUACUAAAUCCAUCG |
| 3982 | UCUUUCUCUGACAAUUCAA | 4025 | AUCAAGUAGGAUACCUCCA | 4068 | CACAAAGGUCCCGGCCGCU | 4111 | CUCGUACUAAAUCCAUCGG |
| 3983 | CUUUCUCUGACAAUUCAAC | 4026 | UCAAGUAGGAUACCUCCAU | 4069 | ACAAAGGUCCCGGCCGCUU | 4112 | UCGUACUAAAUCCAUCGGU |

**FIG. 4 (page 201 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4113 | CGUACUAAAUCCAUCGGUG | 4156 | UUCAUGUCGCGUGCCUAUG | 4199 | GGAACCGCACCGUUACAAC | 4242 | CUACGGUAAGUUUCUCGCG |
| 4114 | GUACUAAAUCCAUCGGUGG | 4157 | UCAUGUCGCGUGCCUAUGG | 4200 | GAACCGCACCGUUACAACU | 4243 | UACGGUAAGUUUCUCGCGG |
| 4115 | UACUAAAUCCAUCGGUGGC | 4158 | CAUGUCGCGUGCCUAUGGG | 4201 | AACCGCACCGUUACAACUG | 4244 | ACGGUAAGUUUCUCGCGGA |
| 4116 | ACUAAAUCCAUCGGUGGCG | 4159 | AUGUCGCGUGCCUAUGGGA | 4202 | ACCGCACCGUUACAACUGG | 4245 | CGGUAAGUUUCUCGCGGAC |
| 4117 | CUAAAUCCAUCGGUGGCGG | 4160 | UGUCGCGUGCCUAUGGGAU | 4203 | CCGCACCGUUACAACUGGU | 4246 | GGUAAGUUUCUCGCGGACG |
| 4118 | UAAAUCCAUCGGUGGCGGC | 4161 | GUCGCGUGCCUAUGGGAUC | 4204 | CGCACCGUUACAACUGGUG | 4247 | GUAAGUUUCUCGCGGACGG |
| 4119 | AAAUCCAUCGGUGGCGGCC | 4162 | UCGCGUGCCUAUGGGAUCG | 4205 | GCACCGUUACAACUGGUGC | 4248 | UAAGUUUCUCGCGGACGGG |
| 4120 | AAUCCAUCGGUGGCGGCCA | 4163 | CGCGUGCCUAUGGGAUCGA | 4206 | CACCGUUACAACUGGUGCU | 4249 | AAGUUUCUCGCGGACGGGG |
| 4121 | AUCCAUCGGUGGCGGCCAC | 4164 | GCGUGCCUAUGGGAUCGAC | 4207 | ACCGUUACAACUGGUGCUA | 4250 | AGUUUCUCGCGGACGGGGG |
| 4122 | UCCAUCGGUGGCGGCCACA | 4165 | CGUGCCUAUGGGAUCGACC | 4208 | CCGUUACAACUGGUGCUAA | 4251 | GUUUCUCGCGGACGGGGGU |
| 4123 | CCAUCGGUGGCGGCCACAU | 4166 | GUGCCUAUGGGAUCGACCC | 4209 | CGUUACAACUGGUGCUAAA | 4252 | UUUCUCGCGGACGGGGGUU |
| 4124 | CAUCGGUGGCGGCCACAUU | 4167 | UGCCUAUGGGAUCGACCCC | 4210 | GUUACAACUGGUGCUAAAC | 4253 | UUCUCGCGGACGGGGGUUG |
| 4125 | AUCGGUGGCGGCCACAUUA | 4168 | GCCUAUGGGAUCGACCCCA | 4211 | UUACAACUGGUGCUAAACU | 4254 | UCUCGCGGACGGGGGUUGC |
| 4126 | UCGGUGGCGGCCACAUUAG | 4169 | CCUAUGGGAUCGACCCCAA | 4212 | UACAACUGGUGCUAAACUG | 4255 | CUCGCGGACGGGGGUUGCU |
| 4127 | CGGUGGCGGCCACAUUAGG | 4170 | CUAUGGGAUCGACCCCAAC | 4213 | ACAACUGGUGCUAAACUGA | 4256 | UCGCGGACGGGGGUUGCUC |
| 4128 | GGUGGCGGCCACAUUAGGC | 4171 | UAUGGGAUCGACCCCAACA | 4214 | CAACUGGUGCUAAACUGAC | 4257 | CGCGGACGGGGGUUGCUCC |
| 4129 | GUGGCGGCCACAUUAGGCU | 4172 | AUGGGAUCGACCCCAACAU | 4215 | AACUGGUGCUAAACUGACC | 4258 | GCGGACGGGGGUUGCUCCG |
| 4130 | UGGCGGCCACAUUAGGCUU | 4173 | UGGGAUCGACCCCAACAUC | 4216 | ACUGGUGCUAAACUGACCU | 4259 | CGGACGGGGGUUGCUCCGG |
| 4131 | GGCGGCCACAUUAGGCUUC | 4174 | GGGAUCGACCCCAACAUCC | 4217 | CUGGUGCUAAACUGACCUA | 4260 | GGACGGGGGUUGCUCCGGG |
| 4132 | GCGGCCACAUUAGGCUUCG | 4175 | GGAUCGACCCCAACAUCCG | 4218 | UGGUGCUAAACUGACCUAU | 4261 | GACGGGGGUUGCUCCGGGG |
| 4133 | CGGCCACAUUAGGCUUCGG | 4176 | GAUCGACCCCAACAUCCGC | 4219 | GGUGCUAAACUGACCUAUU | 4262 | ACGGGGGUUGCUCCGGGGG |
| 4134 | GGCCACAUUAGGCUUCGGC | 4177 | AUCGACCCCAACAUCCGCA | 4220 | GUGCUAAACUGACCUAUUC | 4263 | CGGGGGUUGCUCCGGGGGG |
| 4135 | GCCACAUUAGGCUUCGGCU | 4178 | UCGACCCCAACAUCCGCAC | 4221 | UGCUAAACUGACCUAUUCC | 4264 | GGGGGUUGCUCCGGGGGGG |
| 4136 | CCACAUUAGGCUUCGGCUC | 4179 | CGACCCCAACAUCCGCACU | 4222 | GCUAAACUGACCUAUUCCA | 4265 | GGGGUUGCUCCGGGGGGGC |
| 4137 | CACAUUAGGCUUCGGCUCC | 4180 | GACCCCAACAUCCGCACUG | 4223 | CUAAACUGACCUAUUCCAC | 4266 | GGGUUGCUCCGGGGGGGCA |
| 4138 | ACAUUAGGCUUCGGCUCCU | 4181 | ACCCCAACAUCCGCACUGG | 4224 | UAAACUGACCUAUUCCACC | 4267 | GGUUGCUCCGGGGGGGCAU |
| 4139 | CAUUAGGCUUCGGCUCCUU | 4182 | CCCCAACAUCCGCACUGGG | 4225 | AAACUGACCUAUUCCACCU | 4268 | GUUGCUCCGGGGGGGCAUA |
| 4140 | AUUAGGCUUCGGCUCCUUC | 4183 | CCCAACAUCCGCACUGGGA | 4226 | AACUGACCUAUUCCACCUA | 4269 | UUGCUCCGGGGGGGCAUAU |
| 4141 | UUAGGCUUCGGCUCCUUCA | 4184 | CCAACAUCCGCACUGGGAA | 4227 | ACUGACCUAUUCCACCUAC | 4270 | UGCUCCGGGGGGGCAUAUG |
| 4142 | UAGGCUUCGGCUCCUUCAU | 4185 | CAACAUCCGCACUGGGAAC | 4228 | CUGACCUAUUCCACCUACG | 4271 | GCUCCGGGGGGGCAUAUGA |
| 4143 | AGGCUUCGGCUCCUUCAUG | 4186 | AACAUCCGCACUGGGAACC | 4229 | UGACCUAUUCCACCUACGG | 4272 | CUCCGGGGGGGCAUAUGAU |
| 4144 | GGCUUCGGCUCCUUCAUGU | 4187 | ACAUCCGCACUGGGAACCG | 4230 | GACCUAUUCCACCUACGGU | 4273 | UCCGGGGGGGCAUAUGAUG |
| 4145 | GCUUCGGCUCCUUCAUGUC | 4188 | CAUCCGCACUGGGAACCGC | 4231 | ACCUAUUCCACCUACGGUA | 4274 | CCGGGGGGGCAUAUGAUGU |
| 4146 | CUUCGGCUCCUUCAUGUCG | 4189 | AUCCGCACUGGGAACCGCA | 4232 | CCUAUUCCACCUACGGUAA | 4275 | CGGGGGGGCAUAUGAUGUG |
| 4147 | UUCGGCUCCUUCAUGUCGC | 4190 | UCCGCACUGGGAACCGCAC | 4233 | CUAUUCCACCUACGGUAAG | 4276 | GGGGGGGCAUAUGAUGUGA |
| 4148 | UCGGCUCCUUCAUGUCGCG | 4191 | CCGCACUGGGAACCGCACC | 4234 | UAUUCCACCUACGGUAAGU | 4277 | GGGGGGCAUAUGAUGUGAU |
| 4149 | CGGCUCCUUCAUGUCGCGU | 4192 | CGCACUGGGAACCGCACCG | 4235 | AUUCCACCUACGGUAAGUU | 4278 | GGGGGCAUAUGAUGUGAUU |
| 4150 | GGCUCCUUCAUGUCGCGUG | 4193 | GCACUGGGAACCGCACCGU | 4236 | UUCCACCUACGGUAAGUUU | 4279 | GGGGCAUAUGAUGUGAUUA |
| 4151 | GCUCCUUCAUGUCGCGUGC | 4194 | CACUGGGAACCGCACCGUU | 4237 | UCCACCUACGGUAAGUUUC | 4280 | GGGCAUAUGAUGUGAUUAU |
| 4152 | CUCCUUCAUGUCGCGUGCC | 4195 | ACUGGGAACCGCACCGUUA | 4238 | CCACCUACGGUAAGUUUCU | 4281 | GGCAUAUGAUGUGAUUAUC |
| 4153 | UCCUUCAUGUCGCGUGCCU | 4196 | CUGGGAACCGCACCGUUAC | 4239 | CACCUACGGUAAGUUUCUC | 4282 | GCAUAUGAUGUGAUUAUCU |
| 4154 | CCUUCAUGUCGCGUGCCUA | 4197 | UGGGAACCGCACCGUUACA | 4240 | ACCUACGGUAAGUUUCUCG | 4283 | CAUAUGAUGUGAUUAUCUG |
| 4155 | CUUCAUGUCGCGUGCCUAU | 4198 | GGGAACCGCACCGUUACAA | 4241 | CCUACGGUAAGUUUCUCGC | 4284 | AUAUGAUGUGAUUAUCUGU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4285 | UAUGAUGUGAUUAUCUGUG | 4328 | CUAGCAUAUUGGGUAUAGG | 4371 | GGCUGGGGUGAGGCUGACG | 4414 | GGCAGCAUCACUGUGCCGC |
| 4286 | AUGAUGUGAUUAUCUGUGA | 4329 | UAGCAUAUUGGGUAUAGGC | 4372 | GCUGGGGUGAGGCUGACGG | 4415 | GCAGCAUCACUGUGCCGCA |
| 4287 | UGAUGUGAUUAUCUGUGAU | 4330 | AGCAUAUUGGGUAUAGGCA | 4373 | CUGGGGUGAGGCUGACGGU | 4416 | CAGCAUCACUGUGCCGCAU |
| 4288 | GAUGUGAUUAUCUGUGAUG | 4331 | GCAUAUUGGGUAUAGGCAC | 4374 | UGGGGUGAGGCUGACGGUU | 4417 | AGCAUCACUGUGCCGCAUU |
| 4289 | AUGUGAUUAUCUGUGAUGA | 4332 | CAUAUUGGGUAUAGGCACG | 4375 | GGGGUGAGGCUGACGGUUU | 4418 | GCAUCACUGUGCCGCAUUC |
| 4290 | UGUGAUUAUCUGUGAUGAA | 4333 | AUAUUGGGUAUAGGCACGG | 4376 | GGGUGAGGCUGACGGUUUU | 4419 | CAUCACUGUGCCGCAUUCU |
| 4291 | GUGAUUAUCUGUGAUGAAU | 4334 | UAUUGGGUAUAGGCACGGU | 4377 | GGUGAGGCUGACGGUUUUA | 4420 | AUCACUGUGCCGCAUUCUA |
| 4292 | UGAUUAUCUGUGAUGAAUG | 4335 | AUUGGGUAUAGGCACGGUC | 4378 | GUGAGGCUGACGGUUUUAG | 4421 | UCACUGUGCCGCAUUCUAA |
| 4293 | GAUUAUCUGUGAUGAAUGU | 4336 | UUGGGUAUAGGCACGGUCU | 4379 | UGAGGCUGACGGUUUUAGC | 4422 | CACUGUGCCGCAUUCUAAC |
| 4294 | AUUAUCUGUGAUGAAUGUC | 4337 | UGGGUAUAGGCACGGUCUU | 4380 | GAGGCUGACGGUUUUAGCG | 4423 | ACUGUGCCGCAUUCUAACA |
| 4295 | UUAUCUGUGAUGAAUGUCA | 4338 | GGGUAUAGGCACGGUCUUA | 4381 | AGGCUGACGGUUUUAGCGA | 4424 | CUGUGCCGCAUUCUAACAU |
| 4296 | UAUCUGUGAUGAAUGUCAU | 4339 | GGUAUAGGCACGGUCUUAG | 4382 | GGCUGACGGUUUUAGCGAC | 4425 | UGUGCCGCAUUCUAACAUC |
| 4297 | AUCUGUGAUGAAUGUCAUG | 4340 | GUAUAGGCACGGUCUUAGA | 4383 | GCUGACGGUUUUAGCGACA | 4426 | GUGCCGCAUUCUAACAUCG |
| 4298 | UCUGUGAUGAAUGUCAUGC | 4341 | UAUAGGCACGGUCUUAGAU | 4384 | CUGACGGUUUUAGCGACAG | 4427 | UGCCGCAUUCUAACAUCGA |
| 4299 | CUGUGAUGAAUGUCAUGCC | 4342 | AUAGGCACGGUCUUAGAUC | 4385 | UGACGGUUUUAGCGACAGC | 4428 | GCCGCAUUCUAACAUCGAA |
| 4300 | UGUGAUGAAUGUCAUGCCC | 4343 | UAGGCACGGUCUUAGAUCA | 4386 | GACGGUUUUAGCGACAGCA | 4429 | CCGCAUUCUAACAUCGAAG |
| 4301 | GUGAUGAAUGUCAUGCCCA | 4344 | AGGCACGGUCUUAGAUCAG | 4387 | ACGGUUUUAGCGACAGCAA | 4430 | CGCAUUCUAACAUCGAAGA |
| 4302 | UGAUGAAUGUCAUGCCCAA | 4345 | GGCACGGUCUUAGAUCAGG | 4388 | CGGUUUUAGCGACAGCAAC | 4431 | GCAUUCUAACAUCGAAGAA |
| 4303 | GAUGAAUGUCAUGCCCAAG | 4346 | GCACGGUCUUAGAUCAGGC | 4389 | GGUUUUAGCGACAGCAACU | 4432 | CAUUCUAACAUCGAAGAAG |
| 4304 | AUGAAUGUCAUGCCCAAGA | 4347 | CACGGUCUUAGAUCAGGCU | 4390 | GUUUUAGCGACAGCAACUC | 4433 | AUUCUAACAUCGAAGAAGU |
| 4305 | UGAAUGUCAUGCCCAAGAC | 4348 | ACGGUCUUAGAUCAGGCUG | 4391 | UUUUAGCGACAGCAACUCC | 4434 | UUCUAACAUCGAAGAAGUG |
| 4306 | GAAUGUCAUGCCCAAGACG | 4349 | CGGUCUUAGAUCAGGCUGA | 4392 | UUUAGCGACAGCAACUCCC | 4435 | UCUAACAUCGAAGAAGUGG |
| 4307 | AAUGUCAUGCCCAAGACGC | 4350 | GGUCUUAGAUCAGGCUGAG | 4393 | UUAGCGACAGCAACUCCCC | 4436 | CUAACAUCGAAGAAGUGGC |
| 4308 | AUGUCAUGCCCAAGACGCU | 4351 | GUCUUAGAUCAGGCUGAGA | 4394 | UAGCGACAGCAACUCCCCC | 4437 | UAACAUCGAAGAAGUGGCC |
| 4309 | UGUCAUGCCCAAGACGCUA | 4352 | UCUUAGAUCAGGCUGAGAC | 4395 | AGCGACAGCAACUCCCCCA | 4438 | AACAUCGAAGAAGUGGCCC |
| 4310 | GUCAUGCCCAAGACGCUAC | 4353 | CUUAGAUCAGGCUGAGACG | 4396 | GCGACAGCAACUCCCCCAG | 4439 | ACAUCGAAGAAGUGGCCCU |
| 4311 | UCAUGCCCAAGACGCUACU | 4354 | UUAGAUCAGGCUGAGACGG | 4397 | CGACAGCAACUCCCCCAGG | 4440 | CAUCGAAGAAGUGGCCCUG |
| 4312 | CAUGCCCAAGACGCUACUA | 4355 | UAGAUCAGGCUGAGACGGC | 4398 | GACAGCAACUCCCCCAGGC | 4441 | AUCGAAGAAGUGGCCCUGG |
| 4313 | AUGCCCAAGACGCUACUAG | 4356 | AGAUCAGGCUGAGACGGCU | 4399 | ACAGCAACUCCCCCAGGCA | 4442 | UCGAAGAAGUGGCCCUGGG |
| 4314 | UGCCCAAGACGCUACUAGC | 4357 | GAUCAGGCUGAGACGGCUG | 4400 | CAGCAACUCCCCCAGGCAG | 4443 | CGAAGAAGUGGCCCUGGGC |
| 4315 | GCCCAAGACGCUACUAGCA | 4358 | AUCAGGCUGAGACGGCUGG | 4401 | AGCAACUCCCCCAGGCAGC | 4444 | GAAGAAGUGGCCCUGGGCU |
| 4316 | CCCAAGACGCUACUAGCAU | 4359 | UCAGGCUGAGACGGCUGGG | 4402 | GCAACUCCCCCAGGCAGCA | 4445 | AAGAAGUGGCCCUGGGCUC |
| 4317 | CCAAGACGCUACUAGCAUA | 4360 | CAGGCUGAGACGGCUGGGG | 4403 | CAACUCCCCCAGGCAGCAU | 4446 | AGAAGUGGCCCUGGGCUCU |
| 4318 | CAAGACGCUACUAGCAUAU | 4361 | AGGCUGAGACGGCUGGGGU | 4404 | AACUCCCCCAGGCAGCAUC | 4447 | GAAGUGGCCCUGGGCUCUG |
| 4319 | AAGACGCUACUAGCAUAUU | 4362 | GGCUGAGACGGCUGGGGUG | 4405 | ACUCCCCCAGGCAGCAUCA | 4448 | AAGUGGCCCUGGGCUCUGA |
| 4320 | AGACGCUACUAGCAUAUUG | 4363 | GCUGAGACGGCUGGGGUGA | 4406 | CUCCCCCAGGCAGCAUCAC | 4449 | AGUGGCCCUGGGCUCUGAA |
| 4321 | GACGCUACUAGCAUAUUGG | 4364 | CUGAGACGGCUGGGGUGAG | 4407 | UCCCCCAGGCAGCAUCACU | 4450 | GUGGCCCUGGGCUCUGAAG |
| 4322 | ACGCUACUAGCAUAUUGGG | 4365 | UGAGACGGCUGGGGUGAGG | 4408 | CCCCCAGGCAGCAUCACUG | 4451 | UGGCCCUGGGCUCUGAAGG |
| 4323 | CGCUACUAGCAUAUUGGGU | 4366 | GAGACGGCUGGGGUGAGGC | 4409 | CCCCAGGCAGCAUCACUGU | 4452 | GGCCCUGGGCUCUGAAGGU |
| 4324 | GCUACUAGCAUAUUGGGUA | 4367 | AGACGGCUGGGGUGAGGCU | 4410 | CCCAGGCAGCAUCACUGUG | 4453 | GCCCUGGGCUCUGAAGGUG |
| 4325 | CUACUAGCAUAUUGGGUAU | 4368 | GACGGCUGGGGUGAGGCUG | 4411 | CCAGGCAGCAUCACUGUGC | 4454 | CCCUGGGCUCUGAAGGUGA |
| 4326 | UACUAGCAUAUUGGGUAUA | 4369 | ACGGCUGGGGUGAGGCUGA | 4412 | CAGGCAGCAUCACUGUGCC | 4455 | CCUGGGCUCUGAAGGUGAG |
| 4327 | ACUAGCAUAUUGGGUAUAG | 4370 | CGGCUGGGGUGAGGCUGAC | 4413 | AGGCAGCAUCACUGUGCCG | 4456 | CUGGGCUCUGAAGGUGAGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4457 | UGGGCUCUGAAGGUGAGAU | 4500 | GAUAGCCCUGCUCAAGGGG | 4543 | UCCAAGAAAAAAUGUGAUG | 4586 | UGGGGCUCAACGCUGUAGC |
| 4458 | GGGCUCUGAAGGUGAGAUC | 4501 | AUAGCCCUGCUCAAGGGGG | 4544 | CCAAGAAAAAAUGUGAUGA | 4587 | GGGGCUCAACGCUGUAGCA |
| 4459 | GGCUCUGAAGGUGAGAUCC | 4502 | UAGCCCUGCUCAAGGGGGG | 4545 | CAAGAAAAAAUGUGAUGAG | 4588 | GGGCUCAACGCUGUAGCAU |
| 4460 | GCUCUGAAGGUGAGAUCCC | 4503 | AGCCCUGCUCAAGGGGGGG | 4546 | AAGAAAAAAUGUGAUGAGA | 4589 | GGCUCAACGCUGUAGCAUA |
| 4461 | CUCUGAAGGUGAGAUCCCU | 4504 | GCCCUGCUCAAGGGGGGGA | 4547 | AGAAAAAAUGUGAUGAGAU | 4590 | GCUCAACGCUGUAGCAUAC |
| 4462 | UCUGAAGGUGAGAUCCCUU | 4505 | CCCUGCUCAAGGGGGGGAG | 4548 | GAAAAAAUGUGAUGAGAUA | 4591 | CUCAACGCUGUAGCAUACU |
| 4463 | CUGAAGGUGAGAUCCCUUU | 4506 | CCUGCUCAAGGGGGGGAGG | 4549 | AAAAAAUGUGAUGAGAUAG | 4592 | UCAACGCUGUAGCAUACUA |
| 4464 | UGAAGGUGAGAUCCCUUUC | 4507 | CUGCUCAAGGGGGGGAGGC | 4550 | AAAAAUGUGAUGAGAUAGC | 4593 | CAACGCUGUAGCAUACUAU |
| 4465 | GAAGGUGAGAUCCCUUUCU | 4508 | UGCUCAAGGGGGGGAGGCA | 4551 | AAAAUGUGAUGAGAUAGCG | 4594 | AACGCUGUAGCAUACUAUA |
| 4466 | AAGGUGAGAUCCCUUUCUA | 4509 | GCUCAAGGGGGGGAGGCAC | 4552 | AAAUGUGAUGAGAUAGCGU | 4595 | ACGCUGUAGCAUACUAUAG |
| 4467 | AGGUGAGAUCCCUUUCUAC | 4510 | CUCAAGGGGGGGAGGCACC | 4553 | AAUGUGAUGAGAUAGCGUC | 4596 | CGCUGUAGCAUACUAUAGG |
| 4468 | GGUGAGAUCCCUUUCUACG | 4511 | UCAAGGGGGGGAGGCACCU | 4554 | AUGUGAUGAGAUAGCGUCC | 4597 | GCUGUAGCAUACUAUAGGG |
| 4469 | GUGAGAUCCCUUUCUACGG | 4512 | CAAGGGGGGGAGGCACCUU | 4555 | UGUGAUGAGAUAGCGUCCA | 4598 | CUGUAGCAUACUAUAGGGG |
| 4470 | UGAGAUCCCUUUCUACGGU | 4513 | AAGGGGGGGAGGCACCUUA | 4556 | GUGAUGAGAUAGCGUCCAA | 4599 | UGUAGCAUACUAUAGGGGU |
| 4471 | GAGAUCCCUUUCUACGGUA | 4514 | AGGGGGGGAGGCACCUUAU | 4557 | UGAUGAGAUAGCGUCCAAA | 4600 | GUAGCAUACUAUAGGGGUC |
| 4472 | AGAUCCCUUUCUACGGUAA | 4515 | GGGGGGGAGGCACCUUAUC | 4558 | GAUGAGAUAGCGUCCAAAC | 4601 | UAGCAUACUAUAGGGGUCU |
| 4473 | GAUCCCUUUCUACGGUAAG | 4516 | GGGGGGAGGCACCUUAUCU | 4559 | AUGAGAUAGCGUCCAAACU | 4602 | AGCAUACUAUAGGGGUCUC |
| 4474 | AUCCCUUUCUACGGUAAGG | 4517 | GGGGGAGGCACCUUAUCUU | 4560 | UGAGAUAGCGUCCAAACUA | 4603 | GCAUACUAUAGGGGUCUCG |
| 4475 | UCCCUUUCUACGGUAAGGC | 4518 | GGGGAGGCACCUUAUCUUU | 4561 | GAGAUAGCGUCCAAACUAA | 4604 | CAUACUAUAGGGGUCUCGA |
| 4476 | CCCUUUCUACGGUAAGGCU | 4519 | GGGAGGCACCUUAUCUUUU | 4562 | AGAUAGCGUCCAAACUAAG | 4605 | AUACUAUAGGGGUCUCGAU |
| 4477 | CCUUUCUACGGUAAGGCUA | 4520 | GGAGGCACCUUAUCUUUUG | 4563 | GAUAGCGUCCAAACUAAGA | 4606 | UACUAUAGGGGUCUCGAUG |
| 4478 | CUUUCUACGGUAAGGCUAU | 4521 | GAGGCACCUUAUCUUUUGC | 4564 | AUAGCGUCCAAACUAAGAG | 4607 | ACUAUAGGGGUCUCGAUGU |
| 4479 | UUUCUACGGUAAGGCUAUA | 4522 | AGGCACCUUAUCUUUUGCC | 4565 | UAGCGUCCAAACUAAGAGG | 4608 | CUAUAGGGGUCUCGAUGUG |
| 4480 | UUCUACGGUAAGGCUAUAC | 4523 | GGCACCUUAUCUUUUGCCA | 4566 | AGCGUCCAAACUAAGAGGC | 4609 | UAUAGGGGUCUCGAUGUGU |
| 4481 | UCUACGGUAAGGCUAUACC | 4524 | GCACCUUAUCUUUUGCCAU | 4567 | GCGUCCAAACUAAGAGGCA | 4610 | AUAGGGGUCUCGAUGUGUC |
| 4482 | CUACGGUAAGGCUAUACCG | 4525 | CACCUUAUCUUUUGCCAUU | 4568 | CGUCCAAACUAAGAGGCAU | 4611 | UAGGGGUCUCGAUGUGUCC |
| 4483 | UACGGUAAGGCUAUACCGA | 4526 | ACCUUAUCUUUUGCCAUUC | 4569 | GUCCAAACUAAGAGGCAUG | 4612 | AGGGGUCUCGAUGUGUCCG |
| 4484 | ACGGUAAGGCUAUACCGAU | 4527 | CCUUAUCUUUUGCCAUUCC | 4570 | UCCAAACUAAGAGGCAUGG | 4613 | GGGGUCUCGAUGUGUCCGU |
| 4485 | CGGUAAGGCUAUACCGAUA | 4528 | CUUAUCUUUUGCCAUUCCA | 4571 | CCAAACUAAGAGGCAUGGG | 4614 | GGGUCUCGAUGUGUCCGUC |
| 4486 | GGUAAGGCUAUACCGAUAG | 4529 | UUAUCUUUUGCCAUUCCAA | 4572 | CAAACUAAGAGGCAUGGGG | 4615 | GGUCUCGAUGUGUCCGUCA |
| 4487 | GUAAGGCUAUACCGAUAGC | 4530 | UAUCUUUUGCCAUUCCAAG | 4573 | AAACUAAGAGGCAUGGGGC | 4616 | GUCUCGAUGUGUCCGUCAU |
| 4488 | UAAGGCUAUACCGAUAGCC | 4531 | AUCUUUUGCCAUUCCAAGA | 4574 | AACUAAGAGGCAUGGGGCU | 4617 | UCUCGAUGUGUCCGUCAUA |
| 4489 | AAGGCUAUACCGAUAGCCC | 4532 | UCUUUUGCCAUUCCAAGAA | 4575 | ACUAAGAGGCAUGGGGCUC | 4618 | CUCGAUGUGUCCGUCAUAC |
| 4490 | AGGCUAUACCGAUAGCCCU | 4533 | CUUUUGCCAUUCCAAGAAA | 4576 | CUAAGAGGCAUGGGGCUCA | 4619 | UCGAUGUGUCCGUCAUACC |
| 4491 | GGCUAUACCGAUAGCCCUG | 4534 | UUUUGCCAUUCCAAGAAAA | 4577 | UAAGAGGCAUGGGGCUCAA | 4620 | CGAUGUGUCCGUCAUACCA |
| 4492 | GCUAUACCGAUAGCCCUGC | 4535 | UUUGCCAUUCCAAGAAAAA | 4578 | AAGAGGCAUGGGGCUCAAC | 4621 | GAUGUGUCCGUCAUACCAA |
| 4493 | CUAUACCGAUAGCCCUGCU | 4536 | UUGCCAUUCCAAGAAAAAA | 4579 | AGAGGCAUGGGGCUCAACG | 4622 | AUGUGUCCGUCAUACCAAC |
| 4494 | UAUACCGAUAGCCCUGCUC | 4537 | UGCCAUUCCAAGAAAAAAU | 4580 | GAGGCAUGGGGCUCAACGC | 4623 | UGUGUCCGUCAUACCAACA |
| 4495 | AUACCGAUAGCCCUGCUCA | 4538 | GCCAUUCCAAGAAAAAAUG | 4581 | AGGCAUGGGGCUCAACGCU | 4624 | GUGUCCGUCAUACCAACAA |
| 4496 | UACCGAUAGCCCUGCUCAA | 4539 | CCAUUCCAAGAAAAAAUGU | 4582 | GGCAUGGGGCUCAACGCUG | 4625 | UGUCCGUCAUACCAACAAC |
| 4497 | ACCGAUAGCCCUGCUCAAG | 4540 | CAUUCCAAGAAAAAAUGUG | 4583 | GCAUGGGGCUCAACGCUGU | 4626 | GUCCGUCAUACCAACAACA |
| 4498 | CCGAUAGCCCUGCUCAAGG | 4541 | AUUCCAAGAAAAAAUGUGA | 4584 | CAUGGGGCUCAACGCUGUA | 4627 | UCCGUCAUACCAACAACAG |
| 4499 | CGAUAGCCCUGCUCAAGGG | 4542 | UUCCAAGAAAAAAUGUGAU | 4585 | AUGGGGCUCAACGCUGUAG | 4628 | CCGUCAUACCAACAACAGG |

**FIG. 4 (page 204 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4629 | CGUCAUACCAACAACAGGA | 4672 | GCCCUCAUGACUGGAUUCA | 4715 | AUUGCAACGUGGCUGUUGA | 4758 | CCCCACCUUUUCCAUUGAG |
| 4630 | GUCAUACCAACAACAGGAG | 4673 | CCCUCAUGACUGGAUUCAC | 4716 | UUGCAACGUGGCUGUUGAA | 4759 | CCCACCUUUUCCAUUGAGA |
| 4631 | UCAUACCAACAACAGGAGA | 4674 | CCUCAUGACUGGAUUCACC | 4717 | UGCAACGUGGCUGUUGAAC | 4760 | CCACCUUUUCCAUUGAGAC |
| 4632 | CAUACCAACAACAGGAGAC | 4675 | CUCAUGACUGGAUUCACCG | 4718 | GCAACGUGGCUGUUGAACA | 4761 | CACCUUUUCCAUUGAGACC |
| 4633 | AUACCAACAACAGGAGACG | 4676 | UCAUGACUGGAUUCACCGG | 4719 | CAACGUGGCUGUUGAACAG | 4762 | ACCUUUUCCAUUGAGACCC |
| 4634 | UACCAACAACAGGAGACGU | 4677 | CAUGACUGGAUUCACCGGG | 4720 | AACGUGGCUGUUGAACAGU | 4763 | CCUUUUCCAUUGAGACCCG |
| 4635 | ACCAACAACAGGAGACGUC | 4678 | AUGACUGGAUUCACCGGGG | 4721 | ACGUGGCUGUUGAACAGUA | 4764 | CUUUUCCAUUGAGACCCGC |
| 4636 | CCAACAACAGGAGACGUCG | 4679 | UGACUGGAUUCACCGGGGA | 4722 | CGUGGCUGUUGAACAGUAC | 4765 | UUUUCCAUUGAGACCCGCA |
| 4637 | CAACAACAGGAGACGUCGU | 4680 | GACUGGAUUCACCGGGGAC | 4723 | GUGGCUGUUGAACAGUACG | 4766 | UUUCCAUUGAGACCCGCAC |
| 4638 | AACAACAGGAGACGUCGUA | 4681 | ACUGGAUUCACCGGGGACU | 4724 | UGGCUGUUGAACAGUACGU | 4767 | UUCCAUUGAGACCCGCACU |
| 4639 | ACAACAGGAGACGUCGUAG | 4682 | CUGGAUUCACCGGGGACUU | 4725 | GGCUGUUGAACAGUACGUU | 4768 | UCCAUUGAGACCCGCACUG |
| 4640 | CAACAGGAGACGUCGUAGU | 4683 | UGGAUUCACCGGGGACUUC | 4726 | GCUGUUGAACAGUACGUUG | 4769 | CCAUUGAGACCCGCACUGC |
| 4641 | AACAGGAGACGUCGUAGUU | 4684 | GGAUUCACCGGGGACUUCG | 4727 | CUGUUGAACAGUACGUUGA | 4770 | CAUUGAGACCCGCACUGCU |
| 4642 | ACAGGAGACGUCGUAGUUU | 4685 | GAUUCACCGGGGACUUCGA | 4728 | UGUUGAACAGUACGUUGAC | 4771 | AUUGAGACCCGCACUGCUC |
| 4643 | CAGGAGACGUCGUAGUUUG | 4686 | AUUCACCGGGGACUUCGAU | 4729 | GUUGAACAGUACGUUGACU | 4772 | UUGAGACCCGCACUGCUCC |
| 4644 | AGGAGACGUCGUAGUUUGC | 4687 | UUCACCGGGGACUUCGAUU | 4730 | UUGAACAGUACGUUGACUU | 4773 | UGAGACCCGCACUGCUCCC |
| 4645 | GGAGACGUCGUAGUUUGCG | 4688 | UCACCGGGGACUUCGAUUC | 4731 | UGAACAGUACGUUGACUUC | 4774 | GAGACCCGCACUGCUCCCC |
| 4646 | GAGACGUCGUAGUUUGCGC | 4689 | CACCGGGGACUUCGAUUCU | 4732 | GAACAGUACGUUGACUUCA | 4775 | AGACCCGCACUGCUCCCCA |
| 4647 | AGACGUCGUAGUUUGCGCU | 4690 | ACCGGGGACUUCGAUUCUG | 4733 | AACAGUACGUUGACUUCAG | 4776 | GACCCGCACUGCUCCCCAA |
| 4648 | GACGUCGUAGUUUGCGCUA | 4691 | CCGGGGACUUCGAUUCUGU | 4734 | ACAGUACGUUGACUUCAGC | 4777 | ACCCGCACUGCUCCCCAAG |
| 4649 | ACGUCGUAGUUUGCGCUAC | 4692 | CGGGGACUUCGAUUCUGUC | 4735 | CAGUACGUUGACUUCAGCC | 4778 | CCCGCACUGCUCCCCAAGA |
| 4650 | CGUCGUAGUUUGCGCUACU | 4693 | GGGGACUUCGAUUCUGUCA | 4736 | AGUACGUUGACUUCAGCCU | 4779 | CCGCACUGCUCCCCAAGAU |
| 4651 | GUCGUAGUUUGCGCUACUG | 4694 | GGGACUUCGAUUCUGUCAU | 4737 | GUACGUUGACUUCAGCCUG | 4780 | CGCACUGCUCCCCAAGAUG |
| 4652 | UCGUAGUUUGCGCUACUGA | 4695 | GGACUUCGAUUCUGUCAUA | 4738 | UACGUUGACUUCAGCCUGG | 4781 | GCACUGCUCCCCAAGAUGC |
| 4653 | CGUAGUUUGCGCUACUGAC | 4696 | GACUUCGAUUCUGUCAUAG | 4739 | ACGUUGACUUCAGCCUGGA | 4782 | CACUGCUCCCCAAGAUGCG |
| 4654 | GUAGUUUGCGCUACUGACG | 4697 | ACUUCGAUUCUGUCAUAGA | 4740 | CGUUGACUUCAGCCUGGAC | 4783 | ACUGCUCCCCAAGAUGCGG |
| 4655 | UAGUUUGCGCUACUGACGC | 4698 | CUUCGAUUCUGUCAUAGAU | 4741 | GUUGACUUCAGCCUGGACC | 4784 | CUGCUCCCCAAGAUGCGGU |
| 4656 | AGUUUGCGCUACUGACGCC | 4699 | UUCGAUUCUGUCAUAGAUU | 4742 | UUGACUUCAGCCUGGACCC | 4785 | UGCUCCCCAAGAUGCGGUU |
| 4657 | GUUUGCGCUACUGACGCCC | 4700 | UCGAUUCUGUCAUAGAUUG | 4743 | UGACUUCAGCCUGGACCCC | 4786 | GCUCCCCAAGAUGCGGUUU |
| 4658 | UUUGCGCUACUGACGCCCU | 4701 | CGAUUCUGUCAUAGAUUGC | 4744 | GACUUCAGCCUGGACCCCA | 4787 | CUCCCCAAGAUGCGGUUUC |
| 4659 | UUGCGCUACUGACGCCCUC | 4702 | GAUUCUGUCAUAGAUUGCA | 4745 | ACUUCAGCCUGGACCCCAC | 4788 | UCCCCAAGAUGCGGUUUCC |
| 4660 | UGCGCUACUGACGCCCUCA | 4703 | AUUCUGUCAUAGAUUGCAA | 4746 | CUUCAGCCUGGACCCCACC | 4789 | CCCCAAGAUGCGGUUUCCC |
| 4661 | GCGCUACUGACGCCCUCAU | 4704 | UUCUGUCAUAGAUUGCAAC | 4747 | UUCAGCCUGGACCCCACCU | 4790 | CCCAAGAUGCGGUUUCCCG |
| 4662 | CGCUACUGACGCCCUCAUG | 4705 | UCUGUCAUAGAUUGCAACG | 4748 | UCAGCCUGGACCCCACCUU | 4791 | CCAAGAUGCGGUUUCCCGC |
| 4663 | GCUACUGACGCCCUCAUGA | 4706 | CUGUCAUAGAUUGCAACGU | 4749 | CAGCCUGGACCCCACCUUU | 4792 | CAAGAUGCGGUUUCCCGCA |
| 4664 | CUACUGACGCCCUCAUGAC | 4707 | UGUCAUAGAUUGCAACGUG | 4750 | AGCCUGGACCCCACCUUUU | 4793 | AAGAUGCGGUUUCCCGCAG |
| 4665 | UACUGACGCCCUCAUGACU | 4708 | GUCAUAGAUUGCAACGUGG | 4751 | GCCUGGACCCCACCUUUUC | 4794 | AGAUGCGGUUUCCCGCAGC |
| 4666 | ACUGACGCCCUCAUGACUG | 4709 | UCAUAGAUUGCAACGUGGC | 4752 | CCUGGACCCCACCUUUUCC | 4795 | GAUGCGGUUUCCCGCAGCC |
| 4667 | CUGACGCCCUCAUGACUGG | 4710 | CAUAGAUUGCAACGUGGCU | 4753 | CUGGACCCCACCUUUUCCA | 4796 | AUGCGGUUUCCCGCAGCCA |
| 4668 | UGACGCCCUCAUGACUGGA | 4711 | AUAGAUUGCAACGUGGCUG | 4754 | UGGACCCCACCUUUUCCAU | 4797 | UGCGGUUUCCCGCAGCCAA |
| 4669 | GACGCCCUCAUGACUGGAU | 4712 | UAGAUUGCAACGUGGCUGU | 4755 | GGACCCCACCUUUUCCAUU | 4798 | GCGGUUUCCCGCAGCCAAC |
| 4670 | ACGCCCUCAUGACUGGAUU | 4713 | AGAUUGCAACGUGGCUGUU | 4756 | GACCCCACCUUUUCCAUUG | 4799 | CGGUUUCCCGCAGCCAACG |
| 4671 | CGCCCUCAUGACUGGAUUC | 4714 | GAUUGCAACGUGGCUGUUG | 4757 | ACCCCACCUUUUCCAUUGA | 4800 | GGUUUCCCGCAGCCAACGU |

**FIG. 4 (page 205 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4801 | GUUUCCCGCAGCCAACGUC | 4844 | UCGGUACGUACCGAUAUGU | 4887 | AAUGUUUGACUCGGUCGUC | 4930 | UGCUCAUGGUACGAUCUGC |
| 4802 | UUUCCCGCAGCCAACGUCG | 4845 | CGGUACGUACCGAUAUGUC | 4888 | AUGUUUGACUCGGUCGUCC | 4931 | GCUCAUGGUACGAUCUGCA |
| 4803 | UUCCCGCAGCCAACGUCGC | 4846 | GGUACGUACCGAUAUGUCG | 4889 | UGUUUGACUCGGUCGUCCU | 4932 | CUCAUGGUACGAUCUGCAG |
| 4804 | UCCCGCAGCCAACGUCGCG | 4847 | GUACGUACCGAUAUGUCGC | 4890 | GUUUGACUCGGUCGUCCUC | 4933 | UCAUGGUACGAUCUGCAGC |
| 4805 | CCCGCAGCCAACGUCGCGG | 4848 | UACGUACCGAUAUGUCGCC | 4891 | UUUGACUCGGUCGUCCUCU | 4934 | CAUGGUACGAUCUGCAGCC |
| 4806 | CCGCAGCCAACGUCGCGGC | 4849 | ACGUACCGAUAUGUCGCCU | 4892 | UUGACUCGGUCGUCCUCUG | 4935 | AUGGUACGAUCUGCAGCCC |
| 4807 | CGCAGCCAACGUCGCGGCC | 4850 | CGUACCGAUAUGUCGCCUC | 4893 | UGACUCGGUCGUCCUCUGU | 4936 | UGGUACGAUCUGCAGCCCG |
| 4808 | GCAGCCAACGUCGCGGCCG | 4851 | GUACCGAUAUGUCGCCUCC | 4894 | GACUCGGUCGUCCUCUGUG | 4937 | GGUACGAUCUGCAGCCCGC |
| 4809 | CAGCCAACGUCGCGGCCGA | 4852 | UACCGAUAUGUCGCCUCCG | 4895 | ACUCGGUCGUCCUCUGUGA | 4938 | GUACGAUCUGCAGCCCGCU |
| 4810 | AGCCAACGUCGCGGCCGAA | 4853 | ACCGAUAUGUCGCCUCCGG | 4896 | CUCGGUCGUCCUCUGUGAG | 4939 | UACGAUCUGCAGCCCGCUG |
| 4811 | GCCAACGUCGCGGCCGAAC | 4854 | CCGAUAUGUCGCCUCCGGU | 4897 | UCGGUCGUCCUCUGUGAGU | 4940 | ACGAUCUGCAGCCCGCUGA |
| 4812 | CCAACGUCGCGGCCGAACG | 4855 | CGAUAUGUCGCCUCCGGUG | 4898 | CGGUCGUCCUCUGUGAGUG | 4941 | CGAUCUGCAGCCCGCUGAG |
| 4813 | CAACGUCGCGGCCGAACGG | 4856 | GAUAUGUCGCCUCCGGUGA | 4899 | GGUCGUCCUCUGUGAGUGC | 4942 | GAUCUGCAGCCCGCUGAGA |
| 4814 | AACGUCGCGGCCGAACGGG | 4857 | AUAUGUCGCCUCCGGUGAA | 4900 | GUCGUCCUCUGUGAGUGCU | 4943 | AUCUGCAGCCCGCUGAGAC |
| 4815 | ACGUCGCGGCCGAACGGGU | 4858 | UAUGUCGCCUCCGGUGAAA | 4901 | UCGUCCUCUGUGAGUGCUA | 4944 | UCUGCAGCCCGCUGAGACC |
| 4816 | CGUCGCGGCCGAACGGGUC | 4859 | AUGUCGCCUCCGGUGAAAG | 4902 | CGUCCUCUGUGAGUGCUAU | 4945 | CUGCAGCCCGCUGAGACCA |
| 4817 | GUCGCGGCCGAACGGGUCG | 4860 | UGUCGCCUCCGGUGAAAGA | 4903 | GUCCUCUGUGAGUGCUAUG | 4946 | UGCAGCCCGCUGAGACCAC |
| 4818 | UCGCGGCCGAACGGGUCGA | 4861 | GUCGCCUCCGGUGAAAGAC | 4904 | UCCUCUGUGAGUGCUAUGA | 4947 | GCAGCCCGCUGAGACCACA |
| 4819 | CGCGGCCGAACGGGUCGAG | 4862 | UCGCCUCCGGUGAAAGACC | 4905 | CCUCUGUGAGUGCUAUGAC | 4948 | CAGCCCGCUGAGACCACAG |
| 4820 | GCGGCCGAACGGGUCGAGG | 4863 | CGCCUCCGGUGAAAGACCG | 4906 | CUCUGUGAGUGCUAUGACG | 4949 | AGCCCGCUGAGACCACAGU |
| 4821 | CGGCCGAACGGGUCGAGGU | 4864 | GCCUCCGGUGAAAGACCGU | 4907 | UCUGUGAGUGCUAUGACGC | 4950 | GCCCGCUGAGACCACAGUU |
| 4822 | GGCCGAACGGGUCGAGGUA | 4865 | CCUCCGGUGAAAGACCGUC | 4908 | CUGUGAGUGCUAUGACGCG | 4951 | CCCGCUGAGACCACAGUUA |
| 4823 | GCCGAACGGGUCGAGGUAG | 4866 | CUCCGGUGAAAGACCGUCU | 4909 | UGUGAGUGCUAUGACGCGG | 4952 | CCGCUGAGACCACAGUUAG |
| 4824 | CCGAACGGGUCGAGGUAGA | 4867 | UCCGGUGAAAGACCGUCUG | 4910 | GUGAGUGCUAUGACGCGGG | 4953 | CGCUGAGACCACAGUUAGA |
| 4825 | CGAACGGGUCGAGGUAGAC | 4868 | CCGGUGAAAGACCGUCUGG | 4911 | UGAGUGCUAUGACGCGGGC | 4954 | GCUGAGACCACAGUUAGAC |
| 4826 | GAACGGGUCGAGGUAGACU | 4869 | CGGUGAAAGACCGUCUGGA | 4912 | GAGUGCUAUGACGCGGGCU | 4955 | CUGAGACCACAGUUAGACU |
| 4827 | AACGGGUCGAGGUAGACUC | 4870 | GGUGAAAGACCGUCUGGAA | 4913 | AGUGCUAUGACGCGGGCUG | 4956 | UGAGACCACAGUUAGACUG |
| 4828 | ACGGGUCGAGGUAGACUCG | 4871 | GUGAAAGACCGUCUGGAAU | 4914 | GUGCUAUGACGCGGGCUGC | 4957 | GAGACCACAGUUAGACUGA |
| 4829 | CGGGUCGAGGUAGACUCGG | 4872 | UGAAAGACCGUCUGGAAUG | 4915 | UGCUAUGACGCGGGCUGCU | 4958 | AGACCACAGUUAGACUGAG |
| 4830 | GGGUCGAGGUAGACUCGGU | 4873 | GAAAGACCGUCUGGAAUGU | 4916 | GCUAUGACGCGGGCUGCUC | 4959 | GACCACAGUUAGACUGAGA |
| 4831 | GGUCGAGGUAGACUCGGUA | 4874 | AAAGACCGUCUGGAAUGUU | 4917 | CUAUGACGCGGGCUGCUCA | 4960 | ACCACAGUUAGACUGAGAG |
| 4832 | GUCGAGGUAGACUCGGUAC | 4875 | AAGACCGUCUGGAAUGUUU | 4918 | UAUGACGCGGGCUGCUCAU | 4961 | CCACAGUUAGACUGAGAGC |
| 4833 | UCGAGGUAGACUCGGUACG | 4876 | AGACCGUCUGGAAUGUUUG | 4919 | AUGACGCGGGCUGCUCAUG | 4962 | CACAGUUAGACUGAGAGCU |
| 4834 | CGAGGUAGACUCGGUACGU | 4877 | GACCGUCUGGAAUGUUUGA | 4920 | UGACGCGGGCUGCUCAUGG | 4963 | ACAGUUAGACUGAGAGCUU |
| 4835 | GAGGUAGACUCGGUACGUA | 4878 | ACCGUCUGGAAUGUUUGAC | 4921 | GACGCGGGCUGCUCAUGGU | 4964 | CAGUUAGACUGAGAGCUUA |
| 4836 | AGGUAGACUCGGUACGUAC | 4879 | CCGUCUGGAAUGUUUGACU | 4922 | ACGCGGGCUGCUCAUGGUA | 4965 | AGUUAGACUGAGAGCUUAC |
| 4837 | GGUAGACUCGGUACGUACC | 4880 | CGUCUGGAAUGUUUGACUC | 4923 | CGCGGGCUGCUCAUGGUAC | 4966 | GUUAGACUGAGAGCUUACU |
| 4838 | GUAGACUCGGUACGUACCG | 4881 | GUCUGGAAUGUUUGACUCG | 4924 | GCGGGCUGCUCAUGGUACG | 4967 | UUAGACUGAGAGCUUACUU |
| 4839 | UAGACUCGGUACGUACCGA | 4882 | UCUGGAAUGUUUGACUCGG | 4925 | CGGGCUGCUCAUGGUACGA | 4968 | UAGACUGAGAGCUUACUUG |
| 4840 | AGACUCGGUACGUACCGAU | 4883 | CUGGAAUGUUUGACUCGGU | 4926 | GGGCUGCUCAUGGUACGAU | 4969 | AGACUGAGAGCUUACUUGU |
| 4841 | GACUCGGUACGUACCGAUA | 4884 | UGGAAUGUUUGACUCGGUC | 4927 | GGCUGCUCAUGGUACGAUC | 4970 | GACUGAGAGCUUACUUGUC |
| 4842 | ACUCGGUACGUACCGAUAU | 4885 | GGAAUGUUUGACUCGGUCG | 4928 | GCUGCUCAUGGUACGAUCU | 4971 | ACUGAGAGCUUACUUGUCC |
| 4843 | CUCGGUACGUACCGAUAUG | 4886 | GAAUGUUUGACUCGGUCGU | 4929 | CUGCUCAUGGUACGAUCUG | 4972 | CUGAGAGCUUACUUGUCCA |

**FIG. 4 (page 206 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4973 | UGAGAGCUUACUUGUCCAC | 5016 | CCAUUUAGACUUUUGGGAG | 5059 | AUAGAUGCCCACUUUCUGU | 5102 | ACUUCUCGUACCUAACUGC |
| 4974 | GAGAGCUUACUUGUCCACA | 5017 | CAUUUAGACUUUUGGGAGA | 5060 | UAGAUGCCCACUUUCUGUC | 5103 | CUUCUCGUACCUAACUGCC |
| 4975 | AGAGCUUACUUGUCCACAC | 5018 | AUUUAGACUUUUGGGAGAG | 5061 | AGAUGCCCACUUUCUGUCA | 5104 | UUCUCGUACCUAACUGCCU |
| 4976 | GAGCUUACUUGUCCACACC | 5019 | UUUAGACUUUUGGGAGAGC | 5062 | GAUGCCCACUUUCUGUCAC | 5105 | UCUCGUACCUAACUGCCUA |
| 4977 | AGCUUACUUGUCCACACCC | 5020 | UUAGACUUUUGGGAGAGCG | 5063 | AUGCCCACUUUCUGUCACA | 5106 | CUCGUACCUAACUGCCUAC |
| 4978 | GCUUACUUGUCCACACCCG | 5021 | UAGACUUUUGGGAGAGCGU | 5064 | UGCCCACUUUCUGUCACAG | 5107 | UCGUACCUAACUGCCUACC |
| 4979 | CUUACUUGUCCACACCCGG | 5022 | AGACUUUUGGGAGAGCGUC | 5065 | GCCCACUUUCUGUCACAGA | 5108 | CGUACCUAACUGCCUACCA |
| 4980 | UUACUUGUCCACACCCGGG | 5023 | GACUUUUGGGAGAGCGUCU | 5066 | CCCACUUUCUGUCACAGAC | 5109 | GUACCUAACUGCCUACCAA |
| 4981 | UACUUGUCCACACCCGGGU | 5024 | ACUUUUGGGAGAGCGUCUU | 5067 | CCACUUUCUGUCACAGACU | 5110 | UACCUAACUGCCUACCAAG |
| 4982 | ACUUGUCCACACCCGGGUU | 5025 | CUUUUGGGAGAGCGUCUUC | 5068 | CACUUUCUGUCACAGACUA | 5111 | ACCUAACUGCCUACCAAGC |
| 4983 | CUUGUCCACACCCGGGUUA | 5026 | UUUUGGGAGAGCGUCUUCA | 5069 | ACUUUCUGUCACAGACUAA | 5112 | CCUAACUGCCUACCAAGCC |
| 4984 | UUGUCCACACCCGGGUUAC | 5027 | UUUGGGAGAGCGUCUUCAC | 5070 | CUUUCUGUCACAGACUAAG | 5113 | CUAACUGCCUACCAAGCCA |
| 4985 | UGUCCACACCCGGGUUACC | 5028 | UUGGGAGAGCGUCUUCACU | 5071 | UUUCUGUCACAGACUAAGC | 5114 | UAACUGCCUACCAAGCCAC |
| 4986 | GUCCACACCCGGGUUACCC | 5029 | UGGGAGAGCGUCUUCACUG | 5072 | UUCUGUCACAGACUAAGCA | 5115 | AACUGCCUACCAAGCCACU |
| 4987 | UCCACACCCGGGUUACCCG | 5030 | GGGAGAGCGUCUUCACUGG | 5073 | UCUGUCACAGACUAAGCAG | 5116 | ACUGCCUACCAAGCCACUG |
| 4988 | CCACACCCGGGUUACCCGU | 5031 | GGAGAGCGUCUUCACUGGA | 5074 | CUGUCACAGACUAAGCAGC | 5117 | CUGCCUACCAAGCCACUGU |
| 4989 | CACACCCGGGUUACCCGUC | 5032 | GAGAGCGUCUUCACUGGAC | 5075 | UGUCACAGACUAAGCAGCA | 5118 | UGCCUACCAAGCCACUGUG |
| 4990 | ACACCCGGGUUACCCGUCU | 5033 | AGAGCGUCUUCACUGGACU | 5076 | GUCACAGACUAAGCAGCAG | 5119 | GCCUACCAAGCCACUGUGU |
| 4991 | CACCCGGGUUACCCGUCUG | 5034 | GAGCGUCUUCACUGGACUA | 5077 | UCACAGACUAAGCAGCAGG | 5120 | CCUACCAAGCCACUGUGUG |
| 4992 | ACCCGGGUUACCCGUCUGC | 5035 | AGCGUCUUCACUGGACUAA | 5078 | CACAGACUAAGCAGCAGGG | 5121 | CUACCAAGCCACUGUGUGC |
| 4993 | CCCGGGUUACCCGUCUGCC | 5036 | GCGUCUUCACUGGACUAAC | 5079 | ACAGACUAAGCAGCAGGGA | 5122 | UACCAAGCCACUGUGUGCG |
| 4994 | CCGGGUUACCCGUCUGCCA | 5037 | CGUCUUCACUGGACUAACU | 5080 | CAGACUAAGCAGCAGGGAC | 5123 | ACCAAGCCACUGUGUGCGC |
| 4995 | CGGGUUACCCGUCUGCCAA | 5038 | GUCUUCACUGGACUAACUC | 5081 | AGACUAAGCAGCAGGGACU | 5124 | CCAAGCCACUGUGUGCGCC |
| 4996 | GGGUUACCCGUCUGCCAAG | 5039 | UCUUCACUGGACUAACUCA | 5082 | GACUAAGCAGCAGGGACUU | 5125 | CAAGCCACUGUGUGCGCCC |
| 4997 | GGUUACCCGUCUGCCAAGA | 5040 | CUUCACUGGACUAACUCAC | 5083 | ACUAAGCAGCAGGGACUUA | 5126 | AAGCCACUGUGUGCGCCCG |
| 4998 | GUUACCCGUCUGCCAAGAC | 5041 | UUCACUGGACUAACUCACA | 5084 | CUAAGCAGCAGGGACUUAA | 5127 | AGCCACUGUGUGCGCCCGC |
| 4999 | UUACCCGUCUGCCAAGACC | 5042 | UCACUGGACUAACUCACAU | 5085 | UAAGCAGCAGGGACUUAAC | 5128 | GCCACUGUGUGCGCCCGCG |
| 5000 | UACCCGUCUGCCAAGACCA | 5043 | CACUGGACUAACUCACAUA | 5086 | AAGCAGCAGGGACUUAACU | 5129 | CCACUGUGUGCGCCCGCGC |
| 5001 | ACCCGUCUGCCAAGACCAU | 5044 | ACUGGACUAACUCACAUAG | 5087 | AGCAGCAGGGACUUAACUU | 5130 | CACUGUGUGCGCCCGCGCG |
| 5002 | CCCGUCUGCCAAGACCAUU | 5045 | CUGGACUAACUCACAUAGA | 5088 | GCAGCAGGGACUUAACUUC | 5131 | ACUGUGUGCGCCCGCGCGC |
| 5003 | CCGUCUGCCAAGACCAUUU | 5046 | UGGACUAACUCACAUAGAU | 5089 | CAGCAGGGACUUAACUUCU | 5132 | CUGUGUGCGCCCGCGCGCA |
| 5004 | CGUCUGCCAAGACCAUUUA | 5047 | GGACUAACUCACAUAGAUG | 5090 | AGCAGGGACUUAACUUCUC | 5133 | UGUGUGCGCCCGCGCGCAG |
| 5005 | GUCUGCCAAGACCAUUUAG | 5048 | GACUAACUCACAUAGAUGC | 5091 | GCAGGGACUUAACUUCUCG | 5134 | GUGUGCGCCCGCGCGCAGG |
| 5006 | UCUGCCAAGACCAUUUAGA | 5049 | ACUAACUCACAUAGAUGCC | 5092 | CAGGGACUUAACUUCUCGU | 5135 | UGUGCGCCCGCGCGCAGGC |
| 5007 | CUGCCAAGACCAUUUAGAC | 5050 | CUAACUCACAUAGAUGCCC | 5093 | AGGGACUUAACUUCUCGUA | 5136 | GUGCGCCCGCGCGCAGGCU |
| 5008 | UGCCAAGACCAUUUAGACU | 5051 | UAACUCACAUAGAUGCCCA | 5094 | GGGACUUAACUUCUCGUAC | 5137 | UGCGCCCGCGCGCAGGCUC |
| 5009 | GCCAAGACCAUUUAGACUU | 5052 | AACUCACAUAGAUGCCCAC | 5095 | GGACUUAACUUCUCGUACC | 5138 | GCGCCCGCGCGCAGGCUCC |
| 5010 | CCAAGACCAUUUAGACUUU | 5053 | ACUCACAUAGAUGCCCACU | 5096 | GACUUAACUUCUCGUACCU | 5139 | CGCCCGCGCGCAGGCUCCU |
| 5011 | CAAGACCAUUUAGACUUUU | 5054 | CUCACAUAGAUGCCCACUU | 5097 | ACUUAACUUCUCGUACCUA | 5140 | GCCCGCGCGCAGGCUCCUC |
| 5012 | AAGACCAUUUAGACUUUUG | 5055 | UCACAUAGAUGCCCACUUU | 5098 | CUUAACUUCUCGUACCUAA | 5141 | CCCGCGCGCAGGCUCCUCC |
| 5013 | AGACCAUUUAGACUUUUGG | 5056 | CACAUAGAUGCCCACUUUC | 5099 | UUAACUUCUCGUACCUAAC | 5142 | CCGCGCGCAGGCUCCUCCC |
| 5014 | GACCAUUUAGACUUUUGGG | 5057 | ACAUAGAUGCCCACUUUCU | 5100 | UAACUUCUCGUACCUAACU | 5143 | CGCGCGCAGGCUCCUCCCC |
| 5015 | ACCAUUUAGACUUUUGGGA | 5058 | CAUAGAUGCCCACUUUCUG | 5101 | AACUUCUCGUACCUAACUG | 5144 | GCGCGCAGGCUCCUCCCCC |

**FIG. 4 (page 207 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5145 | CGCGCAGGCUCCUCCCCCA | 5188 | CUCGUGCGGCUUAAGCCAA | 5231 | UAUAUCGGCUGGGGCCUGU | 5274 | CCCCAUCACAAAAUACCUC |
| 5146 | GCGCAGGCUCCUCCCCCAA | 5189 | UCGUGCGGCUUAAGCCAAC | 5232 | AUAUCGGCUGGGGCCUGUC | 5275 | CCCAUCACAAAAUACCUCA |
| 5147 | CGCAGGCUCCUCCCCCAAG | 5190 | CGUGCGGCUUAAGCCAACA | 5233 | UAUCGGCUGGGGCCUGUCC | 5276 | CCAUCACAAAAUACCUCAU |
| 5148 | GCAGGCUCCUCCCCCAAGU | 5191 | GUGCGGCUUAAGCCAACAC | 5234 | AUCGGCUGGGGCCUGUCCA | 5277 | CAUCACAAAAUACCUCAUG |
| 5149 | CAGGCUCCUCCCCCAAGUU | 5192 | UGCGGCUUAAGCCAACACU | 5235 | UCGGCUGGGGCCUGUCCAA | 5278 | AUCACAAAAUACCUCAUGG |
| 5150 | AGGCUCCUCCCCCAAGUUG | 5193 | GCGGCUUAAGCCAACACUA | 5236 | CGGCUGGGGCCUGUCCAAA | 5279 | UCACAAAAUACCUCAUGGC |
| 5151 | GGCUCCUCCCCCAAGUUGG | 5194 | CGGCUUAAGCCAACACUAC | 5237 | GGCUGGGGCCUGUCCAAAA | 5280 | CACAAAAUACCUCAUGGCA |
| 5152 | GCUCCUCCCCCAAGUUGGG | 5195 | GGCUUAAGCCAACACUACA | 5238 | GCUGGGGCCUGUCCAAAAU | 5281 | ACAAAAUACCUCAUGGCAU |
| 5153 | CUCCUCCCCCAAGUUGGGA | 5196 | GCUUAAGCCAACACUACAU | 5239 | CUGGGGCCUGUCCAAAAUG | 5282 | CAAAAUACCUCAUGGCAUG |
| 5154 | UCCUCCCCCAAGUUGGGAC | 5197 | CUUAAGCCAACACUACAUG | 5240 | UGGGGCCUGUCCAAAAUGA | 5283 | AAAAUACCUCAUGGCAUGC |
| 5155 | CCUCCCCCAAGUUGGGACG | 5198 | UUAAGCCAACACUACAUGG | 5241 | GGGGCCUGUCCAAAAUGAA | 5284 | AAAUACCUCAUGGCAUGCA |
| 5156 | CUCCCCCAAGUUGGGACGA | 5199 | UAAGCCAACACUACAUGGA | 5242 | GGGCCUGUCCAAAAUGAAA | 5285 | AAUACCUCAUGGCAUGCAU |
| 5157 | UCCCCCAAGUUGGGACGAG | 5200 | AAGCCAACACUACAUGGAC | 5243 | GGCCUGUCCAAAAUGAAAC | 5286 | AUACCUCAUGGCAUGCAUG |
| 5158 | CCCCCAAGUUGGGACGAGA | 5201 | AGCCAACACUACAUGGACC | 5244 | GCCUGUCCAAAAUGAAACC | 5287 | UACCUCAUGGCAUGCAUGU |
| 5159 | CCCCAAGUUGGGACGAGAU | 5202 | GCCAACACUACAUGGACCU | 5245 | CCUGUCCAAAAUGAAACCU | 5288 | ACCUCAUGGCAUGCAUGUC |
| 5160 | CCCAAGUUGGGACGAGAUG | 5203 | CCAACACUACAUGGACCUA | 5246 | CUGUCCAAAAUGAAACCUG | 5289 | CCUCAUGGCAUGCAUGUCA |
| 5161 | CCAAGUUGGGACGAGAUGU | 5204 | CAACACUACAUGGACCUAC | 5247 | UGUCCAAAAUGAAACCUGC | 5290 | CUCAUGGCAUGCAUGUCAG |
| 5162 | CAAGUUGGGACGAGAUGUG | 5205 | AACACUACAUGGACCUACG | 5248 | GUCCAAAAUGAAACCUGCU | 5291 | UCAUGGCAUGCAUGUCAGC |
| 5163 | AAGUUGGGACGAGAUGUGG | 5206 | ACACUACAUGGACCUACGC | 5249 | UCCAAAAUGAAACCUGCUU | 5292 | CAUGGCAUGCAUGUCAGCC |
| 5164 | AGUUGGGACGAGAUGUGGA | 5207 | CACUACAUGGACCUACGCC | 5250 | CCAAAAUGAAACCUGCUUG | 5293 | AUGGCAUGCAUGUCAGCCG |
| 5165 | GUUGGGACGAGAUGUGGAA | 5208 | ACUACAUGGACCUACGCCC | 5251 | CAAAAUGAAACCUGCUUGA | 5294 | UGGCAUGCAUGUCAGCCGA |
| 5166 | UUGGGACGAGAUGUGGAAG | 5209 | CUACAUGGACCUACGCCCC | 5252 | AAAAUGAAACCUGCUUGAC | 5295 | GGCAUGCAUGUCAGCCGAU |
| 5167 | UGGGACGAGAUGUGGAAGU | 5210 | UACAUGGACCUACGCCCCU | 5253 | AAAUGAAACCUGCUUGACA | 5296 | GCAUGCAUGUCAGCCGAUC |
| 5168 | GGGACGAGAUGUGGAAGUG | 5211 | ACAUGGACCUACGCCCCUU | 5254 | AAUGAAACCUGCUUGACAC | 5297 | CAUGCAUGUCAGCCGAUCU |
| 5169 | GGACGAGAUGUGGAAGUGU | 5212 | CAUGGACCUACGCCCCUUC | 5255 | AUGAAACCUGCUUGACACA | 5298 | AUGCAUGUCAGCCGAUCUG |
| 5170 | GACGAGAUGUGGAAGUGUC | 5213 | AUGGACCUACGCCCCUUCU | 5256 | UGAAACCUGCUUGACACAC | 5299 | UGCAUGUCAGCCGAUCUGG |
| 5171 | ACGAGAUGUGGAAGUGUCU | 5214 | UGGACCUACGCCCCUUCUA | 5257 | GAAACCUGCUUGACACACC | 5300 | GCAUGUCAGCCGAUCUGGA |
| 5172 | CGAGAUGUGGAAGUGUCUC | 5215 | GGACCUACGCCCCUUCUAU | 5258 | AAACCUGCUUGACACACCC | 5301 | CAUGUCAGCCGAUCUGGAA |
| 5173 | GAGAUGUGGAAGUGUCUCG | 5216 | GACCUACGCCCCUUCUAUA | 5259 | AACCUGCUUGACACACCCC | 5302 | AUGUCAGCCGAUCUGGAAG |
| 5174 | AGAUGUGGAAGUGUCUCGU | 5217 | ACCUACGCCCCUUCUAUAU | 5260 | ACCUGCUUGACACACCCCA | 5303 | UGUCAGCCGAUCUGGAAGU |
| 5175 | GAUGUGGAAGUGUCUCGUG | 5218 | CCUACGCCCCUUCUAUAUC | 5261 | CCUGCUUGACACACCCCAU | 5304 | GUCAGCCGAUCUGGAAGUA |
| 5176 | AUGUGGAAGUGUCUCGUGC | 5219 | CUACGCCCCUUCUAUAUCG | 5262 | CUGCUUGACACACCCCAUC | 5305 | UCAGCCGAUCUGGAAGUAA |
| 5177 | UGUGGAAGUGUCUCGUGCG | 5220 | UACGCCCCUUCUAUAUCGG | 5263 | UGCUUGACACACCCCAUCA | 5306 | CAGCCGAUCUGGAAGUAAC |
| 5178 | GUGGAAGUGUCUCGUGCGG | 5221 | ACGCCCCUUCUAUAUCGGC | 5264 | GCUUGACACACCCCAUCAC | 5307 | AGCCGAUCUGGAAGUAACC |
| 5179 | UGGAAGUGUCUCGUGCGGC | 5222 | CGCCCCUUCUAUAUCGGCU | 5265 | CUUGACACACCCCAUCACA | 5308 | GCCGAUCUGGAAGUAACCA |
| 5180 | GGAAGUGUCUCGUGCGGCU | 5223 | GCCCCUUCUAUAUCGGCUG | 5266 | UUGACACACCCCAUCACAA | 5309 | CCGAUCUGGAAGUAACCAC |
| 5181 | GAAGUGUCUCGUGCGGCUU | 5224 | CCCCUUCUAUAUCGGCUGG | 5267 | UGACACACCCCAUCACAAA | 5310 | CGAUCUGGAAGUAACCACC |
| 5182 | AAGUGUCUCGUGCGGCUUA | 5225 | CCCUUCUAUAUCGGCUGGG | 5268 | GACACACCCCAUCACAAAA | 5311 | GAUCUGGAAGUAACCACCA |
| 5183 | AGUGUCUCGUGCGGCUUAA | 5226 | CCUUCUAUAUCGGCUGGGG | 5269 | ACACACCCCAUCACAAAAU | 5312 | AUCUGGAAGUAACCACCAG |
| 5184 | GUGUCUCGUGCGGCUUAAG | 5227 | CUUCUAUAUCGGCUGGGGC | 5270 | CACACCCCAUCACAAAAUA | 5313 | UCUGGAAGUAACCACCAGC |
| 5185 | UGUCUCGUGCGGCUUAAGC | 5228 | UUCUAUAUCGGCUGGGGCC | 5271 | ACACCCCAUCACAAAAUAC | 5314 | CUGGAAGUAACCACCAGCA |
| 5186 | GUCUCGUGCGGCUUAAGCC | 5229 | UCUAUAUCGGCUGGGGCCU | 5272 | CACCCCAUCACAAAAUACC | 5315 | UGGAAGUAACCACCAGCAC |
| 5187 | UCUCGUGCGGCUUAAGCCA | 5230 | CUAUAUCGGCUGGGGCCUG | 5273 | ACCCCAUCACAAAAUACCU | 5316 | GGAAGUAACCACCAGCACC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5317 | GAAGUAACCACCAGCACCU | 5360 | CAGCCCUAGCGGCCUACUG | 5403 | UGUGGGUCAUAUUGAGCUG | 5446 | GACAAAGAGGUGUUGUAUC |
| 5318 | AAGUAACCACCAGCACCUG | 5361 | AGCCCUAGCGGCCUACUGC | 5404 | GUGGGUCAUAUUGAGCUGG | 5447 | ACAAAGAGGUGUUGUAUCA |
| 5319 | AGUAACCACCAGCACCUGG | 5362 | GCCCUAGCGGCCUACUGCU | 5405 | UGGGUCAUAUUGAGCUGGA | 5448 | CAAAGAGGUGUUGUAUCAA |
| 5320 | GUAACCACCAGCACCUGGG | 5363 | CCCUAGCGGCCUACUGCUU | 5406 | GGGUCAUAUUGAGCUGGAG | 5449 | AAAGAGGUGUUGUAUCAAC |
| 5321 | UAACCACCAGCACCUGGGU | 5364 | CCUAGCGGCCUACUGCUUG | 5407 | GGUCAUAUUGAGCUGGAGG | 5450 | AAGAGGUGUUGUAUCAACA |
| 5322 | AACCACCAGCACCUGGGUG | 5365 | CUAGCGGCCUACUGCUUGU | 5408 | GUCAUAUUGAGCUGGAGGG | 5451 | AGAGGUGUUGUAUCAACAA |
| 5323 | ACCACCAGCACCUGGGUGU | 5366 | UAGCGGCCUACUGCUUGUC | 5409 | UCAUAUUGAGCUGGAGGGC | 5452 | GAGGUGUUGUAUCAACAAU |
| 5324 | CCACCAGCACCUGGGUGUU | 5367 | AGCGGCCUACUGCUUGUCA | 5410 | CAUAUUGAGCUGGAGGGCA | 5453 | AGGUGUUGUAUCAACAAUA |
| 5325 | CACCAGCACCUGGGUGUUG | 5368 | GCGGCCUACUGCUUGUCAG | 5411 | AUAUUGAGCUGGAGGGCAA | 5454 | GGUGUUGUAUCAACAAUAC |
| 5326 | ACCAGCACCUGGGUGUUGC | 5369 | CGGCCUACUGCUUGUCAGU | 5412 | UAUUGAGCUGGAGGGCAAG | 5455 | GUGUUGUAUCAACAAUACG |
| 5327 | CCAGCACCUGGGUGUUGCU | 5370 | GGCCUACUGCUUGUCAGUC | 5413 | AUUGAGCUGGAGGGCAAGC | 5456 | UGUUGUAUCAACAAUACGA |
| 5328 | CAGCACCUGGGUGUUGCUC | 5371 | GCCUACUGCUUGUCAGUCG | 5414 | UUGAGCUGGAGGGCAAGCC | 5457 | GUUGUAUCAACAAUACGAU |
| 5329 | AGCACCUGGGUGUUGCUCG | 5372 | CCUACUGCUUGUCAGUCGG | 5415 | UGAGCUGGAGGGCAAGCCA | 5458 | UUGUAUCAACAAUACGAUG |
| 5330 | GCACCUGGGUGUUGCUCGG | 5373 | CUACUGCUUGUCAGUCGGC | 5416 | GAGCUGGAGGGCAAGCCAG | 5459 | UGUAUCAACAAUACGAUGA |
| 5331 | CACCUGGGUGUUGCUCGGA | 5374 | UACUGCUUGUCAGUCGGCU | 5417 | AGCUGGAGGGCAAGCCAGC | 5460 | GUAUCAACAAUACGAUGAG |
| 5332 | ACCUGGGUGUUGCUCGGAG | 5375 | ACUGCUUGUCAGUCGGCUG | 5418 | GCUGGAGGGCAAGCCAGCA | 5461 | UAUCAACAAUACGAUGAGA |
| 5333 | CCUGGGUGUUGCUCGGAGG | 5376 | CUGCUUGUCAGUCGGCUGC | 5419 | CUGGAGGGCAAGCCAGCAC | 5462 | AUCAACAAUACGAUGAGAU |
| 5334 | CUGGGUGUUGCUCGGAGGG | 5377 | UGCUUGUCAGUCGGCUGCG | 5420 | UGGAGGGCAAGCCAGCACU | 5463 | UCAACAAUACGAUGAGAUG |
| 5335 | UGGGUGUUGCUCGGAGGGG | 5378 | GCUUGUCAGUCGGCUGCGU | 5421 | GGAGGGCAAGCCAGCACUC | 5464 | CAACAAUACGAUGAGAUGG |
| 5336 | GGGUGUUGCUCGGAGGGGU | 5379 | CUUGUCAGUCGGCUGCGUU | 5422 | GAGGGCAAGCCAGCACUCG | 5465 | AACAAUACGAUGAGAUGGA |
| 5337 | GGUGUUGCUCGGAGGGGUC | 5380 | UUGUCAGUCGGCUGCGUUG | 5423 | AGGGCAAGCCAGCACUCGU | 5466 | ACAAUACGAUGAGAUGGAG |
| 5338 | GUGUUGCUCGGAGGGGUCC | 5381 | UGUCAGUCGGCUGCGUUGU | 5424 | GGGCAAGCCAGCACUCGUU | 5467 | CAAUACGAUGAGAUGGAGG |
| 5339 | UGUUGCUCGGAGGGGUCCU | 5382 | GUCAGUCGGCUGCGUUGUG | 5425 | GGCAAGCCAGCACUCGUUC | 5468 | AAUACGAUGAGAUGGAGGA |
| 5340 | GUUGCUCGGAGGGGUCCUC | 5383 | UCAGUCGGCUGCGUUGUGA | 5426 | GCAAGCCAGCACUCGUUCC | 5469 | AUACGAUGAGAUGGAGGAG |
| 5341 | UUGCUCGGAGGGGUCCUCG | 5384 | CAGUCGGCUGCGUUGUGAU | 5427 | CAAGCCAGCACUCGUUCCA | 5470 | UACGAUGAGAUGGAGGAGU |
| 5342 | UGCUCGGAGGGGUCCUCGC | 5385 | AGUCGGCUGCGUUGUGAUU | 5428 | AAGCCAGCACUCGUUCCAG | 5471 | ACGAUGAGAUGGAGGAGUG |
| 5343 | GCUCGGAGGGGUCCUCGCA | 5386 | GUCGGCUGCGUUGUGAUUG | 5429 | AGCCAGCACUCGUUCCAGA | 5472 | CGAUGAGAUGGAGGAGUGC |
| 5344 | CUCGGAGGGGUCCUCGCAG | 5387 | UCGGCUGCGUUGUGAUUGU | 5430 | GCCAGCACUCGUUCCAGAC | 5473 | GAUGAGAUGGAGGAGUGCU |
| 5345 | UCGGAGGGGUCCUCGCAGC | 5388 | CGGCUGCGUUGUGAUUGUG | 5431 | CCAGCACUCGUUCCAGACA | 5474 | AUGAGAUGGAGGAGUGCUC |
| 5346 | CGGAGGGGUCCUCGCAGCC | 5389 | GGCUGCGUUGUGAUUGUGG | 5432 | CAGCACUCGUUCCAGACAA | 5475 | UGAGAUGGAGGAGUGCUCA |
| 5347 | GGAGGGGUCCUCGCAGCCC | 5390 | GCUGCGUUGUGAUUGUGGG | 5433 | AGCACUCGUUCCAGACAAA | 5476 | GAGAUGGAGGAGUGCUCAC |
| 5348 | GAGGGGUCCUCGCAGCCCU | 5391 | CUGCGUUGUGAUUGUGGGU | 5434 | GCACUCGUUCCAGACAAAG | 5477 | AGAUGGAGGAGUGCUCACA |
| 5349 | AGGGGUCCUCGCAGCCCUA | 5392 | UGCGUUGUGAUUGUGGGUC | 5435 | CACUCGUUCCAGACAAAGA | 5478 | GAUGGAGGAGUGCUCACAA |
| 5350 | GGGGUCCUCGCAGCCCUAG | 5393 | GCGUUGUGAUUGUGGGUCA | 5436 | ACUCGUUCCAGACAAAGAG | 5479 | AUGGAGGAGUGCUCACAAG |
| 5351 | GGGUCCUCGCAGCCCUAGC | 5394 | CGUUGUGAUUGUGGGUCAU | 5437 | CUCGUUCCAGACAAAGAGG | 5480 | UGGAGGAGUGCUCACAAGC |
| 5352 | GGUCCUCGCAGCCCUAGCG | 5395 | GUUGUGAUUGUGGGUCAUA | 5438 | UCGUUCCAGACAAAGAGGU | 5481 | GGAGGAGUGCUCACAAGCU |
| 5353 | GUCCUCGCAGCCCUAGCGG | 5396 | UUGUGAUUGUGGGUCAUAU | 5439 | CGUUCCAGACAAAGAGGUG | 5482 | GAGGAGUGCUCACAAGCUG |
| 5354 | UCCUCGCAGCCCUAGCGGC | 5397 | UGUGAUUGUGGGUCAUAUU | 5440 | GUUCCAGACAAAGAGGUGU | 5483 | AGGAGUGCUCACAAGCUGC |
| 5355 | CCUCGCAGCCCUAGCGGCC | 5398 | GUGAUUGUGGGUCAUAUUG | 5441 | UUCCAGACAAAGAGGUGUU | 5484 | GGAGUGCUCACAAGCUGCC |
| 5356 | CUCGCAGCCCUAGCGGCCU | 5399 | UGAUUGUGGGUCAUAUUGA | 5442 | UCCAGACAAAGAGGUGUUG | 5485 | GAGUGCUCACAAGCUGCCC |
| 5357 | UCGCAGCCCUAGCGGCCUA | 5400 | GAUUGUGGGUCAUAUUGAG | 5443 | CCAGACAAAGAGGUGUUGU | 5486 | AGUGCUCACAAGCUGCCCC |
| 5358 | CGCAGCCCUAGCGGCCUAC | 5401 | AUUGUGGGUCAUAUUGAGC | 5444 | CAGACAAAGAGGUGUUGUA | 5487 | GUGCUCACAAGCUGCCCCA |
| 5359 | GCAGCCCUAGCGGCCUACU | 5402 | UUGUGGGUCAUAUUGAGCU | 5445 | AGACAAAGAGGUGUUGUAU | 5488 | UGCUCACAAGCUGCCCCAU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5489 | GCUCACAAGCUGCCCCAUA | 5532 | CCACCAGUUCAAGGAAAAA | 5575 | ACCCAGCAACAAGCUGUCA | 5618 | GGCAAAAGCUUGAGGCCUU |
| 5490 | CUCACAAGCUGCCCCAUAU | 5533 | CACCAGUUCAAGGAAAAAA | 5576 | CCCAGCAACAAGCUGUCAU | 5619 | GCAAAAGCUUGAGGCCUUC |
| 5491 | UCACAAGCUGCCCCAUAUA | 5534 | ACCAGUUCAAGGAAAAAAU | 5577 | CCAGCAACAAGCUGUCAUU | 5620 | CAAAAGCUUGAGGCCUUCU |
| 5492 | CACAAGCUGCCCCAUAUAU | 5535 | CCAGUUCAAGGAAAAAAUC | 5578 | CAGCAACAAGCUGUCAUUG | 5621 | AAAAGCUUGAGGCCUUCUG |
| 5493 | ACAAGCUGCCCCAUAUAUC | 5536 | CAGUUCAAGGAAAAAAUCC | 5579 | AGCAACAAGCUGUCAUUGA | 5622 | AAAGCUUGAGGCCUUCUGG |
| 5494 | CAAGCUGCCCCAUAUAUCG | 5537 | AGUUCAAGGAAAAAAUCCU | 5580 | GCAACAAGCUGUCAUUGAG | 5623 | AAGCUUGAGGCCUUCUGGC |
| 5495 | AAGCUGCCCCAUAUAUCGA | 5538 | GUUCAAGGAAAAAAUCCUU | 5581 | CAACAAGCUGUCAUUGAGC | 5624 | AGCUUGAGGCCUUCUGGCA |
| 5496 | AGCUGCCCCAUAUAUCGAA | 5539 | UUCAAGGAAAAAAUCCUUG | 5582 | AACAAGCUGUCAUUGAGCC | 5625 | GCUUGAGGCCUUCUGGCAC |
| 5497 | GCUGCCCCAUAUAUCGAAC | 5540 | UCAAGGAAAAAAUCCUUGG | 5583 | ACAAGCUGUCAUUGAGCCC | 5626 | CUUGAGGCCUUCUGGCACA |
| 5498 | CUGCCCCAUAUAUCGAACA | 5541 | CAAGGAAAAAAUCCUUGGA | 5584 | CAAGCUGUCAUUGAGCCCA | 5627 | UUGAGGCCUUCUGGCACAA |
| 5499 | UGCCCCAUAUAUCGAACAA | 5542 | AAGGAAAAAAUCCUUGGAU | 5585 | AAGCUGUCAUUGAGCCCAU | 5628 | UGAGGCCUUCUGGCACAAG |
| 5500 | GCCCCAUAUAUCGAACAAG | 5543 | AGGAAAAAAUCCUUGGAUU | 5586 | AGCUGUCAUUGAGCCCAUA | 5629 | GAGGCCUUCUGGCACAAGC |
| 5501 | CCCCAUAUAUCGAACAAGC | 5544 | GGAAAAAAUCCUUGGAUUG | 5587 | GCUGUCAUUGAGCCCAUAG | 5630 | AGGCCUUCUGGCACAAGCA |
| 5502 | CCCAUAUAUCGAACAAGCU | 5545 | GAAAAAAUCCUUGGAUUGC | 5588 | CUGUCAUUGAGCCCAUAGU | 5631 | GGCCUUCUGGCACAAGCAU |
| 5503 | CCAUAUAUCGAACAAGCUC | 5546 | AAAAAAUCCUUGGAUUGCU | 5589 | UGUCAUUGAGCCCAUAGUA | 5632 | GCCUUCUGGCACAAGCAUA |
| 5504 | CAUAUAUCGAACAAGCUCA | 5547 | AAAAAUCCUUGGAUUGCUG | 5590 | GUCAUUGAGCCCAUAGUAA | 5633 | CCUUCUGGCACAAGCAUAU |
| 5505 | AUAUAUCGAACAAGCUCAG | 5548 | AAAAUCCUUGGAUUGCUGC | 5591 | UCAUUGAGCCCAUAGUAAC | 5634 | CUUCUGGCACAAGCAUAUG |
| 5506 | UAUAUCGAACAAGCUCAGG | 5549 | AAAUCCUUGGAUUGCUGCA | 5592 | CAUUGAGCCCAUAGUAACU | 5635 | UUCUGGCACAAGCAUAUGU |
| 5507 | AUAUCGAACAAGCUCAGGU | 5550 | AAUCCUUGGAUUGCUGCAG | 5593 | AUUGAGCCCAUAGUAACUA | 5636 | UCUGGCACAAGCAUAUGUG |
| 5508 | UAUCGAACAAGCUCAGGUA | 5551 | AUCCUUGGAUUGCUGCAGC | 5594 | UUGAGCCCAUAGUAACUAC | 5637 | CUGGCACAAGCAUAUGUGG |
| 5509 | AUCGAACAAGCUCAGGUAA | 5552 | UCCUUGGAUUGCUGCAGCG | 5595 | UGAGCCCAUAGUAACUACC | 5638 | UGGCACAAGCAUAUGUGGA |
| 5510 | UCGAACAAGCUCAGGUAAU | 5553 | CCUUGGAUUGCUGCAGCGA | 5596 | GAGCCCAUAGUAACUACCA | 5639 | GGCACAAGCAUAUGUGGAA |
| 5511 | CGAACAAGCUCAGGUAAUA | 5554 | CUUGGAUUGCUGCAGCGAG | 5597 | AGCCCAUAGUAACUACCAA | 5640 | GCACAAGCAUAUGUGGAAU |
| 5512 | GAACAAGCUCAGGUAAUAG | 5555 | UUGGAUUGCUGCAGCGAGC | 5598 | GCCCAUAGUAACUACCAAC | 5641 | CACAAGCAUAUGUGGAAUU |
| 5513 | AACAAGCUCAGGUAAUAGC | 5556 | UGGAUUGCUGCAGCGAGCC | 5599 | CCCAUAGUAACUACCAACU | 5642 | ACAAGCAUAUGUGGAAUUU |
| 5514 | ACAAGCUCAGGUAAUAGCC | 5557 | GGAUUGCUGCAGCGAGCCA | 5600 | CCAUAGUAACUACCAACUG | 5643 | CAAGCAUAUGUGGAAUUUU |
| 5515 | CAAGCUCAGGUAAUAGCCC | 5558 | GAUUGCUGCAGCGAGCCAC | 5601 | CAUAGUAACUACCAACUGG | 5644 | AAGCAUAUGUGGAAUUUUG |
| 5516 | AAGCUCAGGUAAUAGCCCA | 5559 | AUUGCUGCAGCGAGCCACC | 5602 | AUAGUAACUACCAACUGGC | 5645 | AGCAUAUGUGGAAUUUUGU |
| 5517 | AGCUCAGGUAAUAGCCCAC | 5560 | UUGCUGCAGCGAGCCACCC | 5603 | UAGUAACUACCAACUGGCA | 5646 | GCAUAUGUGGAAUUUUGUG |
| 5518 | GCUCAGGUAAUAGCCCACC | 5561 | UGCUGCAGCGAGCCACCCA | 5604 | AGUAACUACCAACUGGCAA | 5647 | CAUAUGUGGAAUUUUGUGA |
| 5519 | CUCAGGUAAUAGCCCACCA | 5562 | GCUGCAGCGAGCCACCCAG | 5605 | GUAACUACCAACUGGCAAA | 5648 | AUAUGUGGAAUUUUGUGAG |
| 5520 | UCAGGUAAUAGCCCACCAG | 5563 | CUGCAGCGAGCCACCCAGC | 5606 | UAACUACCAACUGGCAAAA | 5649 | UAUGUGGAAUUUUGUGAGU |
| 5521 | CAGGUAAUAGCCCACCAGU | 5564 | UGCAGCGAGCCACCCAGCA | 5607 | AACUACCAACUGGCAAAAG | 5650 | AUGUGGAAUUUUGUGAGUG |
| 5522 | AGGUAAUAGCCCACCAGUU | 5565 | GCAGCGAGCCACCCAGCAA | 5608 | ACUACCAACUGGCAAAAGC | 5651 | UGUGGAAUUUUGUGAGUGG |
| 5523 | GGUAAUAGCCCACCAGUUC | 5566 | CAGCGAGCCACCCAGCAAC | 5609 | CUACCAACUGGCAAAAGCU | 5652 | GUGGAAUUUUGUGAGUGGG |
| 5524 | GUAAUAGCCCACCAGUUCA | 5567 | AGCGAGCCACCCAGCAACA | 5610 | UACCAACUGGCAAAAGCUU | 5653 | UGGAAUUUUGUGAGUGGGA |
| 5525 | UAAUAGCCCACCAGUUCAA | 5568 | GCGAGCCACCCAGCAACAA | 5611 | ACCAACUGGCAAAAGCUUG | 5654 | GGAAUUUUGUGAGUGGGAU |
| 5526 | AAUAGCCCACCAGUUCAAG | 5569 | CGAGCCACCCAGCAACAAG | 5612 | CCAACUGGCAAAAGCUUGA | 5655 | GAAUUUUGUGAGUGGGAUC |
| 5527 | AUAGCCCACCAGUUCAAGG | 5570 | GAGCCACCCAGCAACAAGC | 5613 | CAACUGGCAAAAGCUUGAG | 5656 | AAUUUUGUGAGUGGGAUCC |
| 5528 | UAGCCCACCAGUUCAAGGA | 5571 | AGCCACCCAGCAACAAGCU | 5614 | AACUGGCAAAAGCUUGAGG | 5657 | AUUUUGUGAGUGGGAUCCA |
| 5529 | AGCCCACCAGUUCAAGGAA | 5572 | GCCACCCAGCAACAAGCUG | 5615 | ACUGGCAAAAGCUUGAGGC | 5658 | UUUUGUGAGUGGGAUCCAA |
| 5530 | GCCCACCAGUUCAAGGAAA | 5573 | CCACCCAGCAACAAGCUGU | 5616 | CUGGCAAAAGCUUGAGGCC | 5659 | UUUGUGAGUGGGAUCCAAU |
| 5531 | CCCACCAGUUCAAGGAAAA | 5574 | CACCCAGCAACAAGCUGUC | 5617 | UGGCAAAAGCUUGAGGCCU | 5660 | UUGUGAGUGGGAUCCAAUA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5661 | UGUGAGUGGGAUCCAAUAC | 5704 | GGCAACCCUGCUGUGGCGU | 5747 | UCACCAGUCCCCUGACGAC | 5790 | ACUCGGGGGGUGGGUUGCC |
| 5662 | GUGAGUGGGAUCCAAUACC | 5705 | GCAACCCUGCUGUGGCGUC | 5748 | CACCAGUCCCCUGACGACC | 5791 | CUCGGGGGGUGGGUUGCCA |
| 5663 | UGAGUGGGAUCCAAUACCU | 5706 | CAACCCUGCUGUGGCGUCU | 5749 | ACCAGUCCCCUGACGACCA | 5792 | UCGGGGGGUGGGUUGCCAC |
| 5664 | GAGUGGGAUCCAAUACCUA | 5707 | AACCCUGCUGUGGCGUCUC | 5750 | CCAGUCCCCUGACGACCAA | 5793 | CGGGGGGUGGGUUGCCACC |
| 5665 | AGUGGGAUCCAAUACCUAG | 5708 | ACCCUGCUGUGGCGUCUCU | 5751 | CAGUCCCCUGACGACCAAC | 5794 | GGGGGGUGGGUUGCCACCC |
| 5666 | GUGGGAUCCAAUACCUAGC | 5709 | CCCUGCUGUGGCGUCUCUU | 5752 | AGUCCCCUGACGACCAACC | 5795 | GGGGGUGGGUUGCCACCCA |
| 5667 | UGGGAUCCAAUACCUAGCA | 5710 | CCUGCUGUGGCGUCUCUUA | 5753 | GUCCCCUGACGACCAACCA | 5796 | GGGGUGGGUUGCCACCCAU |
| 5668 | GGGAUCCAAUACCUAGCAG | 5711 | CUGCUGUGGCGUCUCUUAU | 5754 | UCCCCUGACGACCAACCAA | 5797 | GGGUGGGUUGCCACCCAUU |
| 5669 | GGAUCCAAUACCUAGCAGG | 5712 | UGCUGUGGCGUCUCUUAUG | 5755 | CCCCUGACGACCAACCAAA | 5798 | GGUGGGUUGCCACCCAUUU |
| 5670 | GAUCCAAUACCUAGCAGGC | 5713 | GCUGUGGCGUCUCUUAUGG | 5756 | CCCUGACGACCAACCAAAC | 5799 | GUGGGUUGCCACCCAUUUG |
| 5671 | AUCCAAUACCUAGCAGGCC | 5714 | CUGUGGCGUCUCUUAUGGC | 5757 | CCUGACGACCAACCAAACU | 5800 | UGGGUUGCCACCCAUUUGG |
| 5672 | UCCAAUACCUAGCAGGCCU | 5715 | UGUGGCGUCUCUUAUGGCG | 5758 | CUGACGACCAACCAAACUA | 5801 | GGGUUGCCACCCAUUUGGC |
| 5673 | CCAAUACCUAGCAGGCCUC | 5716 | GUGGCGUCUCUUAUGGCGU | 5759 | UGACGACCAACCAAACUAU | 5802 | GGUUGCCACCCAUUUGGCA |
| 5674 | CAAUACCUAGCAGGCCUCU | 5717 | UGGCGUCUCUUAUGGCGUU | 5760 | GACGACCAACCAAACUAUG | 5803 | GUUGCCACCCAUUUGGCAG |
| 5675 | AAUACCUAGCAGGCCUCUC | 5718 | GGCGUCUCUUAUGGCGUUC | 5761 | ACGACCAACCAAACUAUGU | 5804 | UUGCCACCCAUUUGGCAGG |
| 5676 | AUACCUAGCAGGCCUCUCC | 5719 | GCGUCUCUUAUGGCGUUCA | 5762 | CGACCAACCAAACUAUGUU | 5805 | UGCCACCCAUUUGGCAGGG |
| 5677 | UACCUAGCAGGCCUCUCCA | 5720 | CGUCUCUUAUGGCGUUCAC | 5763 | GACCAACCAAACUAUGUUU | 5806 | GCCACCCAUUUGGCAGGGC |
| 5678 | ACCUAGCAGGCCUCUCCAC | 5721 | GUCUCUUAUGGCGUUCACU | 5764 | ACCAACCAAACUAUGUUUU | 5807 | CCACCCAUUUGGCAGGGCC |
| 5679 | CCUAGCAGGCCUCUCCACU | 5722 | UCUCUUAUGGCGUUCACUG | 5765 | CCAACCAAACUAUGUUUUU | 5808 | CACCCAUUUGGCAGGGCCC |
| 5680 | CUAGCAGGCCUCUCCACUU | 5723 | CUCUUAUGGCGUUCACUGC | 5766 | CAACCAAACUAUGUUUUUU | 5809 | ACCCAUUUGGCAGGGCCCC |
| 5681 | UAGCAGGCCUCUCCACUUU | 5724 | UCUUAUGGCGUUCACUGCU | 5767 | AACCAAACUAUGUUUUUUA | 5810 | CCCAUUUGGCAGGGCCCCA |
| 5682 | AGCAGGCCUCUCCACUUUG | 5725 | CUUAUGGCGUUCACUGCUU | 5768 | ACCAAACUAUGUUUUUUAA | 5811 | CCAUUUGGCAGGGCCCCAG |
| 5683 | GCAGGCCUCUCCACUUUGC | 5726 | UUAUGGCGUUCACUGCUUC | 5769 | CCAAACUAUGUUUUUUAAC | 5812 | CAUUUGGCAGGGCCCCAGA |
| 5684 | CAGGCCUCUCCACUUUGCC | 5727 | UAUGGCGUUCACUGCUUCA | 5770 | CAAACUAUGUUUUUUAACA | 5813 | AUUUGGCAGGGCCCCAGAG |
| 5685 | AGGCCUCUCCACUUUGCCU | 5728 | AUGGCGUUCACUGCUUCAG | 5771 | AAACUAUGUUUUUUAACAU | 5814 | UUUGGCAGGGCCCCAGAGC |
| 5686 | GGCCUCUCCACUUUGCCUG | 5729 | UGGCGUUCACUGCUUCAGU | 5772 | AACUAUGUUUUUUAACAUA | 5815 | UUGGCAGGGCCCCAGAGCU |
| 5687 | GCCUCUCCACUUUGCCUGG | 5730 | GGCGUUCACUGCUUCAGUC | 5773 | ACUAUGUUUUUUAACAUAC | 5816 | UGGCAGGGCCCCAGAGCUC |
| 5688 | CCUCUCCACUUUGCCUGGC | 5731 | GCGUUCACUGCUUCAGUCA | 5774 | CUAUGUUUUUUAACAUACU | 5817 | GGCAGGGCCCCAGAGCUCC |
| 5689 | CUCUCCACUUUGCCUGGCA | 5732 | CGUUCACUGCUUCAGUCAC | 5775 | UAUGUUUUUUAACAUACUC | 5818 | GCAGGGCCCCAGAGCUCCU |
| 5690 | UCUCCACUUUGCCUGGCAA | 5733 | GUUCACUGCUUCAGUCACC | 5776 | AUGUUUUUUAACAUACUCG | 5819 | CAGGGCCCCAGAGCUCCUC |
| 5691 | CUCCACUUUGCCUGGCAAC | 5734 | UUCACUGCUUCAGUCACCA | 5777 | UGUUUUUUAACAUACUCGG | 5820 | AGGGCCCCAGAGCUCCUCC |
| 5692 | UCCACUUUGCCUGGCAACC | 5735 | UCACUGCUUCAGUCACCAG | 5778 | GUUUUUUAACAUACUCGGG | 5821 | GGGCCCCAGAGCUCCUCCG |
| 5693 | CCACUUUGCCUGGCAACCC | 5736 | CACUGCUUCAGUCACCAGU | 5779 | UUUUUUAACAUACUCGGGG | 5822 | GGCCCCAGAGCUCCUCCGC |
| 5694 | CACUUUGCCUGGCAACCCU | 5737 | ACUGCUUCAGUCACCAGUC | 5780 | UUUUUAACAUACUCGGGGG | 5823 | GCCCCAGAGCUCCUCCGCG |
| 5695 | ACUUUGCCUGGCAACCCUG | 5738 | CUGCUUCAGUCACCAGUCC | 5781 | UUUUAACAUACUCGGGGGG | 5824 | CCCCAGAGCUCCUCCGCGU |
| 5696 | CUUUGCCUGGCAACCCUGC | 5739 | UGCUUCAGUCACCAGUCCC | 5782 | UUUAACAUACUCGGGGGGU | 5825 | CCCAGAGCUCCUCCGCGUU |
| 5697 | UUUGCCUGGCAACCCUGCU | 5740 | GCUUCAGUCACCAGUCCCC | 5783 | UUAACAUACUCGGGGGGUG | 5826 | CCAGAGCUCCUCCGCGUUC |
| 5698 | UUGCCUGGCAACCCUGCUG | 5741 | CUUCAGUCACCAGUCCCCU | 5784 | UAACAUACUCGGGGGGUGG | 5827 | CAGAGCUCCUCCGCGUUCG |
| 5699 | UGCCUGGCAACCCUGCUGU | 5742 | UUCAGUCACCAGUCCCCUG | 5785 | AACAUACUCGGGGGGUGGG | 5828 | AGAGCUCCUCCGCGUUCGU |
| 5700 | GCCUGGCAACCCUGCUGUG | 5743 | UCAGUCACCAGUCCCCUGA | 5786 | ACAUACUCGGGGGGUGGGU | 5829 | GAGCUCCUCCGCGUUCGUG |
| 5701 | CCUGGCAACCCUGCUGUGG | 5744 | CAGUCACCAGUCCCCUGAC | 5787 | CAUACUCGGGGGGUGGGUU | 5830 | AGCUCCUCCGCGUUCGUGG |
| 5702 | CUGGCAACCCUGCUGUGGC | 5745 | AGUCACCAGUCCCCUGACG | 5788 | AUACUCGGGGGGUGGGUUG | 5831 | GCUCCUCCGCGUUCGUGGU |
| 5703 | UGGCAACCCUGCUGUGGCG | 5746 | GUCACCAGUCCCCUGACGA | 5789 | UACUCGGGGGGUGGGUUGC | 5832 | CUCCUCCGCGUUCGUGGUA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5833 | UCCUCCGCGUUCGUGGUAA | 5876 | GGGGUAUAGGCCUGGGCAG | 5919 | AUACGGAGCUGGUGUCUCA | 5962 | AUGGGAGGAGAAUGCCCCA |
| 5834 | CCUCCGCGUUCGUGGUAAG | 5877 | GGGUAUAGGCCUGGGCAGG | 5920 | UACGGAGCUGGUGUCUCAG | 5963 | UGGGAGGAGAAUGCCCCAC |
| 5835 | CUCCGCGUUCGUGGUAAGC | 5878 | GGUAUAGGCCUGGGCAGGG | 5921 | ACGGAGCUGGUGUCUCAGG | 5964 | GGGAGGAGAAUGCCCCACU |
| 5836 | UCCGCGUUCGUGGUAAGCG | 5879 | GUAUAGGCCUGGGCAGGGU | 5922 | CGGAGCUGGUGUCUCAGGC | 5965 | GGAGGAGAAUGCCCCACUG |
| 5837 | CCGCGUUCGUGGUAAGCGG | 5880 | UAUAGGCCUGGGCAGGGUC | 5923 | GGAGCUGGUGUCUCAGGCG | 5966 | GAGGAGAAUGCCCCACUGC |
| 5838 | CGCGUUCGUGGUAAGCGGC | 5881 | AUAGGCCUGGGCAGGGUCU | 5924 | GAGCUGGUGUCUCAGGCGC | 5967 | AGGAGAAUGCCCCACUGCU |
| 5839 | GCGUUCGUGGUAAGCGGCU | 5882 | UAGGCCUGGGCAGGGUCUU | 5925 | AGCUGGUGUCUCAGGCGCC | 5968 | GGAGAAUGCCCCACUGCUG |
| 5840 | CGUUCGUGGUAAGCGGCUU | 5883 | AGGCCUGGGCAGGGUCUUG | 5926 | GCUGGUGUCUCAGGCGCCU | 5969 | GAGAAUGCCCCACUGCUGA |
| 5841 | GUUCGUGGUAAGCGGCUUG | 5884 | GGCCUGGGCAGGGUCUUGC | 5927 | CUGGUGUCUCAGGCGCCUU | 5970 | AGAAUGCCCCACUGCUGAG |
| 5842 | UUCGUGGUAAGCGGCUUGG | 5885 | GCCUGGGCAGGGUCUUGCU | 5928 | UGGUGUCUCAGGCGCCUUG | 5971 | GAAUGCCCCACUGCUGAGG |
| 5843 | UCGUGGUAAGCGGCUUGGC | 5886 | CCUGGGCAGGGUCUUGCUU | 5929 | GGUGUCUCAGGCGCCUUGG | 5972 | AAUGCCCCACUGCUGAGGA |
| 5844 | CGUGGUAAGCGGCUUGGCA | 5887 | CUGGGCAGGGUCUUGCUUG | 5930 | GUGUCUCAGGCGCCUUGGU | 5973 | AUGCCCCACUGCUGAGGAC |
| 5845 | GUGGUAAGCGGCUUGGCAG | 5888 | UGGGCAGGGUCUUGCUUGA | 5931 | UGUCUCAGGCGCCUUGGUA | 5974 | UGCCCCACUGCUGAGGACA |
| 5846 | UGGUAAGCGGCUUGGCAGG | 5889 | GGGCAGGGUCUUGCUUGAC | 5932 | GUCUCAGGCGCCUUGGUAG | 5975 | GCCCCACUGCUGAGGACAU |
| 5847 | GGUAAGCGGCUUGGCAGGC | 5890 | GGCAGGGUCUUGCUUGACA | 5933 | UCUCAGGCGCCUUGGUAGC | 5976 | CCCCACUGCUGAGGACAUG |
| 5848 | GUAAGCGGCUUGGCAGGCG | 5891 | GCAGGGUCUUGCUUGACAU | 5934 | CUCAGGCGCCUUGGUAGCU | 5977 | CCCACUGCUGAGGACAUGG |
| 5849 | UAAGCGGCUUGGCAGGCGC | 5892 | CAGGGUCUUGCUUGACAUC | 5935 | UCAGGCGCCUUGGUAGCUU | 5978 | CCACUGCUGAGGACAUGGU |
| 5850 | AAGCGGCUUGGCAGGCGCU | 5893 | AGGGUCUUGCUUGACAUCC | 5936 | CAGGCGCCUUGGUAGCUUU | 5979 | CACUGCUGAGGACAUGGUC |
| 5851 | AGCGGCUUGGCAGGCGCUG | 5894 | GGGUCUUGCUUGACAUCCU | 5937 | AGGCGCCUUGGUAGCUUUU | 5980 | ACUGCUGAGGACAUGGUCA |
| 5852 | GCGGCUUGGCAGGCGCUGC | 5895 | GGUCUUGCUUGACAUCCUG | 5938 | GGCGCCUUGGUAGCUUUUA | 5981 | CUGCUGAGGACAUGGUCAA |
| 5853 | CGGCUUGGCAGGCGCUGCC | 5896 | GUCUUGCUUGACAUCCUGG | 5939 | GCGCCUUGGUAGCUUUUAA | 5982 | UGCUGAGGACAUGGUCAAC |
| 5854 | GGCUUGGCAGGCGCUGCCA | 5897 | UCUUGCUUGACAUCCUGGC | 5940 | CGCCUUGGUAGCUUUUAAG | 5983 | GCUGAGGACAUGGUCAACC |
| 5855 | GCUUGGCAGGCGCUGCCAU | 5898 | CUUGCUUGACAUCCUGGCA | 5941 | GCCUUGGUAGCUUUUAAGA | 5984 | CUGAGGACAUGGUCAACCU |
| 5856 | CUUGGCAGGCGCUGCCAUA | 5899 | UUGCUUGACAUCCUGGCAG | 5942 | CCUUGGUAGCUUUUAAGAU | 5985 | UGAGGACAUGGUCAACCUG |
| 5857 | UUGGCAGGCGCUGCCAUAG | 5900 | UGCUUGACAUCCUGGCAGG | 5943 | CUUGGUAGCUUUUAAGAUC | 5986 | GAGGACAUGGUCAACCUGU |
| 5858 | UGGCAGGCGCUGCCAUAGG | 5901 | GCUUGACAUCCUGGCAGGA | 5944 | UUGGUAGCUUUUAAGAUCA | 5987 | AGGACAUGGUCAACCUGUU |
| 5859 | GGCAGGCGCUGCCAUAGGG | 5902 | CUUGACAUCCUGGCAGGAU | 5945 | UGGUAGCUUUUAAGAUCAU | 5988 | GGACAUGGUCAACCUGUUG |
| 5860 | GCAGGCGCUGCCAUAGGGG | 5903 | UUGACAUCCUGGCAGGAUA | 5946 | GGUAGCUUUUAAGAUCAUG | 5989 | GACAUGGUCAACCUGUUGC |
| 5861 | CAGGCGCUGCCAUAGGGGG | 5904 | UGACAUCCUGGCAGGAUAC | 5947 | GUAGCUUUUAAGAUCAUGG | 5990 | ACAUGGUCAACCUGUUGCC |
| 5862 | AGGCGCUGCCAUAGGGGGU | 5905 | GACAUCCUGGCAGGAUACG | 5948 | UAGCUUUUAAGAUCAUGGG | 5991 | CAUGGUCAACCUGUUGCCC |
| 5863 | GGCGCUGCCAUAGGGGGUA | 5906 | ACAUCCUGGCAGGAUACGG | 5949 | AGCUUUUAAGAUCAUGGGA | 5992 | AUGGUCAACCUGUUGCCCG |
| 5864 | GCGCUGCCAUAGGGGGUAU | 5907 | CAUCCUGGCAGGAUACGGA | 5950 | GCUUUUAAGAUCAUGGGAG | 5993 | UGGUCAACCUGUUGCCCGC |
| 5865 | CGCUGCCAUAGGGGGUAUA | 5908 | AUCCUGGCAGGAUACGGAG | 5951 | CUUUUAAGAUCAUGGGAGG | 5994 | GGUCAACCUGUUGCCCGCC |
| 5866 | GCUGCCAUAGGGGGUAUAG | 5909 | UCCUGGCAGGAUACGGAGC | 5952 | UUUUAAGAUCAUGGGAGGA | 5995 | GUCAACCUGUUGCCCGCCA |
| 5867 | CUGCCAUAGGGGGUAUAGG | 5910 | CCUGGCAGGAUACGGAGCU | 5953 | UUUAAGAUCAUGGGAGGAG | 5996 | UCAACCUGUUGCCCGCCAU |
| 5868 | UGCCAUAGGGGGUAUAGGC | 5911 | CUGGCAGGAUACGGAGCUG | 5954 | UUAAGAUCAUGGGAGGAGA | 5997 | CAACCUGUUGCCCGCCAUA |
| 5869 | GCCAUAGGGGGUAUAGGCC | 5912 | UGGCAGGAUACGGAGCUGG | 5955 | UAAGAUCAUGGGAGGAGAA | 5998 | AACCUGUUGCCCGCCAUAC |
| 5870 | CCAUAGGGGGUAUAGGCCU | 5913 | GGCAGGAUACGGAGCUGGU | 5956 | AAGAUCAUGGGAGGAGAAU | 5999 | ACCUGUUGCCCGCCAUACU |
| 5871 | CAUAGGGGGUAUAGGCCUG | 5914 | GCAGGAUACGGAGCUGGUG | 5957 | AGAUCAUGGGAGGAGAAUG | 6000 | CCUGUUGCCCGCCAUACUA |
| 5872 | AUAGGGGGUAUAGGCCUGG | 5915 | CAGGAUACGGAGCUGGUGU | 5958 | GAUCAUGGGAGGAGAAUGC | 6001 | CUGUUGCCCGCCAUACUAU |
| 5873 | UAGGGGGUAUAGGCCUGGG | 5916 | AGGAUACGGAGCUGGUGUC | 5959 | AUCAUGGGAGGAGAAUGCC | 6002 | UGUUGCCCGCCAUACUAUC |
| 5874 | AGGGGGUAUAGGCCUGGGC | 5917 | GGAUACGGAGCUGGUGUCU | 5960 | UCAUGGGAGGAGAAUGCCC | 6003 | GUUGCCCGCCAUACUAUCU |
| 5875 | GGGGGUAUAGGCCUGGGCA | 5918 | GAUACGGAGCUGGUGUCUC | 5961 | CAUGGGAGGAGAAUGCCCC | 6004 | UUGCCCGCCAUACUAUCUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6005 | UGCCCGCCAUACUAUCUCC | 6048 | AUGCGCAGCCAUACUGCGC | 6091 | GCGGUACAGUGGAUGAACA | 6134 | GCAACCACGUCUCACCGAC |
| 6006 | GCCCGCCAUACUAUCUCCG | 6049 | UGCGCAGCCAUACUGCGCC | 6092 | CGGUACAGUGGAUGAACAG | 6135 | CAACCACGUCUCACCGACG |
| 6007 | CCCGCCAUACUAUCUCCGG | 6050 | GCGCAGCCAUACUGCGCCG | 6093 | GGUACAGUGGAUGAACAGG | 6136 | AACCACGUCUCACCGACGC |
| 6008 | CCGCCAUACUAUCUCCGGG | 6051 | CGCAGCCAUACUGCGCCGA | 6094 | GUACAGUGGAUGAACAGGC | 6137 | ACCACGUCUCACCGACGCA |
| 6009 | CGCCAUACUAUCUCCGGGU | 6052 | GCAGCCAUACUGCGCCGAC | 6095 | UACAGUGGAUGAACAGGCU | 6138 | CCACGUCUCACCGACGCAC |
| 6010 | GCCAUACUAUCUCCGGGUG | 6053 | CAGCCAUACUGCGCCGACA | 6096 | ACAGUGGAUGAACAGGCUC | 6139 | CACGUCUCACCGACGCACU |
| 6011 | CCAUACUAUCUCCGGGUGC | 6054 | AGCCAUACUGCGCCGACAC | 6097 | CAGUGGAUGAACAGGCUCA | 6140 | ACGUCUCACCGACGCACUA |
| 6012 | CAUACUAUCUCCGGGUGCU | 6055 | GCCAUACUGCGCCGACACG | 6098 | AGUGGAUGAACAGGCUCAU | 6141 | CGUCUCACCGACGCACUAU |
| 6013 | AUACUAUCUCCGGGUGCUC | 6056 | CCAUACUGCGCCGACACGU | 6099 | GUGGAUGAACAGGCUCAUC | 6142 | GUCUCACCGACGCACUAUG |
| 6014 | UACUAUCUCCGGGUGCUCU | 6057 | CAUACUGCGCCGACACGUA | 6100 | UGGAUGAACAGGCUCAUCG | 6143 | UCUCACCGACGCACUAUGU |
| 6015 | ACUAUCUCCGGGUGCUCUC | 6058 | AUACUGCGCCGACACGUAG | 6101 | GGAUGAACAGGCUCAUCGC | 6144 | CUCACCGACGCACUAUGUU |
| 6016 | CUAUCUCCGGGUGCUCUCG | 6059 | UACUGCGCCGACACGUAGG | 6102 | GAUGAACAGGCUCAUCGCG | 6145 | UCACCGACGCACUAUGUUC |
| 6017 | UAUCUCCGGGUGCUCUCGU | 6060 | ACUGCGCCGACACGUAGGA | 6103 | AUGAACAGGCUCAUCGCGU | 6146 | CACCGACGCACUAUGUUCC |
| 6018 | AUCUCCGGGUGCUCUCGUC | 6061 | CUGCGCCGACACGUAGGAC | 6104 | UGAACAGGCUCAUCGCGUU | 6147 | ACCGACGCACUAUGUUCCC |
| 6019 | UCUCCGGGUGCUCUCGUCG | 6062 | UGCGCCGACACGUAGGACC | 6105 | GAACAGGCUCAUCGCGUUC | 6148 | CCGACGCACUAUGUUCCCG |
| 6020 | CUCCGGGUGCUCUCGUCGU | 6063 | GCGCCGACACGUAGGACCU | 6106 | AACAGGCUCAUCGCGUUCG | 6149 | CGACGCACUAUGUUCCCGA |
| 6021 | UCCGGGUGCUCUCGUCGUC | 6064 | CGCCGACACGUAGGACCUG | 6107 | ACAGGCUCAUCGCGUUCGC | 6150 | GACGCACUAUGUUCCCGAG |
| 6022 | CCGGGUGCUCUCGUCGUCG | 6065 | GCCGACACGUAGGACCUGG | 6108 | CAGGCUCAUCGCGUUCGCA | 6151 | ACGCACUAUGUUCCCGAGA |
| 6023 | CGGGUGCUCUCGUCGUCGG | 6066 | CCGACACGUAGGACCUGGG | 6109 | AGGCUCAUCGCGUUCGCAU | 6152 | CGCACUAUGUUCCCGAGAG |
| 6024 | GGGUGCUCUCGUCGUCGGU | 6067 | CGACACGUAGGACCUGGGG | 6110 | GGCUCAUCGCGUUCGCAUC | 6153 | GCACUAUGUUCCCGAGAGC |
| 6025 | GGUGCUCUCGUCGUCGGUG | 6068 | GACACGUAGGACCUGGGGA | 6111 | GCUCAUCGCGUUCGCAUCC | 6154 | CACUAUGUUCCCGAGAGCG |
| 6026 | GUGCUCUCGUCGUCGGUGU | 6069 | ACACGUAGGACCUGGGGAG | 6112 | CUCAUCGCGUUCGCAUCCC | 6155 | ACUAUGUUCCCGAGAGCGA |
| 6027 | UGCUCUCGUCGUCGGUGUG | 6070 | CACGUAGGACCUGGGGAGG | 6113 | UCAUCGCGUUCGCAUCCCG | 6156 | CUAUGUUCCCGAGAGCGAU |
| 6028 | GCUCUCGUCGUCGGUGUGA | 6071 | ACGUAGGACCUGGGGAGGG | 6114 | CAUCGCGUUCGCAUCCCGG | 6157 | UAUGUUCCCGAGAGCGAUG |
| 6029 | CUCUCGUCGUCGGUGUGAU | 6072 | CGUAGGACCUGGGGAGGGA | 6115 | AUCGCGUUCGCAUCCCGGG | 6158 | AUGUUCCCGAGAGCGAUGC |
| 6030 | UCUCGUCGUCGGUGUGAUA | 6073 | GUAGGACCUGGGGAGGGAG | 6116 | UCGCGUUCGCAUCCCGGGG | 6159 | UGUUCCCGAGAGCGAUGCU |
| 6031 | CUCGUCGUCGGUGUGAUAU | 6074 | UAGGACCUGGGGAGGGAGC | 6117 | CGCGUUCGCAUCCCGGGGC | 6160 | GUUCCCGAGAGCGAUGCUG |
| 6032 | UCGUCGUCGGUGUGAUAUG | 6075 | AGGACCUGGGGAGGGAGCG | 6118 | GCGUUCGCAUCCCGGGGCA | 6161 | UUCCCGAGAGCGAUGCUGC |
| 6033 | CGUCGUCGGUGUGAUAUGC | 6076 | GGACCUGGGGAGGGAGCGG | 6119 | CGUUCGCAUCCCGGGGCAA | 6162 | UCCCGAGAGCGAUGCUGCG |
| 6034 | GUCGUCGGUGUGAUAUGCG | 6077 | GACCUGGGGAGGGAGCGGU | 6120 | GUUCGCAUCCCGGGGCAAC | 6163 | CCCGAGAGCGAUGCUGCGG |
| 6035 | UCGUCGGUGUGAUAUGCGC | 6078 | ACCUGGGGAGGGAGCGGUA | 6121 | UUCGCAUCCCGGGGCAACC | 6164 | CCGAGAGCGAUGCUGCGGC |
| 6036 | CGUCGGUGUGAUAUGCGCA | 6079 | CCUGGGGAGGGAGCGGUAC | 6122 | UCGCAUCCCGGGGCAACCA | 6165 | CGAGAGCGAUGCUGCGGCA |
| 6037 | GUCGGUGUGAUAUGCGCAG | 6080 | CUGGGGAGGGAGCGGUACA | 6123 | CGCAUCCCGGGGCAACCAC | 6166 | GAGAGCGAUGCUGCGGCAA |
| 6038 | UCGGUGUGAUAUGCGCAGC | 6081 | UGGGGAGGGAGCGGUACAG | 6124 | GCAUCCCGGGGCAACCACG | 6167 | AGAGCGAUGCUGCGGCAAG |
| 6039 | CGGUGUGAUAUGCGCAGCC | 6082 | GGGGAGGGAGCGGUACAGU | 6125 | CAUCCCGGGGCAACCACGU | 6168 | GAGCGAUGCUGCGGCAAGG |
| 6040 | GGUGUGAUAUGCGCAGCCA | 6083 | GGGAGGGAGCGGUACAGUG | 6126 | AUCCCGGGGCAACCACGUC | 6169 | AGCGAUGCUGCGGCAAGGG |
| 6041 | GUGUGAUAUGCGCAGCCAU | 6084 | GGAGGGAGCGGUACAGUGG | 6127 | UCCCGGGGCAACCACGUCU | 6170 | GCGAUGCUGCGGCAAGGGU |
| 6042 | UGUGAUAUGCGCAGCCAUA | 6085 | GAGGGAGCGGUACAGUGGA | 6128 | CCCGGGGCAACCACGUCUC | 6171 | CGAUGCUGCGGCAAGGGUC |
| 6043 | GUGAUAUGCGCAGCCAUAC | 6086 | AGGGAGCGGUACAGUGGAU | 6129 | CCGGGGCAACCACGUCUCA | 6172 | GAUGCUGCGGCAAGGGUCA |
| 6044 | UGAUAUGCGCAGCCAUACU | 6087 | GGGAGCGGUACAGUGGAUG | 6130 | CGGGGCAACCACGUCUCAC | 6173 | AUGCUGCGGCAAGGGUCAC |
| 6045 | GAUAUGCGCAGCCAUACUG | 6088 | GGAGCGGUACAGUGGAUGA | 6131 | GGGGCAACCACGUCUCACC | 6174 | UGCUGCGGCAAGGGUCACC |
| 6046 | AUAUGCGCAGCCAUACUGC | 6089 | GAGCGGUACAGUGGAUGAA | 6132 | GGGCAACCACGUCUCACCG | 6175 | GCUGCGGCAAGGGUCACCG |
| 6047 | UAUGCGCAGCCAUACUGCG | 6090 | AGCGGUACAGUGGAUGAAC | 6133 | GGCAACCACGUCUCACCGA | 6176 | CUGCGGCAAGGGUCACCGC |

**FIG. 4 (page 213 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6177 | UGCGGCAAGGGUCACCGCA | 6220 | AGUCUGCUCCGGCGGUUAC | 6263 | CAAGCCCUUGUAGCGACGA | 6306 | GGUUUGCUCGGUGUUGGCC |
| 6178 | GCGGCAAGGGUCACCGCAU | 6221 | GUCUGCUCCGGCGGUUACA | 6264 | AAGCCCUUGUAGCGACGAU | 6307 | GUUUGCUCGGUGUUGGCCG |
| 6179 | CGGCAAGGGUCACCGCAUU | 6222 | UCUGCUCCGGCGGUUACAC | 6265 | AGCCCUUGUAGCGACGAUU | 6308 | UUUGCUCGGUGUUGGCCGA |
| 6180 | GGCAAGGGUCACCGCAUUG | 6223 | CUGCUCCGGCGGUUACACC | 6266 | GCCCUUGUAGCGACGAUUG | 6309 | UUGCUCGGUGUUGGCCGAC |
| 6181 | GCAAGGGUCACCGCAUUGC | 6224 | UGCUCCGGCGGUUACACCA | 6267 | CCCUUGUAGCGACGAUUGG | 6310 | UGCUCGGUGUUGGCCGACU |
| 6182 | CAAGGGUCACCGCAUUGCU | 6225 | GCUCCGGCGGUUACACCAG | 6268 | CCUUGUAGCGACGAUUGGC | 6311 | GCUCGGUGUUGGCCGACUU |
| 6183 | AAGGGUCACCGCAUUGCUG | 6226 | CUCCGGCGGUUACACCAGU | 6269 | CUUGUAGCGACGAUUGGCU | 6312 | CUCGGUGUUGGCCGACUUC |
| 6184 | AGGGUCACCGCAUUGCUGA | 6227 | UCCGGCGGUUACACCAGUG | 6270 | UUGUAGCGACGAUUGGCUA | 6313 | UCGGUGUUGGCCGACUUCA |
| 6185 | GGGUCACCGCAUUGCUGAG | 6228 | CCGGCGGUUACACCAGUGG | 6271 | UGUAGCGACGAUUGGCUAC | 6314 | CGGUGUUGGCCGACUUCAA |
| 6186 | GGUCACCGCAUUGCUGAGU | 6229 | CGGCGGUUACACCAGUGGA | 6272 | GUAGCGACGAUUGGCUACG | 6315 | GGUGUUGGCCGACUUCAAG |
| 6187 | GUCACCGCAUUGCUGAGUU | 6230 | GGCGGUUACACCAGUGGAU | 6273 | UAGCGACGAUUGGCUACGU | 6316 | GUGUUGGCCGACUUCAAGG |
| 6188 | UCACCGCAUUGCUGAGUUC | 6231 | GCGGUUACACCAGUGGAUC | 6274 | AGCGACGAUUGGCUACGUA | 6317 | UGUUGGCCGACUUCAAGGC |
| 6189 | CACCGCAUUGCUGAGUUCU | 6232 | CGGUUACACCAGUGGAUCA | 6275 | GCGACGAUUGGCUACGUAC | 6318 | GUUGGCCGACUUCAAGGCA |
| 6190 | ACCGCAUUGCUGAGUUCUC | 6233 | GGUUACACCAGUGGAUCAA | 6276 | CGACGAUUGGCUACGUACC | 6319 | UUGGCCGACUUCAAGGCAU |
| 6191 | CCGCAUUGCUGAGUUCUCU | 6234 | GUUACACCAGUGGAUCAAU | 6277 | GACGAUUGGCUACGUACCA | 6320 | UGGCCGACUUCAAGGCAUG |
| 6192 | CGCAUUGCUGAGUUCUCUA | 6235 | UUACACCAGUGGAUCAAUG | 6278 | ACGAUUGGCUACGUACCAU | 6321 | GGCCGACUUCAAGGCAUGG |
| 6193 | GCAUUGCUGAGUUCUCUAA | 6236 | UACACCAGUGGAUCAAUGA | 6279 | CGAUUGGCUACGUACCAUC | 6322 | GCCGACUUCAAGGCAUGGC |
| 6194 | CAUUGCUGAGUUCUCUAAC | 6237 | ACACCAGUGGAUCAAUGAA | 6280 | GAUUGGCUACGUACCAUCU | 6323 | CCGACUUCAAGGCAUGGCU |
| 6195 | AUUGCUGAGUUCUCUAACU | 6238 | CACCAGUGGAUCAAUGAAG | 6281 | AUUGGCUACGUACCAUCUG | 6324 | CGACUUCAAGGCAUGGCUC |
| 6196 | UUGCUGAGUUCUCUAACUG | 6239 | ACCAGUGGAUCAAUGAAGA | 6282 | UUGGCUACGUACCAUCUGG | 6325 | GACUUCAAGGCAUGGCUCU |
| 6197 | UGCUGAGUUCUCUAACUGU | 6240 | CCAGUGGAUCAAUGAAGAC | 6283 | UGGCUACGUACCAUCUGGG | 6326 | ACUUCAAGGCAUGGCUCUC |
| 6198 | GCUGAGUUCUCUAACUGUC | 6241 | CAGUGGAUCAAUGAAGACU | 6284 | GGCUACGUACCAUCUGGGA | 6327 | CUUCAAGGCAUGGCUCUCU |
| 6199 | CUGAGUUCUCUAACUGUCA | 6242 | AGUGGAUCAAUGAAGACUA | 6285 | GCUACGUACCAUCUGGGAC | 6328 | UUCAAGGCAUGGCUCUCUG |
| 6200 | UGAGUUCUCUAACUGUCAC | 6243 | GUGGAUCAAUGAAGACUAC | 6286 | CUACGUACCAUCUGGGACU | 6329 | UCAAGGCAUGGCUCUCUGC |
| 6201 | GAGUUCUCUAACUGUCACA | 6244 | UGGAUCAAUGAAGACUACC | 6287 | UACGUACCAUCUGGGACUG | 6330 | CAAGGCAUGGCUCUCUGCU |
| 6202 | AGUUCUCUAACUGUCACAA | 6245 | GGAUCAAUGAAGACUACCC | 6288 | ACGUACCAUCUGGGACUGG | 6331 | AAGGCAUGGCUCUCUGCUA |
| 6203 | GUUCUCUAACUGUCACAAG | 6246 | GAUCAAUGAAGACUACCCA | 6289 | CGUACCAUCUGGGACUGGG | 6332 | AGGCAUGGCUCUCUGCUAA |
| 6204 | UUCUCUAACUGUCACAAGU | 6247 | AUCAAUGAAGACUACCCAA | 6290 | GUACCAUCUGGGACUGGGU | 6333 | GGCAUGGCUCUCUGCUAAG |
| 6205 | UCUCUAACUGUCACAAGUC | 6248 | UCAAUGAAGACUACCCAAG | 6291 | UACCAUCUGGGACUGGGUU | 6334 | GCAUGGCUCUCUGCUAAGA |
| 6206 | CUCUAACUGUCACAAGUCU | 6249 | CAAUGAAGACUACCCAAGC | 6292 | ACCAUCUGGGACUGGGUUU | 6335 | CAUGGCUCUCUGCUAAGAU |
| 6207 | UCUAACUGUCACAAGUCUG | 6250 | AAUGAAGACUACCCAAGCC | 6293 | CCAUCUGGGACUGGGUUUG | 6336 | AUGGCUCUCUGCUAAGAUU |
| 6208 | CUAACUGUCACAAGUCUGC | 6251 | AUGAAGACUACCCAAGCCC | 6294 | CAUCUGGGACUGGGUUUGC | 6337 | UGGCUCUCUGCUAAGAUUA |
| 6209 | UAACUGUCACAAGUCUGCU | 6252 | UGAAGACUACCCAAGCCCU | 6295 | AUCUGGGACUGGGUUUGCU | 6338 | GGCUCUCUGCUAAGAUUAU |
| 6210 | AACUGUCACAAGUCUGCUC | 6253 | GAAGACUACCCAAGCCCUU | 6296 | UCUGGGACUGGGUUUGCUC | 6339 | GCUCUCUGCUAAGAUUAUG |
| 6211 | ACUGUCACAAGUCUGCUCC | 6254 | AAGACUACCCAAGCCCUUG | 6297 | CUGGGACUGGGUUUGCUCG | 6340 | CUCUCUGCUAAGAUUAUGC |
| 6212 | CUGUCACAAGUCUGCUCCG | 6255 | AGACUACCCAAGCCCUUGU | 6298 | UGGGACUGGGUUUGCUCGG | 6341 | UCUCUGCUAAGAUUAUGCC |
| 6213 | UGUCACAAGUCUGCUCCGG | 6256 | GACUACCCAAGCCCUUGUA | 6299 | GGGACUGGGUUUGCUCGGU | 6342 | CUCUGCUAAGAUUAUGCCA |
| 6214 | GUCACAAGUCUGCUCCGGC | 6257 | ACUACCCAAGCCCUUGUAG | 6300 | GGACUGGGUUUGCUCGGUG | 6343 | UCUGCUAAGAUUAUGCCAG |
| 6215 | UCACAAGUCUGCUCCGGCG | 6258 | CUACCCAAGCCCUUGUAGC | 6301 | GACUGGGUUUGCUCGGUGU | 6344 | CUGCUAAGAUUAUGCCAGC |
| 6216 | CACAAGUCUGCUCCGGCGG | 6259 | UACCCAAGCCCUUGUAGCG | 6302 | ACUGGGUUUGCUCGGUGUU | 6345 | UGCUAAGAUUAUGCCAGCG |
| 6217 | ACAAGUCUGCUCCGGCGGU | 6260 | ACCCAAGCCCUUGUAGCGA | 6303 | CUGGGUUUGCUCGGUGUUG | 6346 | GCUAAGAUUAUGCCAGCGC |
| 6218 | CAAGUCUGCUCCGGCGGUU | 6261 | CCCAAGCCCUUGUAGCGAC | 6304 | UGGGUUUGCUCGGUGUUGG | 6347 | CUAAGAUUAUGCCAGCGCU |
| 6219 | AAGUCUGCUCCGGCGGUUA | 6262 | CCAAGCCCUUGUAGCGACG | 6305 | GGGUUUGCUCGGUGUUGGC | 6348 | UAAGAUUAUGCCAGCGCUC |

**FIG. 4 (page 214 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6349 | AAGAUUAUGCCAGCGCUCC | 6392 | AAAAGGGAUACAAGGGCGU | 6435 | AACACGCUGUCCUUGCGGG | 6478 | AACGGGUCCAUGCGGCUUG |
| 6350 | AGAUUAUGCCAGCGCUCCC | 6393 | AAAGGGAUACAAGGGCGUG | 6436 | ACACGCUGUCCUUGCGGGG | 6479 | ACGGGUCCAUGCGGCUUGC |
| 6351 | GAUUAUGCCAGCGCUCCCU | 6394 | AAGGGAUACAAGGGCGUGU | 6437 | CACGCUGUCCUUGCGGGGC | 6480 | CGGGUCCAUGCGGCUUGCA |
| 6352 | AUUAUGCCAGCGCUCCCUG | 6395 | AGGGAUACAAGGGCGUGUG | 6438 | ACGCUGUCCUUGCGGGGCA | 6481 | GGGUCCAUGCGGCUUGCAG |
| 6353 | UUAUGCCAGCGCUCCCUGG | 6396 | GGGAUACAAGGGCGUGUGG | 6439 | CGCUGUCCUUGCGGGGCAG | 6482 | GGUCCAUGCGGCUUGCAGG |
| 6354 | UAUGCCAGCGCUCCCUGGG | 6397 | GGAUACAAGGGCGUGUGGC | 6440 | GCUGUCCUUGCGGGGCAGC | 6483 | GUCCAUGCGGCUUGCAGGG |
| 6355 | AUGCCAGCGCUCCCUGGGC | 6398 | GAUACAAGGGCGUGUGGCG | 6441 | CUGUCCUUGCGGGGCAGCA | 6484 | UCCAUGCGGCUUGCAGGGC |
| 6356 | UGCCAGCGCUCCCUGGGCU | 6399 | AUACAAGGGCGUGUGGCGG | 6442 | UGUCCUUGCGGGGCAGCAA | 6485 | CCAUGCGGCUUGCAGGGCC |
| 6357 | GCCAGCGCUCCCUGGGCUG | 6400 | UACAAGGGCGUGUGGCGGG | 6443 | GUCCUUGCGGGGCAGCAAU | 6486 | CAUGCGGCUUGCAGGGCCG |
| 6358 | CCAGCGCUCCCUGGGCUGC | 6401 | ACAAGGGCGUGUGGCGGGG | 6444 | UCCUUGCGGGGCAGCAAUA | 6487 | AUGCGGCUUGCAGGGCCGC |
| 6359 | CAGCGCUCCCUGGGCUGCC | 6402 | CAAGGGCGUGUGGCGGGGG | 6445 | CCUUGCGGGGCAGCAAUAA | 6488 | UGCGGCUUGCAGGGCCGCG |
| 6360 | AGCGCUCCCUGGGCUGCCC | 6403 | AAGGGCGUGUGGCGGGGGG | 6446 | CUUGCGGGGCAGCAAUAAC | 6489 | GCGGCUUGCAGGGCCGCGU |
| 6361 | GCGCUCCCUGGGCUGCCCU | 6404 | AGGGCGUGUGGCGGGGGGA | 6447 | UUGCGGGGCAGCAAUAACU | 6490 | CGGCUUGCAGGGCCGCGUA |
| 6362 | CGCUCCCUGGGCUGCCCUU | 6405 | GGGCGUGUGGCGGGGGGAC | 6448 | UGCGGGGCAGCAAUAACUG | 6491 | GGCUUGCAGGGCCGCGUAC |
| 6363 | GCUCCCUGGGCUGCCCUUC | 6406 | GGCGUGUGGCGGGGGGACG | 6449 | GCGGGGCAGCAAUAACUGG | 6492 | GCUUGCAGGGCCGCGUACA |
| 6364 | CUCCCUGGGCUGCCCUUCA | 6407 | GCGUGUGGCGGGGGGACGG | 6450 | CGGGGCAGCAAUAACUGGC | 6493 | CUUGCAGGGCCGCGUACAU |
| 6365 | UCCCUGGGCUGCCCUUCAU | 6408 | CGUGUGGCGGGGGGACGGU | 6451 | GGGGCAGCAAUAACUGGCC | 6494 | UUGCAGGGCCGCGUACAUG |
| 6366 | CCCUGGGCUGCCCUUCAUU | 6409 | GUGUGGCGGGGGGACGGUG | 6452 | GGGCAGCAAUAACUGGCCA | 6495 | UGCAGGGCCGCGUACAUGU |
| 6367 | CCUGGGCUGCCCUUCAUUU | 6410 | UGUGGCGGGGGGACGGUGU | 6453 | GGCAGCAAUAACUGGCCAU | 6496 | GCAGGGCCGCGUACAUGUG |
| 6368 | CUGGGCUGCCCUUCAUUUC | 6411 | GUGGCGGGGGGACGGUGUG | 6454 | GCAGCAAUAACUGGCCAUG | 6497 | CAGGGCCGCGUACAUGUGC |
| 6369 | UGGGCUGCCCUUCAUUUCC | 6412 | UGGCGGGGGGACGGUGUGA | 6455 | CAGCAAUAACUGGCCAUGU | 6498 | AGGGCCGCGUACAUGUGCU |
| 6370 | GGGCUGCCCUUCAUUUCCU | 6413 | GGCGGGGGGACGGUGUGAU | 6456 | AGCAAUAACUGGCCAUGUG | 6499 | GGGCCGCGUACAUGUGCUA |
| 6371 | GGCUGCCCUUCAUUUCCUG | 6414 | GCGGGGGGACGGUGUGAUG | 6457 | GCAAUAACUGGCCAUGUGA | 6500 | GGCCGCGUACAUGUGCUAA |
| 6372 | GCUGCCCUUCAUUUCCUGU | 6415 | CGGGGGGACGGUGUGAUGU | 6458 | CAAUAACUGGCCAUGUGAA | 6501 | GCCGCGUACAUGUGCUAAC |
| 6373 | CUGCCCUUCAUUUCCUGUC | 6416 | GGGGGGACGGUGUGAUGUC | 6459 | AAUAACUGGCCAUGUGAAG | 6502 | CCGCGUACAUGUGCUAACA |
| 6374 | UGCCCUUCAUUUCCUGUCA | 6417 | GGGGGACGGUGUGAUGUCA | 6460 | AUAACUGGCCAUGUGAAGA | 6503 | CGCGUACAUGUGCUAACAU |
| 6375 | GCCCUUCAUUUCCUGUCAA | 6418 | GGGGACGGUGUGAUGUCAA | 6461 | UAACUGGCCAUGUGAAGAA | 6504 | GCGUACAUGUGCUAACAUG |
| 6376 | CCCUUCAUUUCCUGUCAAA | 6419 | GGGACGGUGUGAUGUCAAC | 6462 | AACUGGCCAUGUGAAGAAC | 6505 | CGUACAUGUGCUAACAUGU |
| 6377 | CCUUCAUUUCCUGUCAAAA | 6420 | GGACGGUGUGAUGUCAACA | 6463 | ACUGGCCAUGUGAAGAACG | 6506 | GUACAUGUGCUAACAUGUG |
| 6378 | CUUCAUUUCCUGUCAAAAG | 6421 | GACGGUGUGAUGUCAACAC | 6464 | CUGGCCAUGUGAAGAACGG | 6507 | UACAUGUGCUAACAUGUGG |
| 6379 | UUCAUUUCCUGUCAAAAGG | 6422 | ACGGUGUGAUGUCAACACG | 6465 | UGGCCAUGUGAAGAACGGG | 6508 | ACAUGUGCUAACAUGUGGC |
| 6380 | UCAUUUCCUGUCAAAAGGG | 6423 | CGGUGUGAUGUCAACACGC | 6466 | GGCCAUGUGAAGAACGGGU | 6509 | CAUGUGCUAACAUGUGGCA |
| 6381 | CAUUUCCUGUCAAAAGGGA | 6424 | GGUGUGAUGUCAACACGCU | 6467 | GCCAUGUGAAGAACGGGUC | 6510 | AUGUGCUAACAUGUGGCAC |
| 6382 | AUUUCCUGUCAAAAGGGAU | 6425 | GUGUGAUGUCAACACGCUG | 6468 | CCAUGUGAAGAACGGGUCC | 6511 | UGUGCUAACAUGUGGCACG |
| 6383 | UUUCCUGUCAAAAGGGAUA | 6426 | UGUGAUGUCAACACGCUGU | 6469 | CAUGUGAAGAACGGGUCCA | 6512 | GUGCUAACAUGUGGCACGG |
| 6384 | UUCCUGUCAAAAGGGAUAC | 6427 | GUGAUGUCAACACGCUGUC | 6470 | AUGUGAAGAACGGGUCCAU | 6513 | UGCUAACAUGUGGCACGGU |
| 6385 | UCCUGUCAAAAGGGAUACA | 6428 | UGAUGUCAACACGCUGUCC | 6471 | UGUGAAGAACGGGUCCAUG | 6514 | GCUAACAUGUGGCACGGUA |
| 6386 | CCUGUCAAAAGGGAUACAA | 6429 | GAUGUCAACACGCUGUCCU | 6472 | GUGAAGAACGGGUCCAUGC | 6515 | CUAACAUGUGGCACGGUAC |
| 6387 | CUGUCAAAAGGGAUACAAG | 6430 | AUGUCAACACGCUGUCCUU | 6473 | UGAAGAACGGGUCCAUGCG | 6516 | UAACAUGUGGCACGGUACU |
| 6388 | UGUCAAAAGGGAUACAAGG | 6431 | UGUCAACACGCUGUCCUUG | 6474 | GAAGAACGGGUCCAUGCGG | 6517 | AACAUGUGGCACGGUACUU |
| 6389 | GUCAAAAGGGAUACAAGGG | 6432 | GUCAACACGCUGUCCUUGC | 6475 | AAGAACGGGUCCAUGCGGC | 6518 | ACAUGUGGCACGGUACUUU |
| 6390 | UCAAAAGGGAUACAAGGGC | 6433 | UCAACACGCUGUCCUUGCG | 6476 | AGAACGGGUCCAUGCGGCU | 6519 | CAUGUGGCACGGUACUUUC |
| 6391 | CAAAAGGGAUACAAGGGCG | 6434 | CAACACGCUGUCCUUGCGG | 6477 | GAACGGGUCCAUGCGGCUU | 6520 | AUGUGGCACGGUACUUUCC |

**FIG. 4 (page 215 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6521 | UGUGGCACGGUACUUUCCC | 6564 | CAGCACACCUUGCCCAUCA | 6607 | CGCGUGGCUGCCAACAGCU | 6650 | ACUUCCAUUACAUCACGGG |
| 6522 | GUGGCACGGUACUUUCCCC | 6565 | AGCACACCUUGCCCAUCAC | 6608 | GCGUGGCUGCCAACAGCUA | 6651 | CUUCCAUUACAUCACGGGG |
| 6523 | UGGCACGGUACUUUCCCCA | 6566 | GCACACCUUGCCCAUCACC | 6609 | CGUGGCUGCCAACAGCUAC | 6652 | UUCCAUUACAUCACGGGGG |
| 6524 | GGCACGGUACUUUCCCCAU | 6567 | CACACCUUGCCCAUCACCC | 6610 | GUGGCUGCCAACAGCUACG | 6653 | UCCAUUACAUCACGGGGGC |
| 6525 | GCACGGUACUUUCCCCAUC | 6568 | ACACCUUGCCCAUCACCCA | 6611 | UGGCUGCCAACAGCUACGU | 6654 | CCAUUACAUCACGGGGGCC |
| 6526 | CACGGUACUUUCCCCAUCA | 6569 | CACCUUGCCCAUCACCCAA | 6612 | GGCUGCCAACAGCUACGUU | 6655 | CAUUACAUCACGGGGGCCA |
| 6527 | ACGGUACUUUCCCCAUCAA | 6570 | ACCUUGCCCAUCACCCAAC | 6613 | GCUGCCAACAGCUACGUUG | 6656 | AUUACAUCACGGGGGCCAC |
| 6528 | CGGUACUUUCCCCAUCAAU | 6571 | CCUUGCCCAUCACCCAACU | 6614 | CUGCCAACAGCUACGUUGA | 6657 | UUACAUCACGGGGGCCACA |
| 6529 | GGUACUUUCCCCAUCAAUG | 6572 | CUUGCCCAUCACCCAACUA | 6615 | UGCCAACAGCUACGUUGAG | 6658 | UACAUCACGGGGGCCACAG |
| 6530 | GUACUUUCCCCAUCAAUGA | 6573 | UUGCCCAUCACCCAACUAC | 6616 | GCCAACAGCUACGUUGAGG | 6659 | ACAUCACGGGGGCCACAGA |
| 6531 | UACUUUCCCCAUCAAUGAG | 6574 | UGCCCAUCACCCAACUACA | 6617 | CCAACAGCUACGUUGAGGU | 6660 | CAUCACGGGGGCCACAGAA |
| 6532 | ACUUUCCCCAUCAAUGAGU | 6575 | GCCCAUCACCCAACUACAC | 6618 | CAACAGCUACGUUGAGGUG | 6661 | AUCACGGGGGCCACAGAAG |
| 6533 | CUUUCCCCAUCAAUGAGUA | 6576 | CCCAUCACCCAACUACACU | 6619 | AACAGCUACGUUGAGGUGC | 6662 | UCACGGGGGCCACAGAAGA |
| 6534 | UUUCCCCAUCAAUGAGUAC | 6577 | CCAUCACCCAACUACACUC | 6620 | ACAGCUACGUUGAGGUGCG | 6663 | CACGGGGGCCACAGAAGAU |
| 6535 | UUCCCCAUCAAUGAGUACA | 6578 | CAUCACCCAACUACACUCG | 6621 | CAGCUACGUUGAGGUGCGU | 6664 | ACGGGGGCCACAGAAGAUG |
| 6536 | UCCCCAUCAAUGAGUACAC | 6579 | AUCACCCAACUACACUCGC | 6622 | AGCUACGUUGAGGUGCGUC | 6665 | CGGGGGCCACAGAAGAUGA |
| 6537 | CCCCAUCAAUGAGUACACC | 6580 | UCACCCAACUACACUCGCG | 6623 | GCUACGUUGAGGUGCGUCG | 6666 | GGGGGCCACAGAAGAUGAG |
| 6538 | CCCAUCAAUGAGUACACCA | 6581 | CACCCAACUACACUCGCGC | 6624 | CUACGUUGAGGUGCGUCGG | 6667 | GGGGCCACAGAAGAUGAGC |
| 6539 | CCAUCAAUGAGUACACCAC | 6582 | ACCCAACUACACUCGCGCA | 6625 | UACGUUGAGGUGCGUCGGG | 6668 | GGGCCACAGAAGAUGAGCU |
| 6540 | CAUCAAUGAGUACACCACC | 6583 | CCCAACUACACUCGCGCAC | 6626 | ACGUUGAGGUGCGUCGGGU | 6669 | GGCCACAGAAGAUGAGCUC |
| 6541 | AUCAAUGAGUACACCACCG | 6584 | CCAACUACACUCGCGCACU | 6627 | CGUUGAGGUGCGUCGGGUG | 6670 | GCCACAGAAGAUGAGCUCA |
| 6542 | UCAAUGAGUACACCACCGG | 6585 | CAACUACACUCGCGCACUA | 6628 | GUUGAGGUGCGUCGGGUGG | 6671 | CCACAGAAGAUGAGCUCAA |
| 6543 | CAAUGAGUACACCACCGGA | 6586 | AACUACACUCGCGCACUAU | 6629 | UUGAGGUGCGUCGGGUGGG | 6672 | CACAGAAGAUGAGCUCAAG |
| 6544 | AAUGAGUACACCACCGGAC | 6587 | ACUACACUCGCGCACUAUG | 6630 | UGAGGUGCGUCGGGUGGGG | 6673 | ACAGAAGAUGAGCUCAAGU |
| 6545 | AUGAGUACACCACCGGACC | 6588 | CUACACUCGCGCACUAUGG | 6631 | GAGGUGCGUCGGGUGGGGG | 6674 | CAGAAGAUGAGCUCAAGUG |
| 6546 | UGAGUACACCACCGGACCC | 6589 | UACACUCGCGCACUAUGGC | 6632 | AGGUGCGUCGGGUGGGGGA | 6675 | AGAAGAUGAGCUCAAGUGU |
| 6547 | GAGUACACCACCGGACCCA | 6590 | ACACUCGCGCACUAUGGCG | 6633 | GGUGCGUCGGGUGGGGGAC | 6676 | GAAGAUGAGCUCAAGUGUC |
| 6548 | AGUACACCACCGGACCCAG | 6591 | CACUCGCGCACUAUGGCGC | 6634 | GUGCGUCGGGUGGGGGACU | 6677 | AAGAUGAGCUCAAGUGUCC |
| 6549 | GUACACCACCGGACCCAGC | 6592 | ACUCGCGCACUAUGGCGCG | 6635 | UGCGUCGGGUGGGGGACUU | 6678 | AGAUGAGCUCAAGUGUCCG |
| 6550 | UACACCACCGGACCCAGCA | 6593 | CUCGCGCACUAUGGCGCGU | 6636 | GCGUCGGGUGGGGGACUUC | 6679 | GAUGAGCUCAAGUGUCCGU |
| 6551 | ACACCACCGGACCCAGCAC | 6594 | UCGCGCACUAUGGCGCGUG | 6637 | CGUCGGGUGGGGGACUUCC | 6680 | AUGAGCUCAAGUGUCCGUG |
| 6552 | CACCACCGGACCCAGCACA | 6595 | CGCGCACUAUGGCGCGUGG | 6638 | GUCGGGUGGGGGACUUCCA | 6681 | UGAGCUCAAGUGUCCGUGC |
| 6553 | ACCACCGGACCCAGCACAC | 6596 | GCGCACUAUGGCGCGUGGC | 6639 | UCGGGUGGGGGACUUCCAU | 6682 | GAGCUCAAGUGUCCGUGCC |
| 6554 | CCACCGGACCCAGCACACC | 6597 | CGCACUAUGGCGCGUGGCU | 6640 | CGGGUGGGGGACUUCCAUU | 6683 | AGCUCAAGUGUCCGUGCCA |
| 6555 | CACCGGACCCAGCACACCU | 6598 | GCACUAUGGCGCGUGGCUG | 6641 | GGGUGGGGGACUUCCAUUA | 6684 | GCUCAAGUGUCCGUGCCAA |
| 6556 | ACCGGACCCAGCACACCUU | 6599 | CACUAUGGCGCGUGGCUGC | 6642 | GGUGGGGGACUUCCAUUAC | 6685 | CUCAAGUGUCCGUGCCAAG |
| 6557 | CCGGACCCAGCACACCUUG | 6600 | ACUAUGGCGCGUGGCUGCC | 6643 | GUGGGGGACUUCCAUUACA | 6686 | UCAAGUGUCCGUGCCAAGU |
| 6558 | CGGACCCAGCACACCUUGC | 6601 | CUAUGGCGCGUGGCUGCCA | 6644 | UGGGGGACUUCCAUUACAU | 6687 | CAAGUGUCCGUGCCAAGUG |
| 6559 | GGACCCAGCACACCUUGCC | 6602 | UAUGGCGCGUGGCUGCCAA | 6645 | GGGGGACUUCCAUUACAUC | 6688 | AAGUGUCCGUGCCAAGUGC |
| 6560 | GACCCAGCACACCUUGCCC | 6603 | AUGGCGCGUGGCUGCCAAC | 6646 | GGGGACUUCCAUUACAUCA | 6689 | AGUGUCCGUGCCAAGUGCC |
| 6561 | ACCCAGCACACCUUGCCCA | 6604 | UGGCGCGUGGCUGCCAACA | 6647 | GGGACUUCCAUUACAUCAC | 6690 | GUGUCCGUGCCAAGUGCCG |
| 6562 | CCCAGCACACCUUGCCCAU | 6605 | GGCGCGUGGCUGCCAACAG | 6648 | GGACUUCCAUUACAUCACG | 6691 | UGUCCGUGCCAAGUGCCGG |
| 6563 | CCAGCACACCUUGCCCAUC | 6606 | GCGCGUGGCUGCCAACAGC | 6649 | GACUUCCAUUACAUCACGG | 6692 | GUCCGUGCCAAGUGCCGGC |

**FIG. 4 (page 216 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6693 | UCCGUGCCAAGUGCCGGCU | 6736 | GGAGUGAGACUUCACCGCU | 6779 | UGAGAGAUGAUAUCACUUU | 6822 | GAUAGGAUCUCAACUCCCC |
| 6694 | CCGUGCCAAGUGCCGGCUG | 6737 | GAGUGAGACUUCACCGCUA | 6780 | GAGAGAUGAUAUCACUUUC | 6823 | AUAGGAUCUCAACUCCCCU |
| 6695 | CGUGCCAAGUGCCGGCUGC | 6738 | AGUGAGACUUCACCGCUAC | 6781 | AGAGAUGAUAUCACUUUCA | 6824 | UAGGAUCUCAACUCCCCUG |
| 6696 | GUGCCAAGUGCCGGCUGCU | 6739 | GUGAGACUUCACCGCUACG | 6782 | GAGAUGAUAUCACUUUCAU | 6825 | AGGAUCUCAACUCCCCUGU |
| 6697 | UGCCAAGUGCCGGCUGCUG | 6740 | UGAGACUUCACCGCUACGC | 6783 | AGAUGAUAUCACUUUCAUG | 6826 | GGAUCUCAACUCCCCUGUG |
| 6698 | GCCAAGUGCCGGCUGCUGA | 6741 | GAGACUUCACCGCUACGCC | 6784 | GAUGAUAUCACUUUCAUGG | 6827 | GAUCUCAACUCCCCUGUGA |
| 6699 | CCAAGUGCCGGCUGCUGAG | 6742 | AGACUUCACCGCUACGCCC | 6785 | AUGAUAUCACUUUCAUGGU | 6828 | AUCUCAACUCCCCUGUGAG |
| 6700 | CAAGUGCCGGCUGCUGAGU | 6743 | GACUUCACCGCUACGCCCC | 6786 | UGAUAUCACUUUCAUGGUA | 6829 | UCUCAACUCCCCUGUGAGC |
| 6701 | AAGUGCCGGCUGCUGAGUU | 6744 | ACUUCACCGCUACGCCCCU | 6787 | GAUAUCACUUUCAUGGUAG | 6830 | CUCAACUCCCCUGUGAGCC |
| 6702 | AGUGCCGGCUGCUGAGUUC | 6745 | CUUCACCGCUACGCCCCUC | 6788 | AUAUCACUUUCAUGGUAGG | 6831 | UCAACUCCCCUGUGAGCCA |
| 6703 | GUGCCGGCUGCUGAGUUCU | 6746 | UUCACCGCUACGCCCCUCC | 6789 | UAUCACUUUCAUGGUAGGG | 6832 | CAACUCCCCUGUGAGCCAG |
| 6704 | UGCCGGCUGCUGAGUUCUU | 6747 | UCACCGCUACGCCCCUCCA | 6790 | AUCACUUUCAUGGUAGGGU | 6833 | AACUCCCCUGUGAGCCAGA |
| 6705 | GCCGGCUGCUGAGUUCUUU | 6748 | CACCGCUACGCCCCUCCAU | 6791 | UCACUUUCAUGGUAGGGUU | 6834 | ACUCCCCUGUGAGCCAGAA |
| 6706 | CCGGCUGCUGAGUUCUUUA | 6749 | ACCGCUACGCCCCUCCAUG | 6792 | CACUUUCAUGGUAGGGUUG | 6835 | CUCCCCUGUGAGCCAGAAC |
| 6707 | CGGCUGCUGAGUUCUUUAC | 6750 | CCGCUACGCCCCUCCAUGU | 6793 | ACUUUCAUGGUAGGGUUGC | 6836 | UCCCCUGUGAGCCAGAACC |
| 6708 | GGCUGCUGAGUUCUUUACU | 6751 | CGCUACGCCCCUCCAUGUA | 6794 | CUUUCAUGGUAGGGUUGCA | 6837 | CCCCUGUGAGCCAGAACCG |
| 6709 | GCUGCUGAGUUCUUUACUG | 6752 | GCUACGCCCCUCCAUGUAA | 6795 | UUUCAUGGUAGGGUUGCAU | 6838 | CCCUGUGAGCCAGAACCGG |
| 6710 | CUGCUGAGUUCUUUACUGA | 6753 | CUACGCCCCUCCAUGUAAG | 6796 | UUCAUGGUAGGGUUGCAUU | 6839 | CCUGUGAGCCAGAACCGGA |
| 6711 | UGCUGAGUUCUUUACUGAA | 6754 | UACGCCCCUCCAUGUAAGC | 6797 | UCAUGGUAGGGUUGCAUUC | 6840 | CUGUGAGCCAGAACCGGAU |
| 6712 | GCUGAGUUCUUUACUGAAG | 6755 | ACGCCCCUCCAUGUAAGCC | 6798 | CAUGGUAGGGUUGCAUUCC | 6841 | UGUGAGCCAGAACCGGAUG |
| 6713 | CUGAGUUCUUUACUGAAGU | 6756 | CGCCCCUCCAUGUAAGCCC | 6799 | AUGGUAGGGUUGCAUUCCU | 6842 | GUGAGCCAGAACCGGAUGU |
| 6714 | UGAGUUCUUUACUGAAGUG | 6757 | GCCCCUCCAUGUAAGCCCC | 6800 | UGGUAGGGUUGCAUUCCUA | 6843 | UGAGCCAGAACCGGAUGUC |
| 6715 | GAGUUCUUUACUGAAGUGG | 6758 | CCCCUCCAUGUAAGCCCCU | 6801 | GGUAGGGUUGCAUUCCUAC | 6844 | GAGCCAGAACCGGAUGUCU |
| 6716 | AGUUCUUUACUGAAGUGGA | 6759 | CCCUCCAUGUAAGCCCCUG | 6802 | GUAGGGUUGCAUUCCUACA | 6845 | AGCCAGAACCGGAUGUCUC |
| 6717 | GUUCUUUACUGAAGUGGAU | 6760 | CCUCCAUGUAAGCCCCUGU | 6803 | UAGGGUUGCAUUCCUACAC | 6846 | GCCAGAACCGGAUGUCUCU |
| 6718 | UUCUUUACUGAAGUGGAUG | 6761 | CUCCAUGUAAGCCCCUGUU | 6804 | AGGGUUGCAUUCCUACACG | 6847 | CCAGAACCGGAUGUCUCUG |
| 6719 | UCUUUACUGAAGUGGAUGG | 6762 | UCCAUGUAAGCCCCUGUUG | 6805 | GGGUUGCAUUCCUACACGA | 6848 | CAGAACCGGAUGUCUCUGU |
| 6720 | CUUUACUGAAGUGGAUGGA | 6763 | CCAUGUAAGCCCCUGUUGA | 6806 | GGUUGCAUUCCUACACGAU | 6849 | AGAACCGGAUGUCUCUGUG |
| 6721 | UUUACUGAAGUGGAUGGAG | 6764 | CAUGUAAGCCCCUGUUGAG | 6807 | GUUGCAUUCCUACACGAUA | 6850 | GAACCGGAUGUCUCUGUGC |
| 6722 | UUACUGAAGUGGAUGGAGU | 6765 | AUGUAAGCCCCUGUUGAGA | 6808 | UUGCAUUCCUACACGAUAG | 6851 | AACCGGAUGUCUCUGUGCU |
| 6723 | UACUGAAGUGGAUGGAGUG | 6766 | UGUAAGCCCCUGUUGAGAG | 6809 | UGCAUUCCUACACGAUAGG | 6852 | ACCGGAUGUCUCUGUGCUG |
| 6724 | ACUGAAGUGGAUGGAGUGA | 6767 | GUAAGCCCCUGUUGAGAGA | 6810 | GCAUUCCUACACGAUAGGA | 6853 | CCGGAUGUCUCUGUGCUGA |
| 6725 | CUGAAGUGGAUGGAGUGAG | 6768 | UAAGCCCCUGUUGAGAGAU | 6811 | CAUUCCUACACGAUAGGAU | 6854 | CGGAUGUCUCUGUGCUGAC |
| 6726 | UGAAGUGGAUGGAGUGAGA | 6769 | AAGCCCCUGUUGAGAGAUG | 6812 | AUUCCUACACGAUAGGAUC | 6855 | GGAUGUCUCUGUGCUGACC |
| 6727 | GAAGUGGAUGGAGUGAGAC | 6770 | AGCCCCUGUUGAGAGAUGA | 6813 | UUCCUACACGAUAGGAUCU | 6856 | GAUGUCUCUGUGCUGACCU |
| 6728 | AAGUGGAUGGAGUGAGACU | 6771 | GCCCCUGUUGAGAGAUGAU | 6814 | UCCUACACGAUAGGAUCUC | 6857 | AUGUCUCUGUGCUGACCUC |
| 6729 | AGUGGAUGGAGUGAGACUU | 6772 | CCCCUGUUGAGAGAUGAUA | 6815 | CCUACACGAUAGGAUCUCA | 6858 | UGUCUCUGUGCUGACCUCG |
| 6730 | GUGGAUGGAGUGAGACUUC | 6773 | CCCUGUUGAGAGAUGAUAU | 6816 | CUACACGAUAGGAUCUCAA | 6859 | GUCUCUGUGCUGACCUCGA |
| 6731 | UGGAUGGAGUGAGACUUCA | 6774 | CCUGUUGAGAGAUGAUAUC | 6817 | UACACGAUAGGAUCUCAAC | 6860 | UCUCUGUGCUGACCUCGAU |
| 6732 | GGAUGGAGUGAGACUUCAC | 6775 | CUGUUGAGAGAUGAUAUCA | 6818 | ACACGAUAGGAUCUCAACU | 6861 | CUCUGUGCUGACCUCGAUG |
| 6733 | GAUGGAGUGAGACUUCACC | 6776 | UGUUGAGAGAUGAUAUCAC | 6819 | CACGAUAGGAUCUCAACUC | 6862 | UCUGUGCUGACCUCGAUGU |
| 6734 | AUGGAGUGAGACUUCACCG | 6777 | GUUGAGAGAUGAUAUCACU | 6820 | ACGAUAGGAUCUCAACUCC | 6863 | CUGUGCUGACCUCGAUGUU |
| 6735 | UGGAGUGAGACUUCACCGC | 6778 | UUGAGAGAUGAUAUCACUU | 6821 | CGAUAGGAUCUCAACUCCC | 6864 | UGUGCUGACCUCGAUGUUG |

**FIG. 4 (page 217 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6865 | GUGCUGACCUCGAUGUUGA | 6908 | AGACGGCAGCGCGCCGCCU | 6951 | GGCAAGCUCAUCCGCCAGC | 6994 | GCCACUUGCCAGACGCAUA |
| 6866 | UGCUGACCUCGAUGUUGAG | 6909 | GACGGCAGCGCGCCGCCUU | 6952 | GCAAGCUCAUCCGCCAGCC | 6995 | CCACUUGCCAGACGCAUAG |
| 6867 | GCUGACCUCGAUGUUGAGA | 6910 | ACGGCAGCGCGCCGCCUUG | 6953 | CAAGCUCAUCCGCCAGCCA | 6996 | CACUUGCCAGACGCAUAGG |
| 6868 | CUGACCUCGAUGUUGAGAG | 6911 | CGGCAGCGCGCCGCCUUGC | 6954 | AAGCUCAUCCGCCAGCCAA | 6997 | ACUUGCCAGACGCAUAGGC |
| 6869 | UGACCUCGAUGUUGAGAGA | 6912 | GGCAGCGCGCCGCCUUGCA | 6955 | AGCUCAUCCGCCAGCCAAC | 6998 | CUUGCCAGACGCAUAGGCC |
| 6870 | GACCUCGAUGUUGAGAGAC | 6913 | GCAGCGCGCCGCCUUGCAC | 6956 | GCUCAUCCGCCAGCCAACU | 6999 | UUGCCAGACGCAUAGGCCU |
| 6871 | ACCUCGAUGUUGAGAGACC | 6914 | CAGCGCGCCGCCUUGCACG | 6957 | CUCAUCCGCCAGCCAACUA | 7000 | UGCCAGACGCAUAGGCCUC |
| 6872 | CCUCGAUGUUGAGAGACCC | 6915 | AGCGCGCCGCCUUGCACGC | 6958 | UCAUCCGCCAGCCAACUAU | 7001 | GCCAGACGCAUAGGCCUCA |
| 6873 | CUCGAUGUUGAGAGACCCU | 6916 | GCGCGCCGCCUUGCACGCG | 6959 | CAUCCGCCAGCCAACUAUC | 7002 | CCAGACGCAUAGGCCUCAU |
| 6874 | UCGAUGUUGAGAGACCCUU | 6917 | CGCGCCGCCUUGCACGCGG | 6960 | AUCCGCCAGCCAACUAUCA | 7003 | CAGACGCAUAGGCCUCAUC |
| 6875 | CGAUGUUGAGAGACCCUUC | 6918 | GCGCCGCCUUGCACGCGGG | 6961 | UCCGCCAGCCAACUAUCAG | 7004 | AGACGCAUAGGCCUCAUCC |
| 6876 | GAUGUUGAGAGACCCUUCC | 6919 | CGCCGCCUUGCACGCGGGU | 6962 | CCGCCAGCCAACUAUCAGC | 7005 | GACGCAUAGGCCUCAUCCA |
| 6877 | AUGUUGAGAGACCCUUCCC | 6920 | GCCGCCUUGCACGCGGGUC | 6963 | CGCCAGCCAACUAUCAGCU | 7006 | ACGCAUAGGCCUCAUCCAG |
| 6878 | UGUUGAGAGACCCUUCCCA | 6921 | CCGCCUUGCACGCGGGUCC | 6964 | GCCAGCCAACUAUCAGCUC | 7007 | CGCAUAGGCCUCAUCCAGA |
| 6879 | GUUGAGAGACCCUUCCCAU | 6922 | CGCCUUGCACGCGGGUCCC | 6965 | CCAGCCAACUAUCAGCUCC | 7008 | GCAUAGGCCUCAUCCAGAC |
| 6880 | UUGAGAGACCCUUCCCAUA | 6923 | GCCUUGCACGCGGGUCCCC | 6966 | CAGCCAACUAUCAGCUCCG | 7009 | CAUAGGCCUCAUCCAGACG |
| 6881 | UGAGAGACCCUUCCCAUAU | 6924 | CCUUGCACGCGGGUCCCCU | 6967 | AGCCAACUAUCAGCUCCGU | 7010 | AUAGGCCUCAUCCAGACGC |
| 6882 | GAGAGACCCUUCCCAUAUC | 6925 | CUUGCACGCGGGUCCCCUC | 6968 | GCCAACUAUCAGCUCCGUC | 7011 | UAGGCCUCAUCCAGACGCU |
| 6883 | AGAGACCCUUCCCAUAUCA | 6926 | UUGCACGCGGGUCCCCUCC | 6969 | CCAACUAUCAGCUCCGUCG | 7012 | AGGCCUCAUCCAGACGCUG |
| 6884 | GAGACCCUUCCCAUAUCAC | 6927 | UGCACGCGGGUCCCCUCCA | 6970 | CAACUAUCAGCUCCGUCGU | 7013 | GGCCUCAUCCAGACGCUGA |
| 6885 | AGACCCUUCCCAUAUCACC | 6928 | GCACGCGGGUCCCCUCCAU | 6971 | AACUAUCAGCUCCGUCGUU | 7014 | GCCUCAUCCAGACGCUGAG |
| 6886 | GACCCUUCCCAUAUCACCG | 6929 | CACGCGGGUCCCCUCCAUC | 6972 | ACUAUCAGCUCCGUCGUUG | 7015 | CCUCAUCCAGACGCUGAGC |
| 6887 | ACCCUUCCCAUAUCACCGC | 6930 | ACGCGGGUCCCCUCCAUCA | 6973 | CUAUCAGCUCCGUCGUUGA | 7016 | CUCAUCCAGACGCUGAGCU |
| 6888 | CCCUUCCCAUAUCACCGCC | 6931 | CGCGGGUCCCCUCCAUCAG | 6974 | UAUCAGCUCCGUCGUUGAA | 7017 | UCAUCCAGACGCUGAGCUA |
| 6889 | CCUUCCCAUAUCACCGCCG | 6932 | GCGGGUCCCCUCCAUCAGA | 6975 | AUCAGCUCCGUCGUUGAAG | 7018 | CAUCCAGACGCUGAGCUAG |
| 6890 | CUUCCCAUAUCACCGCCGA | 6933 | CGGGUCCCCUCCAUCAGAG | 6976 | UCAGCUCCGUCGUUGAAGG | 7019 | AUCCAGACGCUGAGCUAGU |
| 6891 | UUCCCAUAUCACCGCCGAG | 6934 | GGGUCCCCUCCAUCAGAGG | 6977 | CAGCUCCGUCGUUGAAGGC | 7020 | UCCAGACGCUGAGCUAGUG |
| 6892 | UCCCAUAUCACCGCCGAGA | 6935 | GGUCCCCUCCAUCAGAGGC | 6978 | AGCUCCGUCGUUGAAGGCC | 7021 | CCAGACGCUGAGCUAGUGG |
| 6893 | CCCAUAUCACCGCCGAGAC | 6936 | GUCCCCUCCAUCAGAGGCA | 6979 | GCUCCGUCGUUGAAGGCCA | 7022 | CAGACGCUGAGCUAGUGGA |
| 6894 | CCAUAUCACCGCCGAGACG | 6937 | UCCCCUCCAUCAGAGGCAA | 6980 | CUCCGUCGUUGAAGGCCAC | 7023 | AGACGCUGAGCUAGUGGAC |
| 6895 | CAUAUCACCGCCGAGACGG | 6938 | CCCCUCCAUCAGAGGCAAG | 6981 | UCCGUCGUUGAAGGCCACU | 7024 | GACGCUGAGCUAGUGGACG |
| 6896 | AUAUCACCGCCGAGACGGC | 6939 | CCCUCCAUCAGAGGCAAGC | 6982 | CCGUCGUUGAAGGCCACUU | 7025 | ACGCUGAGCUAGUGGACGC |
| 6897 | UAUCACCGCCGAGACGGCA | 6940 | CCUCCAUCAGAGGCAAGCU | 6983 | CGUCGUUGAAGGCCACUUG | 7026 | CGCUGAGCUAGUGGACGCC |
| 6898 | AUCACCGCCGAGACGGCAG | 6941 | CUCCAUCAGAGGCAAGCUC | 6984 | GUCGUUGAAGGCCACUUGC | 7027 | GCUGAGCUAGUGGACGCCA |
| 6899 | UCACCGCCGAGACGGCAGC | 6942 | UCCAUCAGAGGCAAGCUCA | 6985 | UCGUUGAAGGCCACUUGCC | 7028 | CUGAGCUAGUGGACGCCAA |
| 6900 | CACCGCCGAGACGGCAGCG | 6943 | CCAUCAGAGGCAAGCUCAU | 6986 | CGUUGAAGGCCACUUGCCA | 7029 | UGAGCUAGUGGACGCCAAC |
| 6901 | ACCGCCGAGACGGCAGCGC | 6944 | CAUCAGAGGCAAGCUCAUC | 6987 | GUUGAAGGCCACUUGCCAG | 7030 | GAGCUAGUGGACGCCAACU |
| 6902 | CCGCCGAGACGGCAGCGCG | 6945 | AUCAGAGGCAAGCUCAUCC | 6988 | UUGAAGGCCACUUGCCAGA | 7031 | AGCUAGUGGACGCCAACUU |
| 6903 | CGCCGAGACGGCAGCGCGC | 6946 | UCAGAGGCAAGCUCAUCCG | 6989 | UGAAGGCCACUUGCCAGAC | 7032 | GCUAGUGGACGCCAACUUG |
| 6904 | GCCGAGACGGCAGCGCGCC | 6947 | CAGAGGCAAGCUCAUCCGC | 6990 | GAAGGCCACUUGCCAGACG | 7033 | CUAGUGGACGCCAACUUGU |
| 6905 | CCGAGACGGCAGCGCGCCG | 6948 | AGAGGCAAGCUCAUCCGCC | 6991 | AAGGCCACUUGCCAGACGC | 7034 | UAGUGGACGCCAACUUGUU |
| 6906 | CGAGACGGCAGCGCGCCGC | 6949 | GAGGCAAGCUCAUCCGCCA | 6992 | AGGCCACUUGCCAGACGCA | 7035 | AGUGGACGCCAACUUGUUA |
| 6907 | GAGACGGCAGCGCGCCGCC | 6950 | AGGCAAGCUCAUCCGCCAG | 6993 | GGCCACUUGCCAGACGCAU | 7036 | GUGGACGCCAACUUGUUAU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7037 | UGGACGCCAACUUGUUAUG | 7080 | UACACGGGUGGAGUCUGAG | 7123 | UUCGAGCCUCUGAGAGCCG | 7166 | UGGCUGCAGAGUGUUUCAA |
| 7038 | GGACGCCAACUUGUUAUGG | 7081 | ACACGGGUGGAGUCUGAGA | 7124 | UCGAGCCUCUGAGAGCCGA | 7167 | GGCUGCAGAGUGUUUCAAG |
| 7039 | GACGCCAACUUGUUAUGGC | 7082 | CACGGGUGGAGUCUGAGAC | 7125 | CGAGCCUCUGAGAGCCGAA | 7168 | GCUGCAGAGUGUUUCAAGA |
| 7040 | ACGCCAACUUGUUAUGGCG | 7083 | ACGGGUGGAGUCUGAGACA | 7126 | GAGCCUCUGAGAGCCGAAA | 7169 | CUGCAGAGUGUUUCAAGAA |
| 7041 | CGCCAACUUGUUAUGGCGG | 7084 | CGGGUGGAGUCUGAGACAA | 7127 | AGCCUCUGAGAGCCGAAAC | 7170 | UGCAGAGUGUUUCAAGAAA |
| 7042 | GCCAACUUGUUAUGGCGGC | 7085 | GGGUGGAGUCUGAGACAAA | 7128 | GCCUCUGAGAGCCGAAACU | 7171 | GCAGAGUGUUUCAAGAAAC |
| 7043 | CCAACUUGUUAUGGCGGCA | 7086 | GGUGGAGUCUGAGACAAAG | 7129 | CCUCUGAGAGCCGAAACUG | 7172 | CAGAGUGUUUCAAGAAACC |
| 7044 | CAACUUGUUAUGGCGGCAA | 7087 | GUGGAGUCUGAGACAAAGG | 7130 | CUCUGAGAGCCGAAACUGA | 7173 | AGAGUGUUUCAAGAAACCU |
| 7045 | AACUUGUUAUGGCGGCAAG | 7088 | UGGAGUCUGAGACAAAGGU | 7131 | UCUGAGAGCCGAAACUGAU | 7174 | GAGUGUUUCAAGAAACCUC |
| 7046 | ACUUGUUAUGGCGGCAAGA | 7089 | GGAGUCUGAGACAAAGGUU | 7132 | CUGAGAGCCGAAACUGAUG | 7175 | AGUGUUUCAAGAAACCUCC |
| 7047 | CUUGUUAUGGCGGCAAGAG | 7090 | GAGUCUGAGACAAAGGUUG | 7133 | UGAGAGCCGAAACUGAUGA | 7176 | GUGUUUCAAGAAACCUCCC |
| 7048 | UUGUUAUGGCGGCAAGAGA | 7091 | AGUCUGAGACAAAGGUUGU | 7134 | GAGAGCCGAAACUGAUGAC | 7177 | UGUUUCAAGAAACCUCCCA |
| 7049 | UGUUAUGGCGGCAAGAGAU | 7092 | GUCUGAGACAAAGGUUGUG | 7135 | AGAGCCGAAACUGAUGACG | 7178 | GUUUCAAGAAACCUCCCAA |
| 7050 | GUUAUGGCGGCAAGAGAUG | 7093 | UCUGAGACAAAGGUUGUGG | 7136 | GAGCCGAAACUGAUGACGU | 7179 | UUUCAAGAAACCUCCCAAG |
| 7051 | UUAUGGCGGCAAGAGAUGG | 7094 | CUGAGACAAAGGUUGUGGU | 7137 | AGCCGAAACUGAUGACGUC | 7180 | UUCAAGAAACCUCCCAAGU |
| 7052 | UAUGGCGGCAAGAGAUGGG | 7095 | UGAGACAAAGGUUGUGGUU | 7138 | GCCGAAACUGAUGACGUCG | 7181 | UCAAGAAACCUCCCAAGUA |
| 7053 | AUGGCGGCAAGAGAUGGGC | 7096 | GAGACAAAGGUUGUGGUUC | 7139 | CCGAAACUGAUGACGUCGA | 7182 | CAAGAAACCUCCCAAGUAU |
| 7054 | UGGCGGCAAGAGAUGGGCA | 7097 | AGACAAAGGUUGUGGUUCU | 7140 | CGAAACUGAUGACGUCGAG | 7183 | AAGAAACCUCCCAAGUAUC |
| 7055 | GGCGGCAAGAGAUGGGCAG | 7098 | GACAAAGGUUGUGGUUCUU | 7141 | GAAACUGAUGACGUCGAGC | 7184 | AGAAACCUCCCAAGUAUCC |
| 7056 | GCGGCAAGAGAUGGGCAGC | 7099 | ACAAAGGUUGUGGUUCUUG | 7142 | AAACUGAUGACGUCGAGCC | 7185 | GAAACCUCCCAAGUAUCCU |
| 7057 | CGGCAAGAGAUGGGCAGCA | 7100 | CAAAGGUUGUGGUUCUUGA | 7143 | AACUGAUGACGUCGAGCCC | 7186 | AAACCUCCCAAGUAUCCUC |
| 7058 | GGCAAGAGAUGGGCAGCAA | 7101 | AAAGGUUGUGGUUCUUGAU | 7144 | ACUGAUGACGUCGAGCCCU | 7187 | AACCUCCCAAGUAUCCUCC |
| 7059 | GCAAGAGAUGGGCAGCAAC | 7102 | AAGGUUGUGGUUCUUGAUU | 7145 | CUGAUGACGUCGAGCCCUC | 7188 | ACCUCCCAAGUAUCCUCCA |
| 7060 | CAAGAGAUGGGCAGCAACA | 7103 | AGGUUGUGGUUCUUGAUUC | 7146 | UGAUGACGUCGAGCCCUCG | 7189 | CCUCCCAAGUAUCCUCCAG |
| 7061 | AAGAGAUGGGCAGCAACAU | 7104 | GGUUGUGGUUCUUGAUUCG | 7147 | GAUGACGUCGAGCCCUCGG | 7190 | CUCCCAAGUAUCCUCCAGC |
| 7062 | AGAGAUGGGCAGCAACAUU | 7105 | GUUGUGGUUCUUGAUUCGU | 7148 | AUGACGUCGAGCCCUCGGU | 7191 | UCCCAAGUAUCCUCCAGCC |
| 7063 | GAGAUGGGCAGCAACAUUA | 7106 | UUGUGGUUCUUGAUUCGUU | 7149 | UGACGUCGAGCCCUCGGUG | 7192 | CCCAAGUAUCCUCCAGCCC |
| 7064 | AGAUGGGCAGCAACAUUAC | 7107 | UGUGGUUCUUGAUUCGUUC | 7150 | GACGUCGAGCCCUCGGUGG | 7193 | CCAAGUAUCCUCCAGCCCU |
| 7065 | GAUGGGCAGCAACAUUACA | 7108 | GUGGUUCUUGAUUCGUUCG | 7151 | ACGUCGAGCCCUCGGUGGC | 7194 | CAAGUAUCCUCCAGCCCUU |
| 7066 | AUGGGCAGCAACAUUACAC | 7109 | UGGUUCUUGAUUCGUUCGA | 7152 | CGUCGAGCCCUCGGUGGCU | 7195 | AAGUAUCCUCCAGCCCUUC |
| 7067 | UGGGCAGCAACAUUACACG | 7110 | GGUUCUUGAUUCGUUCGAG | 7153 | GUCGAGCCCUCGGUGGCUG | 7196 | AGUAUCCUCCAGCCCUUCC |
| 7068 | GGGCAGCAACAUUACACGG | 7111 | GUUCUUGAUUCGUUCGAGC | 7154 | UCGAGCCCUCGGUGGCUGC | 7197 | GUAUCCUCCAGCCCUUCCU |
| 7069 | GGCAGCAACAUUACACGGG | 7112 | UUCUUGAUUCGUUCGAGCC | 7155 | CGAGCCCUCGGUGGCUGCA | 7198 | UAUCCUCCAGCCCUUCCUA |
| 7070 | GCAGCAACAUUACACGGGU | 7113 | UCUUGAUUCGUUCGAGCCU | 7156 | GAGCCCUCGGUGGCUGCAG | 7199 | AUCCUCCAGCCCUUCCUAU |
| 7071 | CAGCAACAUUACACGGGUG | 7114 | CUUGAUUCGUUCGAGCCUC | 7157 | AGCCCUCGGUGGCUGCAGA | 7200 | UCCUCCAGCCCUUCCUAUC |
| 7072 | AGCAACAUUACACGGGUGG | 7115 | UUGAUUCGUUCGAGCCUCU | 7158 | GCCCUCGGUGGCUGCAGAG | 7201 | CCUCCAGCCCUUCCUAUCU |
| 7073 | GCAACAUUACACGGGUGGA | 7116 | UGAUUCGUUCGAGCCUCUG | 7159 | CCCUCGGUGGCUGCAGAGU | 7202 | CUCCAGCCCUUCCUAUCUG |
| 7074 | CAACAUUACACGGGUGGAG | 7117 | GAUUCGUUCGAGCCUCUGA | 7160 | CCUCGGUGGCUGCAGAGUG | 7203 | UCCAGCCCUUCCUAUCUGG |
| 7075 | AACAUUACACGGGUGGAGU | 7118 | AUUCGUUCGAGCCUCUGAG | 7161 | CUCGGUGGCUGCAGAGUGU | 7204 | CCAGCCCUUCCUAUCUGGG |
| 7076 | ACAUUACACGGGUGGAGUC | 7119 | UUCGUUCGAGCCUCUGAGA | 7162 | UCGGUGGCUGCAGAGUGUU | 7205 | CAGCCCUUCCUAUCUGGGC |
| 7077 | CAUUACACGGGUGGAGUCU | 7120 | UCGUUCGAGCCUCUGAGAG | 7163 | CGGUGGCUGCAGAGUGUUU | 7206 | AGCCCUUCCUAUCUGGGCU |
| 7078 | AUUACACGGGUGGAGUCUG | 7121 | CGUUCGAGCCUCUGAGAGC | 7164 | GGUGGCUGCAGAGUGUUUC | 7207 | GCCCUUCCUAUCUGGGCUA |
| 7079 | UUACACGGGUGGAGUCUGA | 7122 | GUUCGAGCCUCUGAGAGCC | 7165 | GUGGCUGCAGAGUGUUUCA | 7208 | CCCUUCCUAUCUGGGCUAG |

**FIG. 4 (page 219 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7209 | CCUUCCUAUCUGGGCUAGA | 7252 | GACCGCUGGAAAGCACCGG | 7295 | GAUGUGCCUUACCACCACG | 7338 | UCGGAGGAAAAGGACAAUU |
| 7210 | CUUCCUAUCUGGGCUAGAC | 7253 | ACCGCUGGAAAGCACCGGA | 7296 | AUGUGCCUUACCACCACGG | 7339 | CGGAGGAAAAGGACAAUUC |
| 7211 | UUCCUAUCUGGGCUAGACC | 7254 | CCGCUGGAAAGCACCGGAU | 7297 | UGUGCCUUACCACCACGGG | 7340 | GGAGGAAAAGGACAAUUCA |
| 7212 | UCCUAUCUGGGCUAGACCG | 7255 | CGCUGGAAAGCACCGGAUU | 7298 | GUGCCUUACCACCACGGGG | 7341 | GAGGAAAAGGACAAUUCAG |
| 7213 | CCUAUCUGGGCUAGACCGG | 7256 | GCUGGAAAGCACCGGAUUA | 7299 | UGCCUUACCACCACGGGGC | 7342 | AGGAAAAGGACAAUUCAGC |
| 7214 | CUAUCUGGGCUAGACCGGA | 7257 | CUGGAAAGCACCGGAUUAU | 7300 | GCCUUACCACCACGGGGCG | 7343 | GGAAAAGGACAAUUCAGCU |
| 7215 | UAUCUGGGCUAGACCGGAC | 7258 | UGGAAAGCACCGGAUUAUG | 7301 | CCUUACCACCACGGGGCGC | 7344 | GAAAAGGACAAUUCAGCUG |
| 7216 | AUCUGGGCUAGACCGGACU | 7259 | GGAAAGCACCGGAUUAUGU | 7302 | CUUACCACCACGGGGCGCU | 7345 | AAAAGGACAAUUCAGCUGG |
| 7217 | UCUGGGCUAGACCGGACUA | 7260 | GAAAGCACCGGAUUAUGUA | 7303 | UUACCACCACGGGGCGCUC | 7346 | AAAGGACAAUUCAGCUGGA |
| 7218 | CUGGGCUAGACCGGACUAC | 7261 | AAAGCACCGGAUUAUGUAC | 7304 | UACCACCACGGGGCGCUCC | 7347 | AAGGACAAUUCAGCUGGAC |
| 7219 | UGGGCUAGACCGGACUACA | 7262 | AAGCACCGGAUUAUGUACC | 7305 | ACCACCACGGGGCGCUCCA | 7348 | AGGACAAUUCAGCUGGACG |
| 7220 | GGGCUAGACCGGACUACAA | 7263 | AGCACCGGAUUAUGUACCA | 7306 | CCACCACGGGGCGCUCCAC | 7349 | GGACAAUUCAGCUGGACGG |
| 7221 | GGCUAGACCGGACUACAAU | 7264 | GCACCGGAUUAUGUACCAC | 7307 | CACCACGGGGCGCUCCACC | 7350 | GACAAUUCAGCUGGACGGC |
| 7222 | GCUAGACCGGACUACAAUC | 7265 | CACCGGAUUAUGUACCACC | 7308 | ACCACGGGGCGCUCCACCG | 7351 | ACAAUUCAGCUGGACGGCU |
| 7223 | CUAGACCGGACUACAAUCC | 7266 | ACCGGAUUAUGUACCACCA | 7309 | CCACGGGGCGCUCCACCGG | 7352 | CAAUUCAGCUGGACGGCUC |
| 7224 | UAGACCGGACUACAAUCCU | 7267 | CCGGAUUAUGUACCACCAA | 7310 | CACGGGGCGCUCCACCGGU | 7353 | AAUUCAGCUGGACGGCUCU |
| 7225 | AGACCGGACUACAAUCCUC | 7268 | CGGAUUAUGUACCACCAAC | 7311 | ACGGGGCGCUCCACCGGUG | 7354 | AUUCAGCUGGACGGCUCUA |
| 7226 | GACCGGACUACAAUCCUCC | 7269 | GGAUUAUGUACCACCAACU | 7312 | CGGGGCGCUCCACCGGUGC | 7355 | UUCAGCUGGACGGCUCUAA |
| 7227 | ACCGGACUACAAUCCUCCA | 7270 | GAUUAUGUACCACCAACUG | 7313 | GGGGCGCUCCACCGGUGCC | 7356 | UCAGCUGGACGGCUCUAAU |
| 7228 | CCGGACUACAAUCCUCCAC | 7271 | AUUAUGUACCACCAACUGU | 7314 | GGGCGCUCCACCGGUGCCU | 7357 | CAGCUGGACGGCUCUAAUG |
| 7229 | CGGACUACAAUCCUCCACU | 7272 | UUAUGUACCACCAACUGUC | 7315 | GGCGCUCCACCGGUGCCUC | 7358 | AGCUGGACGGCUCUAAUGU |
| 7230 | GGACUACAAUCCUCCACUG | 7273 | UAUGUACCACCAACUGUCC | 7316 | GCGCUCCACCGGUGCCUCC | 7359 | GCUGGACGGCUCUAAUGUG |
| 7231 | GACUACAAUCCUCCACUGU | 7274 | AUGUACCACCAACUGUCCA | 7317 | CGCUCCACCGGUGCCUCCC | 7360 | CUGGACGGCUCUAAUGUGU |
| 7232 | ACUACAAUCCUCCACUGUU | 7275 | UGUACCACCAACUGUCCAU | 7318 | GCUCCACCGGUGCCUCCCC | 7361 | UGGACGGCUCUAAUGUGUC |
| 7233 | CUACAAUCCUCCACUGUUG | 7276 | GUACCACCAACUGUCCAUG | 7319 | CUCCACCGGUGCCUCCCCC | 7362 | GGACGGCUCUAAUGUGUCC |
| 7234 | UACAAUCCUCCACUGUUGG | 7277 | UACCACCAACUGUCCAUGG | 7320 | UCCACCGGUGCCUCCCCCU | 7363 | GACGGCUCUAAUGUGUCCG |
| 7235 | ACAAUCCUCCACUGUUGGA | 7278 | ACCACCAACUGUCCAUGGA | 7321 | CCACCGGUGCCUCCCCCUC | 7364 | ACGGCUCUAAUGUGUCCGC |
| 7236 | CAAUCCUCCACUGUUGGAC | 7279 | CCACCAACUGUCCAUGGAU | 7322 | CACCGGUGCCUCCCCCUCG | 7365 | CGGCUCUAAUGUGUCCGCG |
| 7237 | AAUCCUCCACUGUUGGACC | 7280 | CACCAACUGUCCAUGGAUG | 7323 | ACCGGUGCCUCCCCCUCGG | 7366 | GGCUCUAAUGUGUCCGCGG |
| 7238 | AUCCUCCACUGUUGGACCG | 7281 | ACCAACUGUCCAUGGAUGU | 7324 | CCGGUGCCUCCCCCUCGGA | 7367 | GCUCUAAUGUGUCCGCGGC |
| 7239 | UCCUCCACUGUUGGACCGC | 7282 | CCAACUGUCCAUGGAUGUG | 7325 | CGGUGCCUCCCCCUCGGAG | 7368 | CUCUAAUGUGUCCGCGGCG |
| 7240 | CCUCCACUGUUGGACCGCU | 7283 | CAACUGUCCAUGGAUGUGC | 7326 | GGUGCCUCCCCCUCGGAGG | 7369 | UCUAAUGUGUCCGCGGCGC |
| 7241 | CUCCACUGUUGGACCGCUG | 7284 | AACUGUCCAUGGAUGUGCC | 7327 | GUGCCUCCCCCUCGGAGGA | 7370 | CUAAUGUGUCCGCGGCGCU |
| 7242 | UCCACUGUUGGACCGCUGG | 7285 | ACUGUCCAUGGAUGUGCCU | 7328 | UGCCUCCCCCUCGGAGGAA | 7371 | UAAUGUGUCCGCGGCGCUA |
| 7243 | CCACUGUUGGACCGCUGGA | 7286 | CUGUCCAUGGAUGUGCCUU | 7329 | GCCUCCCCCUCGGAGGAAA | 7372 | AAUGUGUCCGCGGCGCUAG |
| 7244 | CACUGUUGGACCGCUGGAA | 7287 | UGUCCAUGGAUGUGCCUUA | 7330 | CCUCCCCCUCGGAGGAAAA | 7373 | AUGUGUCCGCGGCGCUAGC |
| 7245 | ACUGUUGGACCGCUGGAAA | 7288 | GUCCAUGGAUGUGCCUUAC | 7331 | CUCCCCCUCGGAGGAAAAG | 7374 | UGUGUCCGCGGCGCUAGCC |
| 7246 | CUGUUGGACCGCUGGAAAG | 7289 | UCCAUGGAUGUGCCUUACC | 7332 | UCCCCCUCGGAGGAAAAGG | 7375 | GUGUCCGCGGCGCUAGCCG |
| 7247 | UGUUGGACCGCUGGAAAGC | 7290 | CCAUGGAUGUGCCUUACCA | 7333 | CCCCCUCGGAGGAAAAGGA | 7376 | UGUCCGCGGCGCUAGCCGC |
| 7248 | GUUGGACCGCUGGAAAGCA | 7291 | CAUGGAUGUGCCUUACCAC | 7334 | CCCCUCGGAGGAAAAGGAC | 7377 | GUCCGCGGCGCUAGCCGCG |
| 7249 | UUGGACCGCUGGAAAGCAC | 7292 | AUGGAUGUGCCUUACCACC | 7335 | CCCUCGGAGGAAAAGGACA | 7378 | UCCGCGGCGCUAGCCGCGC |
| 7250 | UGGACCGCUGGAAAGCACC | 7293 | UGGAUGUGCCUUACCACCA | 7336 | CCUCGGAGGAAAAGGACAA | 7379 | CCGCGGCGCUAGCCGCGCU |
| 7251 | GGACCGCUGGAAAGCACCG | 7294 | GGAUGUGCCUUACCACCAC | 7337 | CUCGGAGGAAAAGGACAAU | 7380 | CGCGGCGCUAGCCGCGCUA |

**FIG. 4 (page 220 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7381 | GCGGCGCUAGCCGCGCUAG | 7424 | AACCACAGGAAGAGAAUAG | 7467 | GUCCAGCACUACUUCCAAG | 7510 | UCCGACUCAGAGUCAUGCU |
| 7382 | CGGCGCUAGCCGCGCUAGC | 7425 | ACCACAGGAAGAGAAUAGC | 7468 | UCCAGCACUACUUCCAAGG | 7511 | CCGACUCAGAGUCAUGCUC |
| 7383 | GGCGCUAGCCGCGCUAGCU | 7426 | CCACAGGAAGAGAAUAGCU | 7469 | CCAGCACUACUUCCAAGGU | 7512 | CGACUCAGAGUCAUGCUCG |
| 7384 | GCGCUAGCCGCGCUAGCUG | 7427 | CACAGGAAGAGAAUAGCUC | 7470 | CAGCACUACUUCCAAGGUG | 7513 | GACUCAGAGUCAUGCUCGU |
| 7385 | CGCUAGCCGCGCUAGCUGA | 7428 | ACAGGAAGAGAAUAGCUCA | 7471 | AGCACUACUUCCAAGGUGC | 7514 | ACUCAGAGUCAUGCUCGUC |
| 7386 | GCUAGCCGCGCUAGCUGAA | 7429 | CAGGAAGAGAAUAGCUCAU | 7472 | GCACUACUUCCAAGGUGCC | 7515 | CUCAGAGUCAUGCUCGUCU |
| 7387 | CUAGCCGCGCUAGCUGAAA | 7430 | AGGAAGAGAAUAGCUCAUC | 7473 | CACUACUUCCAAGGUGCCC | 7516 | UCAGAGUCAUGCUCGUCUA |
| 7388 | UAGCCGCGCUAGCUGAAAA | 7431 | GGAAGAGAAUAGCUCAUCC | 7474 | ACUACUUCCAAGGUGCCCC | 7517 | CAGAGUCAUGCUCGUCUAU |
| 7389 | AGCCGCGCUAGCUGAAAAA | 7432 | GAAGAGAAUAGCUCAUCCU | 7475 | CUACUUCCAAGGUGCCCCC | 7518 | AGAGUCAUGCUCGUCUAUG |
| 7390 | GCCGCGCUAGCUGAAAAAU | 7433 | AAGAGAAUAGCUCAUCCUC | 7476 | UACUUCCAAGGUGCCCCCU | 7519 | GAGUCAUGCUCGUCUAUGC |
| 7391 | CCGCGCUAGCUGAAAAAUC | 7434 | AGAGAAUAGCUCAUCCUCC | 7477 | ACUUCCAAGGUGCCCCCUU | 7520 | AGUCAUGCUCGUCUAUGCC |
| 7392 | CGCGCUAGCUGAAAAAUCA | 7435 | GAGAAUAGCUCAUCCUCCG | 7478 | CUUCCAAGGUGCCCCCUUC | 7521 | GUCAUGCUCGUCUAUGCCU |
| 7393 | GCGCUAGCUGAAAAAUCAU | 7436 | AGAAUAGCUCAUCCUCCGG | 7479 | UUCCAAGGUGCCCCCUUCU | 7522 | UCAUGCUCGUCUAUGCCUC |
| 7394 | CGCUAGCUGAAAAAUCAUU | 7437 | GAAUAGCUCAUCCUCCGGG | 7480 | UCCAAGGUGCCCCCUUCUC | 7523 | CAUGCUCGUCUAUGCCUCC |
| 7395 | GCUAGCUGAAAAAUCAUUC | 7438 | AAUAGCUCAUCCUCCGGGG | 7481 | CCAAGGUGCCCCCUUCUCC | 7524 | AUGCUCGUCUAUGCCUCCU |
| 7396 | CUAGCUGAAAAAUCAUUCC | 7439 | AUAGCUCAUCCUCCGGGGU | 7482 | CAAGGUGCCCCCUUCUCCG | 7525 | UGCUCGUCUAUGCCUCCUC |
| 7397 | UAGCUGAAAAAUCAUUCCC | 7440 | UAGCUCAUCCUCCGGGGUC | 7483 | AAGGUGCCCCCUUCUCCGG | 7526 | GCUCGUCUAUGCCUCCUCU |
| 7398 | AGCUGAAAAAUCAUUCCCG | 7441 | AGCUCAUCCUCCGGGGUCG | 7484 | AGGUGCCCCCUUCUCCGGG | 7527 | CUCGUCUAUGCCUCCUCUC |
| 7399 | GCUGAAAAAUCAUUCCCGU | 7442 | GCUCAUCCUCCGGGGUCGA | 7485 | GGUGCCCCCUUCUCCGGGA | 7528 | UCGUCUAUGCCUCCUCUCG |
| 7400 | CUGAAAAAUCAUUCCCGUC | 7443 | CUCAUCCUCCGGGGUCGAC | 7486 | GUGCCCCCUUCUCCGGGAG | 7529 | CGUCUAUGCCUCCUCUCGA |
| 7401 | UGAAAAAUCAUUCCCGUCC | 7444 | UCAUCCUCCGGGGUCGACA | 7487 | UGCCCCCUUCUCCGGGAGG | 7530 | GUCUAUGCCUCCUCUCGAG |
| 7402 | GAAAAAUCAUUCCCGUCCU | 7445 | CAUCCUCCGGGGUCGACAC | 7488 | GCCCCCUUCUCCGGGAGGG | 7531 | UCUAUGCCUCCUCUCGAGG |
| 7403 | AAAAAUCAUUCCCGUCCUC | 7446 | AUCCUCCGGGGUCGACACA | 7489 | CCCCCUUCUCCGGGAGGGG | 7532 | CUAUGCCUCCUCUCGAGGG |
| 7404 | AAAAUCAUUCCCGUCCUCG | 7447 | UCCUCCGGGGUCGACACAC | 7490 | CCCCUUCUCCGGGAGGGGA | 7533 | UAUGCCUCCUCUCGAGGGA |
| 7405 | AAAUCAUUCCCGUCCUCGA | 7448 | CCUCCGGGGUCGACACACA | 7491 | CCCUUCUCCGGGAGGGGAG | 7534 | AUGCCUCCUCUCGAGGGAG |
| 7406 | AAUCAUUCCCGUCCUCGAA | 7449 | CUCCGGGGUCGACACACAG | 7492 | CCUUCUCCGGGAGGGGAGU | 7535 | UGCCUCCUCUCGAGGGAGA |
| 7407 | AUCAUUCCCGUCCUCGAAA | 7450 | UCCGGGGUCGACACACAGU | 7493 | CUUCUCCGGGAGGGGAGUC | 7536 | GCCUCCUCUCGAGGGAGAG |
| 7408 | UCAUUCCCGUCCUCGAAAC | 7451 | CCGGGGUCGACACACAGUC | 7494 | UUCUCCGGGAGGGGAGUCC | 7537 | CCUCCUCUCGAGGGAGAGC |
| 7409 | CAUUCCCGUCCUCGAAACC | 7452 | CGGGGUCGACACACAGUCC | 7495 | UCUCCGGGAGGGGAGUCCG | 7538 | CUCCUCUCGAGGGAGAGCC |
| 7410 | AUUCCCGUCCUCGAAACCA | 7453 | GGGGUCGACACACAGUCCA | 7496 | CUCCGGGAGGGGAGUCCGA | 7539 | UCCUCUCGAGGGAGAGCCG |
| 7411 | UUCCCGUCCUCGAAACCAC | 7454 | GGGUCGACACACAGUCCAG | 7497 | UCCGGGAGGGGAGUCCGAC | 7540 | CCUCUCGAGGGAGAGCCGG |
| 7412 | UCCCGUCCUCGAAACCACA | 7455 | GGUCGACACACAGUCCAGC | 7498 | CCGGGAGGGGAGUCCGACU | 7541 | CUCUCGAGGGAGAGCCGGG |
| 7413 | CCCGUCCUCGAAACCACAG | 7456 | GUCGACACACAGUCCAGCA | 7499 | CGGGAGGGGAGUCCGACUC | 7542 | UCUCGAGGGAGAGCCGGGC |
| 7414 | CCGUCCUCGAAACCACAGG | 7457 | UCGACACACAGUCCAGCAC | 7500 | GGGAGGGGAGUCCGACUCA | 7543 | CUCGAGGGAGAGCCGGGCG |
| 7415 | CGUCCUCGAAACCACAGGA | 7458 | CGACACACAGUCCAGCACU | 7501 | GGAGGGGAGUCCGACUCAG | 7544 | UCGAGGGAGAGCCGGGCGA |
| 7416 | GUCCUCGAAACCACAGGAA | 7459 | GACACACAGUCCAGCACUA | 7502 | GAGGGGAGUCCGACUCAGA | 7545 | CGAGGGAGAGCCGGGCGAC |
| 7417 | UCCUCGAAACCACAGGAAG | 7460 | ACACACAGUCCAGCACUAC | 7503 | AGGGGAGUCCGACUCAGAG | 7546 | GAGGGAGAGCCGGGCGACC |
| 7418 | CCUCGAAACCACAGGAAGA | 7461 | CACACAGUCCAGCACUACU | 7504 | GGGGAGUCCGACUCAGAGU | 7547 | AGGGAGAGCCGGGCGACCC |
| 7419 | CUCGAAACCACAGGAAGAG | 7462 | ACACAGUCCAGCACUACUU | 7505 | GGGAGUCCGACUCAGAGUC | 7548 | GGGAGAGCCGGGCGACCCG |
| 7420 | UCGAAACCACAGGAAGAGA | 7463 | CACAGUCCAGCACUACUUC | 7506 | GGAGUCCGACUCAGAGUCA | 7549 | GGAGAGCCGGGCGACCCGG |
| 7421 | CGAAACCACAGGAAGAGAA | 7464 | ACAGUCCAGCACUACUUCC | 7507 | GAGUCCGACUCAGAGUCAU | 7550 | GAGAGCCGGGCGACCCGGA |
| 7422 | GAAACCACAGGAAGAGAAU | 7465 | CAGUCCAGCACUACUUCCA | 7508 | AGUCCGACUCAGAGUCAUG | 7551 | AGAGCCGGGCGACCCGGAC |
| 7423 | AAACCACAGGAAGAGAAUA | 7466 | AGUCCAGCACUACUUCCAA | 7509 | GUCCGACUCAGAGUCAUGC | 7552 | GAGCCGGGCGACCCGGACU |

**FIG. 4 (page 221 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7553 | AGCCGGGCGACCCGGACUU | 7596 | UAGUGACAGCGAGGAGCAG | 7639 | UAUUCUUGGACCGGCGCCC | 7682 | AAGAGAAACUGCCCAUCAG |
| 7554 | GCCGGGCGACCCGGACUUG | 7597 | AGUGACAGCGAGGAGCAGA | 7640 | AUUCUUGGACCGGCGCCCU | 7683 | AGAGAAACUGCCCAUCAGC |
| 7555 | CCGGGCGACCCGGACUUGA | 7598 | GUGACAGCGAGGAGCAGAG | 7641 | UUCUUGGACCGGCGCCCUG | 7684 | GAGAAACUGCCCAUCAGCC |
| 7556 | CGGGCGACCCGGACUUGAG | 7599 | UGACAGCGAGGAGCAGAGC | 7642 | UCUUGGACCGGCGCCCUGA | 7685 | AGAAACUGCCCAUCAGCCC |
| 7557 | GGGCGACCCGGACUUGAGU | 7600 | GACAGCGAGGAGCAGAGCG | 7643 | CUUGGACCGGCGCCCUGAU | 7686 | GAAACUGCCCAUCAGCCCA |
| 7558 | GGCGACCCGGACUUGAGUU | 7601 | ACAGCGAGGAGCAGAGCGU | 7644 | UUGGACCGGCGCCCUGAUA | 7687 | AAACUGCCCAUCAGCCCAC |
| 7559 | GCGACCCGGACUUGAGUUG | 7602 | CAGCGAGGAGCAGAGCGUG | 7645 | UGGACCGGCGCCCUGAUAA | 7688 | AACUGCCCAUCAGCCCACU |
| 7560 | CGACCCGGACUUGAGUUGC | 7603 | AGCGAGGAGCAGAGCGUGG | 7646 | GGACCGGCGCCCUGAUAAC | 7689 | ACUGCCCAUCAGCCCACUC |
| 7561 | GACCCGGACUUGAGUUGCG | 7604 | GCGAGGAGCAGAGCGUGGU | 7647 | GACCGGCGCCCUGAUAACA | 7690 | CUGCCCAUCAGCCCACUCA |
| 7562 | ACCCGGACUUGAGUUGCGA | 7605 | CGAGGAGCAGAGCGUGGUC | 7648 | ACCGGCGCCCUGAUAACAC | 7691 | UGCCCAUCAGCCCACUCAG |
| 7563 | CCCGGACUUGAGUUGCGAC | 7606 | GAGGAGCAGAGCGUGGUCU | 7649 | CCGGCGCCCUGAUAACACC | 7692 | GCCCAUCAGCCCACUCAGC |
| 7564 | CCGGACUUGAGUUGCGACU | 7607 | AGGAGCAGAGCGUGGUCUG | 7650 | CGGCGCCCUGAUAACACCA | 7693 | CCCAUCAGCCCACUCAGCA |
| 7565 | CGGACUUGAGUUGCGACUC | 7608 | GGAGCAGAGCGUGGUCUGC | 7651 | GGCGCCCUGAUAACACCAU | 7694 | CCAUCAGCCCACUCAGCAA |
| 7566 | GGACUUGAGUUGCGACUCU | 7609 | GAGCAGAGCGUGGUCUGCU | 7652 | GCGCCCUGAUAACACCAUG | 7695 | CAUCAGCCCACUCAGCAAC |
| 7567 | GACUUGAGUUGCGACUCUU | 7610 | AGCAGAGCGUGGUCUGCUG | 7653 | CGCCCUGAUAACACCAUGU | 7696 | AUCAGCCCACUCAGCAACU |
| 7568 | ACUUGAGUUGCGACUCUUG | 7611 | GCAGAGCGUGGUCUGCUGC | 7654 | GCCCUGAUAACACCAUGUA | 7697 | UCAGCCCACUCAGCAACUC |
| 7569 | CUUGAGUUGCGACUCUUGG | 7612 | CAGAGCGUGGUCUGCUGCU | 7655 | CCCUGAUAACACCAUGUAG | 7698 | CAGCCCACUCAGCAACUCC |
| 7570 | UUGAGUUGCGACUCUUGGU | 7613 | AGAGCGUGGUCUGCUGCUC | 7656 | CCUGAUAACACCAUGUAGU | 7699 | AGCCCACUCAGCAACUCCC |
| 7571 | UGAGUUGCGACUCUUGGUC | 7614 | GAGCGUGGUCUGCUGCUCU | 7657 | CUGAUAACACCAUGUAGUG | 7700 | GCCCACUCAGCAACUCCCU |
| 7572 | GAGUUGCGACUCUUGGUCC | 7615 | AGCGUGGUCUGCUGCUCUA | 7658 | UGAUAACACCAUGUAGUGC | 7701 | CCCACUCAGCAACUCCCUG |
| 7573 | AGUUGCGACUCUUGGUCCA | 7616 | GCGUGGUCUGCUGCUCUAU | 7659 | GAUAACACCAUGUAGUGCU | 7702 | CCACUCAGCAACUCCCUGU |
| 7574 | GUUGCGACUCUUGGUCCAC | 7617 | CGUGGUCUGCUGCUCUAUG | 7660 | AUAACACCAUGUAGUGCUG | 7703 | CACUCAGCAACUCCCUGUU |
| 7575 | UUGCGACUCUUGGUCCACC | 7618 | GUGGUCUGCUGCUCUAUGU | 7661 | UAACACCAUGUAGUGCUGA | 7704 | ACUCAGCAACUCCCUGUUG |
| 7576 | UGCGACUCUUGGUCCACCG | 7619 | UGGUCUGCUGCUCUAUGUC | 7662 | AACACCAUGUAGUGCUGAG | 7705 | CUCAGCAACUCCCUGUUGA |
| 7577 | GCGACUCUUGGUCCACCGU | 7620 | GGUCUGCUGCUCUAUGUCG | 7663 | ACACCAUGUAGUGCUGAGG | 7706 | UCAGCAACUCCCUGUUGAG |
| 7578 | CGACUCUUGGUCCACCGUU | 7621 | GUCUGCUGCUCUAUGUCGU | 7664 | CACCAUGUAGUGCUGAGGA | 7707 | CAGCAACUCCCUGUUGAGA |
| 7579 | GACUCUUGGUCCACCGUUA | 7622 | UCUGCUGCUCUAUGUCGUA | 7665 | ACCAUGUAGUGCUGAGGAA | 7708 | AGCAACUCCCUGUUGAGAC |
| 7580 | ACUCUUGGUCCACCGUUAG | 7623 | CUGCUGCUCUAUGUCGUAU | 7666 | CCAUGUAGUGCUGAGGAAG | 7709 | GCAACUCCCUGUUGAGACA |
| 7581 | CUCUUGGUCCACCGUUAGU | 7624 | UGCUGCUCUAUGUCGUAUU | 7667 | CAUGUAGUGCUGAGGAAGA | 7710 | CAACUCCCUGUUGAGACAU |
| 7582 | UCUUGGUCCACCGUUAGUG | 7625 | GCUGCUCUAUGUCGUAUUC | 7668 | AUGUAGUGCUGAGGAAGAG | 7711 | AACUCCCUGUUGAGACAUC |
| 7583 | CUUGGUCCACCGUUAGUGA | 7626 | CUGCUCUAUGUCGUAUUCU | 7669 | UGUAGUGCUGAGGAAGAGA | 7712 | ACUCCCUGUUGAGACAUCA |
| 7584 | UUGGUCCACCGUUAGUGAC | 7627 | UGCUCUAUGUCGUAUUCUU | 7670 | GUAGUGCUGAGGAAGAGAA | 7713 | CUCCCUGUUGAGACAUCAU |
| 7585 | UGGUCCACCGUUAGUGACA | 7628 | GCUCUAUGUCGUAUUCUUG | 7671 | UAGUGCUGAGGAAGAGAAA | 7714 | UCCCUGUUGAGACAUCAUA |
| 7586 | GGUCCACCGUUAGUGACAG | 7629 | CUCUAUGUCGUAUUCUUGG | 7672 | AGUGCUGAGGAAGAGAAAC | 7715 | CCCUGUUGAGACAUCAUAA |
| 7587 | GUCCACCGUUAGUGACAGC | 7630 | UCUAUGUCGUAUUCUUGGA | 7673 | GUGCUGAGGAAGAGAAACU | 7716 | CCUGUUGAGACAUCAUAAC |
| 7588 | UCCACCGUUAGUGACAGCG | 7631 | CUAUGUCGUAUUCUUGGAC | 7674 | UGCUGAGGAAGAGAAACUG | 7717 | CUGUUGAGACAUCAUAACC |
| 7589 | CCACCGUUAGUGACAGCGA | 7632 | UAUGUCGUAUUCUUGGACC | 7675 | GCUGAGGAAGAGAAACUGC | 7718 | UGUUGAGACAUCAUAACCU |
| 7590 | CACCGUUAGUGACAGCGAG | 7633 | AUGUCGUAUUCUUGGACCG | 7676 | CUGAGGAAGAGAAACUGCC | 7719 | GUUGAGACAUCAUAACCUA |
| 7591 | ACCGUUAGUGACAGCGAGG | 7634 | UGUCGUAUUCUUGGACCGG | 7677 | UGAGGAAGAGAAACUGCCC | 7720 | UUGAGACAUCAUAACCUAG |
| 7592 | CCGUUAGUGACAGCGAGGA | 7635 | GUCGUAUUCUUGGACCGGC | 7678 | GAGGAAGAGAAACUGCCCA | 7721 | UGAGACAUCAUAACCUAGU |
| 7593 | CGUUAGUGACAGCGAGGAG | 7636 | UCGUAUUCUUGGACCGGCG | 7679 | AGGAAGAGAAACUGCCCAU | 7722 | GAGACAUCAUAACCUAGUC |
| 7594 | GUUAGUGACAGCGAGGAGC | 7637 | CGUAUUCUUGGACCGGCGC | 7680 | GGAAGAGAAACUGCCCAUC | 7723 | AGACAUCAUAACCUAGUCU |
| 7595 | UUAGUGACAGCGAGGAGCA | 7638 | GUAUUCUUGGACCGGCGCC | 7681 | GAAGAGAAACUGCCCAUCA | 7724 | GACAUCAUAACCUAGUCUA |

**FIG. 4 (page 222 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7725 | ACAUCAUAACCUAGUCUAU | 7768 | CAGCGUCAGAAGAAGGUUA | 7811 | ACGACCAUUACAAGACUGC | 7854 | GUCUAGGGUAAAGGCUCGC |
| 7726 | CAUCAUAACCUAGUCUAUU | 7769 | AGCGUCAGAAGAAGGUUAC | 7812 | CGACCAUUACAAGACUGCA | 7855 | UCUAGGGUAAAGGCUCGCA |
| 7727 | AUCAUAACCUAGUCUAUUC | 7770 | GCGUCAGAAGAAGGUUACC | 7813 | GACCAUUACAAGACUGCAU | 7856 | CUAGGGUAAAGGCUCGCAU |
| 7728 | UCAUAACCUAGUCUAUUCA | 7771 | CGUCAGAAGAAGGUUACCU | 7814 | ACCAUUACAAGACUGCAUU | 7857 | UAGGGUAAAGGCUCGCAUG |
| 7729 | CAUAACCUAGUCUAUUCAA | 7772 | GUCAGAAGAAGGUUACCUU | 7815 | CCAUUACAAGACUGCAUUA | 7858 | AGGGUAAAGGCUCGCAUGC |
| 7730 | AUAACCUAGUCUAUUCAAC | 7773 | UCAGAAGAAGGUUACCUUC | 7816 | CAUUACAAGACUGCAUUAA | 7859 | GGGUAAAGGCUCGCAUGCU |
| 7731 | UAACCUAGUCUAUUCAACG | 7774 | CAGAAGAAGGUUACCUUCG | 7817 | AUUACAAGACUGCAUUAAA | 7860 | GGUAAAGGCUCGCAUGCUC |
| 7732 | AACCUAGUCUAUUCAACGU | 7775 | AGAAGAAGGUUACCUUCGA | 7818 | UUACAAGACUGCAUUAAAG | 7861 | GUAAAGGCUCGCAUGCUCA |
| 7733 | ACCUAGUCUAUUCAACGUC | 7776 | GAAGAAGGUUACCUUCGAU | 7819 | UACAAGACUGCAUUAAAGG | 7862 | UAAAGGCUCGCAUGCUCAC |
| 7734 | CCUAGUCUAUUCAACGUCG | 7777 | AAGAAGGUUACCUUCGAUA | 7820 | ACAAGACUGCAUUAAAGGA | 7863 | AAAGGCUCGCAUGCUCACC |
| 7735 | CUAGUCUAUUCAACGUCGU | 7778 | AGAAGGUUACCUUCGAUAG | 7821 | CAAGACUGCAUUAAAGGAG | 7864 | AAGGCUCGCAUGCUCACCA |
| 7736 | UAGUCUAUUCAACGUCGUC | 7779 | GAAGGUUACCUUCGAUAGA | 7822 | AAGACUGCAUUAAAGGAGG | 7865 | AGGCUCGCAUGCUCACCAU |
| 7737 | AGUCUAUUCAACGUCGUCU | 7780 | AAGGUUACCUUCGAUAGAC | 7823 | AGACUGCAUUAAAGGAGGU | 7866 | GGCUCGCAUGCUCACCAUC |
| 7738 | GUCUAUUCAACGUCGUCUA | 7781 | AGGUUACCUUCGAUAGACU | 7824 | GACUGCAUUAAAGGAGGUA | 7867 | GCUCGCAUGCUCACCAUCG |
| 7739 | UCUAUUCAACGUCGUCUAG | 7782 | GGUUACCUUCGAUAGACUG | 7825 | ACUGCAUUAAAGGAGGUAA | 7868 | CUCGCAUGCUCACCAUCGA |
| 7740 | CUAUUCAACGUCGUCUAGA | 7783 | GUUACCUUCGAUAGACUGC | 7826 | CUGCAUUAAAGGAGGUAAA | 7869 | UCGCAUGCUCACCAUCGAG |
| 7741 | UAUUCAACGUCGUCUAGAA | 7784 | UUACCUUCGAUAGACUGCA | 7827 | UGCAUUAAAGGAGGUAAAG | 7870 | CGCAUGCUCACCAUCGAGG |
| 7742 | AUUCAACGUCGUCUAGAAG | 7785 | UACCUUCGAUAGACUGCAG | 7828 | GCAUUAAAGGAGGUAAAGG | 7871 | GCAUGCUCACCAUCGAGGA |
| 7743 | UUCAACGUCGUCUAGAAGC | 7786 | ACCUUCGAUAGACUGCAGG | 7829 | CAUUAAAGGAGGUAAAGGA | 7872 | CAUGCUCACCAUCGAGGAA |
| 7744 | UCAACGUCGUCUAGAAGCG | 7787 | CCUUCGAUAGACUGCAGGU | 7830 | AUUAAAGGAGGUAAAGGAG | 7873 | AUGCUCACCAUCGAGGAAG |
| 7745 | CAACGUCGUCUAGAAGCGC | 7788 | CUUCGAUAGACUGCAGGUG | 7831 | UUAAAGGAGGUAAAGGAGC | 7874 | UGCUCACCAUCGAGGAAGC |
| 7746 | AACGUCGUCUAGAAGCGCU | 7789 | UUCGAUAGACUGCAGGUGC | 7832 | UAAAGGAGGUAAAGGAGCG | 7875 | GCUCACCAUCGAGGAAGCG |
| 7747 | ACGUCGUCUAGAAGCGCUU | 7790 | UCGAUAGACUGCAGGUGCU | 7833 | AAAGGAGGUAAAGGAGCGA | 7876 | CUCACCAUCGAGGAAGCGU |
| 7748 | CGUCGUCUAGAAGCGCUUC | 7791 | CGAUAGACUGCAGGUGCUC | 7834 | AAGGAGGUAAAGGAGCGAG | 7877 | UCACCAUCGAGGAAGCGUG |
| 7749 | GUCGUCUAGAAGCGCUUCU | 7792 | GAUAGACUGCAGGUGCUCG | 7835 | AGGAGGUAAAGGAGCGAGC | 7878 | CACCAUCGAGGAAGCGUGC |
| 7750 | UCGUCUAGAAGCGCUUCUC | 7793 | AUAGACUGCAGGUGCUCGA | 7836 | GGAGGUAAAGGAGCGAGCG | 7879 | ACCAUCGAGGAAGCGUGCG |
| 7751 | CGUCUAGAAGCGCUUCUCA | 7794 | UAGACUGCAGGUGCUCGAC | 7837 | GAGGUAAAGGAGCGAGCGU | 7880 | CCAUCGAGGAAGCGUGCGC |
| 7752 | GUCUAGAAGCGCUUCUCAG | 7795 | AGACUGCAGGUGCUCGACG | 7838 | AGGUAAAGGAGCGAGCGUC | 7881 | CAUCGAGGAAGCGUGCGCG |
| 7753 | UCUAGAAGCGCUUCUCAGC | 7796 | GACUGCAGGUGCUCGACGA | 7839 | GGUAAAGGAGCGAGCGUCU | 7882 | AUCGAGGAAGCGUGCGCGC |
| 7754 | CUAGAAGCGCUUCUCAGCG | 7797 | ACUGCAGGUGCUCGACGAC | 7840 | GUAAAGGAGCGAGCGUCUA | 7883 | UCGAGGAAGCGUGCGCGCU |
| 7755 | UAGAAGCGCUUCUCAGCGU | 7798 | CUGCAGGUGCUCGACGACC | 7841 | UAAAGGAGCGAGCGUCUAG | 7884 | CGAGGAAGCGUGCGCGCUC |
| 7756 | AGAAGCGCUUCUCAGCGUC | 7799 | UGCAGGUGCUCGACGACCA | 7842 | AAAGGAGCGAGCGUCUAGG | 7885 | GAGGAAGCGUGCGCGCUCG |
| 7757 | GAAGCGCUUCUCAGCGUCA | 7800 | GCAGGUGCUCGACGACCAU | 7843 | AAGGAGCGAGCGUCUAGGG | 7886 | AGGAAGCGUGCGCGCUCGU |
| 7758 | AAGCGCUUCUCAGCGUCAG | 7801 | CAGGUGCUCGACGACCAUU | 7844 | AGGAGCGAGCGUCUAGGGU | 7887 | GGAAGCGUGCGCGCUCGUC |
| 7759 | AGCGCUUCUCAGCGUCAGA | 7802 | AGGUGCUCGACGACCAUUA | 7845 | GGAGCGAGCGUCUAGGGUA | 7888 | GAAGCGUGCGCGCUCGUCC |
| 7760 | GCGCUUCUCAGCGUCAGAA | 7803 | GGUGCUCGACGACCAUUAC | 7846 | GAGCGAGCGUCUAGGGUAA | 7889 | AAGCGUGCGCGCUCGUCCC |
| 7761 | CGCUUCUCAGCGUCAGAAG | 7804 | GUGCUCGACGACCAUUACA | 7847 | AGCGAGCGUCUAGGGUAAA | 7890 | AGCGUGCGCGCUCGUCCCU |
| 7762 | GCUUCUCAGCGUCAGAAGA | 7805 | UGCUCGACGACCAUUACAA | 7848 | GCGAGCGUCUAGGGUAAAG | 7891 | GCGUGCGCGCUCGUCCCUC |
| 7763 | CUUCUCAGCGUCAGAAGAA | 7806 | GCUCGACGACCAUUACAAG | 7849 | CGAGCGUCUAGGGUAAAGG | 7892 | CGUGCGCGCUCGUCCCUCC |
| 7764 | UUCUCAGCGUCAGAAGAAG | 7807 | CUCGACGACCAUUACAAGA | 7850 | GAGCGUCUAGGGUAAAGGC | 7893 | GUGCGCGCUCGUCCCUCCU |
| 7765 | UCUCAGCGUCAGAAGAAGG | 7808 | UCGACGACCAUUACAAGAC | 7851 | AGCGUCUAGGGUAAAGGCU | 7894 | UGCGCGCUCGUCCCUCCUC |
| 7766 | CUCAGCGUCAGAAGAAGGU | 7809 | CGACGACCAUUACAAGACU | 7852 | GCGUCUAGGGUAAAGGCUC | 7895 | GCGCGCUCGUCCCUCCUCA |
| 7767 | UCAGCGUCAGAAGAAGGUU | 7810 | GACGACCAUUACAAGACUG | 7853 | CGUCUAGGGUAAAGGCUCG | 7896 | CGCGCUCGUCCCUCCUCAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7897 | GCGCUCGUCCCUCCUCACU | 7940 | GUGCGAAGGACGUUCGCUC | 7983 | GAUCCGCUCCGUCUGGGAG | 8026 | CCAAUUCCAACCACCAUCA |
| 7898 | CGCUCGUCCCUCCUCACUC | 7941 | UGCGAAGGACGUUCGCUCC | 7984 | AUCCGCUCCGUCUGGGAGG | 8027 | CAAUUCCAACCACCAUCAU |
| 7899 | GCUCGUCCCUCCUCACUCU | 7942 | GCGAAGGACGUUCGCUCCU | 7985 | UCCGCUCCGUCUGGGAGGA | 8028 | AAUUCCAACCACCAUCAUG |
| 7900 | CUCGUCCCUCCUCACUCUG | 7943 | CGAAGGACGUUCGCUCCUU | 7986 | CCGCUCCGUCUGGGAGGAC | 8029 | AUUCCAACCACCAUCAUGG |
| 7901 | UCGUCCCUCCUCACUCUGC | 7944 | GAAGGACGUUCGCUCCUUG | 7987 | CGCUCCGUCUGGGAGGACU | 8030 | UUCCAACCACCAUCAUGGC |
| 7902 | CGUCCCUCCUCACUCUGCC | 7945 | AAGGACGUUCGCUCCUUGU | 7988 | GCUCCGUCUGGGAGGACUU | 8031 | UCCAACCACCAUCAUGGCG |
| 7903 | GUCCCUCCUCACUCUGCCC | 7946 | AGGACGUUCGCUCCUUGUC | 7989 | CUCCGUCUGGGAGGACUUG | 8032 | CCAACCACCAUCAUGGCGA |
| 7904 | UCCCUCCUCACUCUGCCCG | 7947 | GGACGUUCGCUCCUUGUCC | 7990 | UCCGUCUGGGAGGACUUGC | 8033 | CAACCACCAUCAUGGCGAA |
| 7905 | CCCUCCUCACUCUGCCCGA | 7948 | GACGUUCGCUCCUUGUCCA | 7991 | CCGUCUGGGAGGACUUGCU | 8034 | AACCACCAUCAUGGCGAAG |
| 7906 | CCUCCUCACUCUGCCCGAU | 7949 | ACGUUCGCUCCUUGUCCAG | 7992 | CGUCUGGGAGGACUUGCUG | 8035 | ACCACCAUCAUGGCGAAGA |
| 7907 | CUCCUCACUCUGCCCGAUC | 7950 | CGUUCGCUCCUUGUCCAGC | 7993 | GUCUGGGAGGACUUGCUGG | 8036 | CCACCAUCAUGGCGAAGAA |
| 7908 | UCCUCACUCUGCCCGAUCG | 7951 | GUUCGCUCCUUGUCCAGCA | 7994 | UCUGGGAGGACUUGCUGGA | 8037 | CACCAUCAUGGCGAAGAAC |
| 7909 | CCUCACUCUGCCCGAUCGA | 7952 | UUCGCUCCUUGUCCAGCAG | 7995 | CUGGGAGGACUUGCUGGAA | 8038 | ACCAUCAUGGCGAAGAACG |
| 7910 | CUCACUCUGCCCGAUCGAA | 7953 | UCGCUCCUUGUCCAGCAGG | 7996 | UGGGAGGACUUGCUGGAAG | 8039 | CCAUCAUGGCGAAGAACGA |
| 7911 | UCACUCUGCCCGAUCGAAG | 7954 | CGCUCCUUGUCCAGCAGGG | 7997 | GGGAGGACUUGCUGGAAGA | 8040 | CAUCAUGGCGAAGAACGAG |
| 7912 | CACUCUGCCCGAUCGAAGU | 7955 | GCUCCUUGUCCAGCAGGGC | 7998 | GGAGGACUUGCUGGAAGAC | 8041 | AUCAUGGCGAAGAACGAGG |
| 7913 | ACUCUGCCCGAUCGAAGUU | 7956 | CUCCUUGUCCAGCAGGGCC | 7999 | GAGGACUUGCUGGAAGACA | 8042 | UCAUGGCGAAGAACGAGGU |
| 7914 | CUCUGCCCGAUCGAAGUUC | 7957 | UCCUUGUCCAGCAGGGCCA | 8000 | AGGACUUGCUGGAAGACAC | 8043 | CAUGGCGAAGAACGAGGUG |
| 7915 | UCUGCCCGAUCGAAGUUCG | 7958 | CCUUGUCCAGCAGGGCCAU | 8001 | GGACUUGCUGGAAGACACC | 8044 | AUGGCGAAGAACGAGGUGU |
| 7916 | CUGCCCGAUCGAAGUUCGG | 7959 | CUUGUCCAGCAGGGCCAUU | 8002 | GACUUGCUGGAAGACACCA | 8045 | UGGCGAAGAACGAGGUGUU |
| 7917 | UGCCCGAUCGAAGUUCGGG | 7960 | UUGUCCAGCAGGGCCAUUA | 8003 | ACUUGCUGGAAGACACCAC | 8046 | GGCGAAGAACGAGGUGUUU |
| 7918 | GCCCGAUCGAAGUUCGGGU | 7961 | UGUCCAGCAGGGCCAUUAA | 8004 | CUUGCUGGAAGACACCACA | 8047 | GCGAAGAACGAGGUGUUUU |
| 7919 | CCCGAUCGAAGUUCGGGUA | 7962 | GUCCAGCAGGGCCAUUAAC | 8005 | UUGCUGGAAGACACCACAA | 8048 | CGAAGAACGAGGUGUUUUG |
| 7920 | CCGAUCGAAGUUCGGGUAU | 7963 | UCCAGCAGGGCCAUUAACC | 8006 | UGCUGGAAGACACCACAAC | 8049 | GAAGAACGAGGUGUUUUGC |
| 7921 | CGAUCGAAGUUCGGGUAUA | 7964 | CCAGCAGGGCCAUUAACCA | 8007 | GCUGGAAGACACCACAACU | 8050 | AAGAACGAGGUGUUUUGCG |
| 7922 | GAUCGAAGUUCGGGUAUAG | 7965 | CAGCAGGGCCAUUAACCAG | 8008 | CUGGAAGACACCACAACUC | 8051 | AGAACGAGGUGUUUUGCGU |
| 7923 | AUCGAAGUUCGGGUAUAGU | 7966 | AGCAGGGCCAUUAACCAGA | 8009 | UGGAAGACACCACAACUCC | 8052 | GAACGAGGUGUUUUGCGUG |
| 7924 | UCGAAGUUCGGGUAUAGUG | 7967 | GCAGGGCCAUUAACCAGAU | 8010 | GGAAGACACCACAACUCCA | 8053 | AACGAGGUGUUUUGCGUGG |
| 7925 | CGAAGUUCGGGUAUAGUGC | 7968 | CAGGGCCAUUAACCAGAUC | 8011 | GAAGACACCACAACUCCAA | 8054 | ACGAGGUGUUUUGCGUGGA |
| 7926 | GAAGUUCGGGUAUAGUGCG | 7969 | AGGGCCAUUAACCAGAUCC | 8012 | AAGACACCACAACUCCAAU | 8055 | CGAGGUGUUUUGCGUGGAC |
| 7927 | AAGUUCGGGUAUAGUGCGA | 7970 | GGGCCAUUAACCAGAUCCG | 8013 | AGACACCACAACUCCAAUU | 8056 | GAGGUGUUUUGCGUGGACC |
| 7928 | AGUUCGGGUAUAGUGCGAA | 7971 | GGCCAUUAACCAGAUCCGC | 8014 | GACACCACAACUCCAAUUC | 8057 | AGGUGUUUUGCGUGGACCC |
| 7929 | GUUCGGGUAUAGUGCGAAG | 7972 | GCCAUUAACCAGAUCCGCU | 8015 | ACACCACAACUCCAAUUCC | 8058 | GGUGUUUUGCGUGGACCCC |
| 7930 | UUCGGGUAUAGUGCGAAGG | 7973 | CCAUUAACCAGAUCCGCUC | 8016 | CACCACAACUCCAAUUCCA | 8059 | GUGUUUUGCGUGGACCCCG |
| 7931 | UCGGGUAUAGUGCGAAGGA | 7974 | CAUUAACCAGAUCCGCUCC | 8017 | ACCACAACUCCAAUUCCAA | 8060 | UGUUUUGCGUGGACCCCGC |
| 7932 | CGGGUAUAGUGCGAAGGAC | 7975 | AUUAACCAGAUCCGCUCCG | 8018 | CCACAACUCCAAUUCCAAC | 8061 | GUUUUGCGUGGACCCCGCU |
| 7933 | GGGUAUAGUGCGAAGGACG | 7976 | UUAACCAGAUCCGCUCCGU | 8019 | CACAACUCCAAUUCCAACC | 8062 | UUUUGCGUGGACCCCGCUA |
| 7934 | GGUAUAGUGCGAAGGACGU | 7977 | UAACCAGAUCCGCUCCGUC | 8020 | ACAACUCCAAUUCCAACCA | 8063 | UUUGCGUGGACCCCGCUAA |
| 7935 | GUAUAGUGCGAAGGACGUU | 7978 | AACCAGAUCCGCUCCGUCU | 8021 | CAACUCCAAUUCCAACCAC | 8064 | UUGCGUGGACCCCGCUAAA |
| 7936 | UAUAGUGCGAAGGACGUUC | 7979 | ACCAGAUCCGCUCCGUCUG | 8022 | AACUCCAAUUCCAACCACC | 8065 | UGCGUGGACCCCGCUAAAG |
| 7937 | AUAGUGCGAAGGACGUUCG | 7980 | CCAGAUCCGCUCCGUCUGG | 8023 | ACUCCAAUUCCAACCACCA | 8066 | GCGUGGACCCCGCUAAAGG |
| 7938 | UAGUGCGAAGGACGUUCGC | 7981 | CAGAUCCGCUCCGUCUGGG | 8024 | CUCCAAUUCCAACCACCAU | 8067 | CGUGGACCCCGCUAAAGGG |
| 7939 | AGUGCGAAGGACGUUCGCU | 7982 | AGAUCCGCUCCGUCUGGGA | 8025 | UCCAAUUCCAACCACCAUC | 8068 | GUGGACCCCGCUAAAGGGG |

**FIG. 4 (page 224 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8069 | UGGACCCCGCUAAAGGGGG | 8112 | GUACCCUGACCUGGGGGUG | 8155 | UAUGACGUGAUACAGAAGU | 8198 | CCUAUGGAUUCCAAUACUC |
| 8070 | GGACCCCGCUAAAGGGGGC | 8113 | UACCCUGACCUGGGGGUGC | 8156 | AUGACGUGAUACAGAAGUU | 8199 | CUAUGGAUUCCAAUACUCG |
| 8071 | GACCCCGCUAAAGGGGGCC | 8114 | ACCCUGACCUGGGGGUGCG | 8157 | UGACGUGAUACAGAAGUUG | 8200 | UAUGGAUUCCAAUACUCGC |
| 8072 | ACCCCGCUAAAGGGGGCCG | 8115 | CCCUGACCUGGGGGUGCGU | 8158 | GACGUGAUACAGAAGUUGU | 8201 | AUGGAUUCCAAUACUCGCC |
| 8073 | CCCCGCUAAAGGGGGCCGC | 8116 | CCUGACCUGGGGGUGCGUG | 8159 | ACGUGAUACAGAAGUUGUC | 8202 | UGGAUUCCAAUACUCGCCU |
| 8074 | CCCGCUAAAGGGGGCCGCA | 8117 | CUGACCUGGGGGUGCGUGU | 8160 | CGUGAUACAGAAGUUGUCA | 8203 | GGAUUCCAAUACUCGCCUC |
| 8075 | CCGCUAAAGGGGGCCGCAA | 8118 | UGACCUGGGGGUGCGUGUC | 8161 | GUGAUACAGAAGUUGUCAA | 8204 | GAUUCCAAUACUCGCCUCA |
| 8076 | CGCUAAAGGGGGCCGCAAG | 8119 | GACCUGGGGGUGCGUGUCU | 8162 | UGAUACAGAAGUUGUCAAU | 8205 | AUUCCAAUACUCGCCUCAA |
| 8077 | GCUAAAGGGGGCCGCAAGC | 8120 | ACCUGGGGGUGCGUGUCUG | 8163 | GAUACAGAAGUUGUCAAUU | 8206 | UUCCAAUACUCGCCUCAAC |
| 8078 | CUAAAGGGGGCCGCAAGCC | 8121 | CCUGGGGGUGCGUGUCUGU | 8164 | AUACAGAAGUUGUCAAUUG | 8207 | UCCAAUACUCGCCUCAACA |
| 8079 | UAAAGGGGGCCGCAAGCCC | 8122 | CUGGGGGUGCGUGUCUGUG | 8165 | UACAGAAGUUGUCAAUUGA | 8208 | CCAAUACUCGCCUCAACAG |
| 8080 | AAAGGGGGCCGCAAGCCCG | 8123 | UGGGGGUGCGUGUCUGUGA | 8166 | ACAGAAGUUGUCAAUUGAG | 8209 | CAAUACUCGCCUCAACAGC |
| 8081 | AAGGGGGCCGCAAGCCCGC | 8124 | GGGGGUGCGUGUCUGUGAG | 8167 | CAGAAGUUGUCAAUUGAGA | 8210 | AAUACUCGCCUCAACAGCG |
| 8082 | AGGGGGCCGCAAGCCCGCU | 8125 | GGGGUGCGUGUCUGUGAGA | 8168 | AGAAGUUGUCAAUUGAGAC | 8211 | AUACUCGCCUCAACAGCGG |
| 8083 | GGGGGCCGCAAGCCCGCUC | 8126 | GGGUGCGUGUCUGUGAGAA | 8169 | GAAGUUGUCAAUUGAGACG | 8212 | UACUCGCCUCAACAGCGGG |
| 8084 | GGGGCCGCAAGCCCGCUCG | 8127 | GGUGCGUGUCUGUGAGAAA | 8170 | AAGUUGUCAAUUGAGACGA | 8213 | ACUCGCCUCAACAGCGGGU |
| 8085 | GGGCCGCAAGCCCGCUCGC | 8128 | GUGCGUGUCUGUGAGAAAC | 8171 | AGUUGUCAAUUGAGACGAU | 8214 | CUCGCCUCAACAGCGGGUC |
| 8086 | GGCCGCAAGCCCGCUCGCC | 8129 | UGCGUGUCUGUGAGAAACG | 8172 | GUUGUCAAUUGAGACGAUG | 8215 | UCGCCUCAACAGCGGGUCG |
| 8087 | GCCGCAAGCCCGCUCGCCU | 8130 | GCGUGUCUGUGAGAAACGC | 8173 | UUGUCAAUUGAGACGAUGG | 8216 | CGCCUCAACAGCGGGUCGA |
| 8088 | CCGCAAGCCCGCUCGCCUC | 8131 | CGUGUCUGUGAGAAACGCG | 8174 | UGUCAAUUGAGACGAUGGG | 8217 | GCCUCAACAGCGGGUCGAA |
| 8089 | CGCAAGCCCGCUCGCCUCA | 8132 | GUGUCUGUGAGAAACGCGC | 8175 | GUCAAUUGAGACGAUGGGU | 8218 | CCUCAACAGCGGGUCGAAC |
| 8090 | GCAAGCCCGCUCGCCUCAU | 8133 | UGUCUGUGAGAAACGCGCC | 8176 | UCAAUUGAGACGAUGGGUC | 8219 | CUCAACAGCGGGUCGAACG |
| 8091 | CAAGCCCGCUCGCCUCAUU | 8134 | GUCUGUGAGAAACGCGCCC | 8177 | CAAUUGAGACGAUGGGUCC | 8220 | UCAACAGCGGGUCGAACGU |
| 8092 | AAGCCCGCUCGCCUCAUUG | 8135 | UCUGUGAGAAACGCGCCCU | 8178 | AAUUGAGACGAUGGGUCCU | 8221 | CAACAGCGGGUCGAACGUC |
| 8093 | AGCCCGCUCGCCUCAUUGU | 8136 | CUGUGAGAAACGCGCCCUG | 8179 | AUUGAGACGAUGGGUCCUG | 8222 | AACAGCGGGUCGAACGUCU |
| 8094 | GCCCGCUCGCCUCAUUGUG | 8137 | UGUGAGAAACGCGCCCUGU | 8180 | UUGAGACGAUGGGUCCUGC | 8223 | ACAGCGGGUCGAACGUCUG |
| 8095 | CCCGCUCGCCUCAUUGUGU | 8138 | GUGAGAAACGCGCCCUGUA | 8181 | UGAGACGAUGGGUCCUGCC | 8224 | CAGCGGGUCGAACGUCUGC |
| 8096 | CCGCUCGCCUCAUUGUGUA | 8139 | UGAGAAACGCGCCCUGUAU | 8182 | GAGACGAUGGGUCCUGCCU | 8225 | AGCGGGUCGAACGUCUGCU |
| 8097 | CGCUCGCCUCAUUGUGUAC | 8140 | GAGAAACGCGCCCUGUAUG | 8183 | AGACGAUGGGUCCUGCCUA | 8226 | GCGGGUCGAACGUCUGCUG |
| 8098 | GCUCGCCUCAUUGUGUACC | 8141 | AGAAACGCGCCCUGUAUGA | 8184 | GACGAUGGGUCCUGCCUAU | 8227 | CGGGUCGAACGUCUGCUGA |
| 8099 | CUCGCCUCAUUGUGUACCC | 8142 | GAAACGCGCCCUGUAUGAC | 8185 | ACGAUGGGUCCUGCCUAUG | 8228 | GGGUCGAACGUCUGCUGAA |
| 8100 | UCGCCUCAUUGUGUACCCU | 8143 | AAACGCGCCCUGUAUGACG | 8186 | CGAUGGGUCCUGCCUAUGG | 8229 | GGUCGAACGUCUGCUGAAG |
| 8101 | CGCCUCAUUGUGUACCCUG | 8144 | AACGCGCCCUGUAUGACGU | 8187 | GAUGGGUCCUGCCUAUGGA | 8230 | GUCGAACGUCUGCUGAAGA |
| 8102 | GCCUCAUUGUGUACCCUGA | 8145 | ACGCGCCCUGUAUGACGUG | 8188 | AUGGGUCCUGCCUAUGGAU | 8231 | UCGAACGUCUGCUGAAGAU |
| 8103 | CCUCAUUGUGUACCCUGAC | 8146 | CGCGCCCUGUAUGACGUGA | 8189 | UGGGUCCUGCCUAUGGAUU | 8232 | CGAACGUCUGCUGAAGAUG |
| 8104 | CUCAUUGUGUACCCUGACC | 8147 | GCGCCCUGUAUGACGUGAU | 8190 | GGGUCCUGCCUAUGGAUUC | 8233 | GAACGUCUGCUGAAGAUGU |
| 8105 | UCAUUGUGUACCCUGACCU | 8148 | CGCCCUGUAUGACGUGAUA | 8191 | GGUCCUGCCUAUGGAUUCC | 8234 | AACGUCUGCUGAAGAUGUG |
| 8106 | CAUUGUGUACCCUGACCUG | 8149 | GCCCUGUAUGACGUGAUAC | 8192 | GUCCUGCCUAUGGAUUCCA | 8235 | ACGUCUGCUGAAGAUGUGG |
| 8107 | AUUGUGUACCCUGACCUGG | 8150 | CCCUGUAUGACGUGAUACA | 8193 | UCCUGCCUAUGGAUUCCAA | 8236 | CGUCUGCUGAAGAUGUGGA |
| 8108 | UUGUGUACCCUGACCUGGG | 8151 | CCUGUAUGACGUGAUACAG | 8194 | CCUGCCUAUGGAUUCCAAU | 8237 | GUCUGCUGAAGAUGUGGAC |
| 8109 | UGUGUACCCUGACCUGGGG | 8152 | CUGUAUGACGUGAUACAGA | 8195 | CUGCCUAUGGAUUCCAAUA | 8238 | UCUGCUGAAGAUGUGGACC |
| 8110 | GUGUACCCUGACCUGGGGG | 8153 | UGUAUGACGUGAUACAGAA | 8196 | UGCCUAUGGAUUCCAAUAC | 8239 | CUGCUGAAGAUGUGGACCU |
| 8111 | UGUACCCUGACCUGGGGGU | 8154 | GUAUGACGUGAUACAGAAG | 8197 | GCCUAUGGAUUCCAAUACU | 8240 | UGCUGAAGAUGUGGACCUC |

**FIG. 4 (page 225 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8241 | GCUGAAGAUGUGGACCUCA | 8284 | UAUGACACCCGCUGCUUUG | 8327 | UCAGGGUGGAAGAGGAGAU | 8370 | GGAGGCCAGGAAAGUGAUC |
| 8242 | CUGAAGAUGUGGACCUCAA | 8285 | AUGACACCCGCUGCUUUGA | 8328 | CAGGGUGGAAGAGGAGAUA | 8371 | GAGGCCAGGAAAGUGAUCU |
| 8243 | UGAAGAUGUGGACCUCAAA | 8286 | UGACACCCGCUGCUUUGAC | 8329 | AGGGUGGAAGAGGAGAUAU | 8372 | AGGCCAGGAAAGUGAUCUC |
| 8244 | GAAGAUGUGGACCUCAAAG | 8287 | GACACCCGCUGCUUUGACU | 8330 | GGGUGGAAGAGGAGAUAUA | 8373 | GGCCAGGAAAGUGAUCUCC |
| 8245 | AAGAUGUGGACCUCAAAGA | 8288 | ACACCCGCUGCUUUGACUC | 8331 | GGUGGAAGAGGAGAUAUAC | 8374 | GCCAGGAAAGUGAUCUCCU |
| 8246 | AGAUGUGGACCUCAAAGAA | 8289 | CACCCGCUGCUUUGACUCA | 8332 | GUGGAAGAGGAGAUAUACC | 8375 | CCAGGAAAGUGAUCUCCUC |
| 8247 | GAUGUGGACCUCAAAGAAA | 8290 | ACCCGCUGCUUUGACUCAA | 8333 | UGGAAGAGGAGAUAUACCA | 8376 | CAGGAAAGUGAUCUCCUCC |
| 8248 | AUGUGGACCUCAAAGAAAA | 8291 | CCCGCUGCUUUGACUCAAC | 8334 | GGAAGAGGAGAUAUACCAA | 8377 | AGGAAAGUGAUCUCCUCCC |
| 8249 | UGUGGACCUCAAAGAAAAC | 8292 | CCGCUGCUUUGACUCAACU | 8335 | GAAGAGGAGAUAUACCAAU | 8378 | GGAAAGUGAUCUCCUCCCU |
| 8250 | GUGGACCUCAAAGAAAACC | 8293 | CGCUGCUUUGACUCAACUG | 8336 | AAGAGGAGAUAUACCAAUG | 8379 | GAAAGUGAUCUCCUCCCUC |
| 8251 | UGGACCUCAAAGAAAACCC | 8294 | GCUGCUUUGACUCAACUGU | 8337 | AGAGGAGAUAUACCAAUGC | 8380 | AAAGUGAUCUCCUCCCUCA |
| 8252 | GGACCUCAAAGAAAACCCC | 8295 | CUGCUUUGACUCAACUGUC | 8338 | GAGGAGAUAUACCAAUGCU | 8381 | AAGUGAUCUCCUCCCUCAC |
| 8253 | GACCUCAAAGAAAACCCCC | 8296 | UGCUUUGACUCAACUGUCA | 8339 | AGGAGAUAUACCAAUGCUG | 8382 | AGUGAUCUCCUCCCUCACG |
| 8254 | ACCUCAAAGAAAACCCCCU | 8297 | GCUUUGACUCAACUGUCAC | 8340 | GGAGAUAUACCAAUGCUGU | 8383 | GUGAUCUCCUCCCUCACGG |
| 8255 | CCUCAAAGAAAACCCCCUU | 8298 | CUUUGACUCAACUGUCACU | 8341 | GAGAUAUACCAAUGCUGUA | 8384 | UGAUCUCCUCCCUCACGGA |
| 8256 | CUCAAAGAAAACCCCCUUG | 8299 | UUUGACUCAACUGUCACUG | 8342 | AGAUAUACCAAUGCUGUAA | 8385 | GAUCUCCUCCCUCACGGAG |
| 8257 | UCAAAGAAAACCCCCUUGG | 8300 | UUGACUCAACUGUCACUGA | 8343 | GAUAUACCAAUGCUGUAAC | 8386 | AUCUCCUCCCUCACGGAGC |
| 8258 | CAAAGAAAACCCCCUUGGG | 8301 | UGACUCAACUGUCACUGAA | 8344 | AUAUACCAAUGCUGUAACC | 8387 | UCUCCUCCCUCACGGAGCG |
| 8259 | AAAGAAAACCCCCUUGGGG | 8302 | GACUCAACUGUCACUGAAC | 8345 | UAUACCAAUGCUGUAACCU | 8388 | CUCCUCCCUCACGGAGCGG |
| 8260 | AAGAAAACCCCCUUGGGGU | 8303 | ACUCAACUGUCACUGAACA | 8346 | AUACCAAUGCUGUAACCUU | 8389 | UCCUCCCUCACGGAGCGGC |
| 8261 | AGAAAACCCCCUUGGGGUU | 8304 | CUCAACUGUCACUGAACAG | 8347 | UACCAAUGCUGUAACCUUG | 8390 | CCUCCCUCACGGAGCGGCU |
| 8262 | GAAAACCCCCUUGGGGUUC | 8305 | UCAACUGUCACUGAACAGG | 8348 | ACCAAUGCUGUAACCUUGA | 8391 | CUCCCUCACGGAGCGGCUU |
| 8263 | AAAACCCCCUUGGGGUUCU | 8306 | CAACUGUCACUGAACAGGA | 8349 | CCAAUGCUGUAACCUUGAA | 8392 | UCCCUCACGGAGCGGCUUU |
| 8264 | AAACCCCCUUGGGGUUCUC | 8307 | AACUGUCACUGAACAGGAC | 8350 | CAAUGCUGUAACCUUGAAC | 8393 | CCCUCACGGAGCGGCUUUA |
| 8265 | AACCCCCUUGGGGUUCUCA | 8308 | ACUGUCACUGAACAGGACA | 8351 | AAUGCUGUAACCUUGAACC | 8394 | CCUCACGGAGCGGCUUUAC |
| 8266 | ACCCCCUUGGGGUUCUCAU | 8309 | CUGUCACUGAACAGGACAU | 8352 | AUGCUGUAACCUUGAACCG | 8395 | CUCACGGAGCGGCUUUACU |
| 8267 | CCCCCUUGGGGUUCUCAUA | 8310 | UGUCACUGAACAGGACAUC | 8353 | UGCUGUAACCUUGAACCGG | 8396 | UCACGGAGCGGCUUUACUG |
| 8268 | CCCCUUGGGGUUCUCAUAU | 8311 | GUCACUGAACAGGACAUCA | 8354 | GCUGUAACCUUGAACCGGA | 8397 | CACGGAGCGGCUUUACUGC |
| 8269 | CCCUUGGGGUUCUCAUAUG | 8312 | UCACUGAACAGGACAUCAG | 8355 | CUGUAACCUUGAACCGGAG | 8398 | ACGGAGCGGCUUUACUGCG |
| 8270 | CCUUGGGGUUCUCAUAUGA | 8313 | CACUGAACAGGACAUCAGG | 8356 | UGUAACCUUGAACCGGAGG | 8399 | CGGAGCGGCUUUACUGCGG |
| 8271 | CUUGGGGUUCUCAUAUGAC | 8314 | ACUGAACAGGACAUCAGGG | 8357 | GUAACCUUGAACCGGAGGC | 8400 | GGAGCGGCUUUACUGCGGA |
| 8272 | UUGGGGUUCUCAUAUGACA | 8315 | CUGAACAGGACAUCAGGGU | 8358 | UAACCUUGAACCGGAGGCC | 8401 | GAGCGGCUUUACUGCGGAG |
| 8273 | UGGGGUUCUCAUAUGACAC | 8316 | UGAACAGGACAUCAGGGUG | 8359 | AACCUUGAACCGGAGGCCA | 8402 | AGCGGCUUUACUGCGGAGG |
| 8274 | GGGGUUCUCAUAUGACACC | 8317 | GAACAGGACAUCAGGGUGG | 8360 | ACCUUGAACCGGAGGCCAG | 8403 | GCGGCUUUACUGCGGAGGC |
| 8275 | GGGUUCUCAUAUGACACCC | 8318 | AACAGGACAUCAGGGUGGA | 8361 | CCUUGAACCGGAGGCCAGG | 8404 | CGGCUUUACUGCGGAGGCC |
| 8276 | GGUUCUCAUAUGACACCCG | 8319 | ACAGGACAUCAGGGUGGAA | 8362 | CUUGAACCGGAGGCCAGGA | 8405 | GGCUUUACUGCGGAGGCCC |
| 8277 | GUUCUCAUAUGACACCCGC | 8320 | CAGGACAUCAGGGUGGAAG | 8363 | UUGAACCGGAGGCCAGGAA | 8406 | GCUUUACUGCGGAGGCCCU |
| 8278 | UUCUCAUAUGACACCCGCU | 8321 | AGGACAUCAGGGUGGAAGA | 8364 | UGAACCGGAGGCCAGGAAA | 8407 | CUUUACUGCGGAGGCCCUA |
| 8279 | UCUCAUAUGACACCCGCUG | 8322 | GGACAUCAGGGUGGAAGAG | 8365 | GAACCGGAGGCCAGGAAAG | 8408 | UUUACUGCGGAGGCCCUAU |
| 8280 | CUCAUAUGACACCCGCUGC | 8323 | GACAUCAGGGUGGAAGAGG | 8366 | AACCGGAGGCCAGGAAAGU | 8409 | UUACUGCGGAGGCCCUAUG |
| 8281 | UCAUAUGACACCCGCUGCU | 8324 | ACAUCAGGGUGGAAGAGGA | 8367 | ACCGGAGGCCAGGAAAGUG | 8410 | UACUGCGGAGGCCCUAUGU |
| 8282 | CAUAUGACACCCGCUGCUU | 8325 | CAUCAGGGUGGAAGAGGAG | 8368 | CCGGAGGCCAGGAAAGUGA | 8411 | ACUGCGGAGGCCCUAUGUU |
| 8283 | AUAUGACACCCGCUGCUUU | 8326 | AUCAGGGUGGAAGAGGAGA | 8369 | CGGAGGCCAGGAAAGUGAU | 8412 | CUGCGGAGGCCCUAUGUUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8413 | UGCGGAGGCCCUAUGUUCA | 8456 | AUCGCCGUUGCCGUGCCAG | 8499 | CAACACAAUCACUUGUUAC | 8542 | GCCGCAAACCUCCGGAACC |
| 8414 | GCGGAGGCCCUAUGUUCAA | 8457 | UCGCCGUUGCCGUGCCAGU | 8500 | AACACAAUCACUUGUUACA | 8543 | CCGCAAACCUCCGGAACCC |
| 8415 | CGGAGGCCCUAUGUUCAAC | 8458 | CGCCGUUGCCGUGCCAGUG | 8501 | ACACAAUCACUUGUUACAU | 8544 | CGCAAACCUCCGGAACCCG |
| 8416 | GGAGGCCCUAUGUUCAACA | 8459 | GCCGUUGCCGUGCCAGUGG | 8502 | CACAAUCACUUGUUACAUC | 8545 | GCAAACCUCCGGAACCCGG |
| 8417 | GAGGCCCUAUGUUCAACAG | 8460 | CCGUUGCCGUGCCAGUGGA | 8503 | ACAAUCACUUGUUACAUCA | 8546 | CAAACCUCCGGAACCCGGA |
| 8418 | AGGCCCUAUGUUCAACAGC | 8461 | CGUUGCCGUGCCAGUGGAG | 8504 | CAAUCACUUGUUACAUCAA | 8547 | AAACCUCCGGAACCCGGAC |
| 8419 | GGCCCUAUGUUCAACAGCA | 8462 | GUUGCCGUGCCAGUGGAGU | 8505 | AAUCACUUGUUACAUCAAG | 8548 | AACCUCCGGAACCCGGACU |
| 8420 | GCCCUAUGUUCAACAGCAA | 8463 | UUGCCGUGCCAGUGGAGUU | 8506 | AUCACUUGUUACAUCAAGG | 8549 | ACCUCCGGAACCCGGACUU |
| 8421 | CCCUAUGUUCAACAGCAAG | 8464 | UGCCGUGCCAGUGGAGUUC | 8507 | UCACUUGUUACAUCAAGGC | 8550 | CCUCCGGAACCCGGACUUU |
| 8422 | CCUAUGUUCAACAGCAAGG | 8465 | GCCGUGCCAGUGGAGUUCU | 8508 | CACUUGUUACAUCAAGGCC | 8551 | CUCCGGAACCCGGACUUUC |
| 8423 | CUAUGUUCAACAGCAAGGG | 8466 | CCGUGCCAGUGGAGUUCUG | 8509 | ACUUGUUACAUCAAGGCCA | 8552 | UCCGGAACCCGGACUUUCU |
| 8424 | UAUGUUCAACAGCAAGGGG | 8467 | CGUGCCAGUGGAGUUCUGC | 8510 | CUUGUUACAUCAAGGCCAC | 8553 | CCGGAACCCGGACUUUCUU |
| 8425 | AUGUUCAACAGCAAGGGGG | 8468 | GUGCCAGUGGAGUUCUGCC | 8511 | UUGUUACAUCAAGGCCACA | 8554 | CGGAACCCGGACUUUCUUG |
| 8426 | UGUUCAACAGCAAGGGGGC | 8469 | UGCCAGUGGAGUUCUGCCU | 8512 | UGUUACAUCAAGGCCACAG | 8555 | GGAACCCGGACUUUCUUGU |
| 8427 | GUUCAACAGCAAGGGGGCC | 8470 | GCCAGUGGAGUUCUGCCUA | 8513 | GUUACAUCAAGGCCACAGC | 8556 | GAACCCGGACUUUCUUGUC |
| 8428 | UUCAACAGCAAGGGGGCCC | 8471 | CCAGUGGAGUUCUGCCUAC | 8514 | UUACAUCAAGGCCACAGCG | 8557 | AACCCGGACUUUCUUGUCU |
| 8429 | UCAACAGCAAGGGGGCCCA | 8472 | CAGUGGAGUUCUGCCUACC | 8515 | UACAUCAAGGCCACAGCGG | 8558 | ACCCGGACUUUCUUGUCUG |
| 8430 | CAACAGCAAGGGGGCCCAG | 8473 | AGUGGAGUUCUGCCUACCA | 8516 | ACAUCAAGGCCACAGCGGC | 8559 | CCCGGACUUUCUUGUCUGC |
| 8431 | AACAGCAAGGGGGCCCAGU | 8474 | GUGGAGUUCUGCCUACCAG | 8517 | CAUCAAGGCCACAGCGGCU | 8560 | CCGGACUUUCUUGUCUGCG |
| 8432 | ACAGCAAGGGGGCCCAGUG | 8475 | UGGAGUUCUGCCUACCAGC | 8518 | AUCAAGGCCACAGCGGCUG | 8561 | CGGACUUUCUUGUCUGCGG |
| 8433 | CAGCAAGGGGGCCCAGUGU | 8476 | GGAGUUCUGCCUACCAGCU | 8519 | UCAAGGCCACAGCGGCUGC | 8562 | GGACUUUCUUGUCUGCGGA |
| 8434 | AGCAAGGGGGCCCAGUGUG | 8477 | GAGUUCUGCCUACCAGCUU | 8520 | CAAGGCCACAGCGGCUGCA | 8563 | GACUUUCUUGUCUGCGGAG |
| 8435 | GCAAGGGGGCCCAGUGUGG | 8478 | AGUUCUGCCUACCAGCUUC | 8521 | AAGGCCACAGCGGCUGCAA | 8564 | ACUUUCUUGUCUGCGGAGA |
| 8436 | CAAGGGGGCCCAGUGUGGU | 8479 | GUUCUGCCUACCAGCUUCG | 8522 | AGGCCACAGCGGCUGCAAA | 8565 | CUUUCUUGUCUGCGGAGAU |
| 8437 | AAGGGGGCCCAGUGUGGUU | 8480 | UUCUGCCUACCAGCUUCGG | 8523 | GGCCACAGCGGCUGCAAAG | 8566 | UUUCUUGUCUGCGGAGAUG |
| 8438 | AGGGGGCCCAGUGUGGUUA | 8481 | UCUGCCUACCAGCUUCGGC | 8524 | GCCACAGCGGCUGCAAAGG | 8567 | UUCUUGUCUGCGGAGAUGA |
| 8439 | GGGGGCCCAGUGUGGUUAU | 8482 | CUGCCUACCAGCUUCGGCA | 8525 | CCACAGCGGCUGCAAAGGC | 8568 | UCUUGUCUGCGGAGAUGAU |
| 8440 | GGGGCCCAGUGUGGUUAUC | 8483 | UGCCUACCAGCUUCGGCAA | 8526 | CACAGCGGCUGCAAAGGCC | 8569 | CUUGUCUGCGGAGAUGAUU |
| 8441 | GGGCCCAGUGUGGUUAUCG | 8484 | GCCUACCAGCUUCGGCAAC | 8527 | ACAGCGGCUGCAAAGGCCG | 8570 | UUGUCUGCGGAGAUGAUUU |
| 8442 | GGCCCAGUGUGGUUAUCGC | 8485 | CCUACCAGCUUCGGCAACA | 8528 | CAGCGGCUGCAAAGGCCGC | 8571 | UGUCUGCGGAGAUGAUUUG |
| 8443 | GCCCAGUGUGGUUAUCGCC | 8486 | CUACCAGCUUCGGCAACAC | 8529 | AGCGGCUGCAAAGGCCGCA | 8572 | GUCUGCGGAGAUGAUUUGG |
| 8444 | CCCAGUGUGGUUAUCGCCG | 8487 | UACCAGCUUCGGCAACACA | 8530 | GCGGCUGCAAAGGCCGCAA | 8573 | UCUGCGGAGAUGAUUUGGU |
| 8445 | CCAGUGUGGUUAUCGCCGU | 8488 | ACCAGCUUCGGCAACACAA | 8531 | CGGCUGCAAAGGCCGCAAA | 8574 | CUGCGGAGAUGAUUUGGUC |
| 8446 | CAGUGUGGUUAUCGCCGUU | 8489 | CCAGCUUCGGCAACACAAU | 8532 | GGCUGCAAAGGCCGCAAAC | 8575 | UGCGGAGAUGAUUUGGUCG |
| 8447 | AGUGUGGUUAUCGCCGUUG | 8490 | CAGCUUCGGCAACACAAUC | 8533 | GCUGCAAAGGCCGCAAACC | 8576 | GCGGAGAUGAUUUGGUCGU |
| 8448 | GUGUGGUUAUCGCCGUUGC | 8491 | AGCUUCGGCAACACAAUCA | 8534 | CUGCAAAGGCCGCAAACCU | 8577 | CGGAGAUGAUUUGGUCGUG |
| 8449 | UGUGGUUAUCGCCGUUGCC | 8492 | GCUUCGGCAACACAAUCAC | 8535 | UGCAAAGGCCGCAAACCUC | 8578 | GGAGAUGAUUUGGUCGUGG |
| 8450 | GUGGUUAUCGCCGUUGCCG | 8493 | CUUCGGCAACACAAUCACU | 8536 | GCAAAGGCCGCAAACCUCC | 8579 | GAGAUGAUUUGGUCGUGGU |
| 8451 | UGGUUAUCGCCGUUGCCGU | 8494 | UUCGGCAACACAAUCACUU | 8537 | CAAAGGCCGCAAACCUCCG | 8580 | AGAUGAUUUGGUCGUGGUG |
| 8452 | GGUUAUCGCCGUUGCCGUG | 8495 | UCGGCAACACAAUCACUUG | 8538 | AAAGGCCGCAAACCUCCGG | 8581 | GAUGAUUUGGUCGUGGUGG |
| 8453 | GUUAUCGCCGUUGCCGUGC | 8496 | CGGCAACACAAUCACUUGU | 8539 | AAGGCCGCAAACCUCCGGA | 8582 | AUGAUUUGGUCGUGGUGGC |
| 8454 | UUAUCGCCGUUGCCGUGCC | 8497 | GGCAACACAAUCACUUGUU | 8540 | AGGCCGCAAACCUCCGGAA | 8583 | UGAUUUGGUCGUGGUGGCU |
| 8455 | UAUCGCCGUUGCCGUGCCA | 8498 | GCAACACAAUCACUUGUUA | 8541 | GGCCGCAAACCUCCGGAAC | 8584 | GAUUUGGUCGUGGUGGCUG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8585 | AUUUGGUCGUGGUGGCUGA | 8628 | AGCAGCCCUGAGAGCCUUC | 8671 | GCUCCACCCGGAGAUGCUC | 8714 | UUAUCACAUCUUGCUCCUC |
| 8586 | UUUGGUCGUGGUGGCUGAG | 8629 | GCAGCCCUGAGAGCCUUCA | 8672 | CUCCACCCGGAGAUGCUCC | 8715 | UAUCACAUCUUGCUCCUCC |
| 8587 | UUGGUCGUGGUGGCUGAGA | 8630 | CAGCCCUGAGAGCCUUCAC | 8673 | UCCACCCGGAGAUGCUCCA | 8716 | AUCACAUCUUGCUCCUCCA |
| 8588 | UGGUCGUGGUGGCUGAGAG | 8631 | AGCCCUGAGAGCCUUCACG | 8674 | CCACCCGGAGAUGCUCCAC | 8717 | UCACAUCUUGCUCCUCCAA |
| 8589 | GGUCGUGGUGGCUGAGAGU | 8632 | GCCCUGAGAGCCUUCACGG | 8675 | CACCCGGAGAUGCUCCACA | 8718 | CACAUCUUGCUCCUCCAAC |
| 8590 | GUCGUGGUGGCUGAGAGUG | 8633 | CCCUGAGAGCCUUCACGGA | 8676 | ACCCGGAGAUGCUCCACAG | 8719 | ACAUCUUGCUCCUCCAACG |
| 8591 | UCGUGGUGGCUGAGAGUGA | 8634 | CCUGAGAGCCUUCACGGAG | 8677 | CCCGGAGAUGCUCCACAGG | 8720 | CAUCUUGCUCCUCCAACGU |
| 8592 | CGUGGUGGCUGAGAGUGAU | 8635 | CUGAGAGCCUUCACGGAGG | 8678 | CCGGAGAUGCUCCACAGGC | 8721 | AUCUUGCUCCUCCAACGUC |
| 8593 | GUGGUGGCUGAGAGUGAUG | 8636 | UGAGAGCCUUCACGGAGGC | 8679 | CGGAGAUGCUCCACAGGCC | 8722 | UCUUGCUCCUCCAACGUCU |
| 8594 | UGGUGGCUGAGAGUGAUGG | 8637 | GAGAGCCUUCACGGAGGCU | 8680 | GGAGAUGCUCCACAGGCCA | 8723 | CUUGCUCCUCCAACGUCUC |
| 8595 | GGUGGCUGAGAGUGAUGGC | 8638 | AGAGCCUUCACGGAGGCUA | 8681 | GAGAUGCUCCACAGGCCAC | 8724 | UUGCUCCUCCAACGUCUCC |
| 8596 | GUGGCUGAGAGUGAUGGCG | 8639 | GAGCCUUCACGGAGGCUAU | 8682 | AGAUGCUCCACAGGCCACU | 8725 | UGCUCCUCCAACGUCUCCG |
| 8597 | UGGCUGAGAGUGAUGGCGU | 8640 | AGCCUUCACGGAGGCUAUG | 8683 | GAUGCUCCACAGGCCACUU | 8726 | GCUCCUCCAACGUCUCCGU |
| 8598 | GGCUGAGAGUGAUGGCGUC | 8641 | GCCUUCACGGAGGCUAUGA | 8684 | AUGCUCCACAGGCCACUUA | 8727 | CUCCUCCAACGUCUCCGUG |
| 8599 | GCUGAGAGUGAUGGCGUCG | 8642 | CCUUCACGGAGGCUAUGAC | 8685 | UGCUCCACAGGCCACUUAC | 8728 | UCCUCCAACGUCUCCGUGG |
| 8600 | CUGAGAGUGAUGGCGUCGA | 8643 | CUUCACGGAGGCUAUGACC | 8686 | GCUCCACAGGCCACUUACG | 8729 | CCUCCAACGUCUCCGUGGC |
| 8601 | UGAGAGUGAUGGCGUCGAU | 8644 | UUCACGGAGGCUAUGACCA | 8687 | CUCCACAGGCCACUUACGA | 8730 | CUCCAACGUCUCCGUGGCA |
| 8602 | GAGAGUGAUGGCGUCGAUG | 8645 | UCACGGAGGCUAUGACCAG | 8688 | UCCACAGGCCACUUACGAC | 8731 | UCCAACGUCUCCGUGGCAC |
| 8603 | AGAGUGAUGGCGUCGAUGA | 8646 | CACGGAGGCUAUGACCAGG | 8689 | CCACAGGCCACUUACGACC | 8732 | CCAACGUCUCCGUGGCACG |
| 8604 | GAGUGAUGGCGUCGAUGAG | 8647 | ACGGAGGCUAUGACCAGGU | 8690 | CACAGGCCACUUACGACCU | 8733 | CAACGUCUCCGUGGCACGG |
| 8605 | AGUGAUGGCGUCGAUGAGG | 8648 | CGGAGGCUAUGACCAGGUA | 8691 | ACAGGCCACUUACGACCUU | 8734 | AACGUCUCCGUGGCACGGG |
| 8606 | GUGAUGGCGUCGAUGAGGA | 8649 | GGAGGCUAUGACCAGGUAU | 8692 | CAGGCCACUUACGACCUUG | 8735 | ACGUCUCCGUGGCACGGGA |
| 8607 | UGAUGGCGUCGAUGAGGAU | 8650 | GAGGCUAUGACCAGGUAUU | 8693 | AGGCCACUUACGACCUUGA | 8736 | CGUCUCCGUGGCACGGGAC |
| 8608 | GAUGGCGUCGAUGAGGAUA | 8651 | AGGCUAUGACCAGGUAUUC | 8694 | GGCCACUUACGACCUUGAG | 8737 | GUCUCCGUGGCACGGGACG |
| 8609 | AUGGCGUCGAUGAGGAUAG | 8652 | GGCUAUGACCAGGUAUUCU | 8695 | GCCACUUACGACCUUGAGC | 8738 | UCUCCGUGGCACGGGACGA |
| 8610 | UGGCGUCGAUGAGGAUAGA | 8653 | GCUAUGACCAGGUAUUCUG | 8696 | CCACUUACGACCUUGAGCU | 8739 | CUCCGUGGCACGGGACGAC |
| 8611 | GGCGUCGAUGAGGAUAGAG | 8654 | CUAUGACCAGGUAUUCUGC | 8697 | CACUUACGACCUUGAGCUU | 8740 | UCCGUGGCACGGGACGACA |
| 8612 | GCGUCGAUGAGGAUAGAGC | 8655 | UAUGACCAGGUAUUCUGCU | 8698 | ACUUACGACCUUGAGCUUA | 8741 | CCGUGGCACGGGACGACAA |
| 8613 | CGUCGAUGAGGAUAGAGCA | 8656 | AUGACCAGGUAUUCUGCUC | 8699 | CUUACGACCUUGAGCUUAU | 8742 | CGUGGCACGGGACGACAAG |
| 8614 | GUCGAUGAGGAUAGAGCAG | 8657 | UGACCAGGUAUUCUGCUCC | 8700 | UUACGACCUUGAGCUUAUC | 8743 | GUGGCACGGGACGACAAGG |
| 8615 | UCGAUGAGGAUAGAGCAGC | 8658 | GACCAGGUAUUCUGCUCCA | 8701 | UACGACCUUGAGCUUAUCA | 8744 | UGGCACGGGACGACAAGGG |
| 8616 | CGAUGAGGAUAGAGCAGCC | 8659 | ACCAGGUAUUCUGCUCCAC | 8702 | ACGACCUUGAGCUUAUCAC | 8745 | GGCACGGGACGACAAGGGG |
| 8617 | GAUGAGGAUAGAGCAGCCC | 8660 | CCAGGUAUUCUGCUCCACC | 8703 | CGACCUUGAGCUUAUCACA | 8746 | GCACGGGACGACAAGGGGA |
| 8618 | AUGAGGAUAGAGCAGCCCU | 8661 | CAGGUAUUCUGCUCCACCC | 8704 | GACCUUGAGCUUAUCACAU | 8747 | CACGGGACGACAAGGGGAG |
| 8619 | UGAGGAUAGAGCAGCCCUG | 8662 | AGGUAUUCUGCUCCACCCG | 8705 | ACCUUGAGCUUAUCACAUC | 8748 | ACGGGACGACAAGGGGAGG |
| 8620 | GAGGAUAGAGCAGCCCUGA | 8663 | GGUAUUCUGCUCCACCCGG | 8706 | CCUUGAGCUUAUCACAUCU | 8749 | CGGGACGACAAGGGGAGGA |
| 8621 | AGGAUAGAGCAGCCCUGAG | 8664 | GUAUUCUGCUCCACCCGGA | 8707 | CUUGAGCUUAUCACAUCUU | 8750 | GGGACGACAAGGGGAGGAG |
| 8622 | GGAUAGAGCAGCCCUGAGA | 8665 | UAUUCUGCUCCACCCGGAG | 8708 | UUGAGCUUAUCACAUCUUG | 8751 | GGACGACAAGGGGAGGAGG |
| 8623 | GAUAGAGCAGCCCUGAGAG | 8666 | AUUCUGCUCCACCCGGAGA | 8709 | UGAGCUUAUCACAUCUUGC | 8752 | GACGACAAGGGGAGGAGGU |
| 8624 | AUAGAGCAGCCCUGAGAGC | 8667 | UUCUGCUCCACCCGGAGAU | 8710 | GAGCUUAUCACAUCUUGCU | 8753 | ACGACAAGGGGAGGAGGUA |
| 8625 | UAGAGCAGCCCUGAGAGCC | 8668 | UCUGCUCCACCCGGAGAUG | 8711 | AGCUUAUCACAUCUUGCUC | 8754 | CGACAAGGGGAGGAGGUAC |
| 8626 | AGAGCAGCCCUGAGAGCCU | 8669 | CUGCUCCACCCGGAGAUGC | 8712 | GCUUAUCACAUCUUGCUCC | 8755 | GACAAGGGGAGGAGGUACU |
| 8627 | GAGCAGCCCUGAGAGCCUU | 8670 | UGCUCCACCCGGAGAUGCU | 8713 | CUUAUCACAUCUUGCUCCU | 8756 | ACAAGGGGAGGAGGUACUA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8757 | CAAGGGGAGGAGGUACUAU | 8800 | CCCCUAGCCCGUGCGGCUU | 8843 | UUAACUCCUGGUUAGGCAA | 8886 | CUGGGUGCGCAUGGUGAUG |
| 8758 | AAGGGGAGGAGGUACUAUU | 8801 | CCCUAGCCCGUGCGGCUUG | 8844 | UAACUCCUGGUUAGGCAAC | 8887 | UGGGUGCGCAUGGUGAUGA |
| 8759 | AGGGGAGGAGGUACUAUUA | 8802 | CCUAGCCCGUGCGGCUUGG | 8845 | AACUCCUGGUUAGGCAACA | 8888 | GGGUGCGCAUGGUGAUGAU |
| 8760 | GGGGAGGAGGUACUAUUAC | 8803 | CUAGCCCGUGCGGCUUGGG | 8846 | ACUCCUGGUUAGGCAACAU | 8889 | GGUGCGCAUGGUGAUGAUG |
| 8761 | GGGAGGAGGUACUAUUACC | 8804 | UAGCCCGUGCGGCUUGGGA | 8847 | CUCCUGGUUAGGCAACAUC | 8890 | GUGCGCAUGGUGAUGAUGA |
| 8762 | GGAGGAGGUACUAUUACCU | 8805 | AGCCCGUGCGGCUUGGGAA | 8848 | UCCUGGUUAGGCAACAUCA | 8891 | UGCGCAUGGUGAUGAUGAC |
| 8763 | GAGGAGGUACUAUUACCUC | 8806 | GCCCGUGCGGCUUGGGAAA | 8849 | CCUGGUUAGGCAACAUCAU | 8892 | GCGCAUGGUGAUGAUGACA |
| 8764 | AGGAGGUACUAUUACCUCA | 8807 | CCCGUGCGGCUUGGGAAAC | 8850 | CUGGUUAGGCAACAUCAUC | 8893 | CGCAUGGUGAUGAUGACAC |
| 8765 | GGAGGUACUAUUACCUCAC | 8808 | CCGUGCGGCUUGGGAAACA | 8851 | UGGUUAGGCAACAUCAUCA | 8894 | GCAUGGUGAUGAUGACACA |
| 8766 | GAGGUACUAUUACCUCACC | 8809 | CGUGCGGCUUGGGAAACAG | 8852 | GGUUAGGCAACAUCAUCAU | 8895 | CAUGGUGAUGAUGACACAC |
| 8767 | AGGUACUAUUACCUCACCC | 8810 | GUGCGGCUUGGGAAACAGC | 8853 | GUUAGGCAACAUCAUCAUG | 8896 | AUGGUGAUGAUGACACACU |
| 8768 | GGUACUAUUACCUCACCCG | 8811 | UGCGGCUUGGGAAACAGCU | 8854 | UUAGGCAACAUCAUCAUGU | 8897 | UGGUGAUGAUGACACACUU |
| 8769 | GUACUAUUACCUCACCCGU | 8812 | GCGGCUUGGGAAACAGCUC | 8855 | UAGGCAACAUCAUCAUGUA | 8898 | GGUGAUGAUGACACACUUU |
| 8770 | UACUAUUACCUCACCCGUG | 8813 | CGGCUUGGGAAACAGCUCG | 8856 | AGGCAACAUCAUCAUGUAC | 8899 | GUGAUGAUGACACACUUUU |
| 8771 | ACUAUUACCUCACCCGUGA | 8814 | GGCUUGGGAAACAGCUCGU | 8857 | GGCAACAUCAUCAUGUACG | 8900 | UGAUGAUGACACACUUUUU |
| 8772 | CUAUUACCUCACCCGUGAU | 8815 | GCUUGGGAAACAGCUCGUC | 8858 | GCAACAUCAUCAUGUACGC | 8901 | GAUGAUGACACACUUUUUC |
| 8773 | UAUUACCUCACCCGUGAUG | 8816 | CUUGGGAAACAGCUCGUCA | 8859 | CAACAUCAUCAUGUACGCG | 8902 | AUGAUGACACACUUUUUCU |
| 8774 | AUUACCUCACCCGUGAUGC | 8817 | UUGGGAAACAGCUCGUCAC | 8860 | AACAUCAUCAUGUACGCGC | 8903 | UGAUGACACACUUUUUCUC |
| 8775 | UUACCUCACCCGUGAUGCC | 8818 | UGGGAAACAGCUCGUCACA | 8861 | ACAUCAUCAUGUACGCGCC | 8904 | GAUGACACACUUUUUCUCC |
| 8776 | UACCUCACCCGUGAUGCCA | 8819 | GGGAAACAGCUCGUCACAC | 8862 | CAUCAUCAUGUACGCGCCU | 8905 | AUGACACACUUUUUCUCCA |
| 8777 | ACCUCACCCGUGAUGCCAC | 8820 | GGAAACAGCUCGUCACACU | 8863 | AUCAUCAUGUACGCGCCUA | 8906 | UGACACACUUUUUCUCCAU |
| 8778 | CCUCACCCGUGAUGCCACU | 8821 | GAAACAGCUCGUCACACUC | 8864 | UCAUCAUGUACGCGCCUAC | 8907 | GACACACUUUUUCUCCAUA |
| 8779 | CUCACCCGUGAUGCCACUA | 8822 | AAACAGCUCGUCACACUCC | 8865 | CAUCAUGUACGCGCCUACC | 8908 | ACACACUUUUUCUCCAUAC |
| 8780 | UCACCCGUGAUGCCACUAC | 8823 | AACAGCUCGUCACACUCCA | 8866 | AUCAUGUACGCGCCUACCA | 8909 | CACACUUUUUCUCCAUACU |
| 8781 | CACCCGUGAUGCCACUACU | 8824 | ACAGCUCGUCACACUCCAG | 8867 | UCAUGUACGCGCCUACCAU | 8910 | ACACUUUUUCUCCAUACUC |
| 8782 | ACCCGUGAUGCCACUACUC | 8825 | CAGCUCGUCACACUCCAGU | 8868 | CAUGUACGCGCCUACCAUC | 8911 | CACUUUUUCUCCAUACUCC |
| 8783 | CCCGUGAUGCCACUACUCC | 8826 | AGCUCGUCACACUCCAGUU | 8869 | AUGUACGCGCCUACCAUCU | 8912 | ACUUUUUCUCCAUACUCCA |
| 8784 | CCGUGAUGCCACUACUCCC | 8827 | GCUCGUCACACUCCAGUUA | 8870 | UGUACGCGCCUACCAUCUG | 8913 | CUUUUUCUCCAUACUCCAA |
| 8785 | CGUGAUGCCACUACUCCCC | 8828 | CUCGUCACACUCCAGUUAA | 8871 | GUACGCGCCUACCAUCUGG | 8914 | UUUUUCUCCAUACUCCAAU |
| 8786 | GUGAUGCCACUACUCCCCU | 8829 | UCGUCACACUCCAGUUAAC | 8872 | UACGCGCCUACCAUCUGGG | 8915 | UUUUCUCCAUACUCCAAUC |
| 8787 | UGAUGCCACUACUCCCCUA | 8830 | CGUCACACUCCAGUUAACU | 8873 | ACGCGCCUACCAUCUGGGU | 8916 | UUUCUCCAUACUCCAAUCC |
| 8788 | GAUGCCACUACUCCCCUAG | 8831 | GUCACACUCCAGUUAACUC | 8874 | CGCGCCUACCAUCUGGGUG | 8917 | UUCUCCAUACUCCAAUCCC |
| 8789 | AUGCCACUACUCCCCUAGC | 8832 | UCACACUCCAGUUAACUCC | 8875 | GCGCCUACCAUCUGGGUGC | 8918 | UCUCCAUACUCCAAUCCCA |
| 8790 | UGCCACUACUCCCCUAGCC | 8833 | CACACUCCAGUUAACUCCU | 8876 | CGCCUACCAUCUGGGUGCG | 8919 | CUCCAUACUCCAAUCCCAG |
| 8791 | GCCACUACUCCCCUAGCCC | 8834 | ACACUCCAGUUAACUCCUG | 8877 | GCCUACCAUCUGGGUGCGC | 8920 | UCCAUACUCCAAUCCCAGG |
| 8792 | CCACUACUCCCCUAGCCCG | 8835 | CACUCCAGUUAACUCCUGG | 8878 | CCUACCAUCUGGGUGCGCA | 8921 | CCAUACUCCAAUCCCAGGA |
| 8793 | CACUACUCCCCUAGCCCGU | 8836 | ACUCCAGUUAACUCCUGGU | 8879 | CUACCAUCUGGGUGCGCAU | 8922 | CAUACUCCAAUCCCAGGAG |
| 8794 | ACUACUCCCCUAGCCCGUG | 8837 | CUCCAGUUAACUCCUGGUU | 8880 | UACCAUCUGGGUGCGCAUG | 8923 | AUACUCCAAUCCCAGGAGA |
| 8795 | CUACUCCCCUAGCCCGUGC | 8838 | UCCAGUUAACUCCUGGUUA | 8881 | ACCAUCUGGGUGCGCAUGG | 8924 | UACUCCAAUCCCAGGAGAU |
| 8796 | UACUCCCCUAGCCCGUGCG | 8839 | CCAGUUAACUCCUGGUUAG | 8882 | CCAUCUGGGUGCGCAUGGU | 8925 | ACUCCAAUCCCAGGAGAUA |
| 8797 | ACUCCCCUAGCCCGUGCGG | 8840 | CAGUUAACUCCUGGUUAGG | 8883 | CAUCUGGGUGCGCAUGGUG | 8926 | CUCCAAUCCCAGGAGAUAC |
| 8798 | CUCCCCUAGCCCGUGCGGC | 8841 | AGUUAACUCCUGGUUAGGC | 8884 | AUCUGGGUGCGCAUGGUGA | 8927 | UCCAAUCCCAGGAGAUACU |
| 8799 | UCCCCUAGCCCGUGCGGCU | 8842 | GUUAACUCCUGGUUAGGCA | 8885 | UCUGGGUGCGCAUGGUGAU | 8928 | CCAAUCCCAGGAGAUACUU |

**FIG. 4 (page 229 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8929 | CAAUCCCAGGAGAUACUUG | 8972 | ACGGGGCCACUUAUUCUGU | 9015 | CAUUGAAAGACUCCAUGGU | 9058 | UACUCUCCAGUAGAGCUCA |
| 8930 | AAUCCCAGGAGAUACUUGA | 8973 | CGGGGCCACUUAUUCUGUC | 9016 | AUUGAAAGACUCCAUGGUC | 9059 | ACUCUCCAGUAGAGCUCAA |
| 8931 | AUCCCAGGAGAUACUUGAU | 8974 | GGGGCCACUUAUUCUGUCA | 9017 | UUGAAAGACUCCAUGGUCU | 9060 | CUCUCCAGUAGAGCUCAAU |
| 8932 | UCCCAGGAGAUACUUGAUC | 8975 | GGGCCACUUAUUCUGUCAC | 9018 | UGAAAGACUCCAUGGUCUA | 9061 | UCUCCAGUAGAGCUCAAUA |
| 8933 | CCCAGGAGAUACUUGAUCG | 8976 | GGCCACUUAUUCUGUCACU | 9019 | GAAAGACUCCAUGGUCUAA | 9062 | CUCCAGUAGAGCUCAAUAG |
| 8934 | CCAGGAGAUACUUGAUCGC | 8977 | GCCACUUAUUCUGUCACUC | 9020 | AAAGACUCCAUGGUCUAAG | 9063 | UCCAGUAGAGCUCAAUAGG |
| 8935 | CAGGAGAUACUUGAUCGCC | 8978 | CCACUUAUUCUGUCACUCC | 9021 | AAGACUCCAUGGUCUAAGC | 9064 | CCAGUAGAGCUCAAUAGGG |
| 8936 | AGGAGAUACUUGAUCGCCC | 8979 | CACUUAUUCUGUCACUCCG | 9022 | AGACUCCAUGGUCUAAGCG | 9065 | CAGUAGAGCUCAAUAGGGU |
| 8937 | GGAGAUACUUGAUCGCCCC | 8980 | ACUUAUUCUGUCACUCCGC | 9023 | GACUCCAUGGUCUAAGCGC | 9066 | AGUAGAGCUCAAUAGGGUC |
| 8938 | GAGAUACUUGAUCGCCCCC | 8981 | CUUAUUCUGUCACUCCGCU | 9024 | ACUCCAUGGUCUAAGCGCG | 9067 | GUAGAGCUCAAUAGGGUCG |
| 8939 | AGAUACUUGAUCGCCCCCU | 8982 | UUAUUCUGUCACUCCGCUG | 9025 | CUCCAUGGUCUAAGCGCGU | 9068 | UAGAGCUCAAUAGGGUCGC |
| 8940 | GAUACUUGAUCGCCCCCUU | 8983 | UAUUCUGUCACUCCGCUGG | 9026 | UCCAUGGUCUAAGCGCGUU | 9069 | AGAGCUCAAUAGGGUCGCG |
| 8941 | AUACUUGAUCGCCCCCUUG | 8984 | AUUCUGUCACUCCGCUGGA | 9027 | CCAUGGUCUAAGCGCGUUC | 9070 | GAGCUCAAUAGGGUCGCGG |
| 8942 | UACUUGAUCGCCCCCUUGA | 8985 | UUCUGUCACUCCGCUGGAU | 9028 | CAUGGUCUAAGCGCGUUCA | 9071 | AGCUCAAUAGGGUCGCGGG |
| 8943 | ACUUGAUCGCCCCCUUGAC | 8986 | UCUGUCACUCCGCUGGAUU | 9029 | AUGGUCUAAGCGCGUUCAC | 9072 | GCUCAAUAGGGUCGCGGGG |
| 8944 | CUUGAUCGCCCCCUUGACU | 8987 | CUGUCACUCCGCUGGAUUU | 9030 | UGGUCUAAGCGCGUUCACG | 9073 | CUCAAUAGGGUCGCGGGGA |
| 8945 | UUGAUCGCCCCCUUGACUU | 8988 | UGUCACUCCGCUGGAUUUA | 9031 | GGUCUAAGCGCGUUCACGC | 9074 | UCAAUAGGGUCGCGGGGAC |
| 8946 | UGAUCGCCCCCUUGACUUU | 8989 | GUCACUCCGCUGGAUUUAC | 9032 | GUCUAAGCGCGUUCACGCU | 9075 | CAAUAGGGUCGCGGGGACA |
| 8947 | GAUCGCCCCCUUGACUUUG | 8990 | UCACUCCGCUGGAUUUACC | 9033 | UCUAAGCGCGUUCACGCUC | 9076 | AAUAGGGUCGCGGGGACAC |
| 8948 | AUCGCCCCCUUGACUUUGA | 8991 | CACUCCGCUGGAUUUACCA | 9034 | CUAAGCGCGUUCACGCUCC | 9077 | AUAGGGUCGCGGGGACACU |
| 8949 | UCGCCCCCUUGACUUUGAA | 8992 | ACUCCGCUGGAUUUACCAG | 9035 | UAAGCGCGUUCACGCUCCA | 9078 | UAGGGUCGCGGGGACACUC |
| 8950 | CGCCCCCUUGACUUUGAAA | 8993 | CUCCGCUGGAUUUACCAGC | 9036 | AAGCGCGUUCACGCUCCAC | 9079 | AGGGUCGCGGGGACACUCA |
| 8951 | GCCCCCUUGACUUUGAAAU | 8994 | UCCGCUGGAUUUACCAGCA | 9037 | AGCGCGUUCACGCUCCACA | 9080 | GGGUCGCGGGGACACUCAG |
| 8952 | CCCCCUUGACUUUGAAAUG | 8995 | CCGCUGGAUUUACCAGCAA | 9038 | GCGCGUUCACGCUCCACAG | 9081 | GGUCGCGGGGACACUCAGG |
| 8953 | CCCCUUGACUUUGAAAUGU | 8996 | CGCUGGAUUUACCAGCAAU | 9039 | CGCGUUCACGCUCCACAGU | 9082 | GUCGCGGGGACACUCAGGA |
| 8954 | CCCUUGACUUUGAAAUGUA | 8997 | GCUGGAUUUACCAGCAAUC | 9040 | GCGUUCACGCUCCACAGUU | 9083 | UCGCGGGGACACUCAGGAA |
| 8955 | CCUUGACUUUGAAAUGUAC | 8998 | CUGGAUUUACCAGCAAUCA | 9041 | CGUUCACGCUCCACAGUUA | 9084 | CGCGGGGACACUCAGGAAG |
| 8956 | CUUGACUUUGAAAUGUACG | 8999 | UGGAUUUACCAGCAAUCAU | 9042 | GUUCACGCUCCACAGUUAC | 9085 | GCGGGGACACUCAGGAAGC |
| 8957 | UUGACUUUGAAAUGUACGG | 9000 | GGAUUUACCAGCAAUCAUU | 9043 | UUCACGCUCCACAGUUACU | 9086 | CGGGGACACUCAGGAAGCU |
| 8958 | UGACUUUGAAAUGUACGGG | 9001 | GAUUUACCAGCAAUCAUUG | 9044 | UCACGCUCCACAGUUACUC | 9087 | GGGGACACUCAGGAAGCUU |
| 8959 | GACUUUGAAAUGUACGGGG | 9002 | AUUUACCAGCAAUCAUUGA | 9045 | CACGCUCCACAGUUACUCU | 9088 | GGGACACUCAGGAAGCUUG |
| 8960 | ACUUUGAAAUGUACGGGGC | 9003 | UUUACCAGCAAUCAUUGAA | 9046 | ACGCUCCACAGUUACUCUC | 9089 | GGACACUCAGGAAGCUUGG |
| 8961 | CUUUGAAAUGUACGGGGCC | 9004 | UUACCAGCAAUCAUUGAAA | 9047 | CGCUCCACAGUUACUCUCC | 9090 | GACACUCAGGAAGCUUGGG |
| 8962 | UUUGAAAUGUACGGGGCCA | 9005 | UACCAGCAAUCAUUGAAAG | 9048 | GCUCCACAGUUACUCUCCA | 9091 | ACACUCAGGAAGCUUGGGU |
| 8963 | UUGAAAUGUACGGGGCCAC | 9006 | ACCAGCAAUCAUUGAAAGA | 9049 | CUCCACAGUUACUCUCCAG | 9092 | CACUCAGGAAGCUUGGGUG |
| 8964 | UGAAAUGUACGGGGCCACU | 9007 | CCAGCAAUCAUUGAAAGAC | 9050 | UCCACAGUUACUCUCCAGU | 9093 | ACUCAGGAAGCUUGGGUGC |
| 8965 | GAAAUGUACGGGGCCACUU | 9008 | CAGCAAUCAUUGAAAGACU | 9051 | CCACAGUUACUCUCCAGUA | 9094 | CUCAGGAAGCUUGGGUGCC |
| 8966 | AAAUGUACGGGGCCACUUA | 9009 | AGCAAUCAUUGAAAGACUC | 9052 | CACAGUUACUCUCCAGUAG | 9095 | UCAGGAAGCUUGGGUGCCC |
| 8967 | AAUGUACGGGGCCACUUAU | 9010 | GCAAUCAUUGAAAGACUCC | 9053 | ACAGUUACUCUCCAGUAGA | 9096 | CAGGAAGCUUGGGUGCCCC |
| 8968 | AUGUACGGGGCCACUUAUU | 9011 | CAAUCAUUGAAAGACUCCA | 9054 | CAGUUACUCUCCAGUAGAG | 9097 | AGGAAGCUUGGGUGCCCCC |
| 8969 | UGUACGGGGCCACUUAUUC | 9012 | AAUCAUUGAAAGACUCCAU | 9055 | AGUUACUCUCCAGUAGAGC | 9098 | GGAAGCUUGGGUGCCCCCC |
| 8970 | GUACGGGGCCACUUAUUCU | 9013 | AUCAUUGAAAGACUCCAUG | 9056 | GUUACUCUCCAGUAGAGCU | 9099 | GAAGCUUGGGUGCCCCCCC |
| 8971 | UACGGGGCCACUUAUUCUG | 9014 | UCAUUGAAAGACUCCAUGG | 9057 | UUACUCUCCAGUAGAGCUC | 9100 | AAGCUUGGGUGCCCCCCCC |

**FIG. 4 (page 230 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9101 | AGCUUGGGUGCCCCCCCCU | 9144 | AGCAGUGCGCGCCAAGCUU | 9187 | AUAUGCGGCCUUUAUCUCU | 9230 | CCAACCUCACUCCAUUGCC |
| 9102 | GCUUGGGUGCCCCCCCCUA | 9145 | GCAGUGCGCGCCAAGCUUA | 9188 | UAUGCGGCCUUUAUCUCUU | 9231 | CAACCUCACUCCAUUGCCA |
| 9103 | CUUGGGUGCCCCCCCCUAC | 9146 | CAGUGCGCGCCAAGCUUAU | 9189 | AUGCGGCCUUUAUCUCUUU | 9232 | AACCUCACUCCAUUGCCAG |
| 9104 | UUGGGUGCCCCCCCCUACG | 9147 | AGUGCGCGCCAAGCUUAUC | 9190 | UGCGGCCUUUAUCUCUUUA | 9233 | ACCUCACUCCAUUGCCAGC |
| 9105 | UGGGUGCCCCCCCCUACGG | 9148 | GUGCGCGCCAAGCUUAUCG | 9191 | GCGGCCUUUAUCUCUUUAA | 9234 | CCUCACUCCAUUGCCAGCC |
| 9106 | GGGUGCCCCCCCCUACGGG | 9149 | UGCGCGCCAAGCUUAUCGC | 9192 | CGGCCUUUAUCUCUUUAAU | 9235 | CUCACUCCAUUGCCAGCCG |
| 9107 | GGUGCCCCCCCCUACGGGC | 9150 | GCGCGCCAAGCUUAUCGCC | 9193 | GGCCUUUAUCUCUUUAAUU | 9236 | UCACUCCAUUGCCAGCCGC |
| 9108 | GUGCCCCCCCCUACGGGCU | 9151 | CGCGCCAAGCUUAUCGCCC | 9194 | GCCUUUAUCUCUUUAAUUG | 9237 | CACUCCAUUGCCAGCCGCU |
| 9109 | UGCCCCCCCCUACGGGCUU | 9152 | GCGCCAAGCUUAUCGCCCA | 9195 | CCUUUAUCUCUUUAAUUGG | 9238 | ACUCCAUUGCCAGCCGCUG |
| 9110 | GCCCCCCCCUACGGGCUUG | 9153 | CGCCAAGCUUAUCGCCCAG | 9196 | CUUUAUCUCUUUAAUUGGG | 9239 | CUCCAUUGCCAGCCGCUGG |
| 9111 | CCCCCCCCUACGGGCUUGG | 9154 | GCCAAGCUUAUCGCCCAGG | 9197 | UUUAUCUCUUUAAUUGGGC | 9240 | UCCAUUGCCAGCCGCUGGC |
| 9112 | CCCCCCCUACGGGCUUGGA | 9155 | CCAAGCUUAUCGCCCAGGG | 9198 | UUAUCUCUUUAAUUGGGCG | 9241 | CCAUUGCCAGCCGCUGGCC |
| 9113 | CCCCCCUACGGGCUUGGAG | 9156 | CAAGCUUAUCGCCCAGGGA | 9199 | UAUCUCUUUAAUUGGGCGG | 9242 | CAUUGCCAGCCGCUGGCCA |
| 9114 | CCCCCUACGGGCUUGGAGA | 9157 | AAGCUUAUCGCCCAGGGAG | 9200 | AUCUCUUUAAUUGGGCGGU | 9243 | AUUGCCAGCCGCUGGCCAG |
| 9115 | CCCCUACGGGCUUGGAGAC | 9158 | AGCUUAUCGCCCAGGGAGG | 9201 | UCUCUUUAAUUGGGCGGUA | 9244 | UUGCCAGCCGCUGGCCAGU |
| 9116 | CCCUACGGGCUUGGAGACA | 9159 | GCUUAUCGCCCAGGGAGGA | 9202 | CUCUUUAAUUGGGCGGUAC | 9245 | UGCCAGCCGCUGGCCAGUU |
| 9117 | CCUACGGGCUUGGAGACAU | 9160 | CUUAUCGCCCAGGGAGGAA | 9203 | UCUUUAAUUGGGCGGUACG | 9246 | GCCAGCCGCUGGCCAGUUG |
| 9118 | CUACGGGCUUGGAGACAUC | 9161 | UUAUCGCCCAGGGAGGAAA | 9204 | CUUUAAUUGGGCGGUACGC | 9247 | CCAGCCGCUGGCCAGUUGG |
| 9119 | UACGGGCUUGGAGACAUCG | 9162 | UAUCGCCCAGGGAGGAAAG | 9205 | UUUAAUUGGGCGGUACGCA | 9248 | CAGCCGCUGGCCAGUUGGA |
| 9120 | ACGGGCUUGGAGACAUCGG | 9163 | AUCGCCCAGGGAGGAAAGG | 9206 | UUAAUUGGGCGGUACGCAC | 9249 | AGCCGCUGGCCAGUUGGAU |
| 9121 | CGGGCUUGGAGACAUCGGG | 9164 | UCGCCCAGGGAGGAAAGGC | 9207 | UAAUUGGGCGGUACGCACC | 9250 | GCCGCUGGCCAGUUGGAUU |
| 9122 | GGGCUUGGAGACAUCGGGC | 9165 | CGCCCAGGGAGGAAAGGCU | 9208 | AAUUGGGCGGUACGCACCA | 9251 | CCGCUGGCCAGUUGGAUUU |
| 9123 | GGCUUGGAGACAUCGGGCA | 9166 | GCCCAGGGAGGAAAGGCUA | 9209 | AUUGGGCGGUACGCACCAA | 9252 | CGCUGGCCAGUUGGAUUUG |
| 9124 | GCUUGGAGACAUCGGGCAC | 9167 | CCCAGGGAGGAAAGGCUAA | 9210 | UUGGGCGGUACGCACCAAG | 9253 | GCUGGCCAGUUGGAUUUGU |
| 9125 | CUUGGAGACAUCGGGCACG | 9168 | CCAGGGAGGAAAGGCUAAA | 9211 | UGGGCGGUACGCACCAAGA | 9254 | CUGGCCAGUUGGAUUUGUC |
| 9126 | UUGGAGACAUCGGGCACGA | 9169 | CAGGGAGGAAAGGCUAAAA | 9212 | GGGCGGUACGCACCAAGAC | 9255 | UGGCCAGUUGGAUUUGUCC |
| 9127 | UGGAGACAUCGGGCACGAG | 9170 | AGGGAGGAAAGGCUAAAAU | 9213 | GGCGGUACGCACCAAGACC | 9256 | GGCCAGUUGGAUUUGUCCA |
| 9128 | GGAGACAUCGGGCACGAGC | 9171 | GGGAGGAAAGGCUAAAAUA | 9214 | GCGGUACGCACCAAGACCA | 9257 | GCCAGUUGGAUUUGUCCAG |
| 9129 | GAGACAUCGGGCACGAGCA | 9172 | GGAGGAAAGGCUAAAAUAU | 9215 | CGGUACGCACCAAGACCAA | 9258 | CCAGUUGGAUUUGUCCAGC |
| 9130 | AGACAUCGGGCACGAGCAG | 9173 | GAGGAAAGGCUAAAAUAUG | 9216 | GGUACGCACCAAGACCAAC | 9259 | CAGUUGGAUUUGUCCAGCU |
| 9131 | GACAUCGGGCACGAGCAGU | 9174 | AGGAAAGGCUAAAAUAUGC | 9217 | GUACGCACCAAGACCAACC | 9260 | AGUUGGAUUUGUCCAGCUG |
| 9132 | ACAUCGGGCACGAGCAGUG | 9175 | GGAAAGGCUAAAAUAUGCG | 9218 | UACGCACCAAGACCAACCU | 9261 | GUUGGAUUUGUCCAGCUGG |
| 9133 | CAUCGGGCACGAGCAGUGC | 9176 | GAAAGGCUAAAAUAUGCGG | 9219 | ACGCACCAAGACCAACCUC | 9262 | UUGGAUUUGUCCAGCUGGU |
| 9134 | AUCGGGCACGAGCAGUGCG | 9177 | AAAGGCUAAAAUAUGCGGC | 9220 | CGCACCAAGACCAACCUCA | 9263 | UGGAUUUGUCCAGCUGGUU |
| 9135 | UCGGGCACGAGCAGUGCGC | 9178 | AAGGCUAAAAUAUGCGGCC | 9221 | GCACCAAGACCAACCUCAC | 9264 | GGAUUUGUCCAGCUGGUUU |
| 9136 | CGGGCACGAGCAGUGCGCG | 9179 | AGGCUAAAAUAUGCGGCCU | 9222 | CACCAAGACCAACCUCACU | 9265 | GAUUUGUCCAGCUGGUUUA |
| 9137 | GGGCACGAGCAGUGCGCGC | 9180 | GGCUAAAAUAUGCGGCCUU | 9223 | ACCAAGACCAACCUCACUC | 9266 | AUUUGUCCAGCUGGUUUAC |
| 9138 | GGCACGAGCAGUGCGCGCC | 9181 | GCUAAAAUAUGCGGCCUUU | 9224 | CCAAGACCAACCUCACUCC | 9267 | UUUGUCCAGCUGGUUUACG |
| 9139 | GCACGAGCAGUGCGCGCCA | 9182 | CUAAAAUAUGCGGCCUUUA | 9225 | CAAGACCAACCUCACUCCA | 9268 | UUGUCCAGCUGGUUUACGG |
| 9140 | CACGAGCAGUGCGCGCCAA | 9183 | UAAAAUAUGCGGCCUUUAU | 9226 | AAGACCAACCUCACUCCAU | 9269 | UGUCCAGCUGGUUUACGGU |
| 9141 | ACGAGCAGUGCGCGCCAAG | 9184 | AAAAUAUGCGGCCUUUAUC | 9227 | AGACCAACCUCACUCCAUU | 9270 | GUCCAGCUGGUUUACGGUU |
| 9142 | CGAGCAGUGCGCGCCAAGC | 9185 | AAAUAUGCGGCCUUUAUCU | 9228 | GACCAACCUCACUCCAUUG | 9271 | UCCAGCUGGUUUACGGUUG |
| 9143 | GAGCAGUGCGCGCCAAGCU | 9186 | AAUAUGCGGCCUUUAUCUC | 9229 | ACCAACCUCACUCCAUUGC | 9272 | CCAGCUGGUUUACGGUUGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9273 | CAGCUGGUUUACGGUUGGU | 9316 | AGCGUGUCGCGUGCCCGAA | 9359 | UCCUACUAACAGUAGGGGU | 9402 | AUGAGCUGGUAAGAUAACA |
| 9274 | AGCUGGUUUACGGUUGGUG | 9317 | GCGUGUCGCGUGCCCGAAC | 9360 | CCUACUAACAGUAGGGGUA | 9403 | UGAGCUGGUAAGAUAACAC |
| 9275 | GCUGGUUUACGGUUGGUGU | 9318 | CGUGUCGCGUGCCCGAACC | 9361 | CUACUAACAGUAGGGGUAG | 9404 | GAGCUGGUAAGAUAACACU |
| 9276 | CUGGUUUACGGUUGGUGUC | 9319 | GUGUCGCGUGCCCGAACCC | 9362 | UACUAACAGUAGGGGUAGG | 9405 | AGCUGGUAAGAUAACACUC |
| 9277 | UGGUUUACGGUUGGUGUCG | 9320 | UGUCGCGUGCCCGAACCCG | 9363 | ACUAACAGUAGGGGUAGGC | 9406 | GCUGGUAAGAUAACACUCC |
| 9278 | GGUUUACGGUUGGUGUCGG | 9321 | GUCGCGUGCCCGAACCCGC | 9364 | CUAACAGUAGGGGUAGGCA | 9407 | CUGGUAAGAUAACACUCCA |
| 9279 | GUUUACGGUUGGUGUCGGC | 9322 | UCGCGUGCCCGAACCCGCC | 9365 | UAACAGUAGGGGUAGGCAU | 9408 | UGGUAAGAUAACACUCCAU |
| 9280 | UUUACGGUUGGUGUCGGCG | 9323 | CGCGUGCCCGAACCCGCCA | 9366 | AACAGUAGGGGUAGGCAUC | 9409 | GGUAAGAUAACACUCCAUU |
| 9281 | UUACGGUUGGUGUCGGCGG | 9324 | GCGUGCCCGAACCCGCCAU | 9367 | ACAGUAGGGGUAGGCAUCU | 9410 | GUAAGAUAACACUCCAUUU |
| 9282 | UACGGUUGGUGUCGGCGGG | 9325 | CGUGCCCGAACCCGCCAUU | 9368 | CAGUAGGGGUAGGCAUCUU | 9411 | UAAGAUAACACUCCAUUUC |
| 9283 | ACGGUUGGUGUCGGCGGGA | 9326 | GUGCCCGAACCCGCCAUUU | 9369 | AGUAGGGGUAGGCAUCUUU | 9412 | AAGAUAACACUCCAUUUCU |
| 9284 | CGGUUGGUGUCGGCGGGAA | 9327 | UGCCCGAACCCGCCAUUUG | 9370 | GUAGGGGUAGGCAUCUUUC | 9413 | AGAUAACACUCCAUUUCUU |
| 9285 | GGUUGGUGUCGGCGGGAAC | 9328 | GCCCGAACCCGCCAUUUGC | 9371 | UAGGGGUAGGCAUCUUUCU | 9414 | GAUAACACUCCAUUUCUUU |
| 9286 | GUUGGUGUCGGCGGGAACG | 9329 | CCCGAACCCGCCAUUUGCU | 9372 | AGGGGUAGGCAUCUUUCUC | 9415 | AUAACACUCCAUUUCUUUU |
| 9287 | UUGGUGUCGGCGGGAACGA | 9330 | CCGAACCCGCCAUUUGCUG | 9373 | GGGGUAGGCAUCUUUCUCU | 9416 | UAACACUCCAUUUCUUUUU |
| 9288 | UGGUGUCGGCGGGAACGAC | 9331 | CGAACCCGCCAUUUGCUGC | 9374 | GGGUAGGCAUCUUUCUCUU | 9417 | AACACUCCAUUUCUUUUUU |
| 9289 | GGUGUCGGCGGGAACGACA | 9332 | GAACCCGCCAUUUGCUGCU | 9375 | GGUAGGCAUCUUUCUCUUG | 9418 | ACACUCCAUUUCUUUUUUG |
| 9290 | GUGUCGGCGGGAACGACAU | 9333 | AACCCGCCAUUUGCUGCUU | 9376 | GUAGGCAUCUUUCUCUUGC | 9419 | CACUCCAUUUCUUUUUUGU |
| 9291 | UGUCGGCGGGAACGACAUU | 9334 | ACCCGCCAUUUGCUGCUUU | 9377 | UAGGCAUCUUUCUCUUGCC | 9420 | ACUCCAUUUCUUUUUUGUU |
| 9292 | GUCGGCGGGAACGACAUUU | 9335 | CCCGCCAUUUGCUGCUUUG | 9378 | AGGCAUCUUUCUCUUGCCA | 9421 | CUCCAUUUCUUUUUUGUUU |
| 9293 | UCGGCGGGAACGACAUUUA | 9336 | CCGCCAUUUGCUGCUUUGC | 9379 | GGCAUCUUUCUCUUGCCAG | 9422 | UCCAUUUCUUUUUUGUUUU |
| 9294 | CGGCGGGAACGACAUUUAU | 9337 | CGCCAUUUGCUGCUUUGCC | 9380 | GCAUCUUUCUCUUGCCAGC | 9423 | CCAUUUCUUUUUUGUUUUU |
| 9295 | GGCGGGAACGACAUUUAUC | 9338 | GCCAUUUGCUGCUUUGCCU | 9381 | CAUCUUUCUCUUGCCAGCU | 9424 | CAUUUCUUUUUUGUUUUUU |
| 9296 | GCGGGAACGACAUUUAUCA | 9339 | CCAUUUGCUGCUUUGCCUA | 9382 | AUCUUUCUCUUGCCAGCUC | 9425 | AUUUCUUUUUUGUUUUUUU |
| 9297 | CGGGAACGACAUUUAUCAC | 9340 | CAUUUGCUGCUUUGCCUAC | 9383 | UCUUUCUCUUGCCAGCUCG | 9426 | UUUCUUUUUUGUUUUUUUU |
| 9298 | GGGAACGACAUUUAUCACA | 9341 | AUUUGCUGCUUUGCCUACU | 9384 | CUUUCUCUUGCCAGCUCGA | 9427 | UUCUUUUUUGUUUUUUUUU |
| 9299 | GGAACGACAUUUAUCACAG | 9342 | UUUGCUGCUUUGCCUACUC | 9385 | UUUCUCUUGCCAGCUCGAU | 9428 | UCUUUUUUGUUUUUUUUUU |
| 9300 | GAACGACAUUUAUCACAGC | 9343 | UUGCUGCUUUGCCUACUCC | 9386 | UUCUCUUGCCAGCUCGAUG | 9429 | CUUUUUUGUUUUUUUUUUU |
| 9301 | AACGACAUUUAUCACAGCG | 9344 | UGCUGCUUUGCCUACUCCU | 9387 | UCUCUUGCCAGCUCGAUGA | 9430 | UUUUUUGUUUUUUUUUUUU |
| 9302 | ACGACAUUUAUCACAGCGU | 9345 | GCUGCUUUGCCUACUCCUA | 9388 | CUCUUGCCAGCUCGAUGAG | 9431 | UUUUUGUUUUUUUUUUUUU |
| 9303 | CGACAUUUAUCACAGCGUG | 9346 | CUGCUUUGCCUACUCCUAC | 9389 | UCUUGCCAGCUCGAUGAGC | 9432 | UUUUGUUUUUUUUUUUUUU |
| 9304 | GACAUUUAUCACAGCGUGU | 9347 | UGCUUUGCCUACUCCUACU | 9390 | CUUGCCAGCUCGAUGAGCU | 9433 | UUUGUUUUUUUUUUUUUUU |
| 9305 | ACAUUUAUCACAGCGUGUC | 9348 | GCUUUGCCUACUCCUACUA | 9391 | UUGCCAGCUCGAUGAGCUG | 9434 | UUGUUUUUUUUUUUUUUUU |
| 9306 | CAUUUAUCACAGCGUGUCG | 9349 | CUUUGCCUACUCCUACUAA | 9392 | UGCCAGCUCGAUGAGCUGG | 9435 | UGUUUUUUUUUUUUUUUUU |
| 9307 | AUUUAUCACAGCGUGUCGC | 9350 | UUUGCCUACUCCUACUAAC | 9393 | GCCAGCUCGAUGAGCUGGU | 9436 | GUUUUUUUUUUUUUUUUUU |
| 9308 | UUUAUCACAGCGUGUCGCG | 9351 | UUGCCUACUCCUACUAACA | 9394 | CCAGCUCGAUGAGCUGGUA | 9437 | UUUUUUUUUUUUUUUUUUU |
| 9309 | UUAUCACAGCGUGUCGCGU | 9352 | UGCCUACUCCUACUAACAG | 9395 | CAGCUCGAUGAGCUGGUAA | 9438 | UUUUUUUUUUUUUUUUUUU |
| 9310 | UAUCACAGCGUGUCGCGUG | 9353 | GCCUACUCCUACUAACAGU | 9396 | AGCUCGAUGAGCUGGUAAG | | |
| 9311 | AUCACAGCGUGUCGCGUGC | 9354 | CCUACUCCUACUAACAGUA | 9397 | GCUCGAUGAGCUGGUAAGA | | |
| 9312 | UCACAGCGUGUCGCGUGCC | 9355 | CUACUCCUACUAACAGUAG | 9398 | CUCGAUGAGCUGGUAAGAU | | |
| 9313 | CACAGCGUGUCGCGUGCCC | 9356 | UACUCCUACUAACAGUAGG | 9399 | UCGAUGAGCUGGUAAGAUA | | |
| 9314 | ACAGCGUGUCGCGUGCCCG | 9357 | ACUCCUACUAACAGUAGGG | 9400 | CGAUGAGCUGGUAAGAUAA | | |
| 9315 | CAGCGUGUCGCGUGCCCGA | 9358 | CUCCUACUAACAGUAGGGG | 9401 | GAUGAGCUGGUAAGAUAAC | | |

**FIG. 4 (page 232 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | UUCACGCAGAAAGCGUCUA | 44 | UACAGCCUCCAGGACCCCC | 87 | UUCGGAACCGGUGAGUACA | 130 | CCUUUCUUGGAUUAACCCG |
| 2 | UCACGCAGAAAGCGUCUAG | 45 | ACAGCCUCCAGGACCCCCC | 88 | UCGGAACCGGUGAGUACAC | 131 | CUUUCUUGGAUUAACCCGC |
| 3 | CACGCAGAAAGCGUCUAGC | 46 | CAGCCUCCAGGACCCCCCC | 89 | CGGAACCGGUGAGUACACC | 132 | UUUCUUGGAUUAACCCGCU |
| 4 | ACGCAGAAAGCGUCUAGCC | 47 | AGCCUCCAGGACCCCCCCU | 90 | GGAACCGGUGAGUACACCG | 133 | UUCUUGGAUUAACCCGCUC |
| 5 | CGCAGAAAGCGUCUAGCCA | 48 | GCCUCCAGGACCCCCCCUC | 91 | GAACCGGUGAGUACACCGG | 134 | UCUUGGAUUAACCCGCUCA |
| 6 | GCAGAAAGCGUCUAGCCAU | 49 | CCUCCAGGACCCCCCCUCC | 92 | AACCGGUGAGUACACCGGA | 135 | CUUGGAUUAACCCGCUCAA |
| 7 | CAGAAAGCGUCUAGCCAUG | 50 | CUCCAGGACCCCCCCUCCC | 93 | ACCGGUGAGUACACCGGAA | 136 | UUGGAUUAACCCGCUCAAU |
| 8 | AGAAAGCGUCUAGCCAUGG | 51 | UCCAGGACCCCCCCUCCCG | 94 | CCGGUGAGUACACCGGAAU | 137 | UGGAUUAACCCGCUCAAUG |
| 9 | GAAAGCGUCUAGCCAUGGC | 52 | CCAGGACCCCCCCUCCCGG | 95 | CGGUGAGUACACCGGAAUC | 138 | GGAUUAACCCGCUCAAUGC |
| 10 | AAAGCGUCUAGCCAUGGCG | 53 | CAGGACCCCCCCUCCCGGG | 96 | GGUGAGUACACCGGAAUCG | 139 | GAUUAACCCGCUCAAUGCC |
| 11 | AAGCGUCUAGCCAUGGCGU | 54 | AGGACCCCCCCUCCCGGGA | 97 | GUGAGUACACCGGAAUCGC | 140 | AUUAACCCGCUCAAUGCCC |
| 12 | AGCGUCUAGCCAUGGCGUU | 55 | GGACCCCCCCUCCCGGGAG | 98 | UGAGUACACCGGAAUCGCC | 141 | UUAACCCGCUCAAUGCCCG |
| 13 | GCGUCUAGCCAUGGCGUUA | 56 | GACCCCCCCUCCCGGGAGA | 99 | GAGUACACCGGAAUCGCCG | 142 | UAACCCGCUCAAUGCCCGG |
| 14 | CGUCUAGCCAUGGCGUUAG | 57 | ACCCCCCCUCCCGGGAGAG | 100 | AGUACACCGGAAUCGCCGG | 143 | AACCCGCUCAAUGCCCGGA |
| 15 | GUCUAGCCAUGGCGUUAGU | 58 | CCCCCCCUCCCGGGAGAGC | 101 | GUACACCGGAAUCGCCGGG | 144 | ACCCGCUCAAUGCCCGGAA |
| 16 | UCUAGCCAUGGCGUUAGUA | 59 | CCCCCCUCCCGGGAGAGCC | 102 | UACACCGGAAUCGCCGGGA | 145 | CCCGCUCAAUGCCCGGAAA |
| 17 | CUAGCCAUGGCGUUAGUAU | 60 | CCCCCUCCCGGGAGAGCCA | 103 | ACACCGGAAUCGCCGGGAU | 146 | CCGCUCAAUGCCCGGAAAU |
| 18 | UAGCCAUGGCGUUAGUAUG | 61 | CCCCUCCCGGGAGAGCCAU | 104 | CACCGGAAUCGCCGGGAUG | 147 | CGCUCAAUGCCCGGAAAUU |
| 19 | AGCCAUGGCGUUAGUAUGA | 62 | CCCUCCCGGGAGAGCCAUA | 105 | ACCGGAAUCGCCGGGAUGA | 148 | GCUCAAUGCCCGGAAAUUU |
| 20 | GCCAUGGCGUUAGUAUGAG | 63 | CCUCCCGGGAGAGCCAUAG | 106 | CCGGAAUCGCCGGGAUGAC | 149 | CUCAAUGCCCGGAAAUUUG |
| 21 | CCAUGGCGUUAGUAUGAGU | 64 | CUCCCGGGAGAGCCAUAGU | 107 | CGGAAUCGCCGGGAUGACC | 150 | UCAAUGCCCGGAAAUUUGG |
| 22 | CAUGGCGUUAGUAUGAGUG | 65 | UCCCGGGAGAGCCAUAGUG | 108 | GGAAUCGCCGGGAUGACCG | 151 | CAAUGCCCGGAAAUUUGGG |
| 23 | AUGGCGUUAGUAUGAGUGU | 66 | CCCGGGAGAGCCAUAGUGG | 109 | GAAUCGCCGGGAUGACCGG | 152 | AAUGCCCGGAAAUUUGGGC |
| 24 | UGGCGUUAGUAUGAGUGUU | 67 | CCGGGAGAGCCAUAGUGGU | 110 | AAUCGCCGGGAUGACCGGG | 153 | AUGCCCGGAAAUUUGGGCG |
| 25 | GGCGUUAGUAUGAGUGUUG | 68 | CGGGAGAGCCAUAGUGGUC | 111 | AUCGCCGGGAUGACCGGGU | 154 | UGCCCGGAAAUUUGGGCGU |
| 26 | GCGUUAGUAUGAGUGUUGU | 69 | GGGAGAGCCAUAGUGGUCU | 112 | UCGCCGGGAUGACCGGGUC | 155 | GCCCGGAAAUUUGGGCGUG |
| 27 | CGUUAGUAUGAGUGUUGUA | 70 | GGAGAGCCAUAGUGGUCUU | 113 | CGCCGGGAUGACCGGGUCC | 156 | CCCGGAAAUUUGGGCGUGC |
| 28 | GUUAGUAUGAGUGUUGUAC | 71 | GAGAGCCAUAGUGGUCUUC | 114 | GCCGGGAUGACCGGGUCCU | 157 | CCGGAAAUUUGGGCGUGCC |
| 29 | UUAGUAUGAGUGUUGUACA | 72 | AGAGCCAUAGUGGUCUUCG | 115 | CCGGGAUGACCGGGUCCUU | 158 | CGGAAAUUUGGGCGUGCCC |
| 30 | UAGUAUGAGUGUUGUACAG | 73 | GAGCCAUAGUGGUCUUCGG | 116 | CGGGAUGACCGGGUCCUUU | 159 | GGAAAUUUGGGCGUGCCCC |
| 31 | AGUAUGAGUGUUGUACAGC | 74 | AGCCAUAGUGGUCUUCGGA | 117 | GGGAUGACCGGGUCCUUUC | 160 | GAAAUUUGGGCGUGCCCCC |
| 32 | GUAUGAGUGUUGUACAGCC | 75 | GCCAUAGUGGUCUUCGGAA | 118 | GGAUGACCGGGUCCUUUCU | 161 | AAAUUUGGGCGUGCCCCCG |
| 33 | UAUGAGUGUUGUACAGCCU | 76 | CCAUAGUGGUCUUCGGAAC | 119 | GAUGACCGGGUCCUUUCUU | 162 | AAUUUGGGCGUGCCCCCGC |
| 34 | AUGAGUGUUGUACAGCCUC | 77 | CAUAGUGGUCUUCGGAACC | 120 | AUGACCGGGUCCUUUCUUG | 163 | AUUUGGGCGUGCCCCCGCA |
| 35 | UGAGUGUUGUACAGCCUCC | 78 | AUAGUGGUCUUCGGAACCG | 121 | UGACCGGGUCCUUUCUUGG | 164 | UUUGGGCGUGCCCCCGCAA |
| 36 | GAGUGUUGUACAGCCUCCA | 79 | UAGUGGUCUUCGGAACCGG | 122 | GACCGGGUCCUUUCUUGGA | 165 | UUGGGCGUGCCCCCGCAAG |
| 37 | AGUGUUGUACAGCCUCCAG | 80 | AGUGGUCUUCGGAACCGGU | 123 | ACCGGGUCCUUUCUUGGAU | 166 | UGGGCGUGCCCCCGCAAGA |
| 38 | GUGUUGUACAGCCUCCAGG | 81 | GUGGUCUUCGGAACCGGUG | 124 | CCGGGUCCUUUCUUGGAUU | 167 | GGGCGUGCCCCCGCAAGAC |
| 39 | UGUUGUACAGCCUCCAGGA | 82 | UGGUCUUCGGAACCGGUGA | 125 | CGGGUCCUUUCUUGGAUUA | 168 | GGCGUGCCCCCGCAAGACU |
| 40 | GUUGUACAGCCUCCAGGAC | 83 | GGUCUUCGGAACCGGUGAG | 126 | GGGUCCUUUCUUGGAUUAA | 169 | GCGUGCCCCCGCAAGACUG |
| 41 | UUGUACAGCCUCCAGGACC | 84 | GUCUUCGGAACCGGUGAGU | 127 | GGUCCUUUCUUGGAUUAAC | 170 | CGUGCCCCCGCAAGACUGC |
| 42 | UGUACAGCCUCCAGGACCC | 85 | UCUUCGGAACCGGUGAGUA | 128 | GUCCUUUCUUGGAUUAACC | 171 | GUGCCCCCGCAAGACUGCU |
| 43 | GUACAGCCUCCAGGACCCC | 86 | CUUCGGAACCGGUGAGUAC | 129 | UCCUUUCUUGGAUUAACCC | 172 | UGCCCCCGCAAGACUGCUA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 173 | GCCCCCGCAAGACUGCUAG | 216 | GCCUUGCGGUACUGCCUGA | 259 | AGGUCUCGUAGACCGUGCA | 302 | AAAGAAAAACCAAACGUAA |
| 174 | CCCCCGCAAGACUGCUAGC | 217 | CCUUGCGGUACUGCCUGAU | 260 | GGUCUCGUAGACCGUGCAC | 303 | AAGAAAAACCAAACGUAAC |
| 175 | CCCCGCAAGACUGCUAGCC | 218 | CUUGCGGUACUGCCUGAUA | 261 | GUCUCGUAGACCGUGCACC | 304 | AGAAAAACCAAACGUAACA |
| 176 | CCCGCAAGACUGCUAGCCG | 219 | UUGCGGUACUGCCUGAUAG | 262 | UCUCGUAGACCGUGCACCA | 305 | GAAAAACCAAACGUAACAC |
| 177 | CCGCAAGACUGCUAGCCGA | 220 | UGCGGUACUGCCUGAUAGG | 263 | CUCGUAGACCGUGCACCAU | 306 | AAAAACCAAACGUAACACC |
| 178 | CGCAAGACUGCUAGCCGAG | 221 | GCGGUACUGCCUGAUAGGG | 264 | UCGUAGACCGUGCACCAUG | 307 | AAAACCAAACGUAACACCA |
| 179 | GCAAGACUGCUAGCCGAGU | 222 | CGGUACUGCCUGAUAGGGU | 265 | CGUAGACCGUGCACCAUGA | 308 | AAACCAAACGUAACACCAA |
| 180 | CAAGACUGCUAGCCGAGUA | 223 | GGUACUGCCUGAUAGGGUG | 266 | GUAGACCGUGCACCAUGAG | 309 | AACCAAACGUAACACCAAC |
| 181 | AAGACUGCUAGCCGAGUAG | 224 | GUACUGCCUGAUAGGGUGC | 267 | UAGACCGUGCACCAUGAGC | 310 | ACCAAACGUAACACCAACC |
| 182 | AGACUGCUAGCCGAGUAGU | 225 | UACUGCCUGAUAGGGUGCU | 268 | AGACCGUGCACCAUGAGCA | 311 | CCAAACGUAACACCAACCG |
| 183 | GACUGCUAGCCGAGUAGUG | 226 | ACUGCCUGAUAGGGUGCUU | 269 | GACCGUGCACCAUGAGCAC | 312 | CAAACGUAACACCAACCGC |
| 184 | ACUGCUAGCCGAGUAGUGU | 227 | CUGCCUGAUAGGGUGCUUG | 270 | ACCGUGCACCAUGAGCACG | 313 | AAACGUAACACCAACCGCC |
| 185 | CUGCUAGCCGAGUAGUGUU | 228 | UGCCUGAUAGGGUGCUUGC | 271 | CCGUGCACCAUGAGCACGA | 314 | AACGUAACACCAACCGCCG |
| 186 | UGCUAGCCGAGUAGUGUUG | 229 | GCCUGAUAGGGUGCUUGCG | 272 | CGUGCACCAUGAGCACGAA | 315 | ACGUAACACCAACCGCCGC |
| 187 | GCUAGCCGAGUAGUGUUGG | 230 | CCUGAUAGGGUGCUUGCGA | 273 | GUGCACCAUGAGCACGAAU | 316 | CGUAACACCAACCGCCGCC |
| 188 | CUAGCCGAGUAGUGUUGGG | 231 | CUGAUAGGGUGCUUGCGAG | 274 | UGCACCAUGAGCACGAAUC | 317 | GUAACACCAACCGCCGCCC |
| 189 | UAGCCGAGUAGUGUUGGGU | 232 | UGAUAGGGUGCUUGCGAGU | 275 | GCACCAUGAGCACGAAUCC | 318 | UAACACCAACCGCCGCCCA |
| 190 | AGCCGAGUAGUGUUGGGUC | 233 | GAUAGGGUGCUUGCGAGUG | 276 | CACCAUGAGCACGAAUCCU | 319 | AACACCAACCGCCGCCCAA |
| 191 | GCCGAGUAGUGUUGGGUCG | 234 | AUAGGGUGCUUGCGAGUGC | 277 | ACCAUGAGCACGAAUCCUA | 320 | ACACCAACCGCCGCCCAAU |
| 192 | CCGAGUAGUGUUGGGUCGC | 235 | UAGGGUGCUUGCGAGUGCC | 278 | CCAUGAGCACGAAUCCUAA | 321 | CACCAACCGCCGCCCAAUG |
| 193 | CGAGUAGUGUUGGGUCGCG | 236 | AGGGUGCUUGCGAGUGCCC | 279 | CAUGAGCACGAAUCCUAAA | 322 | ACCAACCGCCGCCCAAUGG |
| 194 | GAGUAGUGUUGGGUCGCGA | 237 | GGGUGCUUGCGAGUGCCCC | 280 | AUGAGCACGAAUCCUAAAC | 323 | CCAACCGCCGCCCAAUGGA |
| 195 | AGUAGUGUUGGGUCGCGAA | 238 | GGUGCUUGCGAGUGCCCCG | 281 | UGAGCACGAAUCCUAAACC | 324 | CAACCGCCGCCCAAUGGAC |
| 196 | GUAGUGUUGGGUCGCGAAA | 239 | GUGCUUGCGAGUGCCCCGG | 282 | GAGCACGAAUCCUAAACCU | 325 | AACCGCCGCCCAAUGGACG |
| 197 | UAGUGUUGGGUCGCGAAAG | 240 | UGCUUGCGAGUGCCCCGGG | 283 | AGCACGAAUCCUAAACCUC | 326 | ACCGCCGCCCAAUGGACGU |
| 198 | AGUGUUGGGUCGCGAAAGG | 241 | GCUUGCGAGUGCCCCGGGA | 284 | GCACGAAUCCUAAACCUCA | 327 | CCGCCGCCCAAUGGACGUU |
| 199 | GUGUUGGGUCGCGAAAGGC | 242 | CUUGCGAGUGCCCCGGGAG | 285 | CACGAAUCCUAAACCUCAA | 328 | CGCCGCCCAAUGGACGUUA |
| 200 | UGUUGGGUCGCGAAAGGCC | 243 | UUGCGAGUGCCCCGGGAGG | 286 | ACGAAUCCUAAACCUCAAA | 329 | GCCGCCCAAUGGACGUUAA |
| 201 | GUUGGGUCGCGAAAGGCCU | 244 | UGCGAGUGCCCCGGGAGGU | 287 | CGAAUCCUAAACCUCAAAG | 330 | CCGCCCAAUGGACGUUAAG |
| 202 | UUGGGUCGCGAAAGGCCUU | 245 | GCGAGUGCCCCGGGAGGUC | 288 | GAAUCCUAAACCUCAAAGA | 331 | CGCCCAAUGGACGUUAAGU |
| 203 | UGGGUCGCGAAAGGCCUUG | 246 | CGAGUGCCCCGGGAGGUCU | 289 | AAUCCUAAACCUCAAAGAA | 332 | GCCCAAUGGACGUUAAGUU |
| 204 | GGGUCGCGAAAGGCCUUGC | 247 | GAGUGCCCCGGGAGGUCUC | 290 | AUCCUAAACCUCAAAGAAA | 333 | CCCAAUGGACGUUAAGUUC |
| 205 | GGUCGCGAAAGGCCUUGCG | 248 | AGUGCCCCGGGAGGUCUCG | 291 | UCCUAAACCUCAAAGAAAA | 334 | CCAAUGGACGUUAAGUUCC |
| 206 | GUCGCGAAAGGCCUUGCGG | 249 | GUGCCCCGGGAGGUCUCGU | 292 | CCUAAACCUCAAAGAAAAA | 335 | CAAUGGACGUUAAGUUCCC |
| 207 | UCGCGAAAGGCCUUGCGGU | 250 | UGCCCCGGGAGGUCUCGUA | 293 | CUAAACCUCAAAGAAAAAC | 336 | AAUGGACGUUAAGUUCCCG |
| 208 | CGCGAAAGGCCUUGCGGUA | 251 | GCCCCGGGAGGUCUCGUAG | 294 | UAAACCUCAAAGAAAAACC | 337 | AUGGACGUUAAGUUCCCGG |
| 209 | GCGAAAGGCCUUGCGGUAC | 252 | CCCCGGGAGGUCUCGUAGA | 295 | AAACCUCAAAGAAAAACCA | 338 | UGGACGUUAAGUUCCCGGG |
| 210 | CGAAAGGCCUUGCGGUACU | 253 | CCCGGGAGGUCUCGUAGAC | 296 | AACCUCAAAGAAAAACCAA | 339 | GGACGUUAAGUUCCCGGGU |
| 211 | GAAAGGCCUUGCGGUACUG | 254 | CCGGGAGGUCUCGUAGACC | 297 | ACCUCAAAGAAAAACCAAA | 340 | GACGUUAAGUUCCCGGGUG |
| 212 | AAAGGCCUUGCGGUACUGC | 255 | CGGGAGGUCUCGUAGACCG | 298 | CCUCAAAGAAAAACCAAAC | 341 | ACGUUAAGUUCCCGGGUGG |
| 213 | AAGGCCUUGCGGUACUGCC | 256 | GGGAGGUCUCGUAGACCGU | 299 | CUCAAAGAAAAACCAAACG | 342 | CGUUAAGUUCCCGGGUGGU |
| 214 | AGGCCUUGCGGUACUGCCU | 257 | GGAGGUCUCGUAGACCGUG | 300 | UCAAAGAAAAACCAAACGU | 343 | GUUAAGUUCCCGGGUGGUG |
| 215 | GGCCUUGCGGUACUGCCUG | 258 | GAGGUCUCGUAGACCGUGC | 301 | CAAAGAAAAACCAAACGUA | 344 | UUAAGUUCCCGGGUGGUGG |

**FIG. 5 (page 234 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 345 | UAAGUUCCCGGGUGGUGGC | 388 | UUGCCGCGCAGGGGCCCCA | 431 | AGACUUCGGAGCGGUCGCA | 474 | CCCCAAGGCGCGUCGACCC |
| 346 | AAGUUCCCGGGUGGUGGCC | 389 | UGCCGCGCAGGGGCCCCAG | 432 | GACUUCGGAGCGGUCGCAA | 475 | CCCAAGGCGCGUCGACCCG |
| 347 | AGUUCCCGGGUGGUGGCCA | 390 | GCCGCGCAGGGGCCCCAGA | 433 | ACUUCGGAGCGGUCGCAAC | 476 | CCAAGGCGCGUCGACCCGA |
| 348 | GUUCCCGGGUGGUGGCCAG | 391 | CCGCGCAGGGGCCCCAGAU | 434 | CUUCGGAGCGGUCGCAACC | 477 | CAAGGCGCGUCGACCCGAG |
| 349 | UUCCCGGGUGGUGGCCAGA | 392 | CGCGCAGGGGCCCCAGAUU | 435 | UUCGGAGCGGUCGCAACCU | 478 | AAGGCGCGUCGACCCGAGG |
| 350 | UCCCGGGUGGUGGCCAGAU | 393 | GCGCAGGGGCCCCAGAUUG | 436 | UCGGAGCGGUCGCAACCUC | 479 | AGGCGCGUCGACCCGAGGG |
| 351 | CCCGGGUGGUGGCCAGAUC | 394 | CGCAGGGGCCCCAGAUUGG | 437 | CGGAGCGGUCGCAACCUCG | 480 | GGCGCGUCGACCCGAGGGA |
| 352 | CCGGGUGGUGGCCAGAUCG | 395 | GCAGGGGCCCCAGAUUGGG | 438 | GGAGCGGUCGCAACCUCGU | 481 | GCGCGUCGACCCGAGGGAA |
| 353 | CGGGUGGUGGCCAGAUCGU | 396 | CAGGGGCCCCAGAUUGGGU | 439 | GAGCGGUCGCAACCUCGUG | 482 | CGCGUCGACCCGAGGGAAG |
| 354 | GGGUGGUGGCCAGAUCGUU | 397 | AGGGGCCCCAGAUUGGGUG | 440 | AGCGGUCGCAACCUCGUGG | 483 | GCGUCGACCCGAGGGAAGG |
| 355 | GGUGGUGGCCAGAUCGUUG | 398 | GGGGCCCCAGAUUGGGUGU | 441 | GCGGUCGCAACCUCGUGGA | 484 | CGUCGACCCGAGGGAAGGU |
| 356 | GUGGUGGCCAGAUCGUUGG | 399 | GGGCCCCAGAUUGGGUGUG | 442 | CGGUCGCAACCUCGUGGAA | 485 | GUCGACCCGAGGGAAGGUC |
| 357 | UGGUGGCCAGAUCGUUGGC | 400 | GGCCCCAGAUUGGGUGUGC | 443 | GGUCGCAACCUCGUGGAAG | 486 | UCGACCCGAGGGAAGGUCC |
| 358 | GGUGGCCAGAUCGUUGGCG | 401 | GCCCCAGAUUGGGUGUGCG | 444 | GUCGCAACCUCGUGGAAGA | 487 | CGACCCGAGGGAAGGUCCU |
| 359 | GUGGCCAGAUCGUUGGCGG | 402 | CCCCAGAUUGGGUGUGCGC | 445 | UCGCAACCUCGUGGAAGAC | 488 | GACCCGAGGGAAGGUCCUG |
| 360 | UGGCCAGAUCGUUGGCGGA | 403 | CCCAGAUUGGGUGUGCGCG | 446 | CGCAACCUCGUGGAAGACG | 489 | ACCCGAGGGAAGGUCCUGG |
| 361 | GGCCAGAUCGUUGGCGGAG | 404 | CCAGAUUGGGUGUGCGCGC | 447 | GCAACCUCGUGGAAGACGC | 490 | CCCGAGGGAAGGUCCUGGG |
| 362 | GCCAGAUCGUUGGCGGAGU | 405 | CAGAUUGGGUGUGCGCGCG | 448 | CAACCUCGUGGAAGACGCC | 491 | CCGAGGGAAGGUCCUGGGC |
| 363 | CCAGAUCGUUGGCGGAGUU | 406 | AGAUUGGGUGUGCGCGCGA | 449 | AACCUCGUGGAAGACGCCA | 492 | CGAGGGAAGGUCCUGGGCA |
| 364 | CAGAUCGUUGGCGGAGUUU | 407 | GAUUGGGUGUGCGCGCGAC | 450 | ACCUCGUGGAAGACGCCAA | 493 | GAGGGAAGGUCCUGGGCAC |
| 365 | AGAUCGUUGGCGGAGUUUA | 408 | AUUGGGUGUGCGCGCGACU | 451 | CCUCGUGGAAGACGCCAAC | 494 | AGGGAAGGUCCUGGGCACA |
| 366 | GAUCGUUGGCGGAGUUUAC | 409 | UUGGGUGUGCGCGCGACUC | 452 | CUCGUGGAAGACGCCAACC | 495 | GGGAAGGUCCUGGGCACAA |
| 367 | AUCGUUGGCGGAGUUUACU | 410 | UGGGUGUGCGCGCGACUCG | 453 | UCGUGGAAGACGCCAACCU | 496 | GGAAGGUCCUGGGCACAAC |
| 368 | UCGUUGGCGGAGUUUACUU | 411 | GGGUGUGCGCGCGACUCGG | 454 | CGUGGAAGACGCCAACCUA | 497 | GAAGGUCCUGGGCACAACC |
| 369 | CGUUGGCGGAGUUUACUUG | 412 | GGUGUGCGCGCGACUCGGA | 455 | GUGGAAGACGCCAACCUAU | 498 | AAGGUCCUGGGCACAACCA |
| 370 | GUUGGCGGAGUUUACUUGU | 413 | GUGUGCGCGCGACUCGGAA | 456 | UGGAAGACGCCAACCUAUC | 499 | AGGUCCUGGGCACAACCAG |
| 371 | UUGGCGGAGUUUACUUGUU | 414 | UGUGCGCGCGACUCGGAAG | 457 | GGAAGACGCCAACCUAUCC | 500 | GGUCCUGGGCACAACCAGG |
| 372 | UGGCGGAGUUUACUUGUUG | 415 | GUGCGCGCGACUCGGAAGA | 458 | GAAGACGCCAACCUAUCCC | 501 | GUCCUGGGCACAACCAGGA |
| 373 | GGCGGAGUUUACUUGUUGC | 416 | UGCGCGCGACUCGGAAGAC | 459 | AAGACGCCAACCUAUCCCC | 502 | UCCUGGGCACAACCAGGAU |
| 374 | GCGGAGUUUACUUGUUGCC | 417 | GCGCGCGACUCGGAAGACU | 460 | AGACGCCAACCUAUCCCCA | 503 | CCUGGGCACAACCAGGAUA |
| 375 | CGGAGUUUACUUGUUGCCG | 418 | CGCGCGACUCGGAAGACUU | 461 | GACGCCAACCUAUCCCCAA | 504 | CUGGGCACAACCAGGAUAU |
| 376 | GGAGUUUACUUGUUGCCGC | 419 | GCGCGACUCGGAAGACUUC | 462 | ACGCCAACCUAUCCCCAAG | 505 | UGGGCACAACCAGGAUAUC |
| 377 | GAGUUUACUUGUUGCCGCG | 420 | CGCGACUCGGAAGACUUCG | 463 | CGCCAACCUAUCCCCAAGG | 506 | GGGCACAACCAGGAUAUCC |
| 378 | AGUUUACUUGUUGCCGCGC | 421 | GCGACUCGGAAGACUUCGG | 464 | GCCAACCUAUCCCCAAGGC | 507 | GGCACAACCAGGAUAUCCA |
| 379 | GUUUACUUGUUGCCGCGCA | 422 | CGACUCGGAAGACUUCGGA | 465 | CCAACCUAUCCCCAAGGCG | 508 | GCACAACCAGGAUAUCCAU |
| 380 | UUUACUUGUUGCCGCGCAG | 423 | GACUCGGAAGACUUCGGAG | 466 | CAACCUAUCCCCAAGGCGC | 509 | CACAACCAGGAUAUCCAUG |
| 381 | UUACUUGUUGCCGCGCAGG | 424 | ACUCGGAAGACUUCGGAGC | 467 | AACCUAUCCCCAAGGCGCG | 510 | ACAACCAGGAUAUCCAUGG |
| 382 | UACUUGUUGCCGCGCAGGG | 425 | CUCGGAAGACUUCGGAGCG | 468 | ACCUAUCCCCAAGGCGCGU | 511 | CAACCAGGAUAUCCAUGGC |
| 383 | ACUUGUUGCCGCGCAGGGG | 426 | UCGGAAGACUUCGGAGCGG | 469 | CCUAUCCCCAAGGCGCGUC | 512 | AACCAGGAUAUCCAUGGCC |
| 384 | CUUGUUGCCGCGCAGGGGC | 427 | CGGAAGACUUCGGAGCGGU | 470 | CUAUCCCCAAGGCGCGUCG | 513 | ACCAGGAUAUCCAUGGCCU |
| 385 | UUGUUGCCGCGCAGGGGCC | 428 | GGAAGACUUCGGAGCGGUC | 471 | UAUCCCCAAGGCGCGUCGA | 514 | CCAGGAUAUCCAUGGCCUC |
| 386 | UGUUGCCGCGCAGGGGCCC | 429 | GAAGACUUCGGAGCGGUCG | 472 | AUCCCCAAGGCGCGUCGAC | 515 | CAGGAUAUCCAUGGCCUCU |
| 387 | GUUGCCGCGCAGGGGCCCC | 430 | AAGACUUCGGAGCGGUCGC | 473 | UCCCCAAGGCGCGUCGACC | 516 | AGGAUAUCCAUGGCCUCUU |

FIG. 5 (page 235 of 479)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 517 | GGAUAUCCAUGGCCUCUUU | 560 | CAGGAUGGCUCUUGUCCCC | 603 | CCCAAAUGAUCCCCGCGGG | 646 | AUCGAUACCCUAACCUGCG |
| 518 | GAUAUCCAUGGCCUCUUUA | 561 | AGGAUGGCUCUUGUCCCCC | 604 | CCAAAUGAUCCCCGCGGGA | 647 | UCGAUACCCUAACCUGCGG |
| 519 | AUAUCCAUGGCCUCUUUAC | 562 | GGAUGGCUCUUGUCCCCCC | 605 | CAAAUGAUCCCCGCGGGAG | 648 | CGAUACCCUAACCUGCGGC |
| 520 | UAUCCAUGGCCUCUUUACG | 563 | GAUGGCUCUUGUCCCCCCG | 606 | AAAUGAUCCCCGCGGGAGG | 649 | GAUACCCUAACCUGCGGCU |
| 521 | AUCCAUGGCCUCUUUACGG | 564 | AUGGCUCUUGUCCCCCCGU | 607 | AAUGAUCCCCGCGGGAGGU | 650 | AUACCCUAACCUGCGGCUU |
| 522 | UCCAUGGCCUCUUUACGGU | 565 | UGGCUCUUGUCCCCCCGUG | 608 | AUGAUCCCCGCGGGAGGUC | 651 | UACCCUAACCUGCGGCUUC |
| 523 | CCAUGGCCUCUUUACGGUA | 566 | GGCUCUUGUCCCCCCGUGG | 609 | UGAUCCCCGCGGGAGGUCC | 652 | ACCCUAACCUGCGGCUUCG |
| 524 | CAUGGCCUCUUUACGGUAA | 567 | GCUCUUGUCCCCCCGUGGC | 610 | GAUCCCCGCGGGAGGUCCC | 653 | CCCUAACCUGCGGCUUCGC |
| 525 | AUGGCCUCUUUACGGUAAU | 568 | CUCUUGUCCCCCCGUGGCU | 611 | AUCCCCGCGGGAGGUCCCG | 654 | CCUAACCUGCGGCUUCGCC |
| 526 | UGGCCUCUUUACGGUAAUG | 569 | UCUUGUCCCCCCGUGGCUC | 612 | UCCCCGCGGGAGGUCCCGC | 655 | CUAACCUGCGGCUUCGCCG |
| 527 | GGCCUCUUUACGGUAAUGA | 570 | CUUGUCCCCCCGUGGCUCU | 613 | CCCCGCGGGAGGUCCCGCA | 656 | UAACCUGCGGCUUCGCCGA |
| 528 | GCCUCUUUACGGUAAUGAG | 571 | UUGUCCCCCCGUGGCUCUC | 614 | CCCGCGGGAGGUCCCGCAA | 657 | AACCUGCGGCUUCGCCGAC |
| 529 | CCUCUUUACGGUAAUGAGG | 572 | UGUCCCCCCGUGGCUCUCG | 615 | CCGCGGGAGGUCCCGCAAU | 658 | ACCUGCGGCUUCGCCGACC |
| 530 | CUCUUUACGGUAAUGAGGG | 573 | GUCCCCCCGUGGCUCUCGA | 616 | CGCGGGAGGUCCCGCAAUU | 659 | CCUGCGGCUUCGCCGACCU |
| 531 | UCUUUACGGUAAUGAGGGU | 574 | UCCCCCCGUGGCUCUCGAC | 617 | GCGGGAGGUCCCGCAAUUU | 660 | CUGCGGCUUCGCCGACCUC |
| 532 | CUUUACGGUAAUGAGGGUU | 575 | CCCCCCGUGGCUCUCGACC | 618 | CGGGAGGUCCCGCAAUUUG | 661 | UGCGGCUUCGCCGACCUCA |
| 533 | UUUACGGUAAUGAGGGUUG | 576 | CCCCCGUGGCUCUCGACCG | 619 | GGGAGGUCCCGCAAUUUGG | 662 | GCGGCUUCGCCGACCUCAU |
| 534 | UUACGGUAAUGAGGGUUGU | 577 | CCCCGUGGCUCUCGACCGU | 620 | GGAGGUCCCGCAAUUUGGG | 663 | CGGCUUCGCCGACCUCAUG |
| 535 | UACGGUAAUGAGGGUUGUG | 578 | CCCGUGGCUCUCGACCGUC | 621 | GAGGUCCCGCAAUUUGGGU | 664 | GGCUUCGCCGACCUCAUGG |
| 536 | ACGGUAAUGAGGGUUGUGG | 579 | CCGUGGCUCUCGACCGUCU | 622 | AGGUCCCGCAAUUUGGGUA | 665 | GCUUCGCCGACCUCAUGGG |
| 537 | CGGUAAUGAGGGUUGUGGG | 580 | CGUGGCUCUCGACCGUCUU | 623 | GGUCCCGCAAUUUGGGUAA | 666 | CUUCGCCGACCUCAUGGGA |
| 538 | GGUAAUGAGGGUUGUGGGU | 581 | GUGGCUCUCGACCGUCUUG | 624 | GUCCCGCAAUUUGGGUAAG | 667 | UUCGCCGACCUCAUGGGAU |
| 539 | GUAAUGAGGGUUGUGGGUG | 582 | UGGCUCUCGACCGUCUUGG | 625 | UCCCGCAAUUUGGGUAAGG | 668 | UCGCCGACCUCAUGGGAUA |
| 540 | UAAUGAGGGUUGUGGGUGG | 583 | GGCUCUCGACCGUCUUGGG | 626 | CCCGCAAUUUGGGUAAGGU | 669 | CGCCGACCUCAUGGGAUAC |
| 541 | AAUGAGGGUUGUGGGUGGG | 584 | GCUCUCGACCGUCUUGGGG | 627 | CCGCAAUUUGGGUAAGGUC | 670 | GCCGACCUCAUGGGAUACA |
| 542 | AUGAGGGUUGUGGGUGGGC | 585 | CUCUCGACCGUCUUGGGGC | 628 | CGCAAUUUGGGUAAGGUCA | 671 | CCGACCUCAUGGGAUACAU |
| 543 | UGAGGGUUGUGGGUGGGCA | 586 | UCUCGACCGUCUUGGGGCC | 629 | GCAAUUUGGGUAAGGUCAU | 672 | CGACCUCAUGGGAUACAUC |
| 544 | GAGGGUUGUGGGUGGGCAG | 587 | CUCGACCGUCUUGGGGCCC | 630 | CAAUUUGGGUAAGGUCAUC | 673 | GACCUCAUGGGAUACAUCC |
| 545 | AGGGUUGUGGGUGGGCAGG | 588 | UCGACCGUCUUGGGGCCCA | 631 | AAUUUGGGUAAGGUCAUCG | 674 | ACCUCAUGGGAUACAUCCC |
| 546 | GGGUUGUGGGUGGGCAGGA | 589 | CGACCGUCUUGGGGCCCAA | 632 | AUUUGGGUAAGGUCAUCGA | 675 | CCUCAUGGGAUACAUCCCG |
| 547 | GGUUGUGGGUGGGCAGGAU | 590 | GACCGUCUUGGGGCCCAAA | 633 | UUUGGGUAAGGUCAUCGAU | 676 | CUCAUGGGAUACAUCCCGC |
| 548 | GUUGUGGGUGGGCAGGAUG | 591 | ACCGUCUUGGGGCCCAAAU | 634 | UUGGGUAAGGUCAUCGAUA | 677 | UCAUGGGAUACAUCCCGCU |
| 549 | UUGUGGGUGGGCAGGAUGG | 592 | CCGUCUUGGGGCCCAAAUG | 635 | UGGGUAAGGUCAUCGAUAC | 678 | CAUGGGAUACAUCCCGCUC |
| 550 | UGUGGGUGGGCAGGAUGGC | 593 | CGUCUUGGGGCCCAAAUGA | 636 | GGGUAAGGUCAUCGAUACC | 679 | AUGGGAUACAUCCCGCUCG |
| 551 | GUGGGUGGGCAGGAUGGCU | 594 | GUCUUGGGGCCCAAAUGAU | 637 | GGUAAGGUCAUCGAUACCC | 680 | UGGGAUACAUCCCGCUCGU |
| 552 | UGGGUGGGCAGGAUGGCUC | 595 | UCUUGGGGCCCAAAUGAUC | 638 | GUAAGGUCAUCGAUACCCU | 681 | GGGAUACAUCCCGCUCGUA |
| 553 | GGGUGGGCAGGAUGGCUCU | 596 | CUUGGGGCCCAAAUGAUCC | 639 | UAAGGUCAUCGAUACCCUA | 682 | GGAUACAUCCCGCUCGUAG |
| 554 | GGUGGGCAGGAUGGCUCUU | 597 | UUGGGGCCCAAAUGAUCCC | 640 | AAGGUCAUCGAUACCCUAA | 683 | GAUACAUCCCGCUCGUAGG |
| 555 | GUGGGCAGGAUGGCUCUUG | 598 | UGGGGCCCAAAUGAUCCCC | 641 | AGGUCAUCGAUACCCUAAC | 684 | AUACAUCCCGCUCGUAGGC |
| 556 | UGGGCAGGAUGGCUCUUGU | 599 | GGGGCCCAAAUGAUCCCCG | 642 | GGUCAUCGAUACCCUAACC | 685 | UACAUCCCGCUCGUAGGCG |
| 557 | GGGCAGGAUGGCUCUUGUC | 600 | GGGCCCAAAUGAUCCCCGC | 643 | GUCAUCGAUACCCUAACCU | 686 | ACAUCCCGCUCGUAGGCGC |
| 558 | GGCAGGAUGGCUCUUGUCC | 601 | GGCCCAAAUGAUCCCCGCG | 644 | UCAUCGAUACCCUAACCUG | 687 | CAUCCCGCUCGUAGGCGCC |
| 559 | GCAGGAUGGCUCUUGUCCC | 602 | GCCCAAAUGAUCCCCGCGG | 645 | CAUCGAUACCCUAACCUGC | 688 | AUCCCGCUCGUAGGCGCCC |

**FIG. 5 (page 236 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 689 | UCCCGCUCGUAGGCGCCCC | 732 | GGCACAUGGUGUCAGGGCU | 775 | ACAGGGAAUCUCCCCGGUU | 818 | CACUUCUUUCGUGCCUGAC |
| 690 | CCCGCUCGUAGGCGCCCCC | 733 | GCACAUGGUGUCAGGGCUU | 776 | CAGGGAAUCUCCCCGGUUG | 819 | ACUUCUUUCGUGCCUGACU |
| 691 | CCGCUCGUAGGCGCCCCCG | 734 | CACAUGGUGUCAGGGCUUU | 777 | AGGGAAUCUCCCCGGUUGC | 820 | CUUCUUUCGUGCCUGACUG |
| 692 | CGCUCGUAGGCGCCCCCGU | 735 | ACAUGGUGUCAGGGCUUUG | 778 | GGGAAUCUCCCCGGUUGCU | 821 | UUCUUUCGUGCCUGACUGU |
| 693 | GCUCGUAGGCGCCCCCGUG | 736 | CAUGGUGUCAGGGCUUUGG | 779 | GGAAUCUCCCCGGUUGCUC | 822 | UCUUUCGUGCCUGACUGUC |
| 694 | CUCGUAGGCGCCCCCGUGG | 737 | AUGGUGUCAGGGCUUUGGA | 780 | GAAUCUCCCCGGUUGCUCC | 823 | CUUUCGUGCCUGACUGUCC |
| 695 | UCGUAGGCGCCCCCGUGGG | 738 | UGGUGUCAGGGCUUUGGAG | 781 | AAUCUCCCCGGUUGCUCCU | 824 | UUUCGUGCCUGACUGUCCC |
| 696 | CGUAGGCGCCCCCGUGGGU | 739 | GGUGUCAGGGCUUUGGAGG | 782 | AUCUCCCCGGUUGCUCCUU | 825 | UUCGUGCCUGACUGUCCCC |
| 697 | GUAGGCGCCCCCGUGGGUA | 740 | GUGUCAGGGCUUUGGAGGA | 783 | UCUCCCCGGUUGCUCCUUU | 826 | UCGUGCCUGACUGUCCCCG |
| 698 | UAGGCGCCCCCGUGGGUAG | 741 | UGUCAGGGCUUUGGAGGAC | 784 | CUCCCCGGUUGCUCCUUUU | 827 | CGUGCCUGACUGUCCCCGC |
| 699 | AGGCGCCCCCGUGGGUAGC | 742 | GUCAGGGCUUUGGAGGACG | 785 | UCCCCGGUUGCUCCUUUUC | 828 | GUGCCUGACUGUCCCCGCU |
| 700 | GGCGCCCCCGUGGGUAGCG | 743 | UCAGGGCUUUGGAGGACGG | 786 | CCCCGGUUGCUCCUUUUCU | 829 | UGCCUGACUGUCCCCGCUU |
| 701 | GCGCCCCCGUGGGUAGCGU | 744 | CAGGGCUUUGGAGGACGGG | 787 | CCCGGUUGCUCCUUUUCUA | 830 | GCCUGACUGUCCCCGCUUC |
| 702 | CGCCCCCGUGGGUAGCGUC | 745 | AGGGCUUUGGAGGACGGGA | 788 | CCGGUUGCUCCUUUUCUAU | 831 | CCUGACUGUCCCCGCUUCG |
| 703 | GCCCCCGUGGGUAGCGUCG | 746 | GGGCUUUGGAGGACGGGAU | 789 | CGGUUGCUCCUUUUCUAUC | 832 | CUGACUGUCCCCGCUUCGG |
| 704 | CCCCCGUGGGUAGCGUCGC | 747 | GGCUUUGGAGGACGGGAUC | 790 | GGUUGCUCCUUUUCUAUCU | 833 | UGACUGUCCCCGCUUCGGC |
| 705 | CCCCGUGGGUAGCGUCGCC | 748 | GCUUUGGAGGACGGGAUCA | 791 | GUUGCUCCUUUUCUAUCUU | 834 | GACUGUCCCCGCUUCGGCC |
| 706 | CCCGUGGGUAGCGUCGCCA | 749 | CUUUGGAGGACGGGAUCAA | 792 | UUGCUCCUUUUCUAUCUUC | 835 | ACUGUCCCCGCUUCGGCCG |
| 707 | CCGUGGGUAGCGUCGCCAG | 750 | UUUGGAGGACGGGAUCAAU | 793 | UGCUCCUUUUCUAUCUUCC | 836 | CUGUCCCCGCUUCGGCCGU |
| 708 | CGUGGGUAGCGUCGCCAGG | 751 | UUGGAGGACGGGAUCAAUU | 794 | GCUCCUUUUCUAUCUUCCU | 837 | UGUCCCCGCUUCGGCCGUU |
| 709 | GUGGGUAGCGUCGCCAGGG | 752 | UGGAGGACGGGAUCAAUUA | 795 | CUCCUUUUCUAUCUUCCUC | 838 | GUCCCCGCUUCGGCCGUUA |
| 710 | UGGGUAGCGUCGCCAGGGC | 753 | GGAGGACGGGAUCAAUUAU | 796 | UCCUUUUCUAUCUUCCUCU | 839 | UCCCCGCUUCGGCCGUUAA |
| 711 | GGGUAGCGUCGCCAGGGCC | 754 | GAGGACGGGAUCAAUUAUG | 797 | CCUUUUCUAUCUUCCUCUU | 840 | CCCCGCUUCGGCCGUUAAC |
| 712 | GGUAGCGUCGCCAGGGCCC | 755 | AGGACGGGAUCAAUUAUGC | 798 | CUUUUCUAUCUUCCUCUUG | 841 | CCCGCUUCGGCCGUUAACU |
| 713 | GUAGCGUCGCCAGGGCCCU | 756 | GGACGGGAUCAAUUAUGCA | 799 | UUUUCUAUCUUCCUCUUGG | 842 | CCGCUUCGGCCGUUAACUA |
| 714 | UAGCGUCGCCAGGGCCCUG | 757 | GACGGGAUCAAUUAUGCAA | 800 | UUUCUAUCUUCCUCUUGGC | 843 | CGCUUCGGCCGUUAACUAU |
| 715 | AGCGUCGCCAGGGCCCUGG | 758 | ACGGGAUCAAUUAUGCAAC | 801 | UUCUAUCUUCCUCUUGGCA | 844 | GCUUCGGCCGUUAACUAUC |
| 716 | GCGUCGCCAGGGCCCUGGC | 759 | CGGGAUCAAUUAUGCAACA | 802 | UCUAUCUUCCUCUUGGCAC | 845 | CUUCGGCCGUUAACUAUCG |
| 717 | CGUCGCCAGGGCCCUGGCA | 760 | GGGAUCAAUUAUGCAACAG | 803 | CUAUCUUCCUCUUGGCACU | 846 | UUCGGCCGUUAACUAUCGC |
| 718 | GUCGCCAGGGCCCUGGCAC | 761 | GGAUCAAUUAUGCAACAGG | 804 | UAUCUUCCUCUUGGCACUU | 847 | UCGGCCGUUAACUAUCGCA |
| 719 | UCGCCAGGGCCCUGGCACA | 762 | GAUCAAUUAUGCAACAGGG | 805 | AUCUUCCUCUUGGCACUUC | 848 | CGGCCGUUAACUAUCGCAA |
| 720 | CGCCAGGGCCCUGGCACAU | 763 | AUCAAUUAUGCAACAGGGA | 806 | UCUUCCUCUUGGCACUUCU | 849 | GGCCGUUAACUAUCGCAAU |
| 721 | GCCAGGGCCCUGGCACAUG | 764 | UCAAUUAUGCAACAGGGAA | 807 | CUUCCUCUUGGCACUUCUU | 850 | GCCGUUAACUAUCGCAAUG |
| 722 | CCAGGGCCCUGGCACAUGG | 765 | CAAUUAUGCAACAGGGAAU | 808 | UUCCUCUUGGCACUUCUUU | 851 | CCGUUAACUAUCGCAAUGU |
| 723 | CAGGGCCCUGGCACAUGGU | 766 | AAUUAUGCAACAGGGAAUC | 809 | UCCUCUUGGCACUUCUUUC | 852 | CGUUAACUAUCGCAAUGUC |
| 724 | AGGGCCCUGGCACAUGGUG | 767 | AUUAUGCAACAGGGAAUCU | 810 | CCUCUUGGCACUUCUUUCG | 853 | GUUAACUAUCGCAAUGUCU |
| 725 | GGGCCCUGGCACAUGGUGU | 768 | UUAUGCAACAGGGAAUCUC | 811 | CUCUUGGCACUUCUUUCGU | 854 | UUAACUAUCGCAAUGUCUC |
| 726 | GGCCCUGGCACAUGGUGUC | 769 | UAUGCAACAGGGAAUCUCC | 812 | UCUUGGCACUUCUUUCGUG | 855 | UAACUAUCGCAAUGUCUCA |
| 727 | GCCCUGGCACAUGGUGUCA | 770 | AUGCAACAGGGAAUCUCCC | 813 | CUUGGCACUUCUUUCGUGC | 856 | AACUAUCGCAAUGUCUCAG |
| 728 | CCCUGGCACAUGGUGUCAG | 771 | UGCAACAGGGAAUCUCCCC | 814 | UUGGCACUUCUUUCGUGCC | 857 | ACUAUCGCAAUGUCUCAGG |
| 729 | CCUGGCACAUGGUGUCAGG | 772 | GCAACAGGGAAUCUCCCCG | 815 | UGGCACUUCUUUCGUGCCU | 858 | CUAUCGCAAUGUCUCAGGC |
| 730 | CUGGCACAUGGUGUCAGGG | 773 | CAACAGGGAAUCUCCCCGG | 816 | GGCACUUCUUUCGUGCCUG | 859 | UAUCGCAAUGUCUCAGGCA |
| 731 | UGGCACAUGGUGUCAGGGC | 774 | AACAGGGAAUCUCCCCGGU | 817 | GCACUUCUUUCGUGCCUGA | 860 | AUCGCAAUGUCUCAGGCAU |

**FIG. 5 (page 237 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 861 | UCGCAAUGUCUCAGGCAUC | 904 | AAUUCAAGCAUAGUGUAUG | 947 | UUCCAGGUUGCGUGCCCUG | 990 | CUGCUGGGUGGCCCUUACU |
| 862 | CGCAAUGUCUCAGGCAUCU | 905 | AUUCAAGCAUAGUGUAUGA | 948 | UCCAGGUUGCGUGCCCUGC | 991 | UGCUGGGUGGCCCUUACUC |
| 863 | GCAAUGUCUCAGGCAUCUA | 906 | UUCAAGCAUAGUGUAUGAG | 949 | CCAGGUUGCGUGCCCUGCG | 992 | GCUGGGUGGCCCUUACUCC |
| 864 | CAAUGUCUCAGGCAUCUAC | 907 | UCAAGCAUAGUGUAUGAGG | 950 | CAGGUUGCGUGCCCUGCGU | 993 | CUGGGUGGCCCUUACUCCU |
| 865 | AAUGUCUCAGGCAUCUACC | 908 | CAAGCAUAGUGUAUGAGGC | 951 | AGGUUGCGUGCCCUGCGUG | 994 | UGGGUGGCCCUUACUCCUA |
| 866 | AUGUCUCAGGCAUCUACCA | 909 | AAGCAUAGUGUAUGAGGCC | 952 | GGUUGCGUGCCCUGCGUGA | 995 | GGGUGGCCCUUACUCCUAC |
| 867 | UGUCUCAGGCAUCUACCAU | 910 | AGCAUAGUGUAUGAGGCCG | 953 | GUUGCGUGCCCUGCGUGAG | 996 | GGUGGCCCUUACUCCUACC |
| 868 | GUCUCAGGCAUCUACCAUG | 911 | GCAUAGUGUAUGAGGCCGA | 954 | UUGCGUGCCCUGCGUGAGA | 997 | GUGGCCCUUACUCCUACCG |
| 869 | UCUCAGGCAUCUACCAUGU | 912 | CAUAGUGUAUGAGGCCGAC | 955 | UGCGUGCCCUGCGUGAGAG | 998 | UGGCCCUUACUCCUACCGU |
| 870 | CUCAGGCAUCUACCAUGUC | 913 | AUAGUGUAUGAGGCCGACC | 956 | GCGUGCCCUGCGUGAGAGA | 999 | GGCCCUUACUCCUACCGUC |
| 871 | UCAGGCAUCUACCAUGUCA | 914 | UAGUGUAUGAGGCCGACCA | 957 | CGUGCCCUGCGUGAGAGAG | 1000 | GCCCUUACUCCUACCGUCG |
| 872 | CAGGCAUCUACCAUGUCAC | 915 | AGUGUAUGAGGCCGACCAU | 958 | GUGCCCUGCGUGAGAGAGG | 1001 | CCCUUACUCCUACCGUCGC |
| 873 | AGGCAUCUACCAUGUCACC | 916 | GUGUAUGAGGCCGACCAUC | 959 | UGCCCUGCGUGAGAGAGGG | 1002 | CCUUACUCCUACCGUCGCA |
| 874 | GGCAUCUACCAUGUCACCA | 917 | UGUAUGAGGCCGACCAUCA | 960 | GCCCUGCGUGAGAGAGGGG | 1003 | CUUACUCCUACCGUCGCAG |
| 875 | GCAUCUACCAUGUCACCAA | 918 | GUAUGAGGCCGACCAUCAC | 961 | CCCUGCGUGAGAGAGGGGA | 1004 | UUACUCCUACCGUCGCAGC |
| 876 | CAUCUACCAUGUCACCAAU | 919 | UAUGAGGCCGACCAUCACA | 962 | CCUGCGUGAGAGAGGGGAA | 1005 | UACUCCUACCGUCGCAGCG |
| 877 | AUCUACCAUGUCACCAAUG | 920 | AUGAGGCCGACCAUCACAU | 963 | CUGCGUGAGAGAGGGGAAU | 1006 | ACUCCUACCGUCGCAGCGC |
| 878 | UCUACCAUGUCACCAAUGA | 921 | UGAGGCCGACCAUCACAUC | 964 | UGCGUGAGAGAGGGGAAUC | 1007 | CUCCUACCGUCGCAGCGCC |
| 879 | CUACCAUGUCACCAAUGAC | 922 | GAGGCCGACCAUCACAUCA | 965 | GCGUGAGAGAGGGGAAUCA | 1008 | UCCUACCGUCGCAGCGCCA |
| 880 | UACCAUGUCACCAAUGACU | 923 | AGGCCGACCAUCACAUCAU | 966 | CGUGAGAGAGGGGAAUCAG | 1009 | CCUACCGUCGCAGCGCCAU |
| 881 | ACCAUGUCACCAAUGACUG | 924 | GGCCGACCAUCACAUCAUG | 967 | GUGAGAGAGGGGAAUCAGU | 1010 | CUACCGUCGCAGCGCCAUA |
| 882 | CCAUGUCACCAAUGACUGC | 925 | GCCGACCAUCACAUCAUGC | 968 | UGAGAGAGGGGAAUCAGUC | 1011 | UACCGUCGCAGCGCCAUAC |
| 883 | CAUGUCACCAAUGACUGCC | 926 | CCGACCAUCACAUCAUGCA | 969 | GAGAGAGGGGAAUCAGUCA | 1012 | ACCGUCGCAGCGCCAUACA |
| 884 | AUGUCACCAAUGACUGCCC | 927 | CGACCAUCACAUCAUGCAC | 970 | AGAGAGGGGAAUCAGUCAC | 1013 | CCGUCGCAGCGCCAUACAU |
| 885 | UGUCACCAAUGACUGCCCG | 928 | GACCAUCACAUCAUGCACC | 971 | GAGAGGGGAAUCAGUCACG | 1014 | CGUCGCAGCGCCAUACAUC |
| 886 | GUCACCAAUGACUGCCCGA | 929 | ACCAUCACAUCAUGCACCU | 972 | AGAGGGGAAUCAGUCACGC | 1015 | GUCGCAGCGCCAUACAUCG |
| 887 | UCACCAAUGACUGCCCGAA | 930 | CCAUCACAUCAUGCACCUU | 973 | GAGGGGAAUCAGUCACGCU | 1016 | UCGCAGCGCCAUACAUCGG |
| 888 | CACCAAUGACUGCCCGAAU | 931 | CAUCACAUCAUGCACCUUC | 974 | AGGGGAAUCAGUCACGCUG | 1017 | CGCAGCGCCAUACAUCGGC |
| 889 | ACCAAUGACUGCCCGAAUU | 932 | AUCACAUCAUGCACCUUCC | 975 | GGGGAAUCAGUCACGCUGC | 1018 | GCAGCGCCAUACAUCGGCG |
| 890 | CCAAUGACUGCCCGAAUUC | 933 | UCACAUCAUGCACCUUCCA | 976 | GGGAAUCAGUCACGCUGCU | 1019 | CAGCGCCAUACAUCGGCGC |
| 891 | CAAUGACUGCCCGAAUUCA | 934 | CACAUCAUGCACCUUCCAG | 977 | GGAAUCAGUCACGCUGCUG | 1020 | AGCGCCAUACAUCGGCGCA |
| 892 | AAUGACUGCCCGAAUUCAA | 935 | ACAUCAUGCACCUUCCAGG | 978 | GAAUCAGUCACGCUGCUGG | 1021 | GCGCCAUACAUCGGCGCAC |
| 893 | AUGACUGCCCGAAUUCAAG | 936 | CAUCAUGCACCUUCCAGGU | 979 | AAUCAGUCACGCUGCUGGG | 1022 | CGCCAUACAUCGGCGCACC |
| 894 | UGACUGCCCGAAUUCAAGC | 937 | AUCAUGCACCUUCCAGGUU | 980 | AUCAGUCACGCUGCUGGGU | 1023 | GCCAUACAUCGGCGCACCG |
| 895 | GACUGCCCGAAUUCAAGCA | 938 | UCAUGCACCUUCCAGGUUG | 981 | UCAGUCACGCUGCUGGGUG | 1024 | CCAUACAUCGGCGCACCGC |
| 896 | ACUGCCCGAAUUCAAGCAU | 939 | CAUGCACCUUCCAGGUUGC | 982 | CAGUCACGCUGCUGGGUGG | 1025 | CAUACAUCGGCGCACCGCU |
| 897 | CUGCCCGAAUUCAAGCAUA | 940 | AUGCACCUUCCAGGUUGCG | 983 | AGUCACGCUGCUGGGUGGC | 1026 | AUACAUCGGCGCACCGCUU |
| 898 | UGCCCGAAUUCAAGCAUAG | 941 | UGCACCUUCCAGGUUGCGU | 984 | GUCACGCUGCUGGGUGGCC | 1027 | UACAUCGGCGCACCGCUUG |
| 899 | GCCCGAAUUCAAGCAUAGU | 942 | GCACCUUCCAGGUUGCGUG | 985 | UCACGCUGCUGGGUGGCCC | 1028 | ACAUCGGCGCACCGCUUGA |
| 900 | CCCGAAUUCAAGCAUAGUG | 943 | CACCUUCCAGGUUGCGUGC | 986 | CACGCUGCUGGGUGGCCCU | 1029 | CAUCGGCGCACCGCUUGAG |
| 901 | CCGAAUUCAAGCAUAGUGU | 944 | ACCUUCCAGGUUGCGUGCC | 987 | ACGCUGCUGGGUGGCCCUU | 1030 | AUCGGCGCACCGCUUGAGU |
| 902 | CGAAUUCAAGCAUAGUGUA | 945 | CCUUCCAGGUUGCGUGCCC | 988 | CGCUGCUGGGUGGCCCUUA | 1031 | UCGGCGCACCGCUUGAGUC |
| 903 | GAAUUCAAGCAUAGUGUAU | 946 | CUUCCAGGUUGCGUGCCCU | 989 | GCUGCUGGGUGGCCCUUAC | 1032 | CGGCGCACCGCUUGAGUCC |

**FIG. 5 (page 238 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1033 | GGCGCACCGCUUGAGUCCU | 1076 | UGGGGGCCGCCACUGUCUG | 1119 | GUGUGGCGGCUUGUUCCUA | 1162 | CCACGGCGCCACUGGACCA |
| 1034 | GCGCACCGCUUGAGUCCUU | 1077 | GGGGGCCGCCACUGUCUGC | 1120 | UGUGGCGGCUUGUUCCUAG | 1163 | CACGGCGCCACUGGACCAC |
| 1035 | CGCACCGCUUGAGUCCUUA | 1078 | GGGGCCGCCACUGUCUGCU | 1121 | GUGGCGGCUUGUUCCUAGU | 1164 | ACGGCGCCACUGGACCACC |
| 1036 | GCACCGCUUGAGUCCUUAC | 1079 | GGGCCGCCACUGUCUGCUC | 1122 | UGGCGGCUUGUUCCUAGUU | 1165 | CGGCGCCACUGGACCACCC |
| 1037 | CACCGCUUGAGUCCUUACG | 1080 | GGCCGCCACUGUCUGCUCG | 1123 | GGCGGCUUGUUCCUAGUUG | 1166 | GGCGCCACUGGACCACCCA |
| 1038 | ACCGCUUGAGUCCUUACGG | 1081 | GCCGCCACUGUCUGCUCGG | 1124 | GCGGCUUGUUCCUAGUUGG | 1167 | GCGCCACUGGACCACCCAG |
| 1039 | CCGCUUGAGUCCUUACGGA | 1082 | CCGCCACUGUCUGCUCGGG | 1125 | CGGCUUGUUCCUAGUUGGC | 1168 | CGCCACUGGACCACCCAGG |
| 1040 | CGCUUGAGUCCUUACGGAG | 1083 | CGCCACUGUCUGCUCGGGU | 1126 | GGCUUGUUCCUAGUUGGCC | 1169 | GCCACUGGACCACCCAGGA |
| 1041 | GCUUGAGUCCUUACGGAGU | 1084 | GCCACUGUCUGCUCGGGUC | 1127 | GCUUGUUCCUAGUUGGCCA | 1170 | CCACUGGACCACCCAGGAU |
| 1042 | CUUGAGUCCUUACGGAGUC | 1085 | CCACUGUCUGCUCGGGUCU | 1128 | CUUGUUCCUAGUUGGCCAG | 1171 | CACUGGACCACCCAGGAUU |
| 1043 | UUGAGUCCUUACGGAGUCA | 1086 | CACUGUCUGCUCGGGUCUU | 1129 | UUGUUCCUAGUUGGCCAGA | 1172 | ACUGGACCACCCAGGAUUG |
| 1044 | UGAGUCCUUACGGAGUCAU | 1087 | ACUGUCUGCUCGGGUCUUU | 1130 | UGUUCCUAGUUGGCCAGAU | 1173 | CUGGACCACCCAGGAUUGC |
| 1045 | GAGUCCUUACGGAGUCAUG | 1088 | CUGUCUGCUCGGGUCUUUA | 1131 | GUUCCUAGUUGGCCAGAUG | 1174 | UGGACCACCCAGGAUUGCA |
| 1046 | AGUCCUUACGGAGUCAUGU | 1089 | UGUCUGCUCGGGUCUUUAC | 1132 | UUCCUAGUUGGCCAGAUGU | 1175 | GGACCACCCAGGAUUGCAA |
| 1047 | GUCCUUACGGAGUCAUGUG | 1090 | GUCUGCUCGGGUCUUUACA | 1133 | UCCUAGUUGGCCAGAUGUU | 1176 | GACCACCCAGGAUUGCAAU |
| 1048 | UCCUUACGGAGUCAUGUGG | 1091 | UCUGCUCGGGUCUUUACAU | 1134 | CCUAGUUGGCCAGAUGUUU | 1177 | ACCACCCAGGAUUGCAAUU |
| 1049 | CCUUACGGAGUCAUGUGGA | 1092 | CUGCUCGGGUCUUUACAUC | 1135 | CUAGUUGGCCAGAUGUUUU | 1178 | CCACCCAGGAUUGCAAUUG |
| 1050 | CUUACGGAGUCAUGUGGAU | 1093 | UGCUCGGGUCUUUACAUCG | 1136 | UAGUUGGCCAGAUGUUUUC | 1179 | CACCCAGGAUUGCAAUUGU |
| 1051 | UUACGGAGUCAUGUGGAUU | 1094 | GCUCGGGUCUUUACAUCGG | 1137 | AGUUGGCCAGAUGUUUUCA | 1180 | ACCCAGGAUUGCAAUUGUU |
| 1052 | UACGGAGUCAUGUGGAUUU | 1095 | CUCGGGUCUUUACAUCGGG | 1138 | GUUGGCCAGAUGUUUUCAU | 1181 | CCCAGGAUUGCAAUUGUUC |
| 1053 | ACGGAGUCAUGUGGAUUUG | 1096 | UCGGGUCUUUACAUCGGGG | 1139 | UUGGCCAGAUGUUUUCAUU | 1182 | CCAGGAUUGCAAUUGUUCC |
| 1054 | CGGAGUCAUGUGGAUUUGA | 1097 | CGGGUCUUUACAUCGGGGA | 1140 | UGGCCAGAUGUUUUCAUUC | 1183 | CAGGAUUGCAAUUGUUCCA |
| 1055 | GGAGUCAUGUGGAUUUGAU | 1098 | GGGUCUUUACAUCGGGGAC | 1141 | GGCCAGAUGUUUUCAUUCC | 1184 | AGGAUUGCAAUUGUUCCAU |
| 1056 | GAGUCAUGUGGAUUUGAUG | 1099 | GGUCUUUACAUCGGGGACC | 1142 | GCCAGAUGUUUUCAUUCCG | 1185 | GGAUUGCAAUUGUUCCAUC |
| 1057 | AGUCAUGUGGAUUUGAUGG | 1100 | GUCUUUACAUCGGGGACCU | 1143 | CCAGAUGUUUUCAUUCCGA | 1186 | GAUUGCAAUUGUUCCAUCU |
| 1058 | GUCAUGUGGAUUUGAUGGU | 1101 | UCUUUACAUCGGGGACCUG | 1144 | CAGAUGUUUUCAUUCCGAC | 1187 | AUUGCAAUUGUUCCAUCUA |
| 1059 | UCAUGUGGAUUUGAUGGUG | 1102 | CUUUACAUCGGGGACCUGU | 1145 | AGAUGUUUUCAUUCCGACC | 1188 | UUGCAAUUGUUCCAUCUAC |
| 1060 | CAUGUGGAUUUGAUGGUGG | 1103 | UUUACAUCGGGGACCUGUG | 1146 | GAUGUUUUCAUUCCGACCA | 1189 | UGCAAUUGUUCCAUCUACA |
| 1061 | AUGUGGAUUUGAUGGUGGG | 1104 | UUACAUCGGGGACCUGUGU | 1147 | AUGUUUUCAUUCCGACCAC | 1190 | GCAAUUGUUCCAUCUACAC |
| 1062 | UGUGGAUUUGAUGGUGGGG | 1105 | UACAUCGGGGACCUGUGUG | 1148 | UGUUUUCAUUCCGACCACG | 1191 | CAAUUGUUCCAUCUACACA |
| 1063 | GUGGAUUUGAUGGUGGGGG | 1106 | ACAUCGGGGACCUGUGUGG | 1149 | GUUUUCAUUCCGACCACGG | 1192 | AAUUGUUCCAUCUACACAG |
| 1064 | UGGAUUUGAUGGUGGGGGC | 1107 | CAUCGGGGACCUGUGUGGC | 1150 | UUUUCAUUCCGACCACGGC | 1193 | AUUGUUCCAUCUACACAGG |
| 1065 | GGAUUUGAUGGUGGGGGCC | 1108 | AUCGGGGACCUGUGUGGCG | 1151 | UUUCAUUCCGACCACGGCG | 1194 | UUGUUCCAUCUACACAGGG |
| 1066 | GAUUUGAUGGUGGGGGCCG | 1109 | UCGGGGACCUGUGUGGCGG | 1152 | UUCAUUCCGACCACGGCGC | 1195 | UGUUCCAUCUACACAGGGC |
| 1067 | AUUUGAUGGUGGGGGCCGC | 1110 | CGGGGACCUGUGUGGCGGC | 1153 | UCAUUCCGACCACGGCGCC | 1196 | GUUCCAUCUACACAGGGCA |
| 1068 | UUUGAUGGUGGGGGCCGCC | 1111 | GGGGACCUGUGUGGCGGCU | 1154 | CAUUCCGACCACGGCGCCA | 1197 | UUCCAUCUACACAGGGCAC |
| 1069 | UUGAUGGUGGGGGCCGCCA | 1112 | GGGACCUGUGUGGCGGCUU | 1155 | AUUCCGACCACGGCGCCAC | 1198 | UCCAUCUACACAGGGCACA |
| 1070 | UGAUGGUGGGGGCCGCCAC | 1113 | GGACCUGUGUGGCGGCUUG | 1156 | UUCCGACCACGGCGCCACU | 1199 | CCAUCUACACAGGGCACAU |
| 1071 | GAUGGUGGGGGCCGCCACU | 1114 | GACCUGUGUGGCGGCUUGU | 1157 | UCCGACCACGGCGCCACUG | 1200 | CAUCUACACAGGGCACAUU |
| 1072 | AUGGUGGGGGCCGCCACUG | 1115 | ACCUGUGUGGCGGCUUGUU | 1158 | CCGACCACGGCGCCACUGG | 1201 | AUCUACACAGGGCACAUUA |
| 1073 | UGGUGGGGGCCGCCACUGU | 1116 | CCUGUGUGGCGGCUUGUUC | 1159 | CGACCACGGCGCCACUGGA | 1202 | UCUACACAGGGCACAUUAC |
| 1074 | GGUGGGGGCCGCCACUGUC | 1117 | CUGUGUGGCGGCUUGUUCC | 1160 | GACCACGGCGCCACUGGAC | 1203 | CUACACAGGGCACAUUACA |
| 1075 | GUGGGGGCCGCCACUGUCU | 1118 | UGUGUGGCGGCUUGUUCCU | 1161 | ACCACGGCGCCACUGGACC | 1204 | UACACAGGGCACAUUACAG |

**FIG. 5 (page 239 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1205 | ACACAGGGCACAUUACAGG | 1248 | GAUGAACUGGAGUCCAACA | 1291 | AUGAGGAUCCCAACCACUC | 1334 | ACUGGGGUGUCCUCGUGGG |
| 1206 | CACAGGGCACAUUACAGGC | 1249 | AUGAACUGGAGUCCAACAA | 1292 | UGAGGAUCCCAACCACUCU | 1335 | CUGGGGUGUCCUCGUGGGG |
| 1207 | ACAGGGCACAUUACAGGCC | 1250 | UGAACUGGAGUCCAACAAC | 1293 | GAGGAUCCCAACCACUCUG | 1336 | UGGGGUGUCCUCGUGGGGG |
| 1208 | CAGGGCACAUUACAGGCCA | 1251 | GAACUGGAGUCCAACAACC | 1294 | AGGAUCCCAACCACUCUGG | 1337 | GGGGUGUCCUCGUGGGGGU |
| 1209 | AGGGCACAUUACAGGCCAC | 1252 | AACUGGAGUCCAACAACCA | 1295 | GGAUCCCAACCACUCUGGU | 1338 | GGGUGUCCUCGUGGGGGUG |
| 1210 | GGGCACAUUACAGGCCACA | 1253 | ACUGGAGUCCAACAACCAC | 1296 | GAUCCCAACCACUCUGGUA | 1339 | GGUGUCCUCGUGGGGGUGG |
| 1211 | GGCACAUUACAGGCCACAG | 1254 | CUGGAGUCCAACAACCACC | 1297 | AUCCCAACCACUCUGGUAG | 1340 | GUGUCCUCGUGGGGGUGGC |
| 1212 | GCACAUUACAGGCCACAGA | 1255 | UGGAGUCCAACAACCACCU | 1298 | UCCCAACCACUCUGGUAGA | 1341 | UGUCCUCGUGGGGGUGGCC |
| 1213 | CACAUUACAGGCCACAGAA | 1256 | GGAGUCCAACAACCACCUU | 1299 | CCCAACCACUCUGGUAGAC | 1342 | GUCCUCGUGGGGGUGGCCU |
| 1214 | ACAUUACAGGCCACAGAAU | 1257 | GAGUCCAACAACCACCUUA | 1300 | CCAACCACUCUGGUAGACU | 1343 | UCCUCGUGGGGGUGGCCUA |
| 1215 | CAUUACAGGCCACAGAAUG | 1258 | AGUCCAACAACCACCUUAG | 1301 | CAACCACUCUGGUAGACUU | 1344 | CCUCGUGGGGGUGGCCUAU |
| 1216 | AUUACAGGCCACAGAAUGG | 1259 | GUCCAACAACCACCUUAGU | 1302 | AACCACUCUGGUAGACUUA | 1345 | CUCGUGGGGGUGGCCUAUU |
| 1217 | UUACAGGCCACAGAAUGGC | 1260 | UCCAACAACCACCUUAGUU | 1303 | ACCACUCUGGUAGACUUAC | 1346 | UCGUGGGGGUGGCCUAUUU |
| 1218 | UACAGGCCACAGAAUGGCC | 1261 | CCAACAACCACCUUAGUUC | 1304 | CCACUCUGGUAGACUUACU | 1347 | CGUGGGGGUGGCCUAUUUC |
| 1219 | ACAGGCCACAGAAUGGCCU | 1262 | CAACAACCACCUUAGUUCU | 1305 | CACUCUGGUAGACUUACUC | 1348 | GUGGGGGUGGCCUAUUUCA |
| 1220 | CAGGCCACAGAAUGGCCUG | 1263 | AACAACCACCUUAGUUCUC | 1306 | ACUCUGGUAGACUUACUCU | 1349 | UGGGGGUGGCCUAUUUCAG |
| 1221 | AGGCCACAGAAUGGCCUGG | 1264 | ACAACCACCUUAGUUCUCG | 1307 | CUCUGGUAGACUUACUCUC | 1350 | GGGGGUGGCCUAUUUCAGC |
| 1222 | GGCCACAGAAUGGCCUGGG | 1265 | CAACCACCUUAGUUCUCGC | 1308 | UCUGGUAGACUUACUCUCU | 1351 | GGGGUGGCCUAUUUCAGCA |
| 1223 | GCCACAGAAUGGCCUGGGA | 1266 | AACCACCUUAGUUCUCGCC | 1309 | CUGGUAGACUUACUCUCUG | 1352 | GGGUGGCCUAUUUCAGCAU |
| 1224 | CCACAGAAUGGCCUGGGAC | 1267 | ACCACCUUAGUUCUCGCCC | 1310 | UGGUAGACUUACUCUCUGG | 1353 | GGUGGCCUAUUUCAGCAUG |
| 1225 | CACAGAAUGGCCUGGGACA | 1268 | CCACCUUAGUUCUCGCCCA | 1311 | GGUAGACUUACUCUCUGGA | 1354 | GUGGCCUAUUUCAGCAUGC |
| 1226 | ACAGAAUGGCCUGGGACAU | 1269 | CACCUUAGUUCUCGCCCAG | 1312 | GUAGACUUACUCUCUGGAG | 1355 | UGGCCUAUUUCAGCAUGCA |
| 1227 | CAGAAUGGCCUGGGACAUG | 1270 | ACCUUAGUUCUCGCCCAGG | 1313 | UAGACUUACUCUCUGGAGG | 1356 | GGCCUAUUUCAGCAUGCAG |
| 1228 | AGAAUGGCCUGGGACAUGA | 1271 | CCUUAGUUCUCGCCCAGGU | 1314 | AGACUUACUCUCUGGAGGC | 1357 | GCCUAUUUCAGCAUGCAGG |
| 1229 | GAAUGGCCUGGGACAUGAU | 1272 | CUUAGUUCUCGCCCAGGUC | 1315 | GACUUACUCUCUGGAGGCC | 1358 | CCUAUUUCAGCAUGCAGGC |
| 1230 | AAUGGCCUGGGACAUGAUG | 1273 | UUAGUUCUCGCCCAGGUCA | 1316 | ACUUACUCUCUGGAGGCCA | 1359 | CUAUUUCAGCAUGCAGGCC |
| 1231 | AUGGCCUGGGACAUGAUGA | 1274 | UAGUUCUCGCCCAGGUCAU | 1317 | CUUACUCUCUGGAGGCCAC | 1360 | UAUUUCAGCAUGCAGGCCA |
| 1232 | UGGCCUGGGACAUGAUGAU | 1275 | AGUUCUCGCCCAGGUCAUG | 1318 | UUACUCUCUGGAGGCCACU | 1361 | AUUUCAGCAUGCAGGCCAA |
| 1233 | GGCCUGGGACAUGAUGAUG | 1276 | GUUCUCGCCCAGGUCAUGA | 1319 | UACUCUCUGGAGGCCACUG | 1362 | UUUCAGCAUGCAGGCCAAU |
| 1234 | GCCUGGGACAUGAUGAUGA | 1277 | UUCUCGCCCAGGUCAUGAG | 1320 | ACUCUCUGGAGGCCACUGG | 1363 | UUCAGCAUGCAGGCCAAUU |
| 1235 | CCUGGGACAUGAUGAUGAA | 1278 | UCUCGCCCAGGUCAUGAGG | 1321 | CUCUCUGGAGGCCACUGGG | 1364 | UCAGCAUGCAGGCCAAUUG |
| 1236 | CUGGGACAUGAUGAUGAAC | 1279 | CUCGCCCAGGUCAUGAGGA | 1322 | UCUCUGGAGGCCACUGGGG | 1365 | CAGCAUGCAGGCCAAUUGG |
| 1237 | UGGGACAUGAUGAUGAACU | 1280 | UCGCCCAGGUCAUGAGGAU | 1323 | CUCUGGAGGCCACUGGGGU | 1366 | AGCAUGCAGGCCAAUUGGG |
| 1238 | GGGACAUGAUGAUGAACUG | 1281 | CGCCCAGGUCAUGAGGAUC | 1324 | UCUGGAGGCCACUGGGGUG | 1367 | GCAUGCAGGCCAAUUGGGC |
| 1239 | GGACAUGAUGAUGAACUGG | 1282 | GCCCAGGUCAUGAGGAUCC | 1325 | CUGGAGGCCACUGGGGUGU | 1368 | CAUGCAGGCCAAUUGGGCC |
| 1240 | GACAUGAUGAUGAACUGGA | 1283 | CCCAGGUCAUGAGGAUCCC | 1326 | UGGAGGCCACUGGGGUGUC | 1369 | AUGCAGGCCAAUUGGGCCA |
| 1241 | ACAUGAUGAUGAACUGGAG | 1284 | CCAGGUCAUGAGGAUCCCA | 1327 | GGAGGCCACUGGGGUGUCC | 1370 | UGCAGGCCAAUUGGGCCAA |
| 1242 | CAUGAUGAUGAACUGGAGU | 1285 | CAGGUCAUGAGGAUCCCAA | 1328 | GAGGCCACUGGGGUGUCCU | 1371 | GCAGGCCAAUUGGGCCAAA |
| 1243 | AUGAUGAUGAACUGGAGUC | 1286 | AGGUCAUGAGGAUCCCAAC | 1329 | AGGCCACUGGGGUGUCCUC | 1372 | CAGGCCAAUUGGGCCAAAG |
| 1244 | UGAUGAUGAACUGGAGUCC | 1287 | GGUCAUGAGGAUCCCAACC | 1330 | GGCCACUGGGGUGUCCUCG | 1373 | AGGCCAAUUGGGCCAAAGU |
| 1245 | GAUGAUGAACUGGAGUCCA | 1288 | GUCAUGAGGAUCCCAACCA | 1331 | GCCACUGGGGUGUCCUCGU | 1374 | GGCCAAUUGGGCCAAAGUC |
| 1246 | AUGAUGAACUGGAGUCCAA | 1289 | UCAUGAGGAUCCCAACCAC | 1332 | CCACUGGGGUGUCCUCGUG | 1375 | GCCAAUUGGGCCAAAGUCA |
| 1247 | UGAUGAACUGGAGUCCAAC | 1290 | CAUGAGGAUCCCAACCACU | 1333 | CACUGGGGUGUCCUCGUGG | 1376 | CCAAUUGGGCCAAAGUCAU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1377 | CAAUUGGGCCAAAGUCAUC | 1420 | GUUGAUGCCGAGACUCACG | 1463 | GUACCGCCGGCUUGGCUAA | 1506 | GAAUUUACAGCUCAUCAAC |
| 1378 | AAUUGGGCCAAAGUCAUCU | 1421 | UUGAUGCCGAGACUCACGU | 1464 | UACCGCCGGCUUGGCUAAC | 1507 | AAUUUACAGCUCAUCAACA |
| 1379 | AUUGGGCCAAAGUCAUCUU | 1422 | UGAUGCCGAGACUCACGUG | 1465 | ACCGCCGGCUUGGCUAACC | 1508 | AUUUACAGCUCAUCAACAG |
| 1380 | UUGGGCCAAAGUCAUCUUG | 1423 | GAUGCCGAGACUCACGUGU | 1466 | CCGCCGGCUUGGCUAACCU | 1509 | UUUACAGCUCAUCAACAGC |
| 1381 | UGGGCCAAAGUCAUCUUGG | 1424 | AUGCCGAGACUCACGUGUC | 1467 | CGCCGGCUUGGCUAACCUC | 1510 | UUACAGCUCAUCAACAGCA |
| 1382 | GGGCCAAAGUCAUCUUGGU | 1425 | UGCCGAGACUCACGUGUCU | 1468 | GCCGGCUUGGCUAACCUCU | 1511 | UACAGCUCAUCAACAGCAA |
| 1383 | GGCCAAAGUCAUCUUGGUC | 1426 | GCCGAGACUCACGUGUCUG | 1469 | CCGGCUUGGCUAACCUCUU | 1512 | ACAGCUCAUCAACAGCAAU |
| 1384 | GCCAAAGUCAUCUUGGUCC | 1427 | CCGAGACUCACGUGUCUGG | 1470 | CGGCUUGGCUAACCUCUUU | 1513 | CAGCUCAUCAACAGCAAUG |
| 1385 | CCAAAGUCAUCUUGGUCCU | 1428 | CGAGACUCACGUGUCUGGG | 1471 | GGCUUGGCUAACCUCUUUU | 1514 | AGCUCAUCAACAGCAAUGG |
| 1386 | CAAAGUCAUCUUGGUCCUA | 1429 | GAGACUCACGUGUCUGGGG | 1472 | GCUUGGCUAACCUCUUUUC | 1515 | GCUCAUCAACAGCAAUGGG |
| 1387 | AAAGUCAUCUUGGUCCUAU | 1430 | AGACUCACGUGUCUGGGGC | 1473 | CUUGGCUAACCUCUUUUCU | 1516 | CUCAUCAACAGCAAUGGGA |
| 1388 | AAGUCAUCUUGGUCCUAUU | 1431 | GACUCACGUGUCUGGGGCA | 1474 | UUGGCUAACCUCUUUUCUU | 1517 | UCAUCAACAGCAAUGGGAG |
| 1389 | AGUCAUCUUGGUCCUAUUC | 1432 | ACUCACGUGUCUGGGGCAG | 1475 | UGGCUAACCUCUUUUCUUC | 1518 | CAUCAACAGCAAUGGGAGC |
| 1390 | GUCAUCUUGGUCCUAUUCC | 1433 | CUCACGUGUCUGGGGCAGC | 1476 | GGCUAACCUCUUUUCUUCU | 1519 | AUCAACAGCAAUGGGAGCU |
| 1391 | UCAUCUUGGUCCUAUUCCU | 1434 | UCACGUGUCUGGGGCAGCA | 1477 | GCUAACCUCUUUUCUUCUG | 1520 | UCAACAGCAAUGGGAGCUG |
| 1392 | CAUCUUGGUCCUAUUCCUC | 1435 | CACGUGUCUGGGGCAGCAG | 1478 | CUAACCUCUUUUCUUCUGG | 1521 | CAACAGCAAUGGGAGCUGG |
| 1393 | AUCUUGGUCCUAUUCCUCU | 1436 | ACGUGUCUGGGGCAGCAGU | 1479 | UAACCUCUUUUCUUCUGGG | 1522 | AACAGCAAUGGGAGCUGGC |
| 1394 | UCUUGGUCCUAUUCCUCUU | 1437 | CGUGUCUGGGGCAGCAGUC | 1480 | AACCUCUUUUCUUCUGGGU | 1523 | ACAGCAAUGGGAGCUGGCA |
| 1395 | CUUGGUCCUAUUCCUCUUU | 1438 | GUGUCUGGGGCAGCAGUCG | 1481 | ACCUCUUUUCUUCUGGGUC | 1524 | CAGCAAUGGGAGCUGGCAU |
| 1396 | UUGGUCCUAUUCCUCUUUG | 1439 | UGUCUGGGGCAGCAGUCGG | 1482 | CCUCUUUUCUUCUGGGUCU | 1525 | AGCAAUGGGAGCUGGCAUA |
| 1397 | UGGUCCUAUUCCUCUUUGC | 1440 | GUCUGGGGCAGCAGUCGGC | 1483 | CUCUUUUCUUCUGGGUCUA | 1526 | GCAAUGGGAGCUGGCAUAU |
| 1398 | GGUCCUAUUCCUCUUUGCA | 1441 | UCUGGGGCAGCAGUCGGCC | 1484 | UCUUUUCUUCUGGGUCUAA | 1527 | CAAUGGGAGCUGGCAUAUA |
| 1399 | GUCCUAUUCCUCUUUGCAG | 1442 | CUGGGGCAGCAGUCGGCCG | 1485 | CUUUUCUUCUGGGUCUAAG | 1528 | AAUGGGAGCUGGCAUAUAA |
| 1400 | UCCUAUUCCUCUUUGCAGG | 1443 | UGGGGCAGCAGUCGGCCGG | 1486 | UUUUCUUCUGGGUCUAAGC | 1529 | AUGGGAGCUGGCAUAUAAA |
| 1401 | CCUAUUCCUCUUUGCAGGG | 1444 | GGGGCAGCAGUCGGCCGGA | 1487 | UUUCUUCUGGGUCUAAGCA | 1530 | UGGGAGCUGGCAUAUAAAU |
| 1402 | CUAUUCCUCUUUGCAGGGG | 1445 | GGGCAGCAGUCGGCCGGAG | 1488 | UUCUUCUGGGUCUAAGCAG | 1531 | GGGAGCUGGCAUAUAAAUA |
| 1403 | UAUUCCUCUUUGCAGGGGU | 1446 | GGCAGCAGUCGGCCGGAGU | 1489 | UCUUCUGGGUCUAAGCAGA | 1532 | GGAGCUGGCAUAUAAAUAG |
| 1404 | AUUCCUCUUUGCAGGGGUU | 1447 | GCAGCAGUCGGCCGGAGUA | 1490 | CUUCUGGGUCUAAGCAGAA | 1533 | GAGCUGGCAUAUAAAUAGG |
| 1405 | UUCCUCUUUGCAGGGGUUG | 1448 | CAGCAGUCGGCCGGAGUAC | 1491 | UUCUGGGUCUAAGCAGAAU | 1534 | AGCUGGCAUAUAAAUAGGA |
| 1406 | UCCUCUUUGCAGGGGUUGA | 1449 | AGCAGUCGGCCGGAGUACC | 1492 | UCUGGGUCUAAGCAGAAUU | 1535 | GCUGGCAUAUAAAUAGGAC |
| 1407 | CCUCUUUGCAGGGGUUGAU | 1450 | GCAGUCGGCCGGAGUACCG | 1493 | CUGGGUCUAAGCAGAAUUU | 1536 | CUGGCAUAUAAAUAGGACU |
| 1408 | CUCUUUGCAGGGGUUGAUG | 1451 | CAGUCGGCCGGAGUACCGC | 1494 | UGGGUCUAAGCAGAAUUUA | 1537 | UGGCAUAUAAAUAGGACUG |
| 1409 | UCUUUGCAGGGGUUGAUGC | 1452 | AGUCGGCCGGAGUACCGCC | 1495 | GGGUCUAAGCAGAAUUUAC | 1538 | GGCAUAUAAAUAGGACUGC |
| 1410 | CUUUGCAGGGGUUGAUGCC | 1453 | GUCGGCCGGAGUACCGCCG | 1496 | GGUCUAAGCAGAAUUUACA | 1539 | GCAUAUAAAUAGGACUGCC |
| 1411 | UUUGCAGGGGUUGAUGCCG | 1454 | UCGGCCGGAGUACCGCCGG | 1497 | GUCUAAGCAGAAUUUACAG | 1540 | CAUAUAAAUAGGACUGCCC |
| 1412 | UUGCAGGGGUUGAUGCCGA | 1455 | CGGCCGGAGUACCGCCGGC | 1498 | UCUAAGCAGAAUUUACAGC | 1541 | AUAUAAAUAGGACUGCCCU |
| 1413 | UGCAGGGGUUGAUGCCGAG | 1456 | GGCCGGAGUACCGCCGGCU | 1499 | CUAAGCAGAAUUUACAGCU | 1542 | UAUAAAUAGGACUGCCCUU |
| 1414 | GCAGGGGUUGAUGCCGAGA | 1457 | GCCGGAGUACCGCCGGCUU | 1500 | UAAGCAGAAUUUACAGCUC | 1543 | AUAAAUAGGACUGCCCUUA |
| 1415 | CAGGGGUUGAUGCCGAGAC | 1458 | CCGGAGUACCGCCGGCUUG | 1501 | AAGCAGAAUUUACAGCUCA | 1544 | UAAAUAGGACUGCCCUUAA |
| 1416 | AGGGGUUGAUGCCGAGACU | 1459 | CGGAGUACCGCCGGCUUGG | 1502 | AGCAGAAUUUACAGCUCAU | 1545 | AAAUAGGACUGCCCUUAAC |
| 1417 | GGGGUUGAUGCCGAGACUC | 1460 | GGAGUACCGCCGGCUUGGC | 1503 | GCAGAAUUUACAGCUCAUC | 1546 | AAUAGGACUGCCCUUAACU |
| 1418 | GGGUUGAUGCCGAGACUCA | 1461 | GAGUACCGCCGGCUUGGCU | 1504 | CAGAAUUUACAGCUCAUCA | 1547 | AUAGGACUGCCCUUAACUG |
| 1419 | GGUUGAUGCCGAGACUCAC | 1462 | AGUACCGCCGGCUUGGCUA | 1505 | AGAAUUUACAGCUCAUCAA | 1548 | UAGGACUGCCCUUAACUGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1549 | AGGACUGCCCUUAACUGCA | 1592 | UGGCUAGCUUGUUCUACAC | 1635 | UUCCGAACGGCUCGCGUGC | 1678 | CAAGGCUGGGGCCCACUCG |
| 1550 | GGACUGCCCUUAACUGCAA | 1593 | GGCUAGCUUGUUCUACACC | 1636 | UCCGAACGGCUCGCGUGCU | 1679 | AAGGCUGGGGCCCACUCGG |
| 1551 | GACUGCCCUUAACUGCAAU | 1594 | GCUAGCUUGUUCUACACCC | 1637 | CCGAACGGCUCGCGUGCUG | 1680 | AGGCUGGGGCCCACUCGGG |
| 1552 | ACUGCCCUUAACUGCAAUG | 1595 | CUAGCUUGUUCUACACCCA | 1638 | CGAACGGCUCGCGUGCUGC | 1681 | GGCUGGGGCCCACUCGGGG |
| 1553 | CUGCCCUUAACUGCAAUGA | 1596 | UAGCUUGUUCUACACCCAC | 1639 | GAACGGCUCGCGUGCUGCA | 1682 | GCUGGGGCCCACUCGGGGU |
| 1554 | UGCCCUUAACUGCAAUGAC | 1597 | AGCUUGUUCUACACCCACA | 1640 | AACGGCUCGCGUGCUGCAA | 1683 | CUGGGGCCCACUCGGGGUC |
| 1555 | GCCCUUAACUGCAAUGACA | 1598 | GCUUGUUCUACACCCACAA | 1641 | ACGGCUCGCGUGCUGCAAG | 1684 | UGGGGCCCACUCGGGGUCG |
| 1556 | CCCUUAACUGCAAUGACAG | 1599 | CUUGUUCUACACCCACAAG | 1642 | CGGCUCGCGUGCUGCAAGA | 1685 | GGGGCCCACUCGGGGUCGC |
| 1557 | CCUUAACUGCAAUGACAGC | 1600 | UUGUUCUACACCCACAAGU | 1643 | GGCUCGCGUGCUGCAAGAG | 1686 | GGGCCCACUCGGGGUCGCU |
| 1558 | CUUAACUGCAAUGACAGCU | 1601 | UGUUCUACACCCACAAGUU | 1644 | GCUCGCGUGCUGCAAGAGC | 1687 | GGCCCACUCGGGGUCGCUA |
| 1559 | UUAACUGCAAUGACAGCUU | 1602 | GUUCUACACCCACAAGUUU | 1645 | CUCGCGUGCUGCAAGAGCC | 1688 | GCCCACUCGGGGUCGCUAA |
| 1560 | UAACUGCAAUGACAGCUUA | 1603 | UUCUACACCCACAAGUUUA | 1646 | UCGCGUGCUGCAAGAGCCU | 1689 | CCCACUCGGGGUCGCUAAC |
| 1561 | AACUGCAAUGACAGCUUAA | 1604 | UCUACACCCACAAGUUUAA | 1647 | CGCGUGCUGCAAGAGCCUU | 1690 | CCACUCGGGGUCGCUAACA |
| 1562 | ACUGCAAUGACAGCUUAAA | 1605 | CUACACCCACAAGUUUAAC | 1648 | GCGUGCUGCAAGAGCCUUG | 1691 | CACUCGGGGUCGCUAACAU |
| 1563 | CUGCAAUGACAGCUUAAAC | 1606 | UACACCCACAAGUUUAACA | 1649 | CGUGCUGCAAGAGCCUUGA | 1692 | ACUCGGGGUCGCUAACAUC |
| 1564 | UGCAAUGACAGCUUAAACA | 1607 | ACACCCACAAGUUUAACAG | 1650 | GUGCUGCAAGAGCCUUGAC | 1693 | CUCGGGGUCGCUAACAUCA |
| 1565 | GCAAUGACAGCUUAAACAC | 1608 | CACCCACAAGUUUAACAGC | 1651 | UGCUGCAAGAGCCUUGACA | 1694 | UCGGGGUCGCUAACAUCAG |
| 1566 | CAAUGACAGCUUAAACACU | 1609 | ACCCACAAGUUUAACAGCU | 1652 | GCUGCAAGAGCCUUGACAG | 1695 | CGGGGUCGCUAACAUCAGC |
| 1567 | AAUGACAGCUUAAACACUG | 1610 | CCCACAAGUUUAACAGCUC | 1653 | CUGCAAGAGCCUUGACAGC | 1696 | GGGGUCGCUAACAUCAGCG |
| 1568 | AUGACAGCUUAAACACUGG | 1611 | CCACAAGUUUAACAGCUCA | 1654 | UGCAAGAGCCUUGACAGCU | 1697 | GGGUCGCUAACAUCAGCGG |
| 1569 | UGACAGCUUAAACACUGGG | 1612 | CACAAGUUUAACAGCUCAG | 1655 | GCAAGAGCCUUGACAGCUA | 1698 | GGUCGCUAACAUCAGCGGC |
| 1570 | GACAGCUUAAACACUGGGU | 1613 | ACAAGUUUAACAGCUCAGG | 1656 | CAAGAGCCUUGACAGCUAC | 1699 | GUCGCUAACAUCAGCGGCU |
| 1571 | ACAGCUUAAACACUGGGUU | 1614 | CAAGUUUAACAGCUCAGGG | 1657 | AAGAGCCUUGACAGCUACG | 1700 | UCGCUAACAUCAGCGGCUC |
| 1572 | CAGCUUAAACACUGGGUUC | 1615 | AAGUUUAACAGCUCAGGGU | 1658 | AGAGCCUUGACAGCUACGG | 1701 | CGCUAACAUCAGCGGCUCG |
| 1573 | AGCUUAAACACUGGGUUCU | 1616 | AGUUUAACAGCUCAGGGUG | 1659 | GAGCCUUGACAGCUACGGC | 1702 | GCUAACAUCAGCGGCUCGU |
| 1574 | GCUUAAACACUGGGUUCUU | 1617 | GUUUAACAGCUCAGGGUGU | 1660 | AGCCUUGACAGCUACGGCC | 1703 | CUAACAUCAGCGGCUCGUC |
| 1575 | CUUAAACACUGGGUUCUUG | 1618 | UUUAACAGCUCAGGGUGUU | 1661 | GCCUUGACAGCUACGGCCA | 1704 | UAACAUCAGCGGCUCGUCU |
| 1576 | UUAAACACUGGGUUCUUGG | 1619 | UUAACAGCUCAGGGUGUUC | 1662 | CCUUGACAGCUACGGCCAA | 1705 | AACAUCAGCGGCUCGUCUG |
| 1577 | UAAACACUGGGUUCUUGGC | 1620 | UAACAGCUCAGGGUGUUCC | 1663 | CUUGACAGCUACGGCCAAG | 1706 | ACAUCAGCGGCUCGUCUGA |
| 1578 | AAACACUGGGUUCUUGGCU | 1621 | AACAGCUCAGGGUGUUCCG | 1664 | UUGACAGCUACGGCCAAGG | 1707 | CAUCAGCGGCUCGUCUGAU |
| 1579 | AACACUGGGUUCUUGGCUA | 1622 | ACAGCUCAGGGUGUUCCGA | 1665 | UGACAGCUACGGCCAAGGC | 1708 | AUCAGCGGCUCGUCUGAUG |
| 1580 | ACACUGGGUUCUUGGCUAG | 1623 | CAGCUCAGGGUGUUCCGAA | 1666 | GACAGCUACGGCCAAGGCU | 1709 | UCAGCGGCUCGUCUGAUGA |
| 1581 | CACUGGGUUCUUGGCUAGC | 1624 | AGCUCAGGGUGUUCCGAAC | 1667 | ACAGCUACGGCCAAGGCUG | 1710 | CAGCGGCUCGUCUGAUGAC |
| 1582 | ACUGGGUUCUUGGCUAGCU | 1625 | GCUCAGGGUGUUCCGAACG | 1668 | CAGCUACGGCCAAGGCUGG | 1711 | AGCGGCUCGUCUGAUGACA |
| 1583 | CUGGGUUCUUGGCUAGCUU | 1626 | CUCAGGGUGUUCCGAACGG | 1669 | AGCUACGGCCAAGGCUGGG | 1712 | GCGGCUCGUCUGAUGACAG |
| 1584 | UGGGUUCUUGGCUAGCUUG | 1627 | UCAGGGUGUUCCGAACGGC | 1670 | GCUACGGCCAAGGCUGGGG | 1713 | CGGCUCGUCUGAUGACAGG |
| 1585 | GGGUUCUUGGCUAGCUUGU | 1628 | CAGGGUGUUCCGAACGGCU | 1671 | CUACGGCCAAGGCUGGGGC | 1714 | GGCUCGUCUGAUGACAGGC |
| 1586 | GGUUCUUGGCUAGCUUGUU | 1629 | AGGGUGUUCCGAACGGCUC | 1672 | UACGGCCAAGGCUGGGGCC | 1715 | GCUCGUCUGAUGACAGGCC |
| 1587 | GUUCUUGGCUAGCUUGUUC | 1630 | GGGUGUUCCGAACGGCUCG | 1673 | ACGGCCAAGGCUGGGGCCC | 1716 | CUCGUCUGAUGACAGGCCU |
| 1588 | UUCUUGGCUAGCUUGUUCU | 1631 | GGUGUUCCGAACGGCUCGC | 1674 | CGGCCAAGGCUGGGGCCCA | 1717 | UCGUCUGAUGACAGGCCUU |
| 1589 | UCUUGGCUAGCUUGUUCUA | 1632 | GUGUUCCGAACGGCUCGCG | 1675 | GGCCAAGGCUGGGGCCCAC | 1718 | CGUCUGAUGACAGGCCUUA |
| 1590 | CUUGGCUAGCUUGUUCUAC | 1633 | UGUUCCGAACGGCUCGCGU | 1676 | GCCAAGGCUGGGGCCCACU | 1719 | GUCUGAUGACAGGCCUUAU |
| 1591 | UUGGCUAGCUUGUUCUACA | 1634 | GUUCCGAACGGCUCGCGUG | 1677 | CCAAGGCUGGGGCCCACUC | 1720 | UCUGAUGACAGGCCUUAUU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1721 | CUGAUGACAGGCCUUAUUG | 1764 | CGGGAUUGUGCCAGCAUCC | 1807 | UUCACUCCCAGCCCUGUCG | 1850 | GGGUCCCUACUUACACCUG |
| 1722 | UGAUGACAGGCCUUAUUGC | 1765 | GGGAUUGUGCCAGCAUCCA | 1808 | UCACUCCCAGCCCUGUCGU | 1851 | GGUCCCUACUUACACCUGG |
| 1723 | GAUGACAGGCCUUAUUGCU | 1766 | GGAUUGUGCCAGCAUCCAG | 1809 | CACUCCCAGCCCUGUCGUG | 1852 | GUCCCUACUUACACCUGGG |
| 1724 | AUGACAGGCCUUAUUGCUG | 1767 | GAUUGUGCCAGCAUCCAGU | 1810 | ACUCCCAGCCCUGUCGUGG | 1853 | UCCCUACUUACACCUGGGG |
| 1725 | UGACAGGCCUUAUUGCUGG | 1768 | AUUGUGCCAGCAUCCAGUG | 1811 | CUCCCAGCCCUGUCGUGGU | 1854 | CCCUACUUACACCUGGGGG |
| 1726 | GACAGGCCUUAUUGCUGGC | 1769 | UUGUGCCAGCAUCCAGUGU | 1812 | UCCCAGCCCUGUCGUGGUC | 1855 | CCUACUUACACCUGGGGGG |
| 1727 | ACAGGCCUUAUUGCUGGCA | 1770 | UGUGCCAGCAUCCAGUGUG | 1813 | CCCAGCCCUGUCGUGGUCG | 1856 | CUACUUACACCUGGGGGGA |
| 1728 | CAGGCCUUAUUGCUGGCAC | 1771 | GUGCCAGCAUCCAGUGUGU | 1814 | CCAGCCCUGUCGUGGUCGG | 1857 | UACUUACACCUGGGGGGAG |
| 1729 | AGGCCUUAUUGCUGGCACU | 1772 | UGCCAGCAUCCAGUGUGUG | 1815 | CAGCCCUGUCGUGGUCGGU | 1858 | ACUUACACCUGGGGGGAGA |
| 1730 | GGCCUUAUUGCUGGCACUA | 1773 | GCCAGCAUCCAGUGUGUGU | 1816 | AGCCCUGUCGUGGUCGGUA | 1859 | CUUACACCUGGGGGGAGAA |
| 1731 | GCCUUAUUGCUGGCACUAC | 1774 | CCAGCAUCCAGUGUGUGUG | 1817 | GCCCUGUCGUGGUCGGUAC | 1860 | UUACACCUGGGGGGAGAAC |
| 1732 | CCUUAUUGCUGGCACUACG | 1775 | CAGCAUCCAGUGUGUGUGG | 1818 | CCCUGUCGUGGUCGGUACU | 1861 | UACACCUGGGGGGAGAACG |
| 1733 | CUUAUUGCUGGCACUACGC | 1776 | AGCAUCCAGUGUGUGUGGC | 1819 | CCUGUCGUGGUCGGUACUA | 1862 | ACACCUGGGGGGAGAACGA |
| 1734 | UUAUUGCUGGCACUACGCG | 1777 | GCAUCCAGUGUGUGUGGCC | 1820 | CUGUCGUGGUCGGUACUAC | 1863 | CACCUGGGGGGAGAACGAG |
| 1735 | UAUUGCUGGCACUACGCGC | 1778 | CAUCCAGUGUGUGUGGCCC | 1821 | UGUCGUGGUCGGUACUACU | 1864 | ACCUGGGGGGAGAACGAGA |
| 1736 | AUUGCUGGCACUACGCGCC | 1779 | AUCCAGUGUGUGUGGCCCC | 1822 | GUCGUGGUCGGUACUACUG | 1865 | CCUGGGGGGAGAACGAGAC |
| 1737 | UUGCUGGCACUACGCGCCU | 1780 | UCCAGUGUGUGUGGCCCCG | 1823 | UCGUGGUCGGUACUACUGA | 1866 | CUGGGGGGAGAACGAGACU |
| 1738 | UGCUGGCACUACGCGCCUC | 1781 | CCAGUGUGUGUGGCCCCGU | 1824 | CGUGGUCGGUACUACUGAU | 1867 | UGGGGGGAGAACGAGACUG |
| 1739 | GCUGGCACUACGCGCCUCG | 1782 | CAGUGUGUGUGGCCCCGUG | 1825 | GUGGUCGGUACUACUGAUC | 1868 | GGGGGGAGAACGAGACUGA |
| 1740 | CUGGCACUACGCGCCUCGG | 1783 | AGUGUGUGUGGCCCCGUGU | 1826 | UGGUCGGUACUACUGAUCA | 1869 | GGGGGAGAACGAGACUGAU |
| 1741 | UGGCACUACGCGCCUCGGC | 1784 | GUGUGUGUGGCCCCGUGUA | 1827 | GGUCGGUACUACUGAUCAC | 1870 | GGGGAGAACGAGACUGAUG |
| 1742 | GGCACUACGCGCCUCGGCC | 1785 | UGUGUGUGGCCCCGUGUAU | 1828 | GUCGGUACUACUGAUCACG | 1871 | GGGAGAACGAGACUGAUGU |
| 1743 | GCACUACGCGCCUCGGCCA | 1786 | GUGUGUGGCCCCGUGUAUU | 1829 | UCGGUACUACUGAUCACGU | 1872 | GGAGAACGAGACUGAUGUC |
| 1744 | CACUACGCGCCUCGGCCAU | 1787 | UGUGUGGCCCCGUGUAUUG | 1830 | CGGUACUACUGAUCACGUC | 1873 | GAGAACGAGACUGAUGUCU |
| 1745 | ACUACGCGCCUCGGCCAUG | 1788 | GUGUGGCCCCGUGUAUUGU | 1831 | GGUACUACUGAUCACGUCG | 1874 | AGAACGAGACUGAUGUCUU |
| 1746 | CUACGCGCCUCGGCCAUGC | 1789 | UGUGGCCCCGUGUAUUGUU | 1832 | GUACUACUGAUCACGUCGG | 1875 | GAACGAGACUGAUGUCUUC |
| 1747 | UACGCGCCUCGGCCAUGCG | 1790 | GUGGCCCCGUGUAUUGUUU | 1833 | UACUACUGAUCACGUCGGG | 1876 | AACGAGACUGAUGUCUUCC |
| 1748 | ACGCGCCUCGGCCAUGCGG | 1791 | UGGCCCCGUGUAUUGUUUC | 1834 | ACUACUGAUCACGUCGGGG | 1877 | ACGAGACUGAUGUCUUCCU |
| 1749 | CGCGCCUCGGCCAUGCGGG | 1792 | GGCCCCGUGUAUUGUUUCA | 1835 | CUACUGAUCACGUCGGGGU | 1878 | CGAGACUGAUGUCUUCCUU |
| 1750 | GCGCCUCGGCCAUGCGGGA | 1793 | GCCCCGUGUAUUGUUUCAC | 1836 | UACUGAUCACGUCGGGGUC | 1879 | GAGACUGAUGUCUUCCUUU |
| 1751 | CGCCUCGGCCAUGCGGGAU | 1794 | CCCCGUGUAUUGUUUCACU | 1837 | ACUGAUCACGUCGGGGUCC | 1880 | AGACUGAUGUCUUCCUUUU |
| 1752 | GCCUCGGCCAUGCGGGAUU | 1795 | CCCGUGUAUUGUUUCACUC | 1838 | CUGAUCACGUCGGGGUCCC | 1881 | GACUGAUGUCUUCCUUUUG |
| 1753 | CCUCGGCCAUGCGGGAUUG | 1796 | CCGUGUAUUGUUUCACUCC | 1839 | UGAUCACGUCGGGGUCCCU | 1882 | ACUGAUGUCUUCCUUUUGA |
| 1754 | CUCGGCCAUGCGGGAUUGU | 1797 | CGUGUAUUGUUUCACUCCC | 1840 | GAUCACGUCGGGGUCCCUA | 1883 | CUGAUGUCUUCCUUUUGAA |
| 1755 | UCGGCCAUGCGGGAUUGUG | 1798 | GUGUAUUGUUUCACUCCCA | 1841 | AUCACGUCGGGGUCCCUAC | 1884 | UGAUGUCUUCCUUUUGAAC |
| 1756 | CGGCCAUGCGGGAUUGUGC | 1799 | UGUAUUGUUUCACUCCCAG | 1842 | UCACGUCGGGGUCCCUACU | 1885 | GAUGUCUUCCUUUUGAACU |
| 1757 | GGCCAUGCGGGAUUGUGCC | 1800 | GUAUUGUUUCACUCCCAGC | 1843 | CACGUCGGGGUCCCUACUU | 1886 | AUGUCUUCCUUUUGAACUC |
| 1758 | GCCAUGCGGGAUUGUGCCA | 1801 | UAUUGUUUCACUCCCAGCC | 1844 | ACGUCGGGGUCCCUACUUA | 1887 | UGUCUUCCUUUUGAACUCG |
| 1759 | CCAUGCGGGAUUGUGCCAG | 1802 | AUUGUUUCACUCCCAGCCC | 1845 | CGUCGGGGUCCCUACUUAC | 1888 | GUCUUCCUUUUGAACUCGA |
| 1760 | CAUGCGGGAUUGUGCCAGC | 1803 | UUGUUUCACUCCCAGCCCU | 1846 | GUCGGGGUCCCUACUUACA | 1889 | UCUUCCUUUUGAACUCGAC |
| 1761 | AUGCGGGAUUGUGCCAGCA | 1804 | UGUUUCACUCCCAGCCCUG | 1847 | UCGGGGUCCCUACUUACAC | 1890 | CUUCCUUUUGAACUCGACC |
| 1762 | UGCGGGAUUGUGCCAGCAU | 1805 | GUUUCACUCCCAGCCCUGU | 1848 | CGGGGUCCCUACUUACACC | 1891 | UUCCUUUUGAACUCGACCA |
| 1763 | GCGGGAUUGUGCCAGCAUC | 1806 | UUUCACUCCCAGCCCUGUC | 1849 | GGGGUCCCUACUUACACCU | 1892 | UCCUUUUGAACUCGACCAG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1893 | CCUUUUGAACUCGACCAGA | 1936 | UGCGUGUGGAUGAACAGUA | 1979 | CCCCUCCAUGCGAGGUUAA | 2022 | CCCCACCGAUUGCUUCAGG |
| 1894 | CUUUUGAACUCGACCAGAC | 1937 | GCGUGUGGAUGAACAGUAC | 1980 | CCCUCCAUGCGAGGUUAAC | 2023 | CCCACCGAUUGCUUCAGGA |
| 1895 | UUUUGAACUCGACCAGACC | 1938 | CGUGUGGAUGAACAGUACC | 1981 | CCUCCAUGCGAGGUUAACA | 2024 | CCACCGAUUGCUUCAGGAA |
| 1896 | UUUGAACUCGACCAGACCG | 1939 | GUGUGGAUGAACAGUACCG | 1982 | CUCCAUGCGAGGUUAACAC | 2025 | CACCGAUUGCUUCAGGAAG |
| 1897 | UUGAACUCGACCAGACCGC | 1940 | UGUGGAUGAACAGUACCGG | 1983 | UCCAUGCGAGGUUAACACC | 2026 | ACCGAUUGCUUCAGGAAGC |
| 1898 | UGAACUCGACCAGACCGCC | 1941 | GUGGAUGAACAGUACCGGG | 1984 | CCAUGCGAGGUUAACACCA | 2027 | CCGAUUGCUUCAGGAAGCA |
| 1899 | GAACUCGACCAGACCGCCG | 1942 | UGGAUGAACAGUACCGGGU | 1985 | CAUGCGAGGUUAACACCAA | 2028 | CGAUUGCUUCAGGAAGCAU |
| 1900 | AACUCGACCAGACCGCCGC | 1943 | GGAUGAACAGUACCGGGUU | 1986 | AUGCGAGGUUAACACCAAU | 2029 | GAUUGCUUCAGGAAGCAUC |
| 1901 | ACUCGACCAGACCGCCGCA | 1944 | GAUGAACAGUACCGGGUUC | 1987 | UGCGAGGUUAACACCAAUA | 2030 | AUUGCUUCAGGAAGCAUCC |
| 1902 | CUCGACCAGACCGCCGCAU | 1945 | AUGAACAGUACCGGGUUCA | 1988 | GCGAGGUUAACACCAAUAA | 2031 | UUGCUUCAGGAAGCAUCCG |
| 1903 | UCGACCAGACCGCCGCAUG | 1946 | UGAACAGUACCGGGUUCAC | 1989 | CGAGGUUAACACCAAUAAU | 2032 | UGCUUCAGGAAGCAUCCGG |
| 1904 | CGACCAGACCGCCGCAUGG | 1947 | GAACAGUACCGGGUUCACC | 1990 | GAGGUUAACACCAAUAAUG | 2033 | GCUUCAGGAAGCAUCCGGA |
| 1905 | GACCAGACCGCCGCAUGGU | 1948 | AACAGUACCGGGUUCACCA | 1991 | AGGUUAACACCAAUAAUGG | 2034 | CUUCAGGAAGCAUCCGGAG |
| 1906 | ACCAGACCGCCGCAUGGUG | 1949 | ACAGUACCGGGUUCACCAA | 1992 | GGUUAACACCAAUAAUGGG | 2035 | UUCAGGAAGCAUCCGGAGA |
| 1907 | CCAGACCGCCGCAUGGUGC | 1950 | CAGUACCGGGUUCACCAAA | 1993 | GUUAACACCAAUAAUGGGA | 2036 | UCAGGAAGCAUCCGGAGAC |
| 1908 | CAGACCGCCGCAUGGUGCG | 1951 | AGUACCGGGUUCACCAAAA | 1994 | UUAACACCAAUAAUGGGAC | 2037 | CAGGAAGCAUCCGGAGACU |
| 1909 | AGACCGCCGCAUGGUGCGU | 1952 | GUACCGGGUUCACCAAAAC | 1995 | UAACACCAAUAAUGGGACC | 2038 | AGGAAGCAUCCGGAGACUA |
| 1910 | GACCGCCGCAUGGUGCGUG | 1953 | UACCGGGUUCACCAAAACC | 1996 | AACACCAAUAAUGGGACCU | 2039 | GGAAGCAUCCGGAGACUAC |
| 1911 | ACCGCCGCAUGGUGCGUGG | 1954 | ACCGGGUUCACCAAAACCU | 1997 | ACACCAAUAAUGGGACCUG | 2040 | GAAGCAUCCGGAGACUACC |
| 1912 | CCGCCGCAUGGUGCGUGGU | 1955 | CCGGGUUCACCAAAACCUG | 1998 | CACCAAUAAUGGGACCUGG | 2041 | AAGCAUCCGGAGACUACCU |
| 1913 | CGCCGCAUGGUGCGUGGUU | 1956 | CGGGUUCACCAAAACCUGU | 1999 | ACCAAUAAUGGGACCUGGC | 2042 | AGCAUCCGGAGACUACCUA |
| 1914 | GCCGCAUGGUGCGUGGUUU | 1957 | GGGUUCACCAAAACCUGUG | 2000 | CCAAUAAUGGGACCUGGCA | 2043 | GCAUCCGGAGACUACCUAC |
| 1915 | CCGCAUGGUGCGUGGUUUG | 1958 | GGUUCACCAAAACCUGUGG | 2001 | CAAUAAUGGGACCUGGCAC | 2044 | CAUCCGGAGACUACCUACG |
| 1916 | CGCAUGGUGCGUGGUUUGG | 1959 | GUUCACCAAAACCUGUGGC | 2002 | AAUAAUGGGACCUGGCACU | 2045 | AUCCGGAGACUACCUACGC |
| 1917 | GCAUGGUGCGUGGUUUGGA | 1960 | UUCACCAAAACCUGUGGCG | 2003 | AUAAUGGGACCUGGCACUG | 2046 | UCCGGAGACUACCUACGCC |
| 1918 | CAUGGUGCGUGGUUUGGAU | 1961 | UCACCAAAACCUGUGGCGC | 2004 | UAAUGGGACCUGGCACUGC | 2047 | CCGGAGACUACCUACGCCA |
| 1919 | AUGGUGCGUGGUUUGGAUG | 1962 | CACCAAAACCUGUGGCGCC | 2005 | AAUGGGACCUGGCACUGCC | 2048 | CGGAGACUACCUACGCCAA |
| 1920 | UGGUGCGUGGUUUGGAUGC | 1963 | ACCAAAACCUGUGGCGCCC | 2006 | AUGGGACCUGGCACUGCCC | 2049 | GGAGACUACCUACGCCAAG |
| 1921 | GGUGCGUGGUUUGGAUGCG | 1964 | CCAAAACCUGUGGCGCCCC | 2007 | UGGGACCUGGCACUGCCCC | 2050 | GAGACUACCUACGCCAAGU |
| 1922 | GUGCGUGGUUUGGAUGCGU | 1965 | CAAAACCUGUGGCGCCCCU | 2008 | GGGACCUGGCACUGCCCCA | 2051 | AGACUACCUACGCCAAGUG |
| 1923 | UGCGUGGUUUGGAUGCGUG | 1966 | AAAACCUGUGGCGCCCCUC | 2009 | GGACCUGGCACUGCCCCAC | 2052 | GACUACCUACGCCAAGUGC |
| 1924 | GCGUGGUUUGGAUGCGUGU | 1967 | AAACCUGUGGCGCCCCUCC | 2010 | GACCUGGCACUGCCCCACC | 2053 | ACUACCUACGCCAAGUGCG |
| 1925 | CGUGGUUUGGAUGCGUGUG | 1968 | AACCUGUGGCGCCCCUCCA | 2011 | ACCUGGCACUGCCCCACCG | 2054 | CUACCUACGCCAAGUGCGG |
| 1926 | GUGGUUUGGAUGCGUGUGG | 1969 | ACCUGUGGCGCCCCUCCAU | 2012 | CCUGGCACUGCCCCACCGA | 2055 | UACCUACGCCAAGUGCGGA |
| 1927 | UGGUUUGGAUGCGUGUGGA | 1970 | CCUGUGGCGCCCCUCCAUG | 2013 | CUGGCACUGCCCCACCGAU | 2056 | ACCUACGCCAAGUGCGGAU |
| 1928 | GGUUUGGAUGCGUGUGGAU | 1971 | CUGUGGCGCCCCUCCAUGC | 2014 | UGGCACUGCCCCACCGAUU | 2057 | CCUACGCCAAGUGCGGAUC |
| 1929 | GUUUGGAUGCGUGUGGAUG | 1972 | UGUGGCGCCCCUCCAUGCG | 2015 | GGCACUGCCCCACCGAUUG | 2058 | CUACGCCAAGUGCGGAUCA |
| 1930 | UUUGGAUGCGUGUGGAUGA | 1973 | GUGGCGCCCCUCCAUGCGA | 2016 | GCACUGCCCCACCGAUUGC | 2059 | UACGCCAAGUGCGGAUCAG |
| 1931 | UUGGAUGCGUGUGGAUGAA | 1974 | UGGCGCCCCUCCAUGCGAG | 2017 | CACUGCCCCACCGAUUGCU | 2060 | ACGCCAAGUGCGGAUCAGG |
| 1932 | UGGAUGCGUGUGGAUGAAC | 1975 | GGCGCCCCUCCAUGCGAGG | 2018 | ACUGCCCCACCGAUUGCUU | 2061 | CGCCAAGUGCGGAUCAGGG |
| 1933 | GGAUGCGUGUGGAUGAACA | 1976 | GCGCCCCUCCAUGCGAGGU | 2019 | CUGCCCCACCGAUUGCUUC | 2062 | GCCAAGUGCGGAUCAGGGC |
| 1934 | GAUGCGUGUGGAUGAACAG | 1977 | CGCCCCUCCAUGCGAGGUU | 2020 | UGCCCCACCGAUUGCUUCA | 2063 | CCAAGUGCGGAUCAGGGCC |
| 1935 | AUGCGUGUGGAUGAACAGU | 1978 | GCCCCUCCAUGCGAGGUUA | 2021 | GCCCCACCGAUUGCUUCAG | 2064 | CAAGUGCGGAUCAGGGCCU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2065 | AAGUGCGGAUCAGGGCCUU | 2108 | AUUACCCGUACCGGCUGUG | 2151 | CUCCGUCUUUAACAUCAGG | 2194 | CGGAUGCAAGCGGCAUGCA |
| 2066 | AGUGCGGAUCAGGGCCUUG | 2109 | UUACCCGUACCGGCUGUGG | 2152 | UCCGUCUUUAACAUCAGGA | 2195 | GGAUGCAAGCGGCAUGCAA |
| 2067 | GUGCGGAUCAGGGCCUUGG | 2110 | UACCCGUACCGGCUGUGGC | 2153 | CCGUCUUUAACAUCAGGAC | 2196 | GAUGCAAGCGGCAUGCAAC |
| 2068 | UGCGGAUCAGGGCCUUGGA | 2111 | ACCCGUACCGGCUGUGGCA | 2154 | CGUCUUUAACAUCAGGACA | 2197 | AUGCAAGCGGCAUGCAACU |
| 2069 | GCGGAUCAGGGCCUUGGAU | 2112 | CCCGUACCGGCUGUGGCAU | 2155 | GUCUUUAACAUCAGGACAU | 2198 | UGCAAGCGGCAUGCAACUG |
| 2070 | CGGAUCAGGGCCUUGGAUC | 2113 | CCGUACCGGCUGUGGCAUU | 2156 | UCUUUAACAUCAGGACAUU | 2199 | GCAAGCGGCAUGCAACUGG |
| 2071 | GGAUCAGGGCCUUGGAUCA | 2114 | CGUACCGGCUGUGGCAUUU | 2157 | CUUUAACAUCAGGACAUUU | 2200 | CAAGCGGCAUGCAACUGGA |
| 2072 | GAUCAGGGCCUUGGAUCAC | 2115 | GUACCGGCUGUGGCAUUUC | 2158 | UUUAACAUCAGGACAUUUG | 2201 | AAGCGGCAUGCAACUGGAC |
| 2073 | AUCAGGGCCUUGGAUCACA | 2116 | UACCGGCUGUGGCAUUUCC | 2159 | UUAACAUCAGGACAUUUGU | 2202 | AGCGGCAUGCAACUGGACC |
| 2074 | UCAGGGCCUUGGAUCACAC | 2117 | ACCGGCUGUGGCAUUUCCC | 2160 | UAACAUCAGGACAUUUGUC | 2203 | GCGGCAUGCAACUGGACCA |
| 2075 | CAGGGCCUUGGAUCACACC | 2118 | CCGGCUGUGGCAUUUCCCG | 2161 | AACAUCAGGACAUUUGUCG | 2204 | CGGCAUGCAACUGGACCAG |
| 2076 | AGGGCCUUGGAUCACACCA | 2119 | CGGCUGUGGCAUUUCCCGU | 2162 | ACAUCAGGACAUUUGUCGG | 2205 | GGCAUGCAACUGGACCAGG |
| 2077 | GGGCCUUGGAUCACACCAC | 2120 | GGCUGUGGCAUUUCCCGUG | 2163 | CAUCAGGACAUUUGUCGGC | 2206 | GCAUGCAACUGGACCAGGG |
| 2078 | GGCCUUGGAUCACACCACG | 2121 | GCUGUGGCAUUUCCCGUGC | 2164 | AUCAGGACAUUUGUCGGCG | 2207 | CAUGCAACUGGACCAGGGG |
| 2079 | GCCUUGGAUCACACCACGC | 2122 | CUGUGGCAUUUCCCGUGCA | 2165 | UCAGGACAUUUGUCGGCGG | 2208 | AUGCAACUGGACCAGGGGG |
| 2080 | CCUUGGAUCACACCACGCU | 2123 | UGUGGCAUUUCCCGUGCAC | 2166 | CAGGACAUUUGUCGGCGGU | 2209 | UGCAACUGGACCAGGGGGG |
| 2081 | CUUGGAUCACACCACGCUG | 2124 | GUGGCAUUUCCCGUGCACC | 2167 | AGGACAUUUGUCGGCGGUA | 2210 | GCAACUGGACCAGGGGGGA |
| 2082 | UUGGAUCACACCACGCUGC | 2125 | UGGCAUUUCCCGUGCACCG | 2168 | GGACAUUUGUCGGCGGUAU | 2211 | CAACUGGACCAGGGGGGAA |
| 2083 | UGGAUCACACCACGCUGCC | 2126 | GGCAUUUCCCGUGCACCGC | 2169 | GACAUUUGUCGGCGGUAUA | 2212 | AACUGGACCAGGGGGGAAG |
| 2084 | GGAUCACACCACGCUGCCU | 2127 | GCAUUUCCCGUGCACCGCC | 2170 | ACAUUUGUCGGCGGUAUAG | 2213 | ACUGGACCAGGGGGGAAGU |
| 2085 | GAUCACACCACGCUGCCUG | 2128 | CAUUUCCCGUGCACCGCCA | 2171 | CAUUUGUCGGCGGUAUAGA | 2214 | CUGGACCAGGGGGGAAGUC |
| 2086 | AUCACACCACGCUGCCUGA | 2129 | AUUUCCCGUGCACCGCCAA | 2172 | AUUUGUCGGCGGUAUAGAG | 2215 | UGGACCAGGGGGGAAGUCU |
| 2087 | UCACACCACGCUGCCUGAU | 2130 | UUUCCCGUGCACCGCCAAC | 2173 | UUUGUCGGCGGUAUAGAGC | 2216 | GGACCAGGGGGGAAGUCUG |
| 2088 | CACACCACGCUGCCUGAUU | 2131 | UUCCCGUGCACCGCCAACU | 2174 | UUGUCGGCGGUAUAGAGCA | 2217 | GACCAGGGGGGAAGUCUGU |
| 2089 | ACACCACGCUGCCUGAUUG | 2132 | UCCCGUGCACCGCCAACUU | 2175 | UGUCGGCGGUAUAGAGCAU | 2218 | ACCAGGGGGGAAGUCUGUG |
| 2090 | CACCACGCUGCCUGAUUGA | 2133 | CCCGUGCACCGCCAACUUC | 2176 | GUCGGCGGUAUAGAGCAUC | 2219 | CCAGGGGGGAAGUCUGUGG |
| 2091 | ACCACGCUGCCUGAUUGAU | 2134 | CCGUGCACCGCCAACUUCU | 2177 | UCGGCGGUAUAGAGCAUCG | 2220 | CAGGGGGGAAGUCUGUGGC |
| 2092 | CCACGCUGCCUGAUUGAUU | 2135 | CGUGCACCGCCAACUUCUC | 2178 | CGGCGGUAUAGAGCAUCGG | 2221 | AGGGGGGAAGUCUGUGGCU |
| 2093 | CACGCUGCCUGAUUGAUUA | 2136 | GUGCACCGCCAACUUCUCC | 2179 | GGCGGUAUAGAGCAUCGGA | 2222 | GGGGGGAAGUCUGUGGCUU |
| 2094 | ACGCUGCCUGAUUGAUUAC | 2137 | UGCACCGCCAACUUCUCCG | 2180 | GCGGUAUAGAGCAUCGGAU | 2223 | GGGGGAAGUCUGUGGCUUG |
| 2095 | CGCUGCCUGAUUGAUUACC | 2138 | GCACCGCCAACUUCUCCGU | 2181 | CGGUAUAGAGCAUCGGAUG | 2224 | GGGGAAGUCUGUGGCUUGG |
| 2096 | GCUGCCUGAUUGAUUACCC | 2139 | CACCGCCAACUUCUCCGUC | 2182 | GGUAUAGAGCAUCGGAUGC | 2225 | GGGAAGUCUGUGGCUUGGA |
| 2097 | CUGCCUGAUUGAUUACCCG | 2140 | ACCGCCAACUUCUCCGUCU | 2183 | GUAUAGAGCAUCGGAUGCA | 2226 | GGAAGUCUGUGGCUUGGAG |
| 2098 | UGCCUGAUUGAUUACCCGU | 2141 | CCGCCAACUUCUCCGUCUU | 2184 | UAUAGAGCAUCGGAUGCAA | 2227 | GAAGUCUGUGGCUUGGAGC |
| 2099 | GCCUGAUUGAUUACCCGUA | 2142 | CGCCAACUUCUCCGUCUUU | 2185 | AUAGAGCAUCGGAUGCAAG | 2228 | AAGUCUGUGGCUUGGAGCA |
| 2100 | CCUGAUUGAUUACCCGUAC | 2143 | GCCAACUUCUCCGUCUUUA | 2186 | UAGAGCAUCGGAUGCAAGC | 2229 | AGUCUGUGGCUUGGAGCAC |
| 2101 | CUGAUUGAUUACCCGUACC | 2144 | CCAACUUCUCCGUCUUUAA | 2187 | AGAGCAUCGGAUGCAAGCG | 2230 | GUCUGUGGCUUGGAGCACA |
| 2102 | UGAUUGAUUACCCGUACCG | 2145 | CAACUUCUCCGUCUUUAAC | 2188 | GAGCAUCGGAUGCAAGCGG | 2231 | UCUGUGGCUUGGAGCACAG |
| 2103 | GAUUGAUUACCCGUACCGG | 2146 | AACUUCUCCGUCUUUAACA | 2189 | AGCAUCGGAUGCAAGCGGC | 2232 | CUGUGGCUUGGAGCACAGG |
| 2104 | AUUGAUUACCCGUACCGGC | 2147 | ACUUCUCCGUCUUUAACAU | 2190 | GCAUCGGAUGCAAGCGGCA | 2233 | UGUGGCUUGGAGCACAGGG |
| 2105 | UUGAUUACCCGUACCGGCU | 2148 | CUUCUCCGUCUUUAACAUC | 2191 | CAUCGGAUGCAAGCGGCAU | 2234 | GUGGCUUGGAGCACAGGGA |
| 2106 | UGAUUACCCGUACCGGCUG | 2149 | UUCUCCGUCUUUAACAUCA | 2192 | AUCGGAUGCAAGCGGCAUG | 2235 | UGGCUUGGAGCACAGGGAU |
| 2107 | GAUUACCCGUACCGGCUGU | 2150 | UCUCCGUCUUUAACAUCAG | 2193 | UCGGAUGCAAGCGGCAUGC | 2236 | GGCUUGGAGCACAGGGAUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2237 | GCUUGGAGCACAGGGAUCG | 2280 | UACCACUACAGCGUGGCAG | 2322 | UUUACCUGCCCUCUCCACC | 2365 | AUCGUGGACGUCCAGUACC |
| 2238 | CUUGGAGCACAGGGAUCGG | 2281 | ACCACUACAGCGUGGCAGA | 2323 | UUACCUGCCCUCUCCACCG | 2366 | UCGUGGACGUCCAGUACCU |
| 2239 | UUGGAGCACAGGGAUCGGG | 2282 | CCACUACAGCGUGGCAGAU | 2324 | UACCUGCCCUCUCCACCGG | 2367 | CGUGGACGUCCAGUACCUC |
| 2240 | UGGAGCACAGGGAUCGGGU | 2283 | CACUACAGCGUGGCAGAUC | 2325 | ACCUGCCCUCUCCACCGGC | 2368 | GUGGACGUCCAGUACCUCU |
| 2241 | GGAGCACAGGGAUCGGGUA | 2284 | ACUACAGCGUGGCAGAUCC | 2326 | CCUGCCCUCUCCACCGGCU | 2369 | UGGACGUCCAGUACCUCUA |
| 2242 | GAGCACAGGGAUCGGGUAG | 2285 | CUACAGCGUGGCAGAUCCU | 2327 | CUGCCCUCUCCACCGGCUU | 2370 | GGACGUCCAGUACCUCUAU |
| 2243 | AGCACAGGGAUCGGGUAGA | 2286 | UACAGCGUGGCAGAUCCUC | 2328 | UGCCCUCUCCACCGGCUUG | 2371 | GACGUCCAGUACCUCUAUG |
| 2244 | GCACAGGGAUCGGGUAGAG | 2287 | ACAGCGUGGCAGAUCCUCC | 2329 | GCCCUCUCCACCGGCUUGA | 2372 | ACGUCCAGUACCUCUAUGG |
| 2245 | CACAGGGAUCGGGUAGAGC | 2288 | CAGCGUGGCAGAUCCUCCC | 2330 | CCCUCUCCACCGGCUUGAU | 2373 | CGUCCAGUACCUCUAUGGU |
| 2246 | ACAGGGAUCGGGUAGAGCU | 2289 | AGCGUGGCAGAUCCUCCCC | 2331 | CCUCUCCACCGGCUUGAUC | 2374 | GUCCAGUACCUCUAUGGUG |
| 2247 | CAGGGAUCGGGUAGAGCUA | 2290 | GCGUGGCAGAUCCUCCCCU | 2332 | CUCUCCACCGGCUUGAUCC | 2375 | UCCAGUACCUCUAUGGUGU |
| 2248 | AGGGAUCGGGUAGAGCUAU | 2291 | CGUGGCAGAUCCUCCCCUG | 2333 | UCUCCACCGGCUUGAUCCA | 2376 | CCAGUACCUCUAUGGUGUU |
| 2249 | GGGAUCGGGUAGAGCUAUC | 2292 | GUGGCAGAUCCUCCCCUGC | 2334 | CUCCACCGGCUUGAUCCAC | 2377 | CAGUACCUCUAUGGUGUUG |
| 2250 | GGAUCGGGUAGAGCUAUCA | 2293 | UGGCAGAUCCUCCCCUGCU | 2335 | UCCACCGGCUUGAUCCACC | 2378 | AGUACCUCUAUGGUGUUGG |
| 2251 | GAUCGGGUAGAGCUAUCAC | 2294 | GGCAGAUCCUCCCCUGCUC | 2336 | CCACCGGCUUGAUCCACCU | 2379 | GUACCUCUAUGGUGUUGGA |
| 2252 | AUCGGGUAGAGCUAUCACC | 2295 | GCAGAUCCUCCCCUGCUCU | 2337 | CACCGGCUUGAUCCACCUC | 2380 | UACCUCUAUGGUGUUGGAU |
| 2253 | UCGGGUAGAGCUAUCACCC | 2296 | CAGAUCCUCCCCUGCUCUU | 2338 | ACCGGCUUGAUCCACCUCC | 2381 | ACCUCUAUGGUGUUGGAUC |
| 2254 | CGGGUAGAGCUAUCACCCC | 2297 | AGAUCCUCCCCUGCUCUUU | 2339 | CCGGCUUGAUCCACCUCCA | 2382 | CCUCUAUGGUGUUGGAUCU |
| 2255 | GGGUAGAGCUAUCACCCCU | 2298 | GAUCCUCCCCUGCUCUUUC | 2340 | CGGCUUGAUCCACCUCCAC | 2383 | CUCUAUGGUGUUGGAUCUG |
| 2256 | GGUAGAGCUAUCACCCCUG | 2299 | AUCCUCCCCUGCUCUUUCA | 2341 | GGCUUGAUCCACCUCCACC | 2384 | UCUAUGGUGUUGGAUCUGC |
| 2257 | GUAGAGCUAUCACCCCUGC | 2300 | UCCUCCCCUGCUCUUUCAC | 2342 | GCUUGAUCCACCUCCACCA | 2385 | CUAUGGUGUUGGAUCUGCA |
| 2258 | UAGAGCUAUCACCCCUGCU | 2301 | CCUCCCCUGCUCUUUCACC | 2343 | CUUGAUCCACCUCCACCAA | 2386 | UAUGGUGUUGGAUCUGCAG |
| 2259 | AGAGCUAUCACCCCUGCUC | 2302 | CUCCCCUGCUCUUUCACCA | 2344 | UUGAUCCACCUCCACCAAA | 2387 | AUGGUGUUGGAUCUGCAGU |
| 2260 | GAGCUAUCACCCCUGCUCC | 2303 | UCCCCUGCUCUUUCACCAC | 2345 | UGAUCCACCUCCACCAAAA | 2388 | UGGUGUUGGAUCUGCAGUG |
| 2261 | AGCUAUCACCCCUGCUCCU | 2304 | CCCCUGCUCUUUCACCACU | 2346 | GAUCCACCUCCACCAAAAU | 2389 | GGUGUUGGAUCUGCAGUGG |
| 2262 | GCUAUCACCCCUGCUCCUU | 2305 | CCCUGCUCUUUCACCACUU | 2347 | AUCCACCUCCACCAAAAUA | 2390 | GUGUUGGAUCUGCAGUGGU |
| 2263 | CUAUCACCCCUGCUCCUUA | 2306 | CCUGCUCUUUCACCACUUU | 2348 | UCCACCUCCACCAAAAUAU | 2391 | UGUUGGAUCUGCAGUGGUA |
| 2264 | UAUCACCCCUGCUCCUUAC | 2307 | CUGCUCUUUCACCACUUUA | 2349 | CCACCUCCACCAAAAUAUC | 2392 | GUUGGAUCUGCAGUGGUAU |
| 2265 | AUCACCCCUGCUCCUUACC | 2308 | UGCUCUUUCACCACUUUAC | 2350 | CACCUCCACCAAAAUAUCG | 2393 | UUGGAUCUGCAGUGGUAUC |
| 2266 | UCACCCCUGCUCCUUACCA | 2309 | GCUCUUUCACCACUUUACC | 2351 | ACCUCCACCAAAAUAUCGU | 2394 | UGGAUCUGCAGUGGUAUCU |
| 2267 | CACCCCUGCUCCUUACCAC | 2310 | CUCUUUCACCACUUUACCU | 2352 | CCUCCACCAAAAUAUCGUG | 2395 | GGAUCUGCAGUGGUAUCUU |
| 2268 | ACCCCUGCUCCUUACCACU | 2311 | UCUUUCACCACUUUACCUG | 2353 | CUCCACCAAAAUAUCGUGG | 2396 | GAUCUGCAGUGGUAUCUUG |
| 2269 | CCCCUGCUCCUUACCACUA | 2312 | CUUUCACCACUUUACCUGC | 2354 | UCCACCAAAAUAUCGUGGA | 2397 | AUCUGCAGUGGUAUCUUGG |
| 2270 | CCCUGCUCCUUACCACUAC | 2313 | UUUCACCACUUUACCUGCC | 2355 | CCACCAAAAUAUCGUGGAC | 2398 | UCUGCAGUGGUAUCUUGGG |
| 2271 | CCUGCUCCUUACCACUACA | 2314 | UUCACCACUUUACCUGCCC | 2356 | CACCAAAAUAUCGUGGACG | 2399 | CUGCAGUGGUAUCUUGGGC |
| 2272 | CUGCUCCUUACCACUACAG | 2315 | UCACCACUUUACCUGCCCU | 2357 | ACCAAAAUAUCGUGGACGU | 2400 | UGCAGUGGUAUCUUGGGCC |
| 2273 | UGCUCCUUACCACUACAGC | 2316 | CACCACUUUACCUGCCCUC | 2358 | CCAAAAUAUCGUGGACGUC | 2401 | GCAGUGGUAUCUUGGGCCC |
| 2274 | GCUCCUUACCACUACAGCG | 2317 | ACCACUUUACCUGCCCUCU | 2359 | CAAAAUAUCGUGGACGUCC | 2402 | CAGUGGUAUCUUGGGCCCU |
| 2275 | CUCCUUACCACUACAGCGU | 2318 | CCACUUUACCUGCCCUCUC | 2360 | AAAAUAUCGUGGACGUCCA | 2403 | AGUGGUAUCUUGGGCCCUU |
| 2276 | UCCUUACCACUACAGCGUG | 2319 | CACUUUACCUGCCCUCUCC | 2361 | AAAUAUCGUGGACGUCCAG | 2404 | GUGGUAUCUUGGGCCCUUA |
| 2277 | CCUUACCACUACAGCGUGG | 2320 | ACUUUACCUGCCCUCUCCA | 2362 | AAUAUCGUGGACGUCCAGU | 2405 | UGGUAUCUUGGGCCCUUAA |
| 2278 | CUUACCACUACAGCGUGGC | 2321 | CUUUACCUGCCCUCUCCAC | 2363 | AUAUCGUGGACGUCCAGUA | 2406 | GGUAUCUUGGGCCCUUAAG |
| 2279 | UUACCACUACAGCGUGGCA | | | 2364 | UAUCGUGGACGUCCAGUAC | 2407 | GUAUCUUGGGCCCUUAAGU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2408 | UAUCUUGGGCCCUUAAGUG | 2451 | GCUUCUCGCGGACGCGAGA | 2494 | UUUAUGGUAAGUCAAGUUG | 2537 | ACAUCAAUGCUGCUUCAGC |
| 2409 | AUCUUGGGCCCUUAAGUGG | 2452 | CUUCUCGCGGACGCGAGAG | 2495 | UUAUGGUAAGUCAAGUUGA | 2538 | CAUCAAUGCUGCUUCAGCC |
| 2410 | UCUUGGGCCCUUAAGUGGG | 2453 | UUCUCGCGGACGCGAGAGU | 2496 | UAUGGUAAGUCAAGUUGAG | 2539 | AUCAAUGCUGCUUCAGCCG |
| 2411 | CUUGGGCCCUUAAGUGGGA | 2454 | UCUCGCGGACGCGAGAGUC | 2497 | AUGGUAAGUCAAGUUGAGG | 2540 | UCAAUGCUGCUUCAGCCGC |
| 2412 | UUGGGCCCUUAAGUGGGAA | 2455 | CUCGCGGACGCGAGAGUCU | 2498 | UGGUAAGUCAAGUUGAGGC | 2541 | CAAUGCUGCUUCAGCCGCU |
| 2413 | UGGGCCCUUAAGUGGGAAU | 2456 | UCGCGGACGCGAGAGUCUC | 2499 | GGUAAGUCAAGUUGAGGCG | 2542 | AAUGCUGCUUCAGCCGCUG |
| 2414 | GGGCCCUUAAGUGGGAAUA | 2457 | CGCGGACGCGAGAGUCUCU | 2500 | GUAAGUCAAGUUGAGGCGG | 2543 | AUGCUGCUUCAGCCGCUGG |
| 2415 | GGCCCUUAAGUGGGAAUAU | 2458 | GCGGACGCGAGAGUCUCUG | 2501 | UAAGUCAAGUUGAGGCGGC | 2544 | UGCUGCUUCAGCCGCUGGU |
| 2416 | GCCCUUAAGUGGGAAUAUG | 2459 | CGGACGCGAGAGUCUCUGC | 2502 | AAGUCAAGUUGAGGCGGCU | 2545 | GCUGCUUCAGCCGCUGGUG |
| 2417 | CCCUUAAGUGGGAAUAUGU | 2460 | GGACGCGAGAGUCUCUGCC | 2503 | AGUCAAGUUGAGGCGGCUC | 2546 | CUGCUUCAGCCGCUGGUGC |
| 2418 | CCUUAAGUGGGAAUAUGUG | 2461 | GACGCGAGAGUCUCUGCCU | 2504 | GUCAAGUUGAGGCGGCUCU | 2547 | UGCUUCAGCCGCUGGUGCC |
| 2419 | CUUAAGUGGGAAUAUGUGG | 2462 | ACGCGAGAGUCUCUGCCUA | 2505 | UCAAGUUGAGGCGGCUCUG | 2548 | GCUUCAGCCGCUGGUGCCC |
| 2420 | UUAAGUGGGAAUAUGUGGU | 2463 | CGCGAGAGUCUCUGCCUAC | 2506 | CAAGUUGAGGCGGCUCUGU | 2549 | CUUCAGCCGCUGGUGCCCA |
| 2421 | UAAGUGGGAAUAUGUGGUG | 2464 | GCGAGAGUCUCUGCCUACC | 2507 | AAGUUGAGGCGGCUCUGUC | 2550 | UUCAGCCGCUGGUGCCCAA |
| 2422 | AAGUGGGAAUAUGUGGUGC | 2465 | CGAGAGUCUCUGCCUACCU | 2508 | AGUUGAGGCGGCUCUGUCC | 2551 | UCAGCCGCUGGUGCCCAAG |
| 2423 | AGUGGGAAUAUGUGGUGCU | 2466 | GAGAGUCUCUGCCUACCUA | 2509 | GUUGAGGCGGCUCUGUCCA | 2552 | CAGCCGCUGGUGCCCAAGG |
| 2424 | GUGGGAAUAUGUGGUGCUC | 2467 | AGAGUCUCUGCCUACCUAU | 2510 | UUGAGGCGGCUCUGUCCAA | 2553 | AGCCGCUGGUGCCCAAGGC |
| 2425 | UGGGAAUAUGUGGUGCUCG | 2468 | GAGUCUCUGCCUACCUAUG | 2511 | UGAGGCGGCUCUGUCCAAC | 2554 | GCCGCUGGUGCCCAAGGCU |
| 2426 | GGGAAUAUGUGGUGCUCGC | 2469 | AGUCUCUGCCUACCUAUGG | 2512 | GAGGCGGCUCUGUCCAACC | 2555 | CCGCUGGUGCCCAAGGCUU |
| 2427 | GGAAUAUGUGGUGCUCGCG | 2470 | GUCUCUGCCUACCUAUGGA | 2513 | AGGCGGCUCUGUCCAACCU | 2556 | CGCUGGUGCCCAAGGCUUC |
| 2428 | GAAUAUGUGGUGCUCGCGU | 2471 | UCUCUGCCUACCUAUGGAU | 2514 | GGCGGCUCUGUCCAACCUA | 2557 | GCUGGUGCCCAAGGCUUCU |
| 2429 | AAUAUGUGGUGCUCGCGUU | 2472 | CUCUGCCUACCUAUGGAUG | 2515 | GCGGCUCUGUCCAACCUAA | 2558 | CUGGUGCCCAAGGCUUCUG |
| 2430 | AUAUGUGGUGCUCGCGUUC | 2473 | UCUGCCUACCUAUGGAUGA | 2516 | CGGCUCUGUCCAACCUAAU | 2559 | UGGUGCCCAAGGCUUCUGG |
| 2431 | UAUGUGGUGCUCGCGUUCC | 2474 | CUGCCUACCUAUGGAUGAU | 2517 | GGCUCUGUCCAACCUAAUU | 2560 | GGUGCCCAAGGCUUCUGGU |
| 2432 | AUGUGGUGCUCGCGUUCCU | 2475 | UGCCUACCUAUGGAUGAUG | 2518 | GCUCUGUCCAACCUAAUUA | 2561 | GUGCCCAAGGCUUCUGGUA |
| 2433 | UGUGGUGCUCGCGUUCCUG | 2476 | GCCUACCUAUGGAUGAUGU | 2519 | CUCUGUCCAACCUAAUUAA | 2562 | UGCCCAAGGCUUCUGGUAC |
| 2434 | GUGGUGCUCGCGUUCCUGC | 2477 | CCUACCUAUGGAUGAUGUU | 2520 | UCUGUCCAACCUAAUUAAC | 2563 | GCCCAAGGCUUCUGGUACG |
| 2435 | UGGUGCUCGCGUUCCUGCU | 2478 | CUACCUAUGGAUGAUGUUU | 2521 | CUGUCCAACCUAAUUAACA | 2564 | CCCAAGGCUUCUGGUACGC |
| 2436 | GGUGCUCGCGUUCCUGCUU | 2479 | UACCUAUGGAUGAUGUUUA | 2522 | UGUCCAACCUAAUUAACAU | 2565 | CCAAGGCUUCUGGUACGCC |
| 2437 | GUGCUCGCGUUCCUGCUUC | 2480 | ACCUAUGGAUGAUGUUUAU | 2523 | GUCCAACCUAAUUAACAUC | 2566 | CAAGGCUUCUGGUACGCCA |
| 2438 | UGCUCGCGUUCCUGCUUCU | 2481 | CCUAUGGAUGAUGUUUAUG | 2524 | UCCAACCUAAUUAACAUCA | 2567 | AAGGCUUCUGGUACGCCAU |
| 2439 | GCUCGCGUUCCUGCUUCUC | 2482 | CUAUGGAUGAUGUUUAUGG | 2525 | CCAACCUAAUUAACAUCAA | 2568 | AGGCUUCUGGUACGCCAUC |
| 2440 | CUCGCGUUCCUGCUUCUCG | 2483 | UAUGGAUGAUGUUUAUGGU | 2526 | CAACCUAAUUAACAUCAAU | 2569 | GGCUUCUGGUACGCCAUCC |
| 2441 | UCGCGUUCCUGCUUCUCGC | 2484 | AUGGAUGAUGUUUAUGGUA | 2527 | AACCUAAUUAACAUCAAUG | 2570 | GCUUCUGGUACGCCAUCCU |
| 2442 | CGCGUUCCUGCUUCUCGCG | 2485 | UGGAUGAUGUUUAUGGUAA | 2528 | ACCUAAUUAACAUCAAUGC | 2571 | CUUCUGGUACGCCAUCCUC |
| 2443 | GCGUUCCUGCUUCUCGCGG | 2486 | GGAUGAUGUUUAUGGUAAG | 2529 | CCUAAUUAACAUCAAUGCU | 2572 | UUCUGGUACGCCAUCCUCU |
| 2444 | CGUUCCUGCUUCUCGCGGA | 2487 | GAUGAUGUUUAUGGUAAGU | 2530 | CUAAUUAACAUCAAUGCUG | 2573 | UCUGGUACGCCAUCCUCUU |
| 2445 | GUUCCUGCUUCUCGCGGAC | 2488 | AUGAUGUUUAUGGUAAGUC | 2531 | UAAUUAACAUCAAUGCUGC | 2574 | CUGGUACGCCAUCCUCUUC |
| 2446 | UUCCUGCUUCUCGCGGACG | 2489 | UGAUGUUUAUGGUAAGUCA | 2532 | AAUUAACAUCAAUGCUGCU | 2575 | UGGUACGCCAUCCUCUUCA |
| 2447 | UCCUGCUUCUCGCGGACGC | 2490 | GAUGUUUAUGGUAAGUCAA | 2533 | AUUAACAUCAAUGCUGCUU | 2576 | GGUACGCCAUCCUCUUCAU |
| 2448 | CCUGCUUCUCGCGGACGCG | 2491 | AUGUUUAUGGUAAGUCAAG | 2534 | UUAACAUCAAUGCUGCUUC | 2577 | GUACGCCAUCCUCUUCAUC |
| 2449 | CUGCUUCUCGCGGACGCGA | 2492 | UGUUUAUGGUAAGUCAAGU | 2535 | UAACAUCAAUGCUGCUUCA | 2578 | UACGCCAUCCUCUUCAUCU |
| 2450 | UGCUUCUCGCGGACGCGAG | 2493 | GUUUAUGGUAAGUCAAGUU | 2536 | AACAUCAAUGCUGCUUCAG | 2579 | ACGCCAUCCUCUUCAUCUG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2580 | CGCCAUCCUCUUCAUCUGC | 2623 | UUCCCAGCUGCUGCUGCCU | 2666 | GUUUUCUCCUGCUUCUGAU | 2709 | CGACCAGGAAGUGGCAGGG |
| 2581 | GCCAUCCUCUUCAUCUGCA | 2624 | UCCCAGCUGCUGCUGCCUA | 2667 | UUUUCUCCUGCUUCUGAUG | 2710 | GACCAGGAAGUGGCAGGGU |
| 2582 | CCAUCCUCUUCAUCUGCAU | 2625 | CCCAGCUGCUGCUGCCUAC | 2668 | UUUCUCCUGCUUCUGAUGC | 2711 | ACCAGGAAGUGGCAGGGUC |
| 2583 | CAUCCUCUUCAUCUGCAUU | 2626 | CCAGCUGCUGCUGCCUACG | 2669 | UUCUCCUGCUUCUGAUGCU | 2712 | CCAGGAAGUGGCAGGGUCC |
| 2584 | AUCCUCUUCAUCUGCAUUG | 2627 | CAGCUGCUGCUGCCUACGC | 2670 | UCUCCUGCUUCUGAUGCUG | 2713 | CAGGAAGUGGCAGGGUCCC |
| 2585 | UCCUCUUCAUCUGCAUUGU | 2628 | AGCUGCUGCUGCCUACGCA | 2671 | CUCCUGCUUCUGAUGCUGC | 2714 | AGGAAGUGGCAGGGUCCCU |
| 2586 | CCUCUUCAUCUGCAUUGUC | 2629 | GCUGCUGCUGCCUACGCAG | 2672 | UCCUGCUUCUGAUGCUGCC | 2715 | GGAAGUGGCAGGGUCCCUU |
| 2587 | CUCUUCAUCUGCAUUGUCU | 2630 | CUGCUGCUGCCUACGCAGC | 2673 | CCUGCUUCUGAUGCUGCCU | 2716 | GAAGUGGCAGGGUCCCUUG |
| 2588 | UCUUCAUCUGCAUUGUCUG | 2631 | UGCUGCUGCCUACGCAGCC | 2674 | CUGCUUCUGAUGCUGCCUG | 2717 | AAGUGGCAGGGUCCCUUGG |
| 2589 | CUUCAUCUGCAUUGUCUGG | 2632 | GCUGCUGCCUACGCAGCCU | 2675 | UGCUUCUGAUGCUGCCUGA | 2718 | AGUGGCAGGGUCCCUUGGC |
| 2590 | UUCAUCUGCAUUGUCUGGC | 2633 | CUGCUGCCUACGCAGCCUG | 2676 | GCUUCUGAUGCUGCCUGAG | 2719 | GUGGCAGGGUCCCUUGGCG |
| 2591 | UCAUCUGCAUUGUCUGGCA | 2634 | UGCUGCCUACGCAGCCUGC | 2677 | CUUCUGAUGCUGCCUGAGA | 2720 | UGGCAGGGUCCCUUGGCGG |
| 2592 | CAUCUGCAUUGUCUGGCAU | 2635 | GCUGCCUACGCAGCCUGCG | 2678 | UUCUGAUGCUGCCUGAGAG | 2721 | GGCAGGGUCCCUUGGCGGC |
| 2593 | AUCUGCAUUGUCUGGCAUG | 2636 | CUGCCUACGCAGCCUGCGG | 2679 | UCUGAUGCUGCCUGAGAGG | 2722 | GCAGGGUCCCUUGGCGGCG |
| 2594 | UCUGCAUUGUCUGGCAUGU | 2637 | UGCCUACGCAGCCUGCGGG | 2680 | CUGAUGCUGCCUGAGAGGG | 2723 | CAGGGUCCCUUGGCGGCGC |
| 2595 | CUGCAUUGUCUGGCAUGUC | 2638 | GCCUACGCAGCCUGCGGGC | 2681 | UGAUGCUGCCUGAGAGGGC | 2724 | AGGGUCCCUUGGCGGCGCC |
| 2596 | UGCAUUGUCUGGCAUGUCA | 2639 | CCUACGCAGCCUGCGGGCU | 2682 | GAUGCUGCCUGAGAGGGCU | 2725 | GGGUCCCUUGGCGGCGCCA |
| 2597 | GCAUUGUCUGGCAUGUCAA | 2640 | CUACGCAGCCUGCGGGCUG | 2683 | AUGCUGCCUGAGAGGGCUU | 2726 | GGUCCCUUGGCGGCGCCAU |
| 2598 | CAUUGUCUGGCAUGUCAAG | 2641 | UACGCAGCCUGCGGGCUGU | 2684 | UGCUGCCUGAGAGGGCUUA | 2727 | GUCCCUUGGCGGCGCCAUC |
| 2599 | AUUGUCUGGCAUGUCAAGG | 2642 | ACGCAGCCUGCGGGCUGUG | 2685 | GCUGCCUGAGAGGGCUUAU | 2728 | UCCCUUGGCGGCGCCAUCG |
| 2600 | UUGUCUGGCAUGUCAAGGG | 2643 | CGCAGCCUGCGGGCUGUGG | 2686 | CUGCCUGAGAGGGCUUAUG | 2729 | CCCUUGGCGGCGCCAUCGU |
| 2601 | UGUCUGGCAUGUCAAGGGC | 2644 | GCAGCCUGCGGGCUGUGGC | 2687 | UGCCUGAGAGGGCUUAUGC | 2730 | CCUUGGCGGCGCCAUCGUU |
| 2602 | GUCUGGCAUGUCAAGGGCC | 2645 | CAGCCUGCGGGCUGUGGCC | 2688 | GCCUGAGAGGGCUUAUGCA | 2731 | CUUGGCGGCGCCAUCGUUG |
| 2603 | UCUGGCAUGUCAAGGGCCG | 2646 | AGCCUGCGGGCUGUGGCCC | 2689 | CCUGAGAGGGCUUAUGCAU | 2732 | UUGGCGGCGCCAUCGUUGU |
| 2604 | CUGGCAUGUCAAGGGCCGG | 2647 | GCCUGCGGGCUGUGGCCCU | 2690 | CUGAGAGGGCUUAUGCAUA | 2733 | UGGCGGCGCCAUCGUUGUC |
| 2605 | UGGCAUGUCAAGGGCCGGU | 2648 | CCUGCGGGCUGUGGCCCUG | 2691 | UGAGAGGGCUUAUGCAUAC | 2734 | GGCGGCGCCAUCGUUGUCA |
| 2606 | GGCAUGUCAAGGGCCGGUU | 2649 | CUGCGGGCUGUGGCCCUGU | 2692 | GAGAGGGCUUAUGCAUACG | 2735 | GCGGCGCCAUCGUUGUCAU |
| 2607 | GCAUGUCAAGGGCCGGUUC | 2650 | UGCGGGCUGUGGCCCUGUU | 2693 | AGAGGGCUUAUGCAUACGA | 2736 | CGGCGCCAUCGUUGUCAUG |
| 2608 | CAUGUCAAGGGCCGGUUCC | 2651 | GCGGGCUGUGGCCCUGUUU | 2694 | GAGGGCUUAUGCAUACGAC | 2737 | GGCGCCAUCGUUGUCAUGC |
| 2609 | AUGUCAAGGGCCGGUUCCC | 2652 | CGGGCUGUGGCCCUGUUUU | 2695 | AGGGCUUAUGCAUACGACC | 2738 | GCGCCAUCGUUGUCAUGCU |
| 2610 | UGUCAAGGGCCGGUUCCCA | 2653 | GGGCUGUGGCCCUGUUUUC | 2696 | GGGCUUAUGCAUACGACCA | 2739 | CGCCAUCGUUGUCAUGCUG |
| 2611 | GUCAAGGGCCGGUUCCCAG | 2654 | GGCUGUGGCCCUGUUUUCU | 2697 | GGCUUAUGCAUACGACCAG | 2740 | GCCAUCGUUGUCAUGCUGA |
| 2612 | UCAAGGGCCGGUUCCCAGC | 2655 | GCUGUGGCCCUGUUUUCUC | 2698 | GCUUAUGCAUACGACCAGG | 2741 | CCAUCGUUGUCAUGCUGAC |
| 2613 | CAAGGGCCGGUUCCCAGCU | 2656 | CUGUGGCCCUGUUUUCUCC | 2699 | CUUAUGCAUACGACCAGGA | 2742 | CAUCGUUGUCAUGCUGACC |
| 2614 | AAGGGCCGGUUCCCAGCUG | 2657 | UGUGGCCCUGUUUUCUCCU | 2700 | UUAUGCAUACGACCAGGAA | 2743 | AUCGUUGUCAUGCUGACCA |
| 2615 | AGGGCCGGUUCCCAGCUGC | 2658 | GUGGCCCUGUUUUCUCCUG | 2701 | UAUGCAUACGACCAGGAAG | 2744 | UCGUUGUCAUGCUGACCAU |
| 2616 | GGGCCGGUUCCCAGCUGCU | 2659 | UGGCCCUGUUUUCUCCUGC | 2702 | AUGCAUACGACCAGGAAGU | 2745 | CGUUGUCAUGCUGACCAUU |
| 2617 | GGCCGGUUCCCAGCUGCUG | 2660 | GGCCCUGUUUUCUCCUGCU | 2703 | UGCAUACGACCAGGAAGUG | 2746 | GUUGUCAUGCUGACCAUUC |
| 2618 | GCCGGUUCCCAGCUGCUGC | 2661 | GCCCUGUUUUCUCCUGCUU | 2704 | GCAUACGACCAGGAAGUGG | 2747 | UUGUCAUGCUGACCAUUCU |
| 2619 | CCGGUUCCCAGCUGCUGCU | 2662 | CCCUGUUUUCUCCUGCUUC | 2705 | CAUACGACCAGGAAGUGGC | 2748 | UGUCAUGCUGACCAUUCUG |
| 2620 | CGGUUCCCAGCUGCUGCUG | 2663 | CCUGUUUUCUCCUGCUUCU | 2706 | AUACGACCAGGAAGUGGCA | 2749 | GUCAUGCUGACCAUUCUGA |
| 2621 | GGUUCCCAGCUGCUGCUGC | 2664 | CUGUUUUCUCCUGCUUCUG | 2707 | UACGACCAGGAAGUGGCAG | 2750 | UCAUGCUGACCAUUCUGAC |
| 2622 | GUUCCCAGCUGCUGCUGCC | 2665 | UGUUUUCUCCUGCUUCUGA | 2708 | ACGACCAGGAAGUGGCAGG | 2751 | CAUGCUGACCAUUCUGACA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2752 | AUGCUGACCAUUCUGACAC | 2795 | UGGCUAGGGGAUUGUGGUG | 2838 | CGAGGCUGUGCUGCAUGUC | 2881 | GGGCCUCGCGACUCAGUGA |
| 2753 | UGCUGACCAUUCUGACACU | 2796 | GGCUAGGGGAUUGUGGUGG | 2839 | GAGGCUGUGCUGCAUGUCU | 2882 | GGCCUCGCGACUCAGUGAU |
| 2754 | GCUGACCAUUCUGACACUG | 2797 | GCUAGGGGAUUGUGGUGGA | 2840 | AGGCUGUGCUGCAUGUCUA | 2883 | GCCUCGCGACUCAGUGAUU |
| 2755 | CUGACCAUUCUGACACUGU | 2798 | CUAGGGGAUUGUGGUGGAU | 2841 | GGCUGUGCUGCAUGUCUAU | 2884 | CCUCGCGACUCAGUGAUUG |
| 2756 | UGACCAUUCUGACACUGUC | 2799 | UAGGGGAUUGUGGUGGAUC | 2842 | GCUGUGCUGCAUGUCUAUA | 2885 | CUCGCGACUCAGUGAUUGU |
| 2757 | GACCAUUCUGACACUGUCU | 2800 | AGGGGAUUGUGGUGGAUCC | 2843 | CUGUGCUGCAUGUCUAUAU | 2886 | UCGCGACUCAGUGAUUGUU |
| 2758 | ACCAUUCUGACACUGUCUC | 2801 | GGGGAUUGUGGUGGAUCCA | 2844 | UGUGCUGCAUGUCUAUAUU | 2887 | CGCGACUCAGUGAUUGUUC |
| 2759 | CCAUUCUGACACUGUCUCC | 2802 | GGGAUUGUGGUGGAUCCAA | 2845 | GUGCUGCAUGUCUAUAUUC | 2888 | GCGACUCAGUGAUUGUUCU |
| 2760 | CAUUCUGACACUGUCUCCG | 2803 | GGAUUGUGGUGGAUCCAAU | 2846 | UGCUGCAUGUCUAUAUUCC | 2889 | CGACUCAGUGAUUGUUCUU |
| 2761 | AUUCUGACACUGUCUCCGC | 2804 | GAUUGUGGUGGAUCCAAUA | 2847 | GCUGCAUGUCUAUAUUCCA | 2890 | GACUCAGUGAUUGUUCUUG |
| 2762 | UUCUGACACUGUCUCCGCA | 2805 | AUUGUGGUGGAUCCAAUAU | 2848 | CUGCAUGUCUAUAUUCCAU | 2891 | ACUCAGUGAUUGUUCUUGC |
| 2763 | UCUGACACUGUCUCCGCAC | 2806 | UUGUGGUGGAUCCAAUAUU | 2849 | UGCAUGUCUAUAUUCCAUC | 2892 | CUCAGUGAUUGUUCUUGCA |
| 2764 | CUGACACUGUCUCCGCACU | 2807 | UGUGGUGGAUCCAAUAUUU | 2850 | GCAUGUCUAUAUUCCAUCC | 2893 | UCAGUGAUUGUUCUUGCAG |
| 2765 | UGACACUGUCUCCGCACUA | 2808 | GUGGUGGAUCCAAUAUUUU | 2851 | CAUGUCUAUAUUCCAUCCU | 2894 | CAGUGAUUGUUCUUGCAGU |
| 2766 | GACACUGUCUCCGCACUAC | 2809 | UGGUGGAUCCAAUAUUUUA | 2852 | AUGUCUAUAUUCCAUCCUU | 2895 | AGUGAUUGUUCUUGCAGUC |
| 2767 | ACACUGUCUCCGCACUACA | 2810 | GGUGGAUCCAAUAUUUUAU | 2853 | UGUCUAUAUUCCAUCCUUC | 2896 | GUGAUUGUUCUUGCAGUCC |
| 2768 | CACUGUCUCCGCACUACAA | 2811 | GUGGAUCCAAUAUUUUAUA | 2854 | GUCUAUAUUCCAUCCUUCA | 2897 | UGAUUGUUCUUGCAGUCCU |
| 2769 | ACUGUCUCCGCACUACAAG | 2812 | UGGAUCCAAUAUUUUAUAG | 2855 | UCUAUAUUCCAUCCUUCAA | 2898 | GAUUGUUCUUGCAGUCCUG |
| 2770 | CUGUCUCCGCACUACAAGU | 2813 | GGAUCCAAUAUUUUAUAGC | 2856 | CUAUAUUCCAUCCUUCAAC | 2899 | AUUGUUCUUGCAGUCCUGG |
| 2771 | UGUCUCCGCACUACAAGUU | 2814 | GAUCCAAUAUUUUAUAGCU | 2857 | UAUAUUCCAUCCUUCAACG | 2900 | UUGUUCUUGCAGUCCUGGU |
| 2772 | GUCUCCGCACUACAAGUUA | 2815 | AUCCAAUAUUUUAUAGCUA | 2858 | AUAUUCCAUCCUUCAACGU | 2901 | UGUUCUUGCAGUCCUGGUC |
| 2773 | UCUCCGCACUACAAGUUAU | 2816 | UCCAAUAUUUUAUAGCUAG | 2859 | UAUUCCAUCCUUCAACGUG | 2902 | GUUCUUGCAGUCCUGGUCU |
| 2774 | CUCCGCACUACAAGUUAUG | 2817 | CCAAUAUUUUAUAGCUAGG | 2860 | AUUCCAUCCUUCAACGUGC | 2903 | UUCUUGCAGUCCUGGUCUG |
| 2775 | UCCGCACUACAAGUUAUGG | 2818 | CAAUAUUUUAUAGCUAGGA | 2861 | UUCCAUCCUUCAACGUGCG | 2904 | UCUUGCAGUCCUGGUCUGU |
| 2776 | CCGCACUACAAGUUAUGGC | 2819 | AAUAUUUUAUAGCUAGGAC | 2862 | UCCAUCCUUCAACGUGCGC | 2905 | CUUGCAGUCCUGGUCUGUC |
| 2777 | CGCACUACAAGUUAUGGCU | 2820 | AUAUUUUAUAGCUAGGACC | 2863 | CCAUCCUUCAACGUGCGCG | 2906 | UUGCAGUCCUGGUCUGUCC |
| 2778 | GCACUACAAGUUAUGGCUG | 2821 | UAUUUUAUAGCUAGGACCG | 2864 | CAUCCUUCAACGUGCGCGG | 2907 | UGCAGUCCUGGUCUGUCCA |
| 2779 | CACUACAAGUUAUGGCUGG | 2822 | AUUUUAUAGCUAGGACCGA | 2865 | AUCCUUCAACGUGCGCGGG | 2908 | GCAGUCCUGGUCUGUCCAG |
| 2780 | ACUACAAGUUAUGGCUGGC | 2823 | UUUUAUAGCUAGGACCGAG | 2866 | UCCUUCAACGUGCGCGGGC | 2909 | CAGUCCUGGUCUGUCCAGA |
| 2781 | CUACAAGUUAUGGCUGGCU | 2824 | UUUAUAGCUAGGACCGAGG | 2867 | CCUUCAACGUGCGCGGGCC | 2910 | AGUCCUGGUCUGUCCAGAC |
| 2782 | UACAAGUUAUGGCUGGCUA | 2825 | UUAUAGCUAGGACCGAGGC | 2868 | CUUCAACGUGCGCGGGCCU | 2911 | GUCCUGGUCUGUCCAGACC |
| 2783 | ACAAGUUAUGGCUGGCUAG | 2826 | UAUAGCUAGGACCGAGGCU | 2869 | UUCAACGUGCGCGGGCCUC | 2912 | UCCUGGUCUGUCCAGACCU |
| 2784 | CAAGUUAUGGCUGGCUAGG | 2827 | AUAGCUAGGACCGAGGCUG | 2870 | UCAACGUGCGCGGGCCUCG | 2913 | CCUGGUCUGUCCAGACCUA |
| 2785 | AAGUUAUGGCUGGCUAGGG | 2828 | UAGCUAGGACCGAGGCUGU | 2871 | CAACGUGCGCGGGCCUCGC | 2914 | CUGGUCUGUCCAGACCUAG |
| 2786 | AGUUAUGGCUGGCUAGGGG | 2829 | AGCUAGGACCGAGGCUGUG | 2872 | AACGUGCGCGGGCCUCGCG | 2915 | UGGUCUGUCCAGACCUAGU |
| 2787 | GUUAUGGCUGGCUAGGGGA | 2830 | GCUAGGACCGAGGCUGUGC | 2873 | ACGUGCGCGGGCCUCGCGA | 2916 | GGUCUGUCCAGACCUAGUA |
| 2788 | UUAUGGCUGGCUAGGGGAU | 2831 | CUAGGACCGAGGCUGUGCU | 2874 | CGUGCGCGGGCCUCGCGAC | 2917 | GUCUGUCCAGACCUAGUAU |
| 2789 | UAUGGCUGGCUAGGGGAUU | 2832 | UAGGACCGAGGCUGUGCUG | 2875 | GUGCGCGGGCCUCGCGACU | 2918 | UCUGUCCAGACCUAGUAUU |
| 2790 | AUGGCUGGCUAGGGGAUUG | 2833 | AGGACCGAGGCUGUGCUGC | 2876 | UGCGCGGGCCUCGCGACUC | 2919 | CUGUCCAGACCUAGUAUUU |
| 2791 | UGGCUGGCUAGGGGAUUGU | 2834 | GGACCGAGGCUGUGCUGCA | 2877 | GCGCGGGCCUCGCGACUCA | 2920 | UGUCCAGACCUAGUAUUUG |
| 2792 | GGCUGGCUAGGGGAUUGUG | 2835 | GACCGAGGCUGUGCUGCAU | 2878 | CGCGGGCCUCGCGACUCAG | 2921 | GUCCAGACCUAGUAUUUGA |
| 2793 | GCUGGCUAGGGGAUUGUGG | 2836 | ACCGAGGCUGUGCUGCAUG | 2879 | GCGGGCCUCGCGACUCAGU | 2922 | UCCAGACCUAGUAUUUGAC |
| 2794 | CUGGCUAGGGGAUUGUGGU | 2837 | CCGAGGCUGUGCUGCAUGU | 2880 | CGGGCCUCGCGACUCAGUG | 2923 | CCAGACCUAGUAUUUGACA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2924 | CAGACCUAGUAUUUGACAU | 2967 | AGGGCCCCUCCACAUACUC | 3010 | UACUUUGUGAGGGCACAAG | 3053 | UGCGUGGGGUAGUUUAUGG |
| 2925 | AGACCUAGUAUUUGACAUC | 2968 | GGGCCCCUCCACAUACUCC | 3011 | ACUUUGUGAGGGCACAAGC | 3054 | GCGUGGGGUAGUUUAUGGC |
| 2926 | GACCUAGUAUUUGACAUCA | 2969 | GGCCCCUCCACAUACUCCA | 3012 | CUUUGUGAGGGCACAAGCG | 3055 | CGUGGGGUAGUUUAUGGCA |
| 2927 | ACCUAGUAUUUGACAUCAC | 2970 | GCCCCUCCACAUACUCCAG | 3013 | UUUGUGAGGGCACAAGCGC | 3056 | GUGGGGUAGUUUAUGGCAA |
| 2928 | CCUAGUAUUUGACAUCACA | 2971 | CCCCUCCACAUACUCCAGG | 3014 | UUGUGAGGGCACAAGCGCU | 3057 | UGGGGUAGUUUAUGGCAAG |
| 2929 | CUAGUAUUUGACAUCACAA | 2972 | CCCUCCACAUACUCCAGGC | 3015 | UGUGAGGGCACAAGCGCUG | 3058 | GGGGUAGUUUAUGGCAAGU |
| 2930 | UAGUAUUUGACAUCACAAA | 2973 | CCUCCACAUACUCCAGGCC | 3016 | GUGAGGGCACAAGCGCUGG | 3059 | GGGUAGUUUAUGGCAAGUA |
| 2931 | AGUAUUUGACAUCACAAAA | 2974 | CUCCACAUACUCCAGGCCU | 3017 | UGAGGGCACAAGCGCUGGU | 3060 | GGUAGUUUAUGGCAAGUAC |
| 2932 | GUAUUUGACAUCACAAAAU | 2975 | UCCACAUACUCCAGGCCUC | 3018 | GAGGGCACAAGCGCUGGUU | 3061 | GUAGUUUAUGGCAAGUACU |
| 2933 | UAUUUGACAUCACAAAAUA | 2976 | CCACAUACUCCAGGCCUCG | 3019 | AGGGCACAAGCGCUGGUUA | 3062 | UAGUUUAUGGCAAGUACUU |
| 2934 | AUUUGACAUCACAAAAUAU | 2977 | CACAUACUCCAGGCCUCGC | 3020 | GGGCACAAGCGCUGGUUAA | 3063 | AGUUUAUGGCAAGUACUUC |
| 2935 | UUUGACAUCACAAAAUAUC | 2978 | ACAUACUCCAGGCCUCGCU | 3021 | GGCACAAGCGCUGGUUAAG | 3064 | GUUUAUGGCAAGUACUUCC |
| 2936 | UUGACAUCACAAAAUAUCU | 2979 | CAUACUCCAGGCCUCGCUC | 3022 | GCACAAGCGCUGGUUAAGA | 3065 | UUUAUGGCAAGUACUUCCA |
| 2937 | UGACAUCACAAAAUAUCUU | 2980 | AUACUCCAGGCCUCGCUCC | 3023 | CACAAGCGCUGGUUAAGAU | 3066 | UUAUGGCAAGUACUUCCAA |
| 2938 | GACAUCACAAAAUAUCUUC | 2981 | UACUCCAGGCCUCGCUCCU | 3024 | ACAAGCGCUGGUUAAGAUC | 3067 | UAUGGCAAGUACUUCCAAA |
| 2939 | ACAUCACAAAAUAUCUUCU | 2982 | ACUCCAGGCCUCGCUCCUA | 3025 | CAAGCGCUGGUUAAGAUCU | 3068 | AUGGCAAGUACUUCCAAAU |
| 2940 | CAUCACAAAAUAUCUUCUG | 2983 | CUCCAGGCCUCGCUCCUAC | 3026 | AAGCGCUGGUUAAGAUCUG | 3069 | UGGCAAGUACUUCCAAAUG |
| 2941 | AUCACAAAAUAUCUUCUGG | 2984 | UCCAGGCCUCGCUCCUACG | 3027 | AGCGCUGGUUAAGAUCUGC | 3070 | GGCAAGUACUUCCAAAUGG |
| 2942 | UCACAAAAUAUCUUCUGGC | 2985 | CCAGGCCUCGCUCCUACGC | 3028 | GCGCUGGUUAAGAUCUGCA | 3071 | GCAAGUACUUCCAAAUGGU |
| 2943 | CACAAAAUAUCUUCUGGCC | 2986 | CAGGCCUCGCUCCUACGCA | 3029 | CGCUGGUUAAGAUCUGCAG | 3072 | CAAGUACUUCCAAAUGGUC |
| 2944 | ACAAAAUAUCUUCUGGCCA | 2987 | AGGCCUCGCUCCUACGCAU | 3030 | GCUGGUUAAGAUCUGCAGC | 3073 | AAGUACUUCCAAAUGGUCG |
| 2945 | CAAAAUAUCUUCUGGCCAU | 2988 | GGCCUCGCUCCUACGCAUC | 3031 | CUGGUUAAGAUCUGCAGCU | 3074 | AGUACUUCCAAAUGGUCGU |
| 2946 | AAAAUAUCUUCUGGCCAUC | 2989 | GCCUCGCUCCUACGCAUCC | 3032 | UGGUUAAGAUCUGCAGCUU | 3075 | GUACUUCCAAAUGGUCGUG |
| 2947 | AAAUAUCUUCUGGCCAUCU | 2990 | CCUCGCUCCUACGCAUCCC | 3033 | GGUUAAGAUCUGCAGCUUG | 3076 | UACUUCCAAAUGGUCGUGC |
| 2948 | AAUAUCUUCUGGCCAUCUU | 2991 | CUCGCUCCUACGCAUCCCU | 3034 | GUUAAGAUCUGCAGCUUGU | 3077 | ACUUCCAAAUGGUCGUGCU |
| 2949 | AUAUCUUCUGGCCAUCUUA | 2992 | UCGCUCCUACGCAUCCCUU | 3035 | UUAAGAUCUGCAGCUUGUU | 3078 | CUUCCAAAUGGUCGUGCUU |
| 2950 | UAUCUUCUGGCCAUCUUAG | 2993 | CGCUCCUACGCAUCCCUUA | 3036 | UAAGAUCUGCAGCUUGUUG | 3079 | UUCCAAAUGGUCGUGCUUA |
| 2951 | AUCUUCUGGCCAUCUUAGG | 2994 | GCUCCUACGCAUCCCUUAC | 3037 | AAGAUCUGCAGCUUGUUGC | 3080 | UCCAAAUGGUCGUGCUUAA |
| 2952 | UCUUCUGGCCAUCUUAGGG | 2995 | CUCCUACGCAUCCCUUACU | 3038 | AGAUCUGCAGCUUGUUGCG | 3081 | CCAAAUGGUCGUGCUUAAA |
| 2953 | CUUCUGGCCAUCUUAGGGC | 2996 | UCCUACGCAUCCCUUACUU | 3039 | GAUCUGCAGCUUGUUGCGU | 3082 | CAAAUGGUCGUGCUUAAAA |
| 2954 | UUCUGGCCAUCUUAGGGCC | 2997 | CCUACGCAUCCCUUACUUU | 3040 | AUCUGCAGCUUGUUGCGUG | 3083 | AAAUGGUCGUGCUUAAAAG |
| 2955 | UCUGGCCAUCUUAGGGCCC | 2998 | CUACGCAUCCCUUACUUUG | 3041 | UCUGCAGCUUGUUGCGUGG | 3084 | AAUGGUCGUGCUUAAAAGC |
| 2956 | CUGGCCAUCUUAGGGCCCC | 2999 | UACGCAUCCCUUACUUUGU | 3042 | CUGCAGCUUGUUGCGUGGG | 3085 | AUGGUCGUGCUUAAAAGCA |
| 2957 | UGGCCAUCUUAGGGCCCCU | 3000 | ACGCAUCCCUUACUUUGUG | 3043 | UGCAGCUUGUUGCGUGGGG | 3086 | UGGUCGUGCUUAAAAGCAG |
| 2958 | GGCCAUCUUAGGGCCCCUC | 3001 | CGCAUCCCUUACUUUGUGA | 3044 | GCAGCUUGUUGCGUGGGGU | 3087 | GGUCGUGCUUAAAAGCAGG |
| 2959 | GCCAUCUUAGGGCCCCUCC | 3002 | GCAUCCCUUACUUUGUGAG | 3045 | CAGCUUGUUGCGUGGGGUA | 3088 | GUCGUGCUUAAAAGCAGGG |
| 2960 | CCAUCUUAGGGCCCCUCCA | 3003 | CAUCCCUUACUUUGUGAGG | 3046 | AGCUUGUUGCGUGGGGUAG | 3089 | UCGUGCUUAAAAGCAGGGG |
| 2961 | CAUCUUAGGGCCCCUCCAC | 3004 | AUCCCUUACUUUGUGAGGG | 3047 | GCUUGUUGCGUGGGGUAGU | 3090 | CGUGCUUAAAAGCAGGGGC |
| 2962 | AUCUUAGGGCCCCUCCACA | 3005 | UCCCUUACUUUGUGAGGGC | 3048 | CUUGUUGCGUGGGGUAGUU | 3091 | GUGCUUAAAAGCAGGGGCC |
| 2963 | UCUUAGGGCCCCUCCACAU | 3006 | CCCUUACUUUGUGAGGGCA | 3049 | UUGUUGCGUGGGGUAGUUU | 3092 | UGCUUAAAAGCAGGGGCCU |
| 2964 | CUUAGGGCCCCUCCACAUA | 3007 | CCUUACUUUGUGAGGGCAC | 3050 | UGUUGCGUGGGGUAGUUUA | 3093 | GCUUAAAAGCAGGGGCCUG |
| 2965 | UUAGGGCCCCUCCACAUAC | 3008 | CUUACUUUGUGAGGGCACA | 3051 | GUUGCGUGGGGUAGUUUAU | 3094 | CUUAAAAGCAGGGGCCUGA |
| 2966 | UAGGGCCCCUCCACAUACU | 3009 | UUACUUUGUGAGGGCACAA | 3052 | UUGCGUGGGGUAGUUUAUG | 3095 | UUAAAAGCAGGGGCCUGAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3096 | UAAAAGCAGGGGCCUGACU | 3139 | ACUCCCAUGUCAGAUUGGC | 3182 | CGGUGGCCCUAGAGCCAGU | 3225 | AGUCAUCGUCUGGGGCGCU |
| 3097 | AAAAGCAGGGGCCUGACUG | 3140 | CUCCCAUGUCAGAUUGGCC | 3183 | GGUGGCCCUAGAGCCAGUU | 3226 | GUCAUCGUCUGGGGCGCUG |
| 3098 | AAAGCAGGGGCCUGACUGG | 3141 | UCCCAUGUCAGAUUGGCCG | 3184 | GUGGCCCUAGAGCCAGUUG | 3227 | UCAUCGUCUGGGGCGCUGA |
| 3099 | AAGCAGGGGCCUGACUGGU | 3142 | CCCAUGUCAGAUUGGCCGC | 3185 | UGGCCCUAGAGCCAGUUGU | 3228 | CAUCGUCUGGGGCGCUGAC |
| 3100 | AGCAGGGGCCUGACUGGUA | 3143 | CCAUGUCAGAUUGGCCGCC | 3186 | GGCCCUAGAGCCAGUUGUG | 3229 | AUCGUCUGGGGCGCUGACA |
| 3101 | GCAGGGGCCUGACUGGUAC | 3144 | CAUGUCAGAUUGGCCGCCU | 3187 | GCCCUAGAGCCAGUUGUGU | 3230 | UCGUCUGGGGCGCUGACAC |
| 3102 | CAGGGGCCUGACUGGUACU | 3145 | AUGUCAGAUUGGCCGCCUU | 3188 | CCCUAGAGCCAGUUGUGUU | 3231 | CGUCUGGGGCGCUGACACC |
| 3103 | AGGGGCCUGACUGGUACUU | 3146 | UGUCAGAUUGGCCGCCUUA | 3189 | CCUAGAGCCAGUUGUGUUC | 3232 | GUCUGGGGCGCUGACACCG |
| 3104 | GGGGCCUGACUGGUACUUA | 3147 | GUCAGAUUGGCCGCCUUAC | 3190 | CUAGAGCCAGUUGUGUUCA | 3233 | UCUGGGGCGCUGACACCGC |
| 3105 | GGGCCUGACUGGUACUUAC | 3148 | UCAGAUUGGCCGCCUUACG | 3191 | UAGAGCCAGUUGUGUUCAC | 3234 | CUGGGGCGCUGACACCGCU |
| 3106 | GGCCUGACUGGUACUUACA | 3149 | CAGAUUGGCCGCCUUACGG | 3192 | AGAGCCAGUUGUGUUCACG | 3235 | UGGGGCGCUGACACCGCUG |
| 3107 | GCCUGACUGGUACUUACAU | 3150 | AGAUUGGCCGCCUUACGGC | 3193 | GAGCCAGUUGUGUUCACGC | 3236 | GGGGCGCUGACACCGCUGC |
| 3108 | CCUGACUGGUACUUACAUC | 3151 | GAUUGGCCGCCUUACGGCC | 3194 | AGCCAGUUGUGUUCACGCC | 3237 | GGGCGCUGACACCGCUGCG |
| 3109 | CUGACUGGUACUUACAUCU | 3152 | AUUGGCCGCCUUACGGCCU | 3195 | GCCAGUUGUGUUCACGCCC | 3238 | GGCGCUGACACCGCUGCGU |
| 3110 | UGACUGGUACUUACAUCUA | 3153 | UUGGCCGCCUUACGGCCUC | 3196 | CCAGUUGUGUUCACGCCCA | 3239 | GCGCUGACACCGCUGCGUG |
| 3111 | GACUGGUACUUACAUCUAU | 3154 | UGGCCGCCUUACGGCCUCC | 3197 | CAGUUGUGUUCACGCCCAU | 3240 | CGCUGACACCGCUGCGUGC |
| 3112 | ACUGGUACUUACAUCUAUG | 3155 | GGCCGCCUUACGGCCUCCG | 3198 | AGUUGUGUUCACGCCCAUG | 3241 | GCUGACACCGCUGCGUGCG |
| 3113 | CUGGUACUUACAUCUAUGA | 3156 | GCCGCCUUACGGCCUCCGC | 3199 | GUUGUGUUCACGCCCAUGG | 3242 | CUGACACCGCUGCGUGCGG |
| 3114 | UGGUACUUACAUCUAUGAC | 3157 | CCGCCUUACGGCCUCCGCG | 3200 | UUGUGUUCACGCCCAUGGA | 3243 | UGACACCGCUGCGUGCGGA |
| 3115 | GGUACUUACAUCUAUGACC | 3158 | CGCCUUACGGCCUCCGCGA | 3201 | UGUGUUCACGCCCAUGGAG | 3244 | GACACCGCUGCGUGCGGAG |
| 3116 | GUACUUACAUCUAUGACCA | 3159 | GCCUUACGGCCUCCGCGAU | 3202 | GUGUUCACGCCCAUGGAGA | 3245 | ACACCGCUGCGUGCGGAGA |
| 3117 | UACUUACAUCUAUGACCAC | 3160 | CCUUACGGCCUCCGCGAUU | 3203 | UGUUCACGCCCAUGGAGAA | 3246 | CACCGCUGCGUGCGGAGAC |
| 3118 | ACUUACAUCUAUGACCACC | 3161 | CUUACGGCCUCCGCGAUUU | 3204 | GUUCACGCCCAUGGAGAAG | 3247 | ACCGCUGCGUGCGGAGACA |
| 3119 | CUUACAUCUAUGACCACCU | 3162 | UUACGGCCUCCGCGAUUUG | 3205 | UUCACGCCCAUGGAGAAGA | 3248 | CCGCUGCGUGCGGAGACAU |
| 3120 | UUACAUCUAUGACCACCUU | 3163 | UACGGCCUCCGCGAUUUGG | 3206 | UCACGCCCAUGGAGAAGAA | 3249 | CGCUGCGUGCGGAGACAUC |
| 3121 | UACAUCUAUGACCACCUUA | 3164 | ACGGCCUCCGCGAUUUGGC | 3207 | CACGCCCAUGGAGAAGAAA | 3250 | GCUGCGUGCGGAGACAUCA |
| 3122 | ACAUCUAUGACCACCUUAC | 3165 | CGGCCUCCGCGAUUUGGCG | 3208 | ACGCCCAUGGAGAAGAAAG | 3251 | CUGCGUGCGGAGACAUCAU |
| 3123 | CAUCUAUGACCACCUUACU | 3166 | GGCCUCCGCGAUUUGGCGG | 3209 | CGCCCAUGGAGAAGAAAGU | 3252 | UGCGUGCGGAGACAUCAUA |
| 3124 | AUCUAUGACCACCUUACUC | 3167 | GCCUCCGCGAUUUGGCGGU | 3210 | GCCCAUGGAGAAGAAAGUC | 3253 | GCGUGCGGAGACAUCAUAA |
| 3125 | UCUAUGACCACCUUACUCC | 3168 | CCUCCGCGAUUUGGCGGUG | 3211 | CCCAUGGAGAAGAAAGUCA | 3254 | CGUGCGGAGACAUCAUAAG |
| 3126 | CUAUGACCACCUUACUCCC | 3169 | CUCCGCGAUUUGGCGGUGG | 3212 | CCAUGGAGAAGAAAGUCAU | 3255 | GUGCGGAGACAUCAUAAGG |
| 3127 | UAUGACCACCUUACUCCCA | 3170 | UCCGCGAUUUGGCGGUGGC | 3213 | CAUGGAGAAGAAAGUCAUC | 3256 | UGCGGAGACAUCAUAAGGG |
| 3128 | AUGACCACCUUACUCCCAU | 3171 | CCGCGAUUUGGCGGUGGCC | 3214 | AUGGAGAAGAAAGUCAUCG | 3257 | GCGGAGACAUCAUAAGGGG |
| 3129 | UGACCACCUUACUCCCAUG | 3172 | CGCGAUUUGGCGGUGGCCC | 3215 | UGGAGAAGAAAGUCAUCGU | 3258 | CGGAGACAUCAUAAGGGGA |
| 3130 | GACCACCUUACUCCCAUGU | 3173 | GCGAUUUGGCGGUGGCCCU | 3216 | GGAGAAGAAAGUCAUCGUC | 3259 | GGAGACAUCAUAAGGGGAU |
| 3131 | ACCACCUUACUCCCAUGUC | 3174 | CGAUUUGGCGGUGGCCCUA | 3217 | GAGAAGAAAGUCAUCGUCU | 3260 | GAGACAUCAUAAGGGGAUU |
| 3132 | CCACCUUACUCCCAUGUCA | 3175 | GAUUUGGCGGUGGCCCUAG | 3218 | AGAAGAAAGUCAUCGUCUG | 3261 | AGACAUCAUAAGGGGAUUA |
| 3133 | CACCUUACUCCCAUGUCAG | 3176 | AUUUGGCGGUGGCCCUAGA | 3219 | GAAGAAAGUCAUCGUCUGG | 3262 | GACAUCAUAAGGGGAUUAC |
| 3134 | ACCUUACUCCCAUGUCAGA | 3177 | UUUGGCGGUGGCCCUAGAG | 3220 | AAGAAAGUCAUCGUCUGGG | 3263 | ACAUCAUAAGGGGAUUACC |
| 3135 | CCUUACUCCCAUGUCAGAU | 3178 | UUGGCGGUGGCCCUAGAGC | 3221 | AGAAAGUCAUCGUCUGGGG | 3264 | CAUCAUAAGGGGAUUACCU |
| 3136 | CUUACUCCCAUGUCAGAUU | 3179 | UGGCGGUGGCCCUAGAGCC | 3222 | GAAAGUCAUCGUCUGGGGC | 3265 | AUCAUAAGGGGAUUACCUG |
| 3137 | UUACUCCCAUGUCAGAUUG | 3180 | GGCGGUGGCCCUAGAGCCA | 3223 | AAAGUCAUCGUCUGGGGCG | 3266 | UCAUAAGGGGAUUACCUGU |
| 3138 | UACUCCCAUGUCAGAUUGG | 3181 | GCGGUGGCCCUAGAGCCAG | 3224 | AAGUCAUCGUCUGGGGCGC | 3267 | CAUAAGGGGAUUACCUGUU |

**FIG. 5 (page 251 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3268 | AUAAGGGGAUUACCUGUUU | 3311 | UGCUCGGACCAGCCGAUAC | 3354 | CCUUGCCCCCAUCACAGCA | 3397 | UUCAGCACCAUCGUAACGA |
| 3269 | UAAGGGGAUUACCUGUUUC | 3312 | GCUCGGACCAGCCGAUACA | 3355 | CUUGCCCCCAUCACAGCAU | 3398 | UCAGCACCAUCGUAACGAG |
| 3270 | AAGGGGAUUACCUGUUUCG | 3313 | CUCGGACCAGCCGAUACAG | 3356 | UUGCCCCCAUCACAGCAUA | 3399 | CAGCACCAUCGUAACGAGC |
| 3271 | AGGGGAUUACCUGUUUCGG | 3314 | UCGGACCAGCCGAUACAGA | 3357 | UGCCCCCAUCACAGCAUAC | 3400 | AGCACCAUCGUAACGAGCC |
| 3272 | GGGGAUUACCUGUUUCGGC | 3315 | CGGACCAGCCGAUACAGAA | 3358 | GCCCCCAUCACAGCAUACG | 3401 | GCACCAUCGUAACGAGCCU |
| 3273 | GGGAUUACCUGUUUCGGCC | 3316 | GGACCAGCCGAUACAGAAA | 3359 | CCCCCAUCACAGCAUACGC | 3402 | CACCAUCGUAACGAGCCUC |
| 3274 | GGAUUACCUGUUUCGGCCA | 3317 | GACCAGCCGAUACAGAAAC | 3360 | CCCCAUCACAGCAUACGCN | 3403 | ACCAUCGUAACGAGCCUCA |
| 3275 | GAUUACCUGUUUCGGCCAG | 3318 | ACCAGCCGAUACAGAAACA | 3361 | CCCAUCACAGCAUACGCNC | 3404 | CCAUCGUAACGAGCCUCAC |
| 3276 | AUUACCUGUUUCGGCCAGG | 3319 | CCAGCCGAUACAGAAACAU | 3362 | CCAUCACAGCAUACGCNCA | 3405 | CAUCGUAACGAGCCUCACU |
| 3277 | UUACCUGUUUCGGCCAGGU | 3320 | CAGCCGAUACAGAAACAUC | 3363 | CAUCACAGCAUACGCNCAG | 3406 | AUCGUAACGAGCCUCACUG |
| 3278 | UACCUGUUUCGGCCAGGUU | 3321 | AGCCGAUACAGAAACAUCA | 3364 | AUCACAGCAUACGCNCAGC | 3407 | UCGUAACGAGCCUCACUGG |
| 3279 | ACCUGUUUCGGCCAGGUUG | 3322 | GCCGAUACAGAAACAUCAA | 3365 | UCACAGCAUACGCNCAGCA | 3408 | CGUAACGAGCCUCACUGGC |
| 3280 | CCUGUUUCGGCCAGGUUGG | 3323 | CCGAUACAGAAACAUCAAA | 3366 | CACAGCAUACGCNCAGCAG | 3409 | GUAACGAGCCUCACUGGCA |
| 3281 | CUGUUUCGGCCAGGUUGGG | 3324 | CGAUACAGAAACAUCAAAG | 3367 | ACAGCAUACGCNCAGCAGA | 3410 | UAACGAGCCUCACUGGCAG |
| 3282 | UGUUUCGGCCAGGUUGGGC | 3325 | GAUACAGAAACAUCAAAGG | 3368 | CAGCAUACGCNCAGCAGAC | 3411 | AACGAGCCUCACUGGCAGG |
| 3283 | GUUUCGGCCAGGUUGGGCA | 3326 | AUACAGAAACAUCAAAGGG | 3369 | AGCAUACGCNCAGCAGACC | 3412 | ACGAGCCUCACUGGCAGGG |
| 3284 | UUUCGGCCAGGUUGGGCAA | 3327 | UACAGAAACAUCAAAGGGG | 3370 | GCAUACGCNCAGCAGACCC | 3413 | CGAGCCUCACUGGCAGGGA |
| 3285 | UUCGGCCAGGUUGGGCAAU | 3328 | ACAGAAACAUCAAAGGGGU | 3371 | CAUACGCNCAGCAGACCCG | 3414 | GAGCCUCACUGGCAGGGAC |
| 3286 | UCGGCCAGGUUGGGCAAUG | 3329 | CAGAAACAUCAAAGGGGUG | 3372 | AUACGCNCAGCAGACCCGC | 3415 | AGCCUCACUGGCAGGGACA |
| 3287 | CGGCCAGGUUGGGCAAUGA | 3330 | AGAAACAUCAAAGGGGUGG | 3373 | UACGCNCAGCAGACCCGCG | 3416 | GCCUCACUGGCAGGGACAC |
| 3288 | GGCCAGGUUGGGCAAUGAG | 3331 | GAAACAUCAAAGGGGUGGA | 3374 | ACGCNCAGCAGACCCGCGG | 3417 | CCUCACUGGCAGGGACACC |
| 3289 | GCCAGGUUGGGCAAUGAGA | 3332 | AAACAUCAAAGGGGUGGAG | 3375 | CGCNCAGCAGACCCGCGGC | 3418 | CUCACUGGCAGGGACACCA |
| 3290 | CCAGGUUGGGCAAUGAGAU | 3333 | AACAUCAAAGGGGUGGAGA | 3376 | GCNCAGCAGACCCGCGGCU | 3419 | UCACUGGCAGGGACACCAA |
| 3291 | CAGGUUGGGCAAUGAGAUC | 3334 | ACAUCAAAGGGGUGGAGAC | 3377 | CNCAGCAGACCCGCGGCUU | 3420 | CACUGGCAGGGACACCAAU |
| 3292 | AGGUUGGGCAAUGAGAUCU | 3335 | CAUCAAAGGGGUGGAGACU | 3378 | NCAGCAGACCCGCGGCUUG | 3421 | ACUGGCAGGGACACCAAUG |
| 3293 | GGUUGGGCAAUGAGAUCUU | 3336 | AUCAAAGGGGUGGAGACUC | 3379 | CAGCAGACCCGCGGCUUGU | 3422 | CUGGCAGGGACACCAAUGA |
| 3294 | GUUGGGCAAUGAGAUCUUG | 3337 | UCAAAGGGGUGGAGACUCC | 3380 | AGCAGACCCGCGGCUUGUU | 3423 | UGGCAGGGACACCAAUGAG |
| 3295 | UUGGGCAAUGAGAUCUUGC | 3338 | CAAAGGGGUGGAGACUCCU | 3381 | GCAGACCCGCGGCUUGUUC | 3424 | GGCAGGGACACCAAUGAGA |
| 3296 | UGGGCAAUGAGAUCUUGCU | 3339 | AAAGGGGUGGAGACUCCUU | 3382 | CAGACCCGCGGCUUGUUCA | 3425 | GCAGGGACACCAAUGAGAA |
| 3297 | GGGCAAUGAGAUCUUGCUC | 3340 | AAGGGGUGGAGACUCCUUG | 3383 | AGACCCGCGGCUUGUUCAG | 3426 | CAGGGACACCAAUGAGAAU |
| 3298 | GGCAAUGAGAUCUUGCUCG | 3341 | AGGGGUGGAGACUCCUUGC | 3384 | GACCCGCGGCUUGUUCAGC | 3427 | AGGGACACCAAUGAGAAUU |
| 3299 | GCAAUGAGAUCUUGCUCGG | 3342 | GGGGUGGAGACUCCUUGCC | 3385 | ACCCGCGGCUUGUUCAGCA | 3428 | GGGACACCAAUGAGAAUUG |
| 3300 | CAAUGAGAUCUUGCUCGGA | 3343 | GGGUGGAGACUCCUUGCCC | 3386 | CCCGCGGCUUGUUCAGCAC | 3429 | GGACACCAAUGAGAAUUGU |
| 3301 | AAUGAGAUCUUGCUCGGAC | 3344 | GGUGGAGACUCCUUGCCCC | 3387 | CCGCGGCUUGUUCAGCACC | 3430 | GACACCAAUGAGAAUUGUG |
| 3302 | AUGAGAUCUUGCUCGGACC | 3345 | GUGGAGACUCCUUGCCCCC | 3388 | CGCGGCUUGUUCAGCACCA | 3431 | ACACCAAUGAGAAUUGUGG |
| 3303 | UGAGAUCUUGCUCGGACCA | 3346 | UGGAGACUCCUUGCCCCCA | 3389 | GCGGCUUGUUCAGCACCAU | 3432 | CACCAAUGAGAAUUGUGGC |
| 3304 | GAGAUCUUGCUCGGACCAG | 3347 | GGAGACUCCUUGCCCCCAU | 3390 | CGGCUUGUUCAGCACCAUC | 3433 | ACCAAUGAGAAUUGUGGCG |
| 3305 | AGAUCUUGCUCGGACCAGC | 3348 | GAGACUCCUUGCCCCCAUC | 3391 | GGCUUGUUCAGCACCAUCG | 3434 | CCAAUGAGAAUUGUGGCGA |
| 3306 | GAUCUUGCUCGGACCAGCC | 3349 | AGACUCCUUGCCCCCAUCA | 3392 | GCUUGUUCAGCACCAUCGU | 3435 | CAAUGAGAAUUGUGGCGAA |
| 3307 | AUCUUGCUCGGACCAGCCG | 3350 | GACUCCUUGCCCCCAUCAC | 3393 | CUUGUUCAGCACCAUCGUA | 3436 | AAUGAGAAUUGUGGCGAAG |
| 3308 | UCUUGCUCGGACCAGCCGA | 3351 | ACUCCUUGCCCCCAUCACA | 3394 | UUGUUCAGCACCAUCGUAA | 3437 | AUGAGAAUUGUGGCGAAGU |
| 3309 | CUUGCUCGGACCAGCCGAU | 3352 | CUCCUUGCCCCCAUCACAG | 3395 | UGUUCAGCACCAUCGUAAC | 3438 | UGAGAAUUGUGGCGAAGUG |
| 3310 | UUGCUCGGACCAGCCGAUA | 3353 | UCCUUGCCCCCAUCACAGC | 3396 | GUUCAGCACCAUCGUAACG | 3439 | GAGAAUUGUGGCGAAGUGC |

**FIG. 5 (page 252 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3440 | AGAAUUGUGGCGAAGUGCA | 3483 | CUUCCUGGGUACUGCGGUU | 3526 | CACGGGGCGGGUGCCAAGA | 3569 | UCAAUCAAAUGUACACUAA |
| 3441 | GAAUUGUGGCGAAGUGCAG | 3484 | UUCCUGGGUACUGCGGUUA | 3527 | ACGGGGCGGGUGCCAAGAC | 3570 | CAAUCAAAUGUACACUAAU |
| 3442 | AAUUGUGGCGAAGUGCAGG | 3485 | UCCUGGGUACUGCGGUUAA | 3528 | CGGGGCGGGUGCCAAGACC | 3571 | AAUCAAAUGUACACUAAUG |
| 3443 | AUUGUGGCGAAGUGCAGGU | 3486 | CCUGGGUACUGCGGUUAAC | 3529 | GGGGCGGGUGCCAAGACCA | 3572 | AUCAAAUGUACACUAAUGU |
| 3444 | UUGUGGCGAAGUGCAGGUC | 3487 | CUGGGUACUGCGGUUAACG | 3530 | GGGCGGGUGCCAAGACCAU | 3573 | UCAAAUGUACACUAAUGUU |
| 3445 | UGUGGCGAAGUGCAGGUCU | 3488 | UGGGUACUGCGGUUAACGG | 3531 | GGCGGGUGCCAAGACCAUC | 3574 | CAAAUGUACACUAAUGUUG |
| 3446 | GUGGCGAAGUGCAGGUCUU | 3489 | GGGUACUGCGGUUAACGGC | 3532 | GCGGGUGCCAAGACCAUCA | 3575 | AAAUGUACACUAAUGUUGA |
| 3447 | UGGCGAAGUGCAGGUCUUA | 3490 | GGUACUGCGGUUAACGGCG | 3533 | CGGGUGCCAAGACCAUCAG | 3576 | AAUGUACACUAAUGUUGAC |
| 3448 | GGCGAAGUGCAGGUCUUAU | 3491 | GUACUGCGGUUAACGGCGU | 3534 | GGGUGCCAAGACCAUCAGC | 3577 | AUGUACACUAAUGUUGACC |
| 3449 | GCGAAGUGCAGGUCUUAUC | 3492 | UACUGCGGUUAACGGCGUG | 3535 | GGUGCCAAGACCAUCAGCG | 3578 | UGUACACUAAUGUUGACCA |
| 3450 | CGAAGUGCAGGUCUUAUCC | 3493 | ACUGCGGUUAACGGCGUGA | 3536 | GUGCCAAGACCAUCAGCGG | 3579 | GUACACUAAUGUUGACCAA |
| 3451 | GAAGUGCAGGUCUUAUCCA | 3494 | CUGCGGUUAACGGCGUGAU | 3537 | UGCCAAGACCAUCAGCGGC | 3580 | UACACUAAUGUUGACCAAG |
| 3452 | AAGUGCAGGUCUUAUCCAC | 3495 | UGCGGUUAACGGCGUGAUG | 3538 | GCCAAGACCAUCAGCGGCC | 3581 | ACACUAAUGUUGACCAAGA |
| 3453 | AGUGCAGGUCUUAUCCACC | 3496 | GCGGUUAACGGCGUGAUGU | 3539 | CCAAGACCAUCAGCGGCCC | 3582 | CACUAAUGUUGACCAAGAC |
| 3454 | GUGCAGGUCUUAUCCACCG | 3497 | CGGUUAACGGCGUGAUGUG | 3540 | CAAGACCAUCAGCGGCCCG | 3583 | ACUAAUGUUGACCAAGACU |
| 3455 | UGCAGGUCUUAUCCACCGC | 3498 | GGUUAACGGCGUGAUGUGG | 3541 | AAGACCAUCAGCGGCCCGA | 3584 | CUAAUGUUGACCAAGACUU |
| 3456 | GCAGGUCUUAUCCACCGCU | 3499 | GUUAACGGCGUGAUGUGGA | 3542 | AGACCAUCAGCGGCCCGAA | 3585 | UAAUGUUGACCAAGACUUG |
| 3457 | CAGGUCUUAUCCACCGCUA | 3500 | UUAACGGCGUGAUGUGGAC | 3543 | GACCAUCAGCGGCCCGAAG | 3586 | AAUGUUGACCAAGACUUGG |
| 3458 | AGGUCUUAUCCACCGCUAC | 3501 | UAACGGCGUGAUGUGGACC | 3544 | ACCAUCAGCGGCCCGAAGG | 3587 | AUGUUGACCAAGACUUGGU |
| 3459 | GGUCUUAUCCACCGCUACG | 3502 | AACGGCGUGAUGUGGACCG | 3545 | CCAUCAGCGGCCCGAAGGG | 3588 | UGUUGACCAAGACUUGGUG |
| 3460 | GUCUUAUCCACCGCUACGC | 3503 | ACGGCGUGAUGUGGACCGU | 3546 | CAUCAGCGGCCCGAAGGGA | 3589 | GUUGACCAAGACUUGGUGG |
| 3461 | UCUUAUCCACCGCUACGCA | 3504 | CGGCGUGAUGUGGACCGUC | 3547 | AUCAGCGGCCCGAAGGGAC | 3590 | UUGACCAAGACUUGGUGGG |
| 3462 | CUUAUCCACCGCUACGCAG | 3505 | GGCGUGAUGUGGACCGUCU | 3548 | UCAGCGGCCCGAAGGGACC | 3591 | UGACCAAGACUUGGUGGGG |
| 3463 | UUAUCCACCGCUACGCAGU | 3506 | GCGUGAUGUGGACCGUCUA | 3549 | CAGCGGCCCGAAGGGACCU | 3592 | GACCAAGACUUGGUGGGGU |
| 3464 | UAUCCACCGCUACGCAGUC | 3507 | CGUGAUGUGGACCGUCUAC | 3550 | AGCGGCCCGAAGGGACCUG | 3593 | ACCAAGACUUGGUGGGGUG |
| 3465 | AUCCACCGCUACGCAGUCC | 3508 | GUGAUGUGGACCGUCUACC | 3551 | GCGGCCCGAAGGGACCUGU | 3594 | CCAAGACUUGGUGGGGUGG |
| 3466 | UCCACCGCUACGCAGUCCU | 3509 | UGAUGUGGACCGUCUACCA | 3552 | CGGCCCGAAGGGACCUGUC | 3595 | CAAGACUUGGUGGGGUGGC |
| 3467 | CCACCGCUACGCAGUCCUU | 3510 | GAUGUGGACCGUCUACCAC | 3553 | GGCCCGAAGGGACCUGUCA | 3596 | AAGACUUGGUGGGGUGGCC |
| 3468 | CACCGCUACGCAGUCCUUC | 3511 | AUGUGGACCGUCUACCACG | 3554 | GCCCGAAGGGACCUGUCAA | 3597 | AGACUUGGUGGGGUGGCCA |
| 3469 | ACCGCUACGCAGUCCUUCC | 3512 | UGUGGACCGUCUACCACGG | 3555 | CCCGAAGGGACCUGUCAAU | 3598 | GACUUGGUGGGGUGGCCAG |
| 3470 | CCGCUACGCAGUCCUUCCU | 3513 | GUGGACCGUCUACCACGGG | 3556 | CCGAAGGGACCUGUCAAUC | 3599 | ACUUGGUGGGGUGGCCAGC |
| 3471 | CGCUACGCAGUCCUUCCUG | 3514 | UGGACCGUCUACCACGGGG | 3557 | CGAAGGGACCUGUCAAUCA | 3600 | CUUGGUGGGGUGGCCAGCA |
| 3472 | GCUACGCAGUCCUUCCUGG | 3515 | GGACCGUCUACCACGGGGC | 3558 | GAAGGGACCUGUCAAUCAA | 3601 | UUGGUGGGGUGGCCAGCAC |
| 3473 | CUACGCAGUCCUUCCUGGG | 3516 | GACCGUCUACCACGGGGCG | 3559 | AAGGGACCUGUCAAUCAAA | 3602 | UGGUGGGGUGGCCAGCACC |
| 3474 | UACGCAGUCCUUCCUGGGU | 3517 | ACCGUCUACCACGGGGCGG | 3560 | AGGGACCUGUCAAUCAAAU | 3603 | GGUGGGGUGGCCAGCACCC |
| 3475 | ACGCAGUCCUUCCUGGGUA | 3518 | CCGUCUACCACGGGGCGGG | 3561 | GGGACCUGUCAAUCAAAUG | 3604 | GUGGGGUGGCCAGCACCCC |
| 3476 | CGCAGUCCUUCCUGGGUAC | 3519 | CGUCUACCACGGGGCGGGU | 3562 | GGACCUGUCAAUCAAAUGU | 3605 | UGGGGUGGCCAGCACCCCC |
| 3477 | GCAGUCCUUCCUGGGUACU | 3520 | GUCUACCACGGGGCGGGUG | 3563 | GACCUGUCAAUCAAAUGUA | 3606 | GGGGUGGCCAGCACCCCCC |
| 3478 | CAGUCCUUCCUGGGUACUG | 3521 | UCUACCACGGGGCGGGUGC | 3564 | ACCUGUCAAUCAAAUGUAC | 3607 | GGGUGGCCAGCACCCCCCG |
| 3479 | AGUCCUUCCUGGGUACUGC | 3522 | CUACCACGGGGCGGGUGCC | 3565 | CCUGUCAAUCAAAUGUACA | 3608 | GGUGGCCAGCACCCCCCGG |
| 3480 | GUCCUUCCUGGGUACUGCG | 3523 | UACCACGGGGCGGGUGCCA | 3566 | CUGUCAAUCAAAUGUACAC | 3609 | GUGGCCAGCACCCCCCGGA |
| 3481 | UCCUUCCUGGGUACUGCGG | 3524 | ACCACGGGGCGGGUGCCAA | 3567 | UGUCAAUCAAAUGUACACU | 3610 | UGGCCAGCACCCCCCGGAG |
| 3482 | CCUUCCUGGGUACUGCGGU | 3525 | CCACGGGGCGGGUGCCAAG | 3568 | GUCAAUCAAAUGUACACUA | 3611 | GGCCAGCACCCCCCGGAGU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3612 | GCCAGCACCCCCCGGAGUC | 3655 | GGCUCGGCAGACUUGUAUC | 3698 | UACCCGUGCGCAGGAGAGG | 3741 | CCCUAGACCAAUAUCCAUU |
| 3613 | CCAGCACCCCCCGGAGUCA | 3656 | GCUCGGCAGACUUGUAUCU | 3699 | ACCCGUGCGCAGGAGAGGA | 3742 | CCUAGACCAAUAUCCAUUC |
| 3614 | CAGCACCCCCCGGAGUCAG | 3657 | CUCGGCAGACUUGUAUCUA | 3700 | CCCGUGCGCAGGAGAGGAG | 3743 | CUAGACCAAUAUCCAUUCU |
| 3615 | AGCACCCCCCGGAGUCAGA | 3658 | UCGGCAGACUUGUAUCUAG | 3701 | CCGUGCGCAGGAGAGGAGA | 3744 | UAGACCAAUAUCCAUUCUU |
| 3616 | GCACCCCCCGGAGUCAGAU | 3659 | CGGCAGACUUGUAUCUAGU | 3702 | CGUGCGCAGGAGAGGAGAC | 3745 | AGACCAAUAUCCAUUCUUA |
| 3617 | CACCCCCCGGAGUCAGAUC | 3660 | GGCAGACUUGUAUCUAGUC | 3703 | GUGCGCAGGAGAGGAGACA | 3746 | GACCAAUAUCCAUUCUUAA |
| 3618 | ACCCCCCGGAGUCAGAUCU | 3661 | GCAGACUUGUAUCUAGUCA | 3704 | UGCGCAGGAGAGGAGACAC | 3747 | ACCAAUAUCCAUUCUUAAG |
| 3619 | CCCCCCGGAGUCAGAUCUC | 3662 | CAGACUUGUAUCUAGUCAC | 3705 | GCGCAGGAGAGGAGACACC | 3748 | CCAAUAUCCAUUCUUAAGG |
| 3620 | CCCCCGGAGUCAGAUCUCU | 3663 | AGACUUGUAUCUAGUCACC | 3706 | CGCAGGAGAGGAGACACCA | 3749 | CAAUAUCCAUUCUUAAGGG |
| 3621 | CCCCGGAGUCAGAUCUCUU | 3664 | GACUUGUAUCUAGUCACCA | 3707 | GCAGGAGAGGAGACACCAG | 3750 | AAUAUCCAUUCUUAAGGGA |
| 3622 | CCCGGAGUCAGAUCUCUUG | 3665 | ACUUGUAUCUAGUCACCAG | 3708 | CAGGAGAGGAGACACCAGA | 3751 | AUAUCCAUUCUUAAGGGAU |
| 3623 | CCGGAGUCAGAUCUCUUGC | 3666 | CUUGUAUCUAGUCACCAGG | 3709 | AGGAGAGGAGACACCAGAG | 3752 | UAUCCAUUCUUAAGGGAUC |
| 3624 | CGGAGUCAGAUCUCUUGCU | 3667 | UUGUAUCUAGUCACCAGGC | 3710 | GGAGAGGAGACACCAGAGG | 3753 | AUCCAUUCUUAAGGGAUCU |
| 3625 | GGAGUCAGAUCUCUUGCUC | 3668 | UGUAUCUAGUCACCAGGCA | 3711 | GAGAGGAGACACCAGAGGA | 3754 | UCCAUUCUUAAGGGAUCUU |
| 3626 | GAGUCAGAUCUCUUGCUCC | 3669 | GUAUCUAGUCACCAGGCAC | 3712 | AGAGGAGACACCAGAGGAG | 3755 | CCAUUCUUAAGGGAUCUUC |
| 3627 | AGUCAGAUCUCUUGCUCCG | 3670 | UAUCUAGUCACCAGGCACG | 3713 | GAGGAGACACCAGAGGAGC | 3756 | CAUUCUUAAGGGAUCUUCC |
| 3628 | GUCAGAUCUCUUGCUCCGU | 3671 | AUCUAGUCACCAGGCACGC | 3714 | AGGAGACACCAGAGGAGCU | 3757 | AUUCUUAAGGGAUCUUCCG |
| 3629 | UCAGAUCUCUUGCUCCGUG | 3672 | UCUAGUCACCAGGCACGCG | 3715 | GGAGACACCAGAGGAGCUC | 3758 | UUCUUAAGGGAUCUUCCGG |
| 3630 | CAGAUCUCUUGCUCCGUGC | 3673 | CUAGUCACCAGGCACGCGG | 3716 | GAGACACCAGAGGAGCUCU | 3759 | UCUUAAGGGAUCUUCCGGA |
| 3631 | AGAUCUCUUGCUCCGUGCA | 3674 | UAGUCACCAGGCACGCGGA | 3717 | AGACACCAGAGGAGCUCUC | 3760 | CUUAAGGGAUCUUCCGGAG |
| 3632 | GAUCUCUUGCUCCGUGCAC | 3675 | AGUCACCAGGCACGCGGAU | 3718 | GACACCAGAGGAGCUCUCU | 3761 | UUAAGGGAUCUUCCGGAGG |
| 3633 | AUCUCUUGCUCCGUGCACC | 3676 | GUCACCAGGCACGCGGAUG | 3719 | ACACCAGAGGAGCUCUCUU | 3762 | UAAGGGAUCUUCCGGAGGU |
| 3634 | UCUCUUGCUCCGUGCACCU | 3677 | UCACCAGGCACGCGGAUGU | 3720 | CACCAGAGGAGCUCUCUUG | 3763 | AAGGGAUCUUCCGGAGGUC |
| 3635 | CUCUUGCUCCGUGCACCUG | 3678 | CACCAGGCACGCGGAUGUA | 3721 | ACCAGAGGAGCUCUCUUGA | 3764 | AGGGAUCUUCCGGAGGUCC |
| 3636 | UCUUGCUCCGUGCACCUGC | 3679 | ACCAGGCACGCGGAUGUAA | 3722 | CCAGAGGAGCUCUCUUGAG | 3765 | GGGAUCUUCCGGAGGUCCG |
| 3637 | CUUGCUCCGUGCACCUGCG | 3680 | CCAGGCACGCGGAUGUAAU | 3723 | CAGAGGAGCUCUCUUGAGC | 3766 | GGAUCUUCCGGAGGUCCGC |
| 3638 | UUGCUCCGUGCACCUGCGG | 3681 | CAGGCACGCGGAUGUAAUA | 3724 | AGAGGAGCUCUCUUGAGCC | 3767 | GAUCUUCCGGAGGUCCGCU |
| 3639 | UGCUCCGUGCACCUGCGGC | 3682 | AGGCACGCGGAUGUAAUAC | 3725 | GAGGAGCUCUCUUGAGCCC | 3768 | AUCUUCCGGAGGUCCGCUG |
| 3640 | GCUCCGUGCACCUGCGGCU | 3683 | GGCACGCGGAUGUAAUACC | 3726 | AGGAGCUCUCUUGAGCCCU | 3769 | UCUUCCGGAGGUCCGCUGC |
| 3641 | CUCCGUGCACCUGCGGCUC | 3684 | GCACGCGGAUGUAAUACCC | 3727 | GGAGCUCUCUUGAGCCCUA | 3770 | CUUCCGGAGGUCCGCUGCU |
| 3642 | UCCGUGCACCUGCGGCUCG | 3685 | CACGCGGAUGUAAUACCCG | 3728 | GAGCUCUCUUGAGCCCUAG | 3771 | UUCCGGAGGUCCGCUGCUG |
| 3643 | CCGUGCACCUGCGGCUCGG | 3686 | ACGCGGAUGUAAUACCCGU | 3729 | AGCUCUCUUGAGCCCUAGA | 3772 | UCCGGAGGUCCGCUGCUGU |
| 3644 | CGUGCACCUGCGGCUCGGC | 3687 | CGCGGAUGUAAUACCCGUG | 3730 | GCUCUCUUGAGCCCUAGAC | 3773 | CCGGAGGUCCGCUGCUGUG |
| 3645 | GUGCACCUGCGGCUCGGCA | 3688 | GCGGAUGUAAUACCCGUGC | 3731 | CUCUCUUGAGCCCUAGACC | 3774 | CGGAGGUCCGCUGCUGUGC |
| 3646 | UGCACCUGCGGCUCGGCAG | 3689 | CGGAUGUAAUACCCGUGCG | 3732 | UCUCUUGAGCCCUAGACCA | 3775 | GGAGGUCCGCUGCUGUGCC |
| 3647 | GCACCUGCGGCUCGGCAGA | 3690 | GGAUGUAAUACCCGUGCGC | 3733 | CUCUUGAGCCCUAGACCAA | 3776 | GAGGUCCGCUGCUGUGCCC |
| 3648 | CACCUGCGGCUCGGCAGAC | 3691 | GAUGUAAUACCCGUGCGCA | 3734 | UCUUGAGCCCUAGACCAAU | 3777 | AGGUCCGCUGCUGUGCCCC |
| 3649 | ACCUGCGGCUCGGCAGACU | 3692 | AUGUAAUACCCGUGCGCAG | 3735 | CUUGAGCCCUAGACCAAUA | 3778 | GGUCCGCUGCUGUGCCCCA |
| 3650 | CCUGCGGCUCGGCAGACUU | 3693 | UGUAAUACCCGUGCGCAGG | 3736 | UUGAGCCCUAGACCAAUAU | 3779 | GUCCGCUGCUGUGCCCCAU |
| 3651 | CUGCGGCUCGGCAGACUUG | 3694 | GUAAUACCCGUGCGCAGGA | 3737 | UGAGCCCUAGACCAAUAUC | 3780 | UCCGCUGCUGUGCCCCAUG |
| 3652 | UGCGGCUCGGCAGACUUGU | 3695 | UAAUACCCGUGCGCAGGAG | 3738 | GAGCCCUAGACCAAUAUCC | 3781 | CCGCUGCUGUGCCCCAUGG |
| 3653 | GCGGCUCGGCAGACUUGUA | 3696 | AAUACCCGUGCGCAGGAGA | 3739 | AGCCCUAGACCAAUAUCCA | 3782 | CGCUGCUGUGCCCCAUGGG |
| 3654 | CGGCUCGGCAGACUUGUAU | 3697 | AUACCCGUGCGCAGGAGAG | 3740 | GCCCUAGACCAAUAUCCAU | 3783 | GCUGCUGUGCCCCAUGGGA |

**FIG. 5 (page 254 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3784 | CUGCUGUGCCCCAUGGGAC | 3827 | CGGUGUGUACUCGGGGGGU | 3870 | GGUUGAAUCUCUUGAGACU | 3913 | GACAACUCAACACCCCCAG |
| 3785 | UGCUGUGCCCCAUGGGACA | 3828 | GGUGUGUACUCGGGGGGUA | 3871 | GUUGAAUCUCUUGAGACUA | 3914 | ACAACUCAACACCCCCAGC |
| 3786 | GCUGUGCCCCAUGGGACAC | 3829 | GUGUGUACUCGGGGGGUAG | 3872 | UUGAAUCUCUUGAGACUAC | 3915 | CAACUCAACACCCCCAGCA |
| 3787 | CUGUGCCCCAUGGGACACC | 3830 | UGUGUACUCGGGGGGUAGC | 3873 | UGAAUCUCUUGAGACUACC | 3916 | AACUCAACACCCCCAGCAG |
| 3788 | UGUGCCCCAUGGGACACCG | 3831 | GUGUACUCGGGGGGUAGCC | 3874 | GAAUCUCUUGAGACUACCA | 3917 | ACUCAACACCCCCAGCAGU |
| 3789 | GUGCCCCAUGGGACACCGC | 3832 | UGUACUCGGGGGGUAGCCA | 3875 | AAUCUCUUGAGACUACCAU | 3918 | CUCAACACCCCCAGCAGUG |
| 3790 | UGCCCCAUGGGACACCGCG | 3833 | GUACUCGGGGGGUAGCCAA | 3876 | AUCUCUUGAGACUACCAUG | 3919 | UCAACACCCCCAGCAGUGC |
| 3791 | GCCCCAUGGGACACCGCGC | 3834 | UACUCGGGGGGUAGCCAAG | 3877 | UCUCUUGAGACUACCAUGA | 3920 | CAACACCCCCAGCAGUGCC |
| 3792 | CCCCAUGGGACACCGCGCC | 3835 | ACUCGGGGGGUAGCCAAGG | 3878 | CUCUUGAGACUACCAUGAG | 3921 | AACACCCCCAGCAGUGCCC |
| 3793 | CCCAUGGGACACCGCGCCG | 3836 | CUCGGGGGGUAGCCAAGGC | 3879 | UCUUGAGACUACCAUGAGA | 3922 | ACACCCCCAGCAGUGCCCC |
| 3794 | CCAUGGGACACCGCGCCGG | 3837 | UCGGGGGGUAGCCAAGGCG | 3880 | CUUGAGACUACCAUGAGAU | 3923 | CACCCCCAGCAGUGCCCCA |
| 3795 | CAUGGGACACCGCGCCGGC | 3838 | CGGGGGGUAGCCAAGGCGG | 3881 | UUGAGACUACCAUGAGAUC | 3924 | ACCCCCAGCAGUGCCCCAG |
| 3796 | AUGGGACACCGCGCCGGCA | 3839 | GGGGGGUAGCCAAGGCGGU | 3882 | UGAGACUACCAUGAGAUCA | 3925 | CCCCCAGCAGUGCCCCAGA |
| 3797 | UGGGACACCGCGCCGGCAU | 3840 | GGGGGUAGCCAAGGCGGUA | 3883 | GAGACUACCAUGAGAUCAC | 3926 | CCCCAGCAGUGCCCCAGAC |
| 3798 | GGGACACCGCGCCGGCAUA | 3841 | GGGGUAGCCAAGGCGGUAG | 3884 | AGACUACCAUGAGAUCACC | 3927 | CCCAGCAGUGCCCCAGACC |
| 3799 | GGACACCGCGCCGGCAUAU | 3842 | GGGUAGCCAAGGCGGUAGA | 3885 | GACUACCAUGAGAUCACCA | 3928 | CCAGCAGUGCCCCAGACCU |
| 3800 | GACACCGCGCCGGCAUAUU | 3843 | GGUAGCCAAGGCGGUAGAC | 3886 | ACUACCAUGAGAUCACCAG | 3929 | CAGCAGUGCCCCAGACCUA |
| 3801 | ACACCGCGCCGGCAUAUUC | 3844 | GUAGCCAAGGCGGUAGACU | 3887 | CUACCAUGAGAUCACCAGU | 3930 | AGCAGUGCCCCAGACCUAC |
| 3802 | CACCGCGCCGGCAUAUUCC | 3845 | UAGCCAAGGCGGUAGACUU | 3888 | UACCAUGAGAUCACCAGUG | 3931 | GCAGUGCCCCAGACCUACC |
| 3803 | ACCGCGCCGGCAUAUUCCG | 3846 | AGCCAAGGCGGUAGACUUC | 3889 | ACCAUGAGAUCACCAGUGU | 3932 | CAGUGCCCCAGACCUACCA |
| 3804 | CCGCGCCGGCAUAUUCCGU | 3847 | GCCAAGGCGGUAGACUUCG | 3890 | CCAUGAGAUCACCAGUGUU | 3933 | AGUGCCCCAGACCUACCAG |
| 3805 | CGCGCCGGCAUAUUCCGUG | 3848 | CCAAGGCGGUAGACUUCGU | 3891 | CAUGAGAUCACCAGUGUUC | 3934 | GUGCCCCAGACCUACCAGG |
| 3806 | GCGCCGGCAUAUUCCGUGC | 3849 | CAAGGCGGUAGACUUCGUC | 3892 | AUGAGAUCACCAGUGUUCA | 3935 | UGCCCCAGACCUACCAGGU |
| 3807 | CGCCGGCAUAUUCCGUGCG | 3850 | AAGGCGGUAGACUUCGUCC | 3893 | UGAGAUCACCAGUGUUCAC | 3936 | GCCCCAGACCUACCAGGUC |
| 3808 | GCCGGCAUAUUCCGUGCGG | 3851 | AGGCGGUAGACUUCGUCCC | 3894 | GAGAUCACCAGUGUUCACU | 3937 | CCCCAGACCUACCAGGUCG |
| 3809 | CCGGCAUAUUCCGUGCGGC | 3852 | GGCGGUAGACUUCGUCCCG | 3895 | AGAUCACCAGUGUUCACUG | 3938 | CCCAGACCUACCAGGUCGC |
| 3810 | CGGCAUAUUCCGUGCGGCG | 3853 | GCGGUAGACUUCGUCCCGG | 3896 | GAUCACCAGUGUUCACUGA | 3939 | CCAGACCUACCAGGUCGCG |
| 3811 | GGCAUAUUCCGUGCGGCGG | 3854 | CGGUAGACUUCGUCCCGGU | 3897 | AUCACCAGUGUUCACUGAC | 3940 | CAGACCUACCAGGUCGCGC |
| 3812 | GCAUAUUCCGUGCGGCGGU | 3855 | GGUAGACUUCGUCCCGGUU | 3898 | UCACCAGUGUUCACUGACA | 3941 | AGACCUACCAGGUCGCGCA |
| 3813 | CAUAUUCCGUGCGGCGGUG | 3856 | GUAGACUUCGUCCCGGUUG | 3899 | CACCAGUGUUCACUGACAA | 3942 | GACCUACCAGGUCGCGCAC |
| 3814 | AUAUUCCGUGCGGCGGUGU | 3857 | UAGACUUCGUCCCGGUUGA | 3900 | ACCAGUGUUCACUGACAAC | 3943 | ACCUACCAGGUCGCGCACC |
| 3815 | UAUUCCGUGCGGCGGUGUG | 3858 | AGACUUCGUCCCGGUUGAA | 3901 | CCAGUGUUCACUGACAACU | 3944 | CCUACCAGGUCGCGCACCU |
| 3816 | AUUCCGUGCGGCGGUGUGU | 3859 | GACUUCGUCCCGGUUGAAU | 3902 | CAGUGUUCACUGACAACUC | 3945 | CUACCAGGUCGCGCACCUA |
| 3817 | UUCCGUGCGGCGGUGUGUA | 3860 | ACUUCGUCCCGGUUGAAUC | 3903 | AGUGUUCACUGACAACUCA | 3946 | UACCAGGUCGCGCACCUAC |
| 3818 | UCCGUGCGGCGGUGUGUAC | 3861 | CUUCGUCCCGGUUGAAUCU | 3904 | GUGUUCACUGACAACUCAA | 3947 | ACCAGGUCGCGCACCUACA |
| 3819 | CCGUGCGGCGGUGUGUACU | 3862 | UUCGUCCCGGUUGAAUCUC | 3905 | UGUUCACUGACAACUCAAC | 3948 | CCAGGUCGCGCACCUACAC |
| 3820 | CGUGCGGCGGUGUGUACUC | 3863 | UCGUCCCGGUUGAAUCUCU | 3906 | GUUCACUGACAACUCAACA | 3949 | CAGGUCGCGCACCUACACG |
| 3821 | GUGCGGCGGUGUGUACUCG | 3864 | CGUCCCGGUUGAAUCUCUU | 3907 | UUCACUGACAACUCAACAC | 3950 | AGGUCGCGCACCUACACGC |
| 3822 | UGCGGCGGUGUGUACUCGG | 3865 | GUCCCGGUUGAAUCUCUUG | 3908 | UCACUGACAACUCAACACC | 3951 | GGUCGCGCACCUACACGCA |
| 3823 | GCGGCGGUGUGUACUCGGG | 3866 | UCCCGGUUGAAUCUCUUGA | 3909 | CACUGACAACUCAACACCC | 3952 | GUCGCGCACCUACACGCAC |
| 3824 | CGGCGGUGUGUACUCGGGG | 3867 | CCCGGUUGAAUCUCUUGAG | 3910 | ACUGACAACUCAACACCCC | 3953 | UCGCGCACCUACACGCACC |
| 3825 | GGCGGUGUGUACUCGGGGG | 3868 | CCGGUUGAAUCUCUUGAGA | 3911 | CUGACAACUCAACACCCCC | 3954 | CGCGCACCUACACGCACCA |
| 3826 | GCGGUGUGUACUCGGGGGG | 3869 | CGGUUGAAUCUCUUGAGAC | 3912 | UGACAACUCAACACCCCCA | 3955 | GCGCACCUACACGCACCAA |

**FIG. 5 (page 255 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3956 | CGCACCUACACGCACCAAC | 3999 | CCCGGCGGCGCAUGCUGCC | 4042 | AAUCCUUCGGUUGCGGCCA | 4085 | CCAAGGCAUAUGGCAUCGA |
| 3957 | GCACCUACACGCACCAACA | 4000 | CCGGCGGCGCAUGCUGCCC | 4043 | AUCCUUCGGUUGCGGCCAC | 4086 | CAAGGCAUAUGGCAUCGAC |
| 3958 | CACCUACACGCACCAACAG | 4001 | CGGCGGCGCAUGCUGCCCA | 4044 | UCCUUCGGUUGCGGCCACA | 4087 | AAGGCAUAUGGCAUCGACC |
| 3959 | ACCUACACGCACCAACAGG | 4002 | GGCGGCGCAUGCUGCCCAA | 4045 | CCUUCGGUUGCGGCCACAC | 4088 | AGGCAUAUGGCAUCGACCC |
| 3960 | CCUACACGCACCAACAGGA | 4003 | GCGGCGCAUGCUGCCCAAG | 4046 | CUUCGGUUGCGGCCACACU | 4089 | GGCAUAUGGCAUCGACCCG |
| 3961 | CUACACGCACCAACAGGAA | 4004 | CGGCGCAUGCUGCCCAAGG | 4047 | UUCGGUUGCGGCCACACUG | 4090 | GCAUAUGGCAUCGACCCGA |
| 3962 | UACACGCACCAACAGGAAG | 4005 | GGCGCAUGCUGCCCAAGGC | 4048 | UCGGUUGCGGCCACACUGG | 4091 | CAUAUGGCAUCGACCCGAA |
| 3963 | ACACGCACCAACAGGAAGU | 4006 | GCGCAUGCUGCCCAAGGCU | 4049 | CGGUUGCGGCCACACUGGG | 4092 | AUAUGGCAUCGACCCGAAC |
| 3964 | CACGCACCAACAGGAAGUG | 4007 | CGCAUGCUGCCCAAGGCUA | 4050 | GGUUGCGGCCACACUGGGU | 4093 | UAUGGCAUCGACCCGAACA |
| 3965 | ACGCACCAACAGGAAGUGG | 4008 | GCAUGCUGCCCAAGGCUAU | 4051 | GUUGCGGCCACACUGGGUU | 4094 | AUGGCAUCGACCCGAACAU |
| 3966 | CGCACCAACAGGAAGUGGC | 4009 | CAUGCUGCCCAAGGCUAUA | 4052 | UUGCGGCCACACUGGGUUU | 4095 | UGGCAUCGACCCGAACAUC |
| 3967 | GCACCAACAGGAAGUGGCA | 4010 | AUGCUGCCCAAGGCUAUAA | 4053 | UGCGGCCACACUGGGUUUU | 4096 | GGCAUCGACCCGAACAUCC |
| 3968 | CACCAACAGGAAGUGGCAA | 4011 | UGCUGCCCAAGGCUAUAAA | 4054 | GCGGCCACACUGGGUUUUG | 4097 | GCAUCGACCCGAACAUCCG |
| 3969 | ACCAACAGGAAGUGGCAAG | 4012 | GCUGCCCAAGGCUAUAAAG | 4055 | CGGCCACACUGGGUUUUGG | 4098 | CAUCGACCCGAACAUCCGG |
| 3970 | CCAACAGGAAGUGGCAAGA | 4013 | CUGCCCAAGGCUAUAAAGU | 4056 | GGCCACACUGGGUUUUGGG | 4099 | AUCGACCCGAACAUCCGGU |
| 3971 | CAACAGGAAGUGGCAAGAG | 4014 | UGCCCAAGGCUAUAAAGUG | 4057 | GCCACACUGGGUUUUGGGG | 4100 | UCGACCCGAACAUCCGGUC |
| 3972 | AACAGGAAGUGGCAAGAGC | 4015 | GCCCAAGGCUAUAAAGUGC | 4058 | CCACACUGGGUUUUGGGGU | 4101 | CGACCCGAACAUCCGGUCG |
| 3973 | ACAGGAAGUGGCAAGAGCA | 4016 | CCCAAGGCUAUAAAGUGCU | 4059 | CACACUGGGUUUUGGGGUA | 4102 | GACCCGAACAUCCGGUCGG |
| 3974 | CAGGAAGUGGCAAGAGCAC | 4017 | CCAAGGCUAUAAAGUGCUA | 4060 | ACACUGGGUUUUGGGGUAU | 4103 | ACCCGAACAUCCGGUCGGG |
| 3975 | AGGAAGUGGCAAGAGCACU | 4018 | CAAGGCUAUAAAGUGCUAG | 4061 | CACUGGGUUUUGGGGUAUA | 4104 | CCCGAACAUCCGGUCGGGA |
| 3976 | GGAAGUGGCAAGAGCACUA | 4019 | AAGGCUAUAAAGUGCUAGU | 4062 | ACUGGGUUUUGGGGUAUAC | 4105 | CCGAACAUCCGGUCGGGAG |
| 3977 | GAAGUGGCAAGAGCACUAA | 4020 | AGGCUAUAAAGUGCUAGUG | 4063 | CUGGGUUUUGGGGUAUACA | 4106 | CGAACAUCCGGUCGGGAGU |
| 3978 | AAGUGGCAAGAGCACUAAG | 4021 | GGCUAUAAAGUGCUAGUGC | 4064 | UGGGUUUUGGGGUAUACAU | 4107 | GAACAUCCGGUCGGGAGUC |
| 3979 | AGUGGCAAGAGCACUAAGG | 4022 | GCUAUAAAGUGCUAGUGCU | 4065 | GGGUUUUGGGGUAUACAUG | 4108 | AACAUCCGGUCGGGAGUCA |
| 3980 | GUGGCAAGAGCACUAAGGU | 4023 | CUAUAAAGUGCUAGUGCUC | 4066 | GGUUUUGGGGUAUACAUGU | 4109 | ACAUCCGGUCGGGAGUCAG |
| 3981 | UGGCAAGAGCACUAAGGUC | 4024 | UAUAAAGUGCUAGUGCUCA | 4067 | GUUUUGGGGUAUACAUGUC | 4110 | CAUCCGGUCGGGAGUCAGG |
| 3982 | GGCAAGAGCACUAAGGUCC | 4025 | AUAAAGUGCUAGUGCUCAA | 4068 | UUUUGGGGUAUACAUGUCC | 4111 | AUCCGGUCGGGAGUCAGGA |
| 3983 | GCAAGAGCACUAAGGUCCC | 4026 | UAAAGUGCUAGUGCUCAAU | 4069 | UUUGGGGUAUACAUGUCCA | 4112 | UCCGGUCGGGAGUCAGGAC |
| 3984 | CAAGAGCACUAAGGUCCCG | 4027 | AAAGUGCUAGUGCUCAAUC | 4070 | UUGGGGUAUACAUGUCCAA | 4113 | CCGGUCGGGAGUCAGGACC |
| 3985 | AAGAGCACUAAGGUCCCGG | 4028 | AAGUGCUAGUGCUCAAUCC | 4071 | UGGGGUAUACAUGUCCAAG | 4114 | CGGUCGGGAGUCAGGACCA |
| 3986 | AGAGCACUAAGGUCCCGGC | 4029 | AGUGCUAGUGCUCAAUCCU | 4072 | GGGGUAUACAUGUCCAAGG | 4115 | GGUCGGGAGUCAGGACCAU |
| 3987 | GAGCACUAAGGUCCCGGCG | 4030 | GUGCUAGUGCUCAAUCCUU | 4073 | GGGUAUACAUGUCCAAGGC | 4116 | GUCGGGAGUCAGGACCAUC |
| 3988 | AGCACUAAGGUCCCGGCGG | 4031 | UGCUAGUGCUCAAUCCUUC | 4074 | GGUAUACAUGUCCAAGGCA | 4117 | UCGGGAGUCAGGACCAUCA |
| 3989 | GCACUAAGGUCCCGGCGGC | 4032 | GCUAGUGCUCAAUCCUUCG | 4075 | GUAUACAUGUCCAAGGCAU | 4118 | CGGGAGUCAGGACCAUCAC |
| 3990 | CACUAAGGUCCCGGCGGCG | 4033 | CUAGUGCUCAAUCCUUCGG | 4076 | UAUACAUGUCCAAGGCAUA | 4119 | GGGAGUCAGGACCAUCACC |
| 3991 | ACUAAGGUCCCGGCGGCGC | 4034 | UAGUGCUCAAUCCUUCGGU | 4077 | AUACAUGUCCAAGGCAUAU | 4120 | GGAGUCAGGACCAUCACCA |
| 3992 | CUAAGGUCCCGGCGGCGCA | 4035 | AGUGCUCAAUCCUUCGGUU | 4078 | UACAUGUCCAAGGCAUAUG | 4121 | GAGUCAGGACCAUCACCAC |
| 3993 | UAAGGUCCCGGCGGCGCAU | 4036 | GUGCUCAAUCCUUCGGUUG | 4079 | ACAUGUCCAAGGCAUAUGG | 4122 | AGUCAGGACCAUCACCACG |
| 3994 | AAGGUCCCGGCGGCGCAUG | 4037 | UGCUCAAUCCUUCGGUUGC | 4080 | CAUGUCCAAGGCAUAUGGC | 4123 | GUCAGGACCAUCACCACGG |
| 3995 | AGGUCCCGGCGGCGCAUGC | 4038 | GCUCAAUCCUUCGGUUGCG | 4081 | AUGUCCAAGGCAUAUGGCA | 4124 | UCAGGACCAUCACCACGGG |
| 3996 | GGUCCCGGCGGCGCAUGCU | 4039 | CUCAAUCCUUCGGUUGCGG | 4082 | UGUCCAAGGCAUAUGGCAU | 4125 | CAGGACCAUCACCACGGGU |
| 3997 | GUCCCGGCGGCGCAUGCUG | 4040 | UCAAUCCUUCGGUUGCGGC | 4083 | GUCCAAGGCAUAUGGCAUC | 4126 | AGGACCAUCACCACGGGUG |
| 3998 | UCCCGGCGGCGCAUGCUGC | 4041 | CAAUCCUUCGGUUGCGGCC | 4084 | UCCAAGGCAUAUGGCAUCG | 4127 | GGACCAUCACCACGGGUGC |

**FIG. 5 (page 256 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4128 | GACCAUCACCACGGGUGCG | 4171 | AAGUUCCUGGCUGAUGGAG | 4214 | UAAUCAUCUGUGACGAGUG | 4257 | CCUUGGCAUAGGCACAGUC |
| 4129 | ACCAUCACCACGGGUGCGC | 4172 | AGUUCCUGGCUGAUGGAGG | 4215 | AAUCAUCUGUGACGAGUGC | 4258 | CUUGGCAUAGGCACAGUCC |
| 4130 | CCAUCACCACGGGUGCGCC | 4173 | GUUCCUGGCUGAUGGAGGU | 4216 | AUCAUCUGUGACGAGUGCU | 4259 | UUGGCAUAGGCACAGUCCU |
| 4131 | CAUCACCACGGGUGCGCCA | 4174 | UUCCUGGCUGAUGGAGGUU | 4217 | UCAUCUGUGACGAGUGCUA | 4260 | UGGCAUAGGCACAGUCCUG |
| 4132 | AUCACCACGGGUGCGCCAA | 4175 | UCCUGGCUGAUGGAGGUUG | 4218 | CAUCUGUGACGAGUGCUAU | 4261 | GGCAUAGGCACAGUCCUGG |
| 4133 | UCACCACGGGUGCGCCAAU | 4176 | CCUGGCUGAUGGAGGUUGC | 4219 | AUCUGUGACGAGUGCUAUU | 4262 | GCAUAGGCACAGUCCUGGA |
| 4134 | CACCACGGGUGCGCCAAUC | 4177 | CUGGCUGAUGGAGGUUGCA | 4220 | UCUGUGACGAGUGCUAUUC | 4263 | CAUAGGCACAGUCCUGGAC |
| 4135 | ACCACGGGUGCGCCAAUCA | 4178 | UGGCUGAUGGAGGUUGCAG | 4221 | CUGUGACGAGUGCUAUUCC | 4264 | AUAGGCACAGUCCUGGACC |
| 4136 | CCACGGGUGCGCCAAUCAC | 4179 | GGCUGAUGGAGGUUGCAGC | 4222 | UGUGACGAGUGCUAUUCCA | 4265 | UAGGCACAGUCCUGGACCA |
| 4137 | CACGGGUGCGCCAAUCACG | 4180 | GCUGAUGGAGGUUGCAGCG | 4223 | GUGACGAGUGCUAUUCCAC | 4266 | AGGCACAGUCCUGGACCAA |
| 4138 | ACGGGUGCGCCAAUCACGU | 4181 | CUGAUGGAGGUUGCAGCGG | 4224 | UGACGAGUGCUAUUCCACU | 4267 | GGCACAGUCCUGGACCAAG |
| 4139 | CGGGUGCGCCAAUCACGUA | 4182 | UGAUGGAGGUUGCAGCGGA | 4225 | GACGAGUGCUAUUCCACUG | 4268 | GCACAGUCCUGGACCAAGC |
| 4140 | GGGUGCGCCAAUCACGUAC | 4183 | GAUGGAGGUUGCAGCGGAG | 4226 | ACGAGUGCUAUUCCACUGA | 4269 | CACAGUCCUGGACCAAGCG |
| 4141 | GGUGCGCCAAUCACGUACU | 4184 | AUGGAGGUUGCAGCGGAGG | 4227 | CGAGUGCUAUUCCACUGAC | 4270 | ACAGUCCUGGACCAAGCGG |
| 4142 | GUGCGCCAAUCACGUACUC | 4185 | UGGAGGUUGCAGCGGAGGG | 4228 | GAGUGCUAUUCCACUGACU | 4271 | CAGUCCUGGACCAAGCGGA |
| 4143 | UGCGCCAAUCACGUACUCA | 4186 | GGAGGUUGCAGCGGAGGGG | 4229 | AGUGCUAUUCCACUGACUC | 4272 | AGUCCUGGACCAAGCGGAG |
| 4144 | GCGCCAAUCACGUACUCAA | 4187 | GAGGUUGCAGCGGAGGGGC | 4230 | GUGCUAUUCCACUGACUCC | 4273 | GUCCUGGACCAAGCGGAGA |
| 4145 | CGCCAAUCACGUACUCAAC | 4188 | AGGUUGCAGCGGAGGGGCA | 4231 | UGCUAUUCCACUGACUCCA | 4274 | UCCUGGACCAAGCGGAGAC |
| 4146 | GCCAAUCACGUACUCAACG | 4189 | GGUUGCAGCGGAGGGGCAU | 4232 | GCUAUUCCACUGACUCCAC | 4275 | CCUGGACCAAGCGGAGACC |
| 4147 | CCAAUCACGUACUCAACGU | 4190 | GUUGCAGCGGAGGGGCAUA | 4233 | CUAUUCCACUGACUCCACA | 4276 | CUGGACCAAGCGGAGACCG |
| 4148 | CAAUCACGUACUCAACGUA | 4191 | UUGCAGCGGAGGGGCAUAC | 4234 | UAUUCCACUGACUCCACAA | 4277 | UGGACCAAGCGGAGACCGC |
| 4149 | AAUCACGUACUCAACGUAU | 4192 | UGCAGCGGAGGGGCAUACG | 4235 | AUUCCACUGACUCCACAAC | 4278 | GGACCAAGCGGAGACCGCU |
| 4150 | AUCACGUACUCAACGUAUG | 4193 | GCAGCGGAGGGGCAUACGA | 4236 | UUCCACUGACUCCACAACG | 4279 | GACCAAGCGGAGACCGCUG |
| 4151 | UCACGUACUCAACGUAUGG | 4194 | CAGCGGAGGGGCAUACGAC | 4237 | UCCACUGACUCCACAACGA | 4280 | ACCAAGCGGAGACCGCUGG |
| 4152 | CACGUACUCAACGUAUGGU | 4195 | AGCGGAGGGGCAUACGACA | 4238 | CCACUGACUCCACAACGAU | 4281 | CCAAGCGGAGACCGCUGGA |
| 4153 | ACGUACUCAACGUAUGGUA | 4196 | GCGGAGGGGCAUACGACAU | 4239 | CACUGACUCCACAACGAUC | 4282 | CAAGCGGAGACCGCUGGAG |
| 4154 | CGUACUCAACGUAUGGUAA | 4197 | CGGAGGGGCAUACGACAUA | 4240 | ACUGACUCCACAACGAUCC | 4283 | AAGCGGAGACCGCUGGAGU |
| 4155 | GUACUCAACGUAUGGUAAG | 4198 | GGAGGGGCAUACGACAUAA | 4241 | CUGACUCCACAACGAUCCU | 4284 | AGCGGAGACCGCUGGAGUG |
| 4156 | UACUCAACGUAUGGUAAGU | 4199 | GAGGGGCAUACGACAUAAU | 4242 | UGACUCCACAACGAUCCUU | 4285 | GCGGAGACCGCUGGAGUGC |
| 4157 | ACUCAACGUAUGGUAAGUU | 4200 | AGGGGCAUACGACAUAAUC | 4243 | GACUCCACAACGAUCCUUG | 4286 | CGGAGACCGCUGGAGUGCG |
| 4158 | CUCAACGUAUGGUAAGUUC | 4201 | GGGGCAUACGACAUAAUCA | 4244 | ACUCCACAACGAUCCUUGG | 4287 | GGAGACCGCUGGAGUGCGC |
| 4159 | UCAACGUAUGGUAAGUUCC | 4202 | GGGCAUACGACAUAAUCAU | 4245 | CUCCACAACGAUCCUUGGC | 4288 | GAGACCGCUGGAGUGCGCC |
| 4160 | CAACGUAUGGUAAGUUCCU | 4203 | GGCAUACGACAUAAUCAUC | 4246 | UCCACAACGAUCCUUGGCA | 4289 | AGACCGCUGGAGUGCGCCU |
| 4161 | AACGUAUGGUAAGUUCCUG | 4204 | GCAUACGACAUAAUCAUCU | 4247 | CCACAACGAUCCUUGGCAU | 4290 | GACCGCUGGAGUGCGCCUC |
| 4162 | ACGUAUGGUAAGUUCCUGG | 4205 | CAUACGACAUAAUCAUCUG | 4248 | CACAACGAUCCUUGGCAUA | 4291 | ACCGCUGGAGUGCGCCUCA |
| 4163 | CGUAUGGUAAGUUCCUGGC | 4206 | AUACGACAUAAUCAUCUGU | 4249 | ACAACGAUCCUUGGCAUAG | 4292 | CCGCUGGAGUGCGCCUCAC |
| 4164 | GUAUGGUAAGUUCCUGGCU | 4207 | UACGACAUAAUCAUCUGUG | 4250 | CAACGAUCCUUGGCAUAGG | 4293 | CGCUGGAGUGCGCCUCACC |
| 4165 | UAUGGUAAGUUCCUGGCUG | 4208 | ACGACAUAAUCAUCUGUGA | 4251 | AACGAUCCUUGGCAUAGGC | 4294 | GCUGGAGUGCGCCUCACCG |
| 4166 | AUGGUAAGUUCCUGGCUGA | 4209 | CGACAUAAUCAUCUGUGAC | 4252 | ACGAUCCUUGGCAUAGGCA | 4295 | CUGGAGUGCGCCUCACCGU |
| 4167 | UGGUAAGUUCCUGGCUGAU | 4210 | GACAUAAUCAUCUGUGACG | 4253 | CGAUCCUUGGCAUAGGCAC | 4296 | UGGAGUGCGCCUCACCGUG |
| 4168 | GGUAAGUUCCUGGCUGAUG | 4211 | ACAUAAUCAUCUGUGACGA | 4254 | GAUCCUUGGCAUAGGCACA | 4297 | GGAGUGCGCCUCACCGUGC |
| 4169 | GUAAGUUCCUGGCUGAUGG | 4212 | CAUAAUCAUCUGUGACGAG | 4255 | AUCCUUGGCAUAGGCACAG | 4298 | GAGUGCGCCUCACCGUGCU |
| 4170 | UAAGUUCCUGGCUGAUGGA | 4213 | AUAAUCAUCUGUGACGAGU | 4256 | UCCUUGGCAUAGGCACAGU | 4299 | AGUGCGCCUCACCGUGCUC |

**FIG. 5 (page 257 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4300 | GUGCGCCUCACCGUGCUCG | 4343 | UGACUACACCUCAUUCCAA | 4386 | AACGGGGGAAAUACCCUUU | 4429 | CUGAUCAAGGGGGGCAGAC |
| 4301 | UGCGCCUCACCGUGCUCGC | 4344 | GACUACACCUCAUUCCAAC | 4387 | ACGGGGGAAAUACCCUUUU | 4430 | UGAUCAAGGGGGGCAGACA |
| 4302 | GCGCCUCACCGUGCUCGCG | 4345 | ACUACACCUCAUUCCAACA | 4388 | CGGGGGAAAUACCCUUUUA | 4431 | GAUCAAGGGGGGCAGACAU |
| 4303 | CGCCUCACCGUGCUCGCGA | 4346 | CUACACCUCAUUCCAACAU | 4389 | GGGGGAAAUACCCUUUUAC | 4432 | AUCAAGGGGGGCAGACAUC |
| 4304 | GCCUCACCGUGCUCGCGAC | 4347 | UACACCUCAUUCCAACAUA | 4390 | GGGGAAAUACCCUUUUACG | 4433 | UCAAGGGGGGCAGACAUCU |
| 4305 | CCUCACCGUGCUCGCGACU | 4348 | ACACCUCAUUCCAACAUAG | 4391 | GGGAAAUACCCUUUUACGG | 4434 | CAAGGGGGGCAGACAUCUC |
| 4306 | CUCACCGUGCUCGCGACUG | 4349 | CACCUCAUUCCAACAUAGA | 4392 | GGAAAUACCCUUUUACGGC | 4435 | AAGGGGGGCAGACAUCUCA |
| 4307 | UCACCGUGCUCGCGACUGC | 4350 | ACCUCAUUCCAACAUAGAG | 4393 | GAAAUACCCUUUUACGGCA | 4436 | AGGGGGGCAGACAUCUCAU |
| 4308 | CACCGUGCUCGCGACUGCU | 4351 | CCUCAUUCCAACAUAGAGG | 4394 | AAAUACCCUUUUACGGCAA | 4437 | GGGGGGCAGACAUCUCAUC |
| 4309 | ACCGUGCUCGCGACUGCUA | 4352 | CUCAUUCCAACAUAGAGGA | 4395 | AAUACCCUUUUACGGCAAG | 4438 | GGGGGCAGACAUCUCAUCU |
| 4310 | CCGUGCUCGCGACUGCUAC | 4353 | UCAUUCCAACAUAGAGGAG | 4396 | AUACCCUUUUACGGCAAGG | 4439 | GGGGCAGACAUCUCAUCUU |
| 4311 | CGUGCUCGCGACUGCUACU | 4354 | CAUUCCAACAUAGAGGAGG | 4397 | UACCCUUUUACGGCAAGGC | 4440 | GGGCAGACAUCUCAUCUUC |
| 4312 | GUGCUCGCGACUGCUACUC | 4355 | AUUCCAACAUAGAGGAGGU | 4398 | ACCCUUUUACGGCAAGGCG | 4441 | GGCAGACAUCUCAUCUUCU |
| 4313 | UGCUCGCGACUGCUACUCC | 4356 | UUCCAACAUAGAGGAGGUC | 4399 | CCCUUUUACGGCAAGGCGA | 4442 | GCAGACAUCUCAUCUUCUG |
| 4314 | GCUCGCGACUGCUACUCCG | 4357 | UCCAACAUAGAGGAGGUCG | 4400 | CCUUUUACGGCAAGGCGAU | 4443 | CAGACAUCUCAUCUUCUGC |
| 4315 | CUCGCGACUGCUACUCCGC | 4358 | CCAACAUAGAGGAGGUCGC | 4401 | CUUUUACGGCAAGGCGAUC | 4444 | AGACAUCUCAUCUUCUGCC |
| 4316 | UCGCGACUGCUACUCCGCC | 4359 | CAACAUAGAGGAGGUCGCC | 4402 | UUUUACGGCAAGGCGAUCC | 4445 | GACAUCUCAUCUUCUGCCA |
| 4317 | CGCGACUGCUACUCCGCCA | 4360 | AACAUAGAGGAGGUCGCCC | 4403 | UUUACGGCAAGGCGAUCCC | 4446 | ACAUCUCAUCUUCUGCCAU |
| 4318 | GCGACUGCUACUCCGCCAG | 4361 | ACAUAGAGGAGGUCGCCCU | 4404 | UUACGGCAAGGCGAUCCCU | 4447 | CAUCUCAUCUUCUGCCAUU |
| 4319 | CGACUGCUACUCCGCCAGG | 4362 | CAUAGAGGAGGUCGCCCUG | 4405 | UACGGCAAGGCGAUCCCUC | 4448 | AUCUCAUCUUCUGCCAUUC |
| 4320 | GACUGCUACUCCGCCAGGG | 4363 | AUAGAGGAGGUCGCCCUGC | 4406 | ACGGCAAGGCGAUCCCUCU | 4449 | UCUCAUCUUCUGCCAUUCA |
| 4321 | ACUGCUACUCCGCCAGGGU | 4364 | UAGAGGAGGUCGCCCUGCC | 4407 | CGGCAAGGCGAUCCCUCUG | 4450 | CUCAUCUUCUGCCAUUCAA |
| 4322 | CUGCUACUCCGCCAGGGUC | 4365 | AGAGGAGGUCGCCCUGCCA | 4408 | GGCAAGGCGAUCCCUCUGG | 4451 | UCAUCUUCUGCCAUUCAAA |
| 4323 | UGCUACUCCGCCAGGGUCA | 4366 | GAGGAGGUCGCCCUGCCAA | 4409 | GCAAGGCGAUCCCUCUGGA | 4452 | CAUCUUCUGCCAUUCAAAG |
| 4324 | GCUACUCCGCCAGGGUCAG | 4367 | AGGAGGUCGCCCUGCCAAC | 4410 | CAAGGCGAUCCCUCUGGAG | 4453 | AUCUUCUGCCAUUCAAAGA |
| 4325 | CUACUCCGCCAGGGUCAGU | 4368 | GGAGGUCGCCCUGCCAACA | 4411 | AAGGCGAUCCCUCUGGAGC | 4454 | UCUUCUGCCAUUCAAAGAA |
| 4326 | UACUCCGCCAGGGUCAGUG | 4369 | GAGGUCGCCCUGCCAACAA | 4412 | AGGCGAUCCCUCUGGAGCU | 4455 | CUUCUGCCAUUCAAAGAAA |
| 4327 | ACUCCGCCAGGGUCAGUGA | 4370 | AGGUCGCCCUGCCAACAAC | 4413 | GGCGAUCCCUCUGGAGCUG | 4456 | UUCUGCCAUUCAAAGAAAA |
| 4328 | CUCCGCCAGGGUCAGUGAC | 4371 | GGUCGCCCUGCCAACAACG | 4414 | GCGAUCCCUCUGGAGCUGA | 4457 | UCUGCCAUUCAAAGAAAAA |
| 4329 | UCCGCCAGGGUCAGUGACU | 4372 | GUCGCCCUGCCAACAACGG | 4415 | CGAUCCCUCUGGAGCUGAU | 4458 | CUGCCAUUCAAAGAAAAAG |
| 4330 | CCGCCAGGGUCAGUGACUA | 4373 | UCGCCCUGCCAACAACGGG | 4416 | GAUCCCUCUGGAGCUGAUC | 4459 | UGCCAUUCAAAGAAAAAGU |
| 4331 | CGCCAGGGUCAGUGACUAC | 4374 | CGCCCUGCCAACAACGGGG | 4417 | AUCCCUCUGGAGCUGAUCA | 4460 | GCCAUUCAAAGAAAAAGUG |
| 4332 | GCCAGGGUCAGUGACUACA | 4375 | GCCCUGCCAACAACGGGGG | 4418 | UCCCUCUGGAGCUGAUCAA | 4461 | CCAUUCAAAGAAAAAGUGC |
| 4333 | CCAGGGUCAGUGACUACAC | 4376 | CCCUGCCAACAACGGGGGA | 4419 | CCCUCUGGAGCUGAUCAAG | 4462 | CAUUCAAAGAAAAAGUGCG |
| 4334 | CAGGGUCAGUGACUACACC | 4377 | CCUGCCAACAACGGGGGAA | 4420 | CCUCUGGAGCUGAUCAAGG | 4463 | AUUCAAAGAAAAAGUGCGA |
| 4335 | AGGGUCAGUGACUACACCU | 4378 | CUGCCAACAACGGGGGAAA | 4421 | CUCUGGAGCUGAUCAAGGG | 4464 | UUCAAAGAAAAAGUGCGAU |
| 4336 | GGGUCAGUGACUACACCUC | 4379 | UGCCAACAACGGGGGAAAU | 4422 | UCUGGAGCUGAUCAAGGGG | 4465 | UCAAAGAAAAAGUGCGAUG |
| 4337 | GGUCAGUGACUACACCUCA | 4380 | GCCAACAACGGGGGAAAUA | 4423 | CUGGAGCUGAUCAAGGGGG | 4466 | CAAAGAAAAAGUGCGAUGA |
| 4338 | GUCAGUGACUACACCUCAU | 4381 | CCAACAACGGGGGAAAUAC | 4424 | UGGAGCUGAUCAAGGGGGG | 4467 | AAAGAAAAAGUGCGAUGAA |
| 4339 | UCAGUGACUACACCUCAUU | 4382 | CAACAACGGGGGAAAUACC | 4425 | GGAGCUGAUCAAGGGGGGC | 4468 | AAGAAAAAGUGCGAUGAAC |
| 4340 | CAGUGACUACACCUCAUUC | 4383 | AACAACGGGGGAAAUACCC | 4426 | GAGCUGAUCAAGGGGGGCA | 4469 | AGAAAAAGUGCGAUGAACU |
| 4341 | AGUGACUACACCUCAUUCC | 4384 | ACAACGGGGGAAAUACCCU | 4427 | AGCUGAUCAAGGGGGGCAG | 4470 | GAAAAAGUGCGAUGAACUG |
| 4342 | GUGACUACACCUCAUUCCA | 4385 | CAACGGGGGAAAUACCCUU | 4428 | GCUGAUCAAGGGGGGCAGA | 4471 | AAAAAGUGCGAUGAACUGG |

**FIG. 5 (page 258 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4472 | AAAAGUGCGAUGAACUGGC | 4515 | GAAUGCCGUAGCCUACUAC | 4558 | CCCACGUCUGGGGACGUCG | 4601 | UGACGGGUUUCACCGGCGA |
| 4473 | AAAGUGCGAUGAACUGGCC | 4516 | AAUGCCGUAGCCUACUACA | 4559 | CCACGUCUGGGGACGUCGU | 4602 | GACGGGUUUCACCGGCGAC |
| 4474 | AAGUGCGAUGAACUGGCCA | 4517 | AUGCCGUAGCCUACUACAG | 4560 | CACGUCUGGGGACGUCGUG | 4603 | ACGGGUUUCACCGGCGACU |
| 4475 | AGUGCGAUGAACUGGCCAG | 4518 | UGCCGUAGCCUACUACAGA | 4561 | ACGUCUGGGGACGUCGUGG | 4604 | CGGGUUUCACCGGCGACUU |
| 4476 | GUGCGAUGAACUGGCCAGA | 4519 | GCCGUAGCCUACUACAGAG | 4562 | CGUCUGGGGACGUCGUGGU | 4605 | GGGUUUCACCGGCGACUUU |
| 4477 | UGCGAUGAACUGGCCAGAC | 4520 | CCGUAGCCUACUACAGAGG | 4563 | GUCUGGGGACGUCGUGGUA | 4606 | GGUUUCACCGGCGACUUUG |
| 4478 | GCGAUGAACUGGCCAGACA | 4521 | CGUAGCCUACUACAGAGGC | 4564 | UCUGGGGACGUCGUGGUAU | 4607 | GUUUCACCGGCGACUUUGA |
| 4479 | CGAUGAACUGGCCAGACAA | 4522 | GUAGCCUACUACAGAGGCU | 4565 | CUGGGGACGUCGUGGUAUG | 4608 | UUUCACCGGCGACUUUGAC |
| 4480 | GAUGAACUGGCCAGACAAC | 4523 | UAGCCUACUACAGAGGCUU | 4566 | UGGGGACGUCGUGGUAUGC | 4609 | UUCACCGGCGACUUUGACU |
| 4481 | AUGAACUGGCCAGACAACU | 4524 | AGCCUACUACAGAGGCUUA | 4567 | GGGGACGUCGUGGUAUGCG | 4610 | UCACCGGCGACUUUGACUC |
| 4482 | UGAACUGGCCAGACAACUG | 4525 | GCCUACUACAGAGGCUUAG | 4568 | GGGACGUCGUGGUAUGCGC | 4611 | CACCGGCGACUUUGACUCA |
| 4483 | GAACUGGCCAGACAACUGA | 4526 | CCUACUACAGAGGCUUAGA | 4569 | GGACGUCGUGGUAUGCGCC | 4612 | ACCGGCGACUUUGACUCAG |
| 4484 | AACUGGCCAGACAACUGAC | 4527 | CUACUACAGAGGCUUAGAC | 4570 | GACGUCGUGGUAUGCGCCA | 4613 | CCGGCGACUUUGACUCAGU |
| 4485 | ACUGGCCAGACAACUGACA | 4528 | UACUACAGAGGCUUAGACG | 4571 | ACGUCGUGGUAUGCGCCAC | 4614 | CGGCGACUUUGACUCAGUG |
| 4486 | CUGGCCAGACAACUGACAU | 4529 | ACUACAGAGGCUUAGACGU | 4572 | CGUCGUGGUAUGCGCCACG | 4615 | GGCGACUUUGACUCAGUGA |
| 4487 | UGGCCAGACAACUGACAUC | 4530 | CUACAGAGGCUUAGACGUU | 4573 | GUCGUGGUAUGCGCCACGG | 4616 | GCGACUUUGACUCAGUGAU |
| 4488 | GGCCAGACAACUGACAUCU | 4531 | UACAGAGGCUUAGACGUUU | 4574 | UCGUGGUAUGCGCCACGGA | 4617 | CGACUUUGACUCAGUGAUA |
| 4489 | GCCAGACAACUGACAUCUC | 4532 | ACAGAGGCUUAGACGUUUC | 4575 | CGUGGUAUGCGCCACGGAC | 4618 | GACUUUGACUCAGUGAUAG |
| 4490 | CCAGACAACUGACAUCUCU | 4533 | CAGAGGCUUAGACGUUUCG | 4576 | GUGGUAUGCGCCACGGACG | 4619 | ACUUUGACUCAGUGAUAGA |
| 4491 | CAGACAACUGACAUCUCUU | 4534 | AGAGGCUUAGACGUUUCGG | 4577 | UGGUAUGCGCCACGGACGC | 4620 | CUUUGACUCAGUGAUAGAC |
| 4492 | AGACAACUGACAUCUCUUG | 4535 | GAGGCUUAGACGUUUCGGU | 4578 | GGUAUGCGCCACGGACGCC | 4621 | UUUGACUCAGUGAUAGACU |
| 4493 | GACAACUGACAUCUCUUGG | 4536 | AGGCUUAGACGUUUCGGUG | 4579 | GUAUGCGCCACGGACGCCC | 4622 | UUGACUCAGUGAUAGACUG |
| 4494 | ACAACUGACAUCUCUUGGU | 4537 | GGCUUAGACGUUUCGGUGA | 4580 | UAUGCGCCACGGACGCCCU | 4623 | UGACUCAGUGAUAGACUGC |
| 4495 | CAACUGACAUCUCUUGGUC | 4538 | GCUUAGACGUUUCGGUGAU | 4581 | AUGCGCCACGGACGCCCUC | 4624 | GACUCAGUGAUAGACUGCA |
| 4496 | AACUGACAUCUCUUGGUCU | 4539 | CUUAGACGUUUCGGUGAUU | 4582 | UGCGCCACGGACGCCCUCA | 4625 | ACUCAGUGAUAGACUGCAA |
| 4497 | ACUGACAUCUCUUGGUCUG | 4540 | UUAGACGUUUCGGUGAUUC | 4583 | GCGCCACGGACGCCCUCAU | 4626 | CUCAGUGAUAGACUGCAAU |
| 4498 | CUGACAUCUCUUGGUCUGA | 4541 | UAGACGUUUCGGUGAUUCC | 4584 | CGCCACGGACGCCCUCAUG | 4627 | UCAGUGAUAGACUGCAAUA |
| 4499 | UGACAUCUCUUGGUCUGAA | 4542 | AGACGUUUCGGUGAUUCCC | 4585 | GCCACGGACGCCCUCAUGA | 4628 | CAGUGAUAGACUGCAAUAC |
| 4500 | GACAUCUCUUGGUCUGAAU | 4543 | GACGUUUCGGUGAUUCCCA | 4586 | CCACGGACGCCCUCAUGAC | 4629 | AGUGAUAGACUGCAAUACA |
| 4501 | ACAUCUCUUGGUCUGAAUG | 4544 | ACGUUUCGGUGAUUCCCAC | 4587 | CACGGACGCCCUCAUGACG | 4630 | GUGAUAGACUGCAAUACAU |
| 4502 | CAUCUCUUGGUCUGAAUGC | 4545 | CGUUUCGGUGAUUCCCACG | 4588 | ACGGACGCCCUCAUGACGG | 4631 | UGAUAGACUGCAAUACAUC |
| 4503 | AUCUCUUGGUCUGAAUGCC | 4546 | GUUUCGGUGAUUCCCACGU | 4589 | CGGACGCCCUCAUGACGGG | 4632 | GAUAGACUGCAAUACAUCU |
| 4504 | UCUCUUGGUCUGAAUGCCG | 4547 | UUUCGGUGAUUCCCACGUC | 4590 | GGACGCCCUCAUGACGGGU | 4633 | AUAGACUGCAAUACAUCUG |
| 4505 | CUCUUGGUCUGAAUGCCGU | 4548 | UUCGGUGAUUCCCACGUCU | 4591 | GACGCCCUCAUGACGGGUU | 4634 | UAGACUGCAAUACAUCUGU |
| 4506 | UCUUGGUCUGAAUGCCGUA | 4549 | UCGGUGAUUCCCACGUCUG | 4592 | ACGCCCUCAUGACGGGUUU | 4635 | AGACUGCAAUACAUCUGUG |
| 4507 | CUUGGUCUGAAUGCCGUAG | 4550 | CGGUGAUUCCCACGUCUGG | 4593 | CGCCCUCAUGACGGGUUUC | 4636 | GACUGCAAUACAUCUGUGA |
| 4508 | UUGGUCUGAAUGCCGUAGC | 4551 | GGUGAUUCCCACGUCUGGG | 4594 | GCCCUCAUGACGGGUUUCA | 4637 | ACUGCAAUACAUCUGUGAU |
| 4509 | UGGUCUGAAUGCCGUAGCC | 4552 | GUGAUUCCCACGUCUGGGG | 4595 | CCCUCAUGACGGGUUUCAC | 4638 | CUGCAAUACAUCUGUGAUA |
| 4510 | GGUCUGAAUGCCGUAGCCU | 4553 | UGAUUCCCACGUCUGGGGA | 4596 | CCUCAUGACGGGUUUCACC | 4639 | UGCAAUACAUCUGUGAUAC |
| 4511 | GUCUGAAUGCCGUAGCCUA | 4554 | GAUUCCCACGUCUGGGGAC | 4597 | CUCAUGACGGGUUUCACCG | 4640 | GCAAUACAUCUGUGAUACA |
| 4512 | UCUGAAUGCCGUAGCCUAC | 4555 | AUUCCCACGUCUGGGGACG | 4598 | UCAUGACGGGUUUCACCGG | 4641 | CAAUACAUCUGUGAUACAG |
| 4513 | CUGAAUGCCGUAGCCUACU | 4556 | UUCCCACGUCUGGGGACGU | 4599 | CAUGACGGGUUUCACCGGC | 4642 | AAUACAUCUGUGAUACAGA |
| 4514 | UGAAUGCCGUAGCCUACUA | 4557 | UCCCACGUCUGGGGACGUC | 4600 | AUGACGGGUUUCACCGGCG | 4643 | AUACAUCUGUGAUACAGAC |

**FIG. 5 (page 259 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4644 | UACAUCUGUGAUACAGACU | 4687 | UUCUCCAUAGAGAUUACAA | 4730 | GCAGCCAGCGGAGAGGCCG | 4773 | AUACCGGUAUGUCACCCCG |
| 4645 | ACAUCUGUGAUACAGACUG | 4688 | UCUCCAUAGAGAUUACAAC | 4731 | CAGCCAGCGGAGAGGCCGC | 4774 | UACCGGUAUGUCACCCCGG |
| 4646 | CAUCUGUGAUACAGACUGU | 4689 | CUCCAUAGAGAUUACAACC | 4732 | AGCCAGCGGAGAGGCCGCA | 4775 | ACCGGUAUGUCACCCCGGG |
| 4647 | AUCUGUGAUACAGACUGUU | 4690 | UCCAUAGAGAUUACAACCG | 4733 | GCCAGCGGAGAGGCCGCAC | 4776 | CCGGUAUGUCACCCCGGGA |
| 4648 | UCUGUGAUACAGACUGUUG | 4691 | CCAUAGAGAUUACAACCGU | 4734 | CCAGCGGAGAGGCCGCACU | 4777 | CGGUAUGUCACCCCGGGAG |
| 4649 | CUGUGAUACAGACUGUUGA | 4692 | CAUAGAGAUUACAACCGUU | 4735 | CAGCGGAGAGGCCGCACUG | 4778 | GGUAUGUCACCCCGGGAGA |
| 4650 | UGUGAUACAGACUGUUGAC | 4693 | AUAGAGAUUACAACCGUUC | 4736 | AGCGGAGAGGCCGCACUGG | 4779 | GUAUGUCACCCCGGGAGAG |
| 4651 | GUGAUACAGACUGUUGACU | 4694 | UAGAGAUUACAACCGUUCC | 4737 | GCGGAGAGGCCGCACUGGU | 4780 | UAUGUCACCCCGGGAGAGA |
| 4652 | UGAUACAGACUGUUGACUU | 4695 | AGAGAUUACAACCGUUCCC | 4738 | CGGAGAGGCCGCACUGGUA | 4781 | AUGUCACCCCGGGAGAGAG |
| 4653 | GAUACAGACUGUUGACUUC | 4696 | GAGAUUACAACCGUUCCCC | 4739 | GGAGAGGCCGCACUGGUAG | 4782 | UGUCACCCCGGGAGAGAGA |
| 4654 | AUACAGACUGUUGACUUCA | 4697 | AGAUUACAACCGUUCCCCA | 4740 | GAGAGGCCGCACUGGUAGG | 4783 | GUCACCCCGGGAGAGAGAC |
| 4655 | UACAGACUGUUGACUUCAG | 4698 | GAUUACAACCGUUCCCCAG | 4741 | AGAGGCCGCACUGGUAGGG | 4784 | UCACCCCGGGAGAGAGACC |
| 4656 | ACAGACUGUUGACUUCAGC | 4699 | AUUACAACCGUUCCCCAGG | 4742 | GAGGCCGCACUGGUAGGGG | 4785 | CACCCCGGGAGAGAGACCA |
| 4657 | CAGACUGUUGACUUCAGCU | 4700 | UUACAACCGUUCCCCAGGA | 4743 | AGGCCGCACUGGUAGGGGG | 4786 | ACCCCGGGAGAGAGACCAU |
| 4658 | AGACUGUUGACUUCAGCUU | 4701 | UACAACCGUUCCCCAGGAC | 4744 | GGCCGCACUGGUAGGGGGA | 4787 | CCCCGGGAGAGAGACCAUC |
| 4659 | GACUGUUGACUUCAGCUUG | 4702 | ACAACCGUUCCCCAGGACG | 4745 | GCCGCACUGGUAGGGGGAG | 4788 | CCCGGGAGAGAGACCAUCA |
| 4660 | ACUGUUGACUUCAGCUUGG | 4703 | CAACCGUUCCCCAGGACGC | 4746 | CCGCACUGGUAGGGGGAGG | 4789 | CCGGGAGAGAGACCAUCAG |
| 4661 | CUGUUGACUUCAGCUUGGA | 4704 | AACCGUUCCCCAGGACGCG | 4747 | CGCACUGGUAGGGGGAGGU | 4790 | CGGGAGAGAGACCAUCAGG |
| 4662 | UGUUGACUUCAGCUUGGAC | 4705 | ACCGUUCCCCAGGACGCGG | 4748 | GCACUGGUAGGGGGAGGUU | 4791 | GGGAGAGAGACCAUCAGGC |
| 4663 | GUUGACUUCAGCUUGGACC | 4706 | CCGUUCCCCAGGACGCGGU | 4749 | CACUGGUAGGGGGAGGUUG | 4792 | GGAGAGAGACCAUCAGGCA |
| 4664 | UUGACUUCAGCUUGGACCC | 4707 | CGUUCCCCAGGACGCGGUA | 4750 | ACUGGUAGGGGGAGGUUGG | 4793 | GAGAGAGACCAUCAGGCAU |
| 4665 | UGACUUCAGCUUGGACCCC | 4708 | GUUCCCCAGGACGCGGUAU | 4751 | CUGGUAGGGGGAGGUUGGG | 4794 | AGAGAGACCAUCAGGCAUG |
| 4666 | GACUUCAGCUUGGACCCCA | 4709 | UUCCCCAGGACGCGGUAUC | 4752 | UGGUAGGGGGAGGUUGGGC | 4795 | GAGAGACCAUCAGGCAUGU |
| 4667 | ACUUCAGCUUGGACCCCAC | 4710 | UCCCCAGGACGCGGUAUCC | 4753 | GGUAGGGGGAGGUUGGGCA | 4796 | AGAGACCAUCAGGCAUGUU |
| 4668 | CUUCAGCUUGGACCCCACC | 4711 | CCCCAGGACGCGGUAUCCC | 4754 | GUAGGGGGAGGUUGGGCAC | 4797 | GAGACCAUCAGGCAUGUUU |
| 4669 | UUCAGCUUGGACCCCACCU | 4712 | CCCAGGACGCGGUAUCCCG | 4755 | UAGGGGGAGGUUGGGCACA | 4798 | AGACCAUCAGGCAUGUUUG |
| 4670 | UCAGCUUGGACCCCACCUU | 4713 | CCAGGACGCGGUAUCCCGC | 4756 | AGGGGGAGGUUGGGCACAU | 4799 | GACCAUCAGGCAUGUUUGA |
| 4671 | CAGCUUGGACCCCACCUUC | 4714 | CAGGACGCGGUAUCCCGCA | 4757 | GGGGGAGGUUGGGCACAUA | 4800 | ACCAUCAGGCAUGUUUGAC |
| 4672 | AGCUUGGACCCCACCUUCU | 4715 | AGGACGCGGUAUCCCGCAG | 4758 | GGGGAGGUUGGGCACAUAC | 4801 | CCAUCAGGCAUGUUUGACA |
| 4673 | GCUUGGACCCCACCUUCUC | 4716 | GGACGCGGUAUCCCGCAGC | 4759 | GGGAGGUUGGGCACAUACC | 4802 | CAUCAGGCAUGUUUGACAC |
| 4674 | CUUGGACCCCACCUUCUCC | 4717 | GACGCGGUAUCCCGCAGCC | 4760 | GGAGGUUGGGCACAUACCG | 4803 | AUCAGGCAUGUUUGACACU |
| 4675 | UUGGACCCCACCUUCUCCA | 4718 | ACGCGGUAUCCCGCAGCCA | 4761 | GAGGUUGGGCACAUACCGG | 4804 | UCAGGCAUGUUUGACACUG |
| 4676 | UGGACCCCACCUUCUCCAU | 4719 | CGCGGUAUCCCGCAGCCAG | 4762 | AGGUUGGGCACAUACCGGU | 4805 | CAGGCAUGUUUGACACUGC |
| 4677 | GGACCCCACCUUCUCCAUA | 4720 | GCGGUAUCCCGCAGCCAGC | 4763 | GGUUGGGCACAUACCGGUA | 4806 | AGGCAUGUUUGACACUGCA |
| 4678 | GACCCCACCUUCUCCAUAG | 4721 | CGGUAUCCCGCAGCCAGCG | 4764 | GUUGGGCACAUACCGGUAU | 4807 | GGCAUGUUUGACACUGCAG |
| 4679 | ACCCCACCUUCUCCAUAGA | 4722 | GGUAUCCCGCAGCCAGCGG | 4765 | UUGGGCACAUACCGGUAUG | 4808 | GCAUGUUUGACACUGCAGA |
| 4680 | CCCCACCUUCUCCAUAGAG | 4723 | GUAUCCCGCAGCCAGCGGA | 4766 | UGGGCACAUACCGGUAUGU | 4809 | CAUGUUUGACACUGCAGAG |
| 4681 | CCCACCUUCUCCAUAGAGA | 4724 | UAUCCCGCAGCCAGCGGAG | 4767 | GGGCACAUACCGGUAUGUC | 4810 | AUGUUUGACACUGCAGAGC |
| 4682 | CCACCUUCUCCAUAGAGAU | 4725 | AUCCCGCAGCCAGCGGAGA | 4768 | GGCACAUACCGGUAUGUCA | 4811 | UGUUUGACACUGCAGAGCU |
| 4683 | CACCUUCUCCAUAGAGAUU | 4726 | UCCCGCAGCCAGCGGAGAG | 4769 | GCACAUACCGGUAUGUCAC | 4812 | GUUUGACACUGCAGAGCUU |
| 4684 | ACCUUCUCCAUAGAGAUUA | 4727 | CCCGCAGCCAGCGGAGAGG | 4770 | CACAUACCGGUAUGUCACC | 4813 | UUUGACACUGCAGAGCUUU |
| 4685 | CCUUCUCCAUAGAGAUUAC | 4728 | CCGCAGCCAGCGGAGAGGC | 4771 | ACAUACCGGUAUGUCACCC | 4814 | UUGACACUGCAGAGCUUUG |
| 4686 | CUUCUCCAUAGAGAUUACA | 4729 | CGCAGCCAGCGGAGAGGCC | 4772 | CAUACCGGUAUGUCACCCC | 4815 | UGACACUGCAGAGCUUUGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4816 | GACACUGCAGAGCUUUGCG | 4859 | GGUACGAGCUGACACCUGC | 4902 | UUACUUCGACACACCAGGC | 4945 | GAAUUCUGGGAGAGCGUCU |
| 4817 | ACACUGCAGAGCUUUGCGA | 4860 | GUACGAGCUGACACCUGCU | 4903 | UACUUCGACACACCAGGCC | 4946 | AAUUCUGGGAGAGCGUCUU |
| 4818 | CACUGCAGAGCUUUGCGAG | 4861 | UACGAGCUGACACCUGCUG | 4904 | ACUUCGACACACCAGGCCU | 4947 | AUUCUGGGAGAGCGUCUUU |
| 4819 | ACUGCAGAGCUUUGCGAGU | 4862 | ACGAGCUGACACCUGCUGA | 4905 | CUUCGACACACCAGGCCUU | 4948 | UUCUGGGAGAGCGUCUUUA |
| 4820 | CUGCAGAGCUUUGCGAGUG | 4863 | CGAGCUGACACCUGCUGAA | 4906 | UUCGACACACCAGGCCUUC | 4949 | UCUGGGAGAGCGUCUUUAC |
| 4821 | UGCAGAGCUUUGCGAGUGC | 4864 | GAGCUGACACCUGCUGAAA | 4907 | UCGACACACCAGGCCUUCC | 4950 | CUGGGAGAGCGUCUUUACA |
| 4822 | GCAGAGCUUUGCGAGUGCU | 4865 | AGCUGACACCUGCUGAAAC | 4908 | CGACACACCAGGCCUUCCU | 4951 | UGGGAGAGCGUCUUUACAG |
| 4823 | CAGAGCUUUGCGAGUGCUA | 4866 | GCUGACACCUGCUGAAACC | 4909 | GACACACCAGGCCUUCCUG | 4952 | GGGAGAGCGUCUUUACAGG |
| 4824 | AGAGCUUUGCGAGUGCUAC | 4867 | CUGACACCUGCUGAAACCA | 4910 | ACACACCAGGCCUUCCUGU | 4953 | GGAGAGCGUCUUUACAGGG |
| 4825 | GAGCUUUGCGAGUGCUACG | 4868 | UGACACCUGCUGAAACCAC | 4911 | CACACCAGGCCUUCCUGUG | 4954 | GAGAGCGUCUUUACAGGGU |
| 4826 | AGCUUUGCGAGUGCUACGA | 4869 | GACACCUGCUGAAACCACA | 4912 | ACACCAGGCCUUCCUGUGU | 4955 | AGAGCGUCUUUACAGGGUU |
| 4827 | GCUUUGCGAGUGCUACGAU | 4870 | ACACCUGCUGAAACCACAA | 4913 | CACCAGGCCUUCCUGUGUG | 4956 | GAGCGUCUUUACAGGGUUA |
| 4828 | CUUUGCGAGUGCUACGAUG | 4871 | CACCUGCUGAAACCACAAC | 4914 | ACCAGGCCUUCCUGUGUGC | 4957 | AGCGUCUUUACAGGGUUAA |
| 4829 | UUUGCGAGUGCUACGAUGC | 4872 | ACCUGCUGAAACCACAACA | 4915 | CCAGGCCUUCCUGUGUGCC | 4958 | GCGUCUUUACAGGGUUAAC |
| 4830 | UUGCGAGUGCUACGAUGCC | 4873 | CCUGCUGAAACCACAACAA | 4916 | CAGGCCUUCCUGUGUGCCA | 4959 | CGUCUUUACAGGGUUAACC |
| 4831 | UGCGAGUGCUACGAUGCCG | 4874 | CUGCUGAAACCACAACAAG | 4917 | AGGCCUUCCUGUGUGCCAA | 4960 | GUCUUUACAGGGUUAACCC |
| 4832 | GCGAGUGCUACGAUGCCGG | 4875 | UGCUGAAACCACAACAAGG | 4918 | GGCCUUCCUGUGUGCCAAG | 4961 | UCUUUACAGGGUUAACCCA |
| 4833 | CGAGUGCUACGAUGCCGGG | 4876 | GCUGAAACCACAACAAGGC | 4919 | GCCUUCCUGUGUGCCAAGA | 4962 | CUUUACAGGGUUAACCCAC |
| 4834 | GAGUGCUACGAUGCCGGGU | 4877 | CUGAAACCACAACAAGGCU | 4920 | CCUUCCUGUGUGCCAAGAC | 4963 | UUUACAGGGUUAACCCACA |
| 4835 | AGUGCUACGAUGCCGGGUG | 4878 | UGAAACCACAACAAGGCUG | 4921 | CUUCCUGUGUGCCAAGACC | 4964 | UUACAGGGUUAACCCACAU |
| 4836 | GUGCUACGAUGCCGGGUGC | 4879 | GAAACCACAACAAGGCUGA | 4922 | UUCCUGUGUGCCAAGACCA | 4965 | UACAGGGUUAACCCACAUA |
| 4837 | UGCUACGAUGCCGGGUGCG | 4880 | AAACCACAACAAGGCUGAA | 4923 | UCCUGUGUGCCAAGACCAU | 4966 | ACAGGGUUAACCCACAUAG |
| 4838 | GCUACGAUGCCGGGUGCGC | 4881 | AACCACAACAAGGCUGAAA | 4924 | CCUGUGUGCCAAGACCAUC | 4967 | CAGGGUUAACCCACAUAGA |
| 4839 | CUACGAUGCCGGGUGCGCC | 4882 | ACCACAACAAGGCUGAAAG | 4925 | CUGUGUGCCAAGACCAUCU | 4968 | AGGGUUAACCCACAUAGAC |
| 4840 | UACGAUGCCGGGUGCGCCU | 4883 | CCACAACAAGGCUGAAAGC | 4926 | UGUGUGCCAAGACCAUCUG | 4969 | GGGUUAACCCACAUAGACG |
| 4841 | ACGAUGCCGGGUGCGCCUG | 4884 | CACAACAAGGCUGAAAGCU | 4927 | GUGUGCCAAGACCAUCUGG | 4970 | GGUUAACCCACAUAGACGG |
| 4842 | CGAUGCCGGGUGCGCCUGG | 4885 | ACAACAAGGCUGAAAGCUU | 4928 | UGUGCCAAGACCAUCUGGA | 4971 | GUUAACCCACAUAGACGGU |
| 4843 | GAUGCCGGGUGCGCCUGGU | 4886 | CAACAAGGCUGAAAGCUUA | 4929 | GUGCCAAGACCAUCUGGAA | 4972 | UUAACCCACAUAGACGGUC |
| 4844 | AUGCCGGGUGCGCCUGGUA | 4887 | AACAAGGCUGAAAGCUUAC | 4930 | UGCCAAGACCAUCUGGAAU | 4973 | UAACCCACAUAGACGGUCA |
| 4845 | UGCCGGGUGCGCCUGGUAC | 4888 | ACAAGGCUGAAAGCUUACU | 4931 | GCCAAGACCAUCUGGAAUU | 4974 | AACCCACAUAGACGGUCAU |
| 4846 | GCCGGGUGCGCCUGGUACG | 4889 | CAAGGCUGAAAGCUUACUU | 4932 | CCAAGACCAUCUGGAAUUC | 4975 | ACCCACAUAGACGGUCAUU |
| 4847 | CCGGGUGCGCCUGGUACGA | 4890 | AAGGCUGAAAGCUUACUUC | 4933 | CAAGACCAUCUGGAAUUCU | 4976 | CCCACAUAGACGGUCAUUU |
| 4848 | CGGGUGCGCCUGGUACGAG | 4891 | AGGCUGAAAGCUUACUUCG | 4934 | AAGACCAUCUGGAAUUCUG | 4977 | CCACAUAGACGGUCAUUUC |
| 4849 | GGGUGCGCCUGGUACGAGC | 4892 | GGCUGAAAGCUUACUUCGA | 4935 | AGACCAUCUGGAAUUCUGG | 4978 | CACAUAGACGGUCAUUUCC |
| 4850 | GGUGCGCCUGGUACGAGCU | 4893 | GCUGAAAGCUUACUUCGAC | 4936 | GACCAUCUGGAAUUCUGGG | 4979 | ACAUAGACGGUCAUUUCCU |
| 4851 | GUGCGCCUGGUACGAGCUG | 4894 | CUGAAAGCUUACUUCGACA | 4937 | ACCAUCUGGAAUUCUGGGA | 4980 | CAUAGACGGUCAUUUCCUA |
| 4852 | UGCGCCUGGUACGAGCUGA | 4895 | UGAAAGCUUACUUCGACAC | 4938 | CCAUCUGGAAUUCUGGGAG | 4981 | AUAGACGGUCAUUUCCUAU |
| 4853 | GCGCCUGGUACGAGCUGAC | 4896 | GAAAGCUUACUUCGACACA | 4939 | CAUCUGGAAUUCUGGGAGA | 4982 | UAGACGGUCAUUUCCUAUC |
| 4854 | CGCCUGGUACGAGCUGACA | 4897 | AAAGCUUACUUCGACACAC | 4940 | AUCUGGAAUUCUGGGAGAG | 4983 | AGACGGUCAUUUCCUAUCC |
| 4855 | GCCUGGUACGAGCUGACAC | 4898 | AAGCUUACUUCGACACACC | 4941 | UCUGGAAUUCUGGGAGAGC | 4984 | GACGGUCAUUUCCUAUCCC |
| 4856 | CCUGGUACGAGCUGACACC | 4899 | AGCUUACUUCGACACACCA | 4942 | CUGGAAUUCUGGGAGAGCG | 4985 | ACGGUCAUUUCCUAUCCCA |
| 4857 | CUGGUACGAGCUGACACCU | 4900 | GCUUACUUCGACACACCAG | 4943 | UGGAAUUCUGGGAGAGCGU | 4986 | CGGUCAUUUCCUAUCCCAG |
| 4858 | UGGUACGAGCUGACACCUG | 4901 | CUUACUUCGACACACCAGG | 4944 | GGAAUUCUGGGAGAGCGUC | 4987 | GGUCAUUUCCUAUCCCAGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4988 | GUCAUUUCCUAUCCCAGAC | 5031 | GUAUCUUGUUGCUUACCAA | 5074 | CUCGCUCCACCAAGCUGGG | 5117 | GCCUUAAGCCCACCCUGCA |
| 4989 | UCAUUUCCUAUCCCAGACC | 5032 | UAUCUUGUUGCUUACCAAG | 5075 | UCGCUCCACCAAGCUGGGA | 5118 | CCUUAAGCCCACCCUGCAC |
| 4990 | CAUUUCCUAUCCCAGACCA | 5033 | AUCUUGUUGCUUACCAAGC | 5076 | CGCUCCACCAAGCUGGGAC | 5119 | CUUAAGCCCACCCUGCACG |
| 4991 | AUUUCCUAUCCCAGACCAA | 5034 | UCUUGUUGCUUACCAAGCG | 5077 | GCUCCACCAAGCUGGGACA | 5120 | UUAAGCCCACCCUGCACGG |
| 4992 | UUUCCUAUCCCAGACCAAG | 5035 | CUUGUUGCUUACCAAGCGA | 5078 | CUCCACCAAGCUGGGACAC | 5121 | UAAGCCCACCCUGCACGGG |
| 4993 | UUCCUAUCCCAGACCAAGC | 5036 | UUGUUGCUUACCAAGCGAC | 5079 | UCCACCAAGCUGGGACACC | 5122 | AAGCCCACCCUGCACGGGC |
| 4994 | UCCUAUCCCAGACCAAGCA | 5037 | UGUUGCUUACCAAGCGACG | 5080 | CCACCAAGCUGGGACACCA | 5123 | AGCCCACCCUGCACGGGCC |
| 4995 | CCUAUCCCAGACCAAGCAA | 5038 | GUUGCUUACCAAGCGACGG | 5081 | CACCAAGCUGGGACACCAU | 5124 | GCCCACCCUGCACGGGCCC |
| 4996 | CUAUCCCAGACCAAGCAAU | 5039 | UUGCUUACCAAGCGACGGU | 5082 | ACCAAGCUGGGACACCAUG | 5125 | CCCACCCUGCACGGGCCCA |
| 4997 | UAUCCCAGACCAAGCAAUC | 5040 | UGCUUACCAAGCGACGGUG | 5083 | CCAAGCUGGGACACCAUGU | 5126 | CCACCCUGCACGGGCCCAC |
| 4998 | AUCCCAGACCAAGCAAUCG | 5041 | GCUUACCAAGCGACGGUGU | 5084 | CAAGCUGGGACACCAUGUG | 5127 | CACCCUGCACGGGCCCACG |
| 4999 | UCCCAGACCAAGCAAUCGG | 5042 | CUUACCAAGCGACGGUGUC | 5085 | AAGCUGGGACACCAUGUGG | 5128 | ACCCUGCACGGGCCCACGC |
| 5000 | CCCAGACCAAGCAAUCGGG | 5043 | UUACCAAGCGACGGUGUCG | 5086 | AGCUGGGACACCAUGUGGA | 5129 | CCCUGCACGGGCCCACGCC |
| 5001 | CCAGACCAAGCAAUCGGGU | 5044 | UACCAAGCGACGGUGUCGG | 5087 | GCUGGGACACCAUGUGGAA | 5130 | CCUGCACGGGCCCACGCCC |
| 5002 | CAGACCAAGCAAUCGGGUG | 5045 | ACCAAGCGACGGUGUCGGC | 5088 | CUGGGACACCAUGUGGAAG | 5131 | CUGCACGGGCCCACGCCCC |
| 5003 | AGACCAAGCAAUCGGGUGA | 5046 | CCAAGCGACGGUGUCGGCC | 5089 | UGGGACACCAUGUGGAAGU | 5132 | UGCACGGGCCCACGCCCCU |
| 5004 | GACCAAGCAAUCGGGUGAG | 5047 | CAAGCGACGGUGUCGGCCA | 5090 | GGGACACCAUGUGGAAGUG | 5133 | GCACGGGCCCACGCCCCUC |
| 5005 | ACCAAGCAAUCGGGUGAGA | 5048 | AAGCGACGGUGUCGGCCAA | 5091 | GGACACCAUGUGGAAGUGC | 5134 | CACGGGCCCACGCCCCUCC |
| 5006 | CCAAGCAAUCGGGUGAGAA | 5049 | AGCGACGGUGUCGGCCAAG | 5092 | GACACCAUGUGGAAGUGCC | 5135 | ACGGGCCCACGCCCCUCCU |
| 5007 | CAAGCAAUCGGGUGAGAAU | 5050 | GCGACGGUGUCGGCCAAGG | 5093 | ACACCAUGUGGAAGUGCCU | 5136 | CGGGCCCACGCCCCUCCUC |
| 5008 | AAGCAAUCGGGUGAGAAUU | 5051 | CGACGGUGUCGGCCAAGGU | 5094 | CACCAUGUGGAAGUGCCUA | 5137 | GGGCCCACGCCCCUCCUCU |
| 5009 | AGCAAUCGGGUGAGAAUUU | 5052 | GACGGUGUCGGCCAAGGUC | 5095 | ACCAUGUGGAAGUGCCUAA | 5138 | GGCCCACGCCCCUCCUCUA |
| 5010 | GCAAUCGGGUGAGAAUUUC | 5053 | ACGGUGUCGGCCAAGGUCU | 5096 | CCAUGUGGAAGUGCCUAAU | 5139 | GCCCACGCCCCUCCUCUAC |
| 5011 | CAAUCGGGUGAGAAUUUCC | 5054 | CGGUGUCGGCCAAGGUCUG | 5097 | CAUGUGGAAGUGCCUAAUU | 5140 | CCCACGCCCCUCCUCUACA |
| 5012 | AAUCGGGUGAGAAUUUCCC | 5055 | GGUGUCGGCCAAGGUCUGG | 5098 | AUGUGGAAGUGCCUAAUUC | 5141 | CCACGCCCCUCCUCUACAG |
| 5013 | AUCGGGUGAGAAUUUCCCG | 5056 | GUGUCGGCCAAGGUCUGGC | 5099 | UGUGGAAGUGCCUAAUUCG | 5142 | CACGCCCCUCCUCUACAGA |
| 5014 | UCGGGUGAGAAUUUCCCGU | 5057 | UGUCGGCCAAGGUCUGGCU | 5100 | GUGGAAGUGCCUAAUUCGC | 5143 | ACGCCCCUCCUCUACAGAC |
| 5015 | CGGGUGAGAAUUUCCCGUA | 5058 | GUCGGCCAAGGUCUGGCUC | 5101 | UGGAAGUGCCUAAUUCGCC | 5144 | CGCCCCUCCUCUACAGACU |
| 5016 | GGGUGAGAAUUUCCCGUAU | 5059 | UCGGCCAAGGUCUGGCUCG | 5102 | GGAAGUGCCUAAUUCGCCU | 5145 | GCCCCUCCUCUACAGACUG |
| 5017 | GGUGAGAAUUUCCCGUAUC | 5060 | CGGCCAAGGUCUGGCUCGC | 5103 | GAAGUGCCUAAUUCGCCUU | 5146 | CCCCUCCUCUACAGACUGG |
| 5018 | GUGAGAAUUUCCCGUAUCU | 5061 | GGCCAAGGUCUGGCUCGCU | 5104 | AAGUGCCUAAUUCGCCUUA | 5147 | CCCUCCUCUACAGACUGGG |
| 5019 | UGAGAAUUUCCCGUAUCUU | 5062 | GCCAAGGUCUGGCUCGCUC | 5105 | AGUGCCUAAUUCGCCUUAA | 5148 | CCUCCUCUACAGACUGGGG |
| 5020 | GAGAAUUUCCCGUAUCUUG | 5063 | CCAAGGUCUGGCUCGCUCC | 5106 | GUGCCUAAUUCGCCUUAAG | 5149 | CUCCUCUACAGACUGGGGU |
| 5021 | AGAAUUUCCCGUAUCUUGU | 5064 | CAAGGUCUGGCUCGCUCCA | 5107 | UGCCUAAUUCGCCUUAAGC | 5150 | UCCUCUACAGACUGGGGUC |
| 5022 | GAAUUUCCCGUAUCUUGUU | 5065 | AAGGUCUGGCUCGCUCCAC | 5108 | GCCUAAUUCGCCUUAAGCC | 5151 | CCUCUACAGACUGGGGUCU |
| 5023 | AAUUUCCCGUAUCUUGUUG | 5066 | AGGUCUGGCUCGCUCCACC | 5109 | CCUAAUUCGCCUUAAGCCC | 5152 | CUCUACAGACUGGGGUCUG |
| 5024 | AUUUCCCGUAUCUUGUUGC | 5067 | GGUCUGGCUCGCUCCACCA | 5110 | CUAAUUCGCCUUAAGCCCA | 5153 | UCUACAGACUGGGGUCUGU |
| 5025 | UUUCCCGUAUCUUGUUGCU | 5068 | GUCUGGCUCGCUCCACCAA | 5111 | UAAUUCGCCUUAAGCCCAC | 5154 | CUACAGACUGGGGUCUGUG |
| 5026 | UUCCCGUAUCUUGUUGCUU | 5069 | UCUGGCUCGCUCCACCAAG | 5112 | AAUUCGCCUUAAGCCCACC | 5155 | UACAGACUGGGGUCUGUGC |
| 5027 | UCCCGUAUCUUGUUGCUUA | 5070 | CUGGCUCGCUCCACCAAGC | 5113 | AUUCGCCUUAAGCCCACCC | 5156 | ACAGACUGGGGUCUGUGCA |
| 5028 | CCCGUAUCUUGUUGCUUAC | 5071 | UGGCUCGCUCCACCAAGCU | 5114 | UUCGCCUUAAGCCCACCCU | 5157 | CAGACUGGGGUCUGUGCAG |
| 5029 | CCGUAUCUUGUUGCUUACC | 5072 | GGCUCGCUCCACCAAGCUG | 5115 | UCGCCUUAAGCCCACCCUG | 5158 | AGACUGGGGUCUGUGCAGA |
| 5030 | CGUAUCUUGUUGCUUACCA | 5073 | GCUCGCUCCACCAAGCUGG | 5116 | CGCCUUAAGCCCACCCUGC | 5159 | GACUGGGGUCUGUGCAGAA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5160 | ACUGGGGUCUGUGCAGAAU | 5203 | ACCAAAUACAUCAUGGCUU | 5246 | UGACAAGUACGUGGGUCUU | 5289 | GGCUGCUUACUGUCUUUCA |
| 5161 | CUGGGGUCUGUGCAGAAUG | 5204 | CCAAAUACAUCAUGGCUUG | 5247 | GACAAGUACGUGGGUCUUG | 5290 | GCUGCUUACUGUCUUUCAG |
| 5162 | UGGGGUCUGUGCAGAAUGA | 5205 | CAAAUACAUCAUGGCUUGC | 5248 | ACAAGUACGUGGGUCUUGG | 5291 | CUGCUUACUGUCUUUCAGU |
| 5163 | GGGGUCUGUGCAGAAUGAA | 5206 | AAAUACAUCAUGGCUUGCA | 5249 | CAAGUACGUGGGUCUUGGU | 5292 | UGCUUACUGUCUUUCAGUG |
| 5164 | GGGUCUGUGCAGAAUGAAG | 5207 | AAUACAUCAUGGCUUGCAU | 5250 | AAGUACGUGGGUCUUGGUG | 5293 | GCUUACUGUCUUUCAGUGG |
| 5165 | GGUCUGUGCAGAAUGAAGU | 5208 | AUACAUCAUGGCUUGCAUG | 5251 | AGUACGUGGGUCUUGGUGG | 5294 | CUUACUGUCUUUCAGUGGG |
| 5166 | GUCUGUGCAGAAUGAAGUG | 5209 | UACAUCAUGGCUUGCAUGU | 5252 | GUACGUGGGUCUUGGUGGG | 5295 | UUACUGUCUUUCAGUGGGC |
| 5167 | UCUGUGCAGAAUGAAGUGG | 5210 | ACAUCAUGGCUUGCAUGUC | 5253 | UACGUGGGUCUUGGUGGGC | 5296 | UACUGUCUUUCAGUGGGCA |
| 5168 | CUGUGCAGAAUGAAGUGGU | 5211 | CAUCAUGGCUUGCAUGUCA | 5254 | ACGUGGGUCUUGGUGGGCG | 5297 | ACUGUCUUUCAGUGGGCAG |
| 5169 | UGUGCAGAAUGAAGUGGUG | 5212 | AUCAUGGCUUGCAUGUCAG | 5255 | CGUGGGUCUUGGUGGGCGG | 5298 | CUGUCUUUCAGUGGGCAGC |
| 5170 | GUGCAGAAUGAAGUGGUGC | 5213 | UCAUGGCUUGCAUGUCAGC | 5256 | GUGGGUCUUGGUGGGCGGC | 5299 | UGUCUUUCAGUGGGCAGCG |
| 5171 | UGCAGAAUGAAGUGGUGCU | 5214 | CAUGGCUUGCAUGUCAGCU | 5257 | UGGGUCUUGGUGGGCGGCG | 5300 | GUCUUUCAGUGGGCAGCGU |
| 5172 | GCAGAAUGAAGUGGUGCUC | 5215 | AUGGCUUGCAUGUCAGCUG | 5258 | GGGUCUUGGUGGGCGGCGU | 5301 | UCUUUCAGUGGGCAGCGUA |
| 5173 | CAGAAUGAAGUGGUGCUCA | 5216 | UGGCUUGCAUGUCAGCUGA | 5259 | GGUCUUGGUGGGCGGCGUC | 5302 | CUUUCAGUGGGCAGCGUAG |
| 5174 | AGAAUGAAGUGGUGCUCAC | 5217 | GGCUUGCAUGUCAGCUGAU | 5260 | GUCUUGGUGGGCGGCGUCC | 5303 | UUUCAGUGGGCAGCGUAGU |
| 5175 | GAAUGAAGUGGUGCUCACC | 5218 | GCUUGCAUGUCAGCUGAUC | 5261 | UCUUGGUGGGCGGCGUCCU | 5304 | UUCAGUGGGCAGCGUAGUG |
| 5176 | AAUGAAGUGGUGCUCACCC | 5219 | CUUGCAUGUCAGCUGAUCU | 5262 | CUUGGUGGGCGGCGUCCUG | 5305 | UCAGUGGGCAGCGUAGUGA |
| 5177 | AUGAAGUGGUGCUCACCCA | 5220 | UUGCAUGUCAGCUGAUCUC | 5263 | UUGGUGGGCGGCGUCCUGG | 5306 | CAGUGGGCAGCGUAGUGAU |
| 5178 | UGAAGUGGUGCUCACCCAU | 5221 | UGCAUGUCAGCUGAUCUCG | 5264 | UGGUGGGCGGCGUCCUGGC | 5307 | AGUGGGCAGCGUAGUGAUU |
| 5179 | GAAGUGGUGCUCACCCAUC | 5222 | GCAUGUCAGCUGAUCUCGA | 5265 | GGUGGGCGGCGUCCUGGCA | 5308 | GUGGGCAGCGUAGUGAUUG |
| 5180 | AAGUGGUGCUCACCCAUCC | 5223 | CAUGUCAGCUGAUCUCGAG | 5266 | GUGGGCGGCGUCCUGGCAG | 5309 | UGGGCAGCGUAGUGAUUGU |
| 5181 | AGUGGUGCUCACCCAUCCC | 5224 | AUGUCAGCUGAUCUCGAGG | 5267 | UGGGCGGCGUCCUGGCAGC | 5310 | GGGCAGCGUAGUGAUUGUU |
| 5182 | GUGGUGCUCACCCAUCCCA | 5225 | UGUCAGCUGAUCUCGAGGU | 5268 | GGGCGGCGUCCUGGCAGCU | 5311 | GGCAGCGUAGUGAUUGUUG |
| 5183 | UGGUGCUCACCCAUCCCAU | 5226 | GUCAGCUGAUCUCGAGGUA | 5269 | GGCGGCGUCCUGGCAGCUC | 5312 | GCAGCGUAGUGAUUGUUGG |
| 5184 | GGUGCUCACCCAUCCCAUC | 5227 | UCAGCUGAUCUCGAGGUAG | 5270 | GCGGCGUCCUGGCAGCUCU | 5313 | CAGCGUAGUGAUUGUUGGG |
| 5185 | GUGCUCACCCAUCCCAUCA | 5228 | CAGCUGAUCUCGAGGUAGU | 5271 | CGGCGUCCUGGCAGCUCUG | 5314 | AGCGUAGUGAUUGUUGGGA |
| 5186 | UGCUCACCCAUCCCAUCAC | 5229 | AGCUGAUCUCGAGGUAGUG | 5272 | GGCGUCCUGGCAGCUCUGG | 5315 | GCGUAGUGAUUGUUGGGAG |
| 5187 | GCUCACCCAUCCCAUCACC | 5230 | GCUGAUCUCGAGGUAGUGA | 5273 | GCGUCCUGGCAGCUCUGGC | 5316 | CGUAGUGAUUGUUGGGAGA |
| 5188 | CUCACCCAUCCCAUCACCA | 5231 | CUGAUCUCGAGGUAGUGAC | 5274 | CGUCCUGGCAGCUCUGGCU | 5317 | GUAGUGAUUGUUGGGAGAG |
| 5189 | UCACCCAUCCCAUCACCAA | 5232 | UGAUCUCGAGGUAGUGACA | 5275 | GUCCUGGCAGCUCUGGCUG | 5318 | UAGUGAUUGUUGGGAGAGU |
| 5190 | CACCCAUCCCAUCACCAAA | 5233 | GAUCUCGAGGUAGUGACAA | 5276 | UCCUGGCAGCUCUGGCUGC | 5319 | AGUGAUUGUUGGGAGAGUC |
| 5191 | ACCCAUCCCAUCACCAAAU | 5234 | AUCUCGAGGUAGUGACAAG | 5277 | CCUGGCAGCUCUGGCUGCU | 5320 | GUGAUUGUUGGGAGAGUCG |
| 5192 | CCCAUCCCAUCACCAAAUA | 5235 | UCUCGAGGUAGUGACAAGU | 5278 | CUGGCAGCUCUGGCUGCUU | 5321 | UGAUUGUUGGGAGAGUCGU |
| 5193 | CCAUCCCAUCACCAAAUAC | 5236 | CUCGAGGUAGUGACAAGUA | 5279 | UGGCAGCUCUGGCUGCUUA | 5322 | GAUUGUUGGGAGAGUCGUC |
| 5194 | CAUCCCAUCACCAAAUACA | 5237 | UCGAGGUAGUGACAAGUAC | 5280 | GGCAGCUCUGGCUGCUUAC | 5323 | AUUGUUGGGAGAGUCGUCC |
| 5195 | AUCCCAUCACCAAAUACAU | 5238 | CGAGGUAGUGACAAGUACG | 5281 | GCAGCUCUGGCUGCUUACU | 5324 | UUGUUGGGAGAGUCGUCCU |
| 5196 | UCCCAUCACCAAAUACAUC | 5239 | GAGGUAGUGACAAGUACGU | 5282 | CAGCUCUGGCUGCUUACUG | 5325 | UGUUGGGAGAGUCGUCCUG |
| 5197 | CCCAUCACCAAAUACAUCA | 5240 | AGGUAGUGACAAGUACGUG | 5283 | AGCUCUGGCUGCUUACUGU | 5326 | GUUGGGAGAGUCGUCCUGU |
| 5198 | CCAUCACCAAAUACAUCAU | 5241 | GGUAGUGACAAGUACGUGG | 5284 | GCUCUGGCUGCUUACUGUC | 5327 | UUGGGAGAGUCGUCCUGUC |
| 5199 | CAUCACCAAAUACAUCAUG | 5242 | GUAGUGACAAGUACGUGGG | 5285 | CUCUGGCUGCUUACUGUCU | 5328 | UGGGAGAGUCGUCCUGUCG |
| 5200 | AUCACCAAAUACAUCAUGG | 5243 | UAGUGACAAGUACGUGGGU | 5286 | UCUGGCUGCUUACUGUCUU | 5329 | GGGAGAGUCGUCCUGUCGG |
| 5201 | UCACCAAAUACAUCAUGGC | 5244 | AGUGACAAGUACGUGGGUC | 5287 | CUGGCUGCUUACUGUCUUU | 5330 | GGAGAGUCGUCCUGUCGGG |
| 5202 | CACCAAAUACAUCAUGGCU | 5245 | GUGACAAGUACGUGGGUCU | 5288 | UGGCUGCUUACUGUCUUUC | 5331 | GAGAGUCGUCCUGUCGGGC |

**FIG. 5 (page 263 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5332 | AGAGUCGUCCUGUCGGGCC | 5375 | AAGUGCUCUACCAACAGUU | 5418 | ACACCUCCCACUAGUCGAG | 5461 | UUCAAGCAGAAGGCCUUAG |
| 5333 | GAGUCGUCCUGUCGGGCCA | 5376 | AGUGCUCUACCAACAGUUC | 5419 | CACCUCCCACUAGUCGAGC | 5462 | UCAAGCAGAAGGCCUUAGG |
| 5334 | AGUCGUCCUGUCGGGCCAA | 5377 | GUGCUCUACCAACAGUUCG | 5420 | ACCUCCCACUAGUCGAGCA | 5463 | CAAGCAGAAGGCCUUAGGU |
| 5335 | GUCGUCCUGUCGGGCCAAC | 5378 | UGCUCUACCAACAGUUCGA | 5421 | CCUCCCACUAGUCGAGCAC | 5464 | AAGCAGAAGGCCUUAGGUC |
| 5336 | UCGUCCUGUCGGGCCAACC | 5379 | GCUCUACCAACAGUUCGAC | 5422 | CUCCCACUAGUCGAGCACG | 5465 | AGCAGAAGGCCUUAGGUCU |
| 5337 | CGUCCUGUCGGGCCAACCU | 5380 | CUCUACCAACAGUUCGACG | 5423 | UCCCACUAGUCGAGCACGG | 5466 | GCAGAAGGCCUUAGGUCUC |
| 5338 | GUCCUGUCGGGCCAACCUG | 5381 | UCUACCAACAGUUCGACGA | 5424 | CCCACUAGUCGAGCACGGG | 5467 | CAGAAGGCCUUAGGUCUCC |
| 5339 | UCCUGUCGGGCCAACCUGC | 5382 | CUACCAACAGUUCGACGAA | 5425 | CCACUAGUCGAGCACGGGU | 5468 | AGAAGGCCUUAGGUCUCCU |
| 5340 | CCUGUCGGGCCAACCUGCU | 5383 | UACCAACAGUUCGACGAAA | 5426 | CACUAGUCGAGCACGGGUU | 5469 | GAAGGCCUUAGGUCUCCUA |
| 5341 | CUGUCGGGCCAACCUGCUG | 5384 | ACCAACAGUUCGACGAAAU | 5427 | ACUAGUCGAGCACGGGUUA | 5470 | AAGGCCUUAGGUCUCCUAA |
| 5342 | UGUCGGGCCAACCUGCUGU | 5385 | CCAACAGUUCGACGAAAUG | 5428 | CUAGUCGAGCACGGGUUAC | 5471 | AGGCCUUAGGUCUCCUAAA |
| 5343 | GUCGGGCCAACCUGCUGUC | 5386 | CAACAGUUCGACGAAAUGG | 5429 | UAGUCGAGCACGGGUUACA | 5472 | GGCCUUAGGUCUCCUAAAU |
| 5344 | UCGGGCCAACCUGCUGUCA | 5387 | AACAGUUCGACGAAAUGGA | 5430 | AGUCGAGCACGGGUUACAA | 5473 | GCCUUAGGUCUCCUAAAUU |
| 5345 | CGGGCCAACCUGCUGUCAU | 5388 | ACAGUUCGACGAAAUGGAG | 5431 | GUCGAGCACGGGUUACAAC | 5474 | CCUUAGGUCUCCUAAAUUU |
| 5346 | GGGCCAACCUGCUGUCAUU | 5389 | CAGUUCGACGAAAUGGAGG | 5432 | UCGAGCACGGGUUACAACU | 5475 | CUUAGGUCUCCUAAAUUUC |
| 5347 | GGCCAACCUGCUGUCAUUC | 5390 | AGUUCGACGAAAUGGAGGA | 5433 | CGAGCACGGGUUACAACUG | 5476 | UUAGGUCUCCUAAAUUUCG |
| 5348 | GCCAACCUGCUGUCAUUCC | 5391 | GUUCGACGAAAUGGAGGAG | 5434 | GAGCACGGGUUACAACUGG | 5477 | UAGGUCUCCUAAAUUUCGC |
| 5349 | CCAACCUGCUGUCAUUCCU | 5392 | UUCGACGAAAUGGAGGAGU | 5435 | AGCACGGGUUACAACUGGC | 5478 | AGGUCUCCUAAAUUUCGCU |
| 5350 | CAACCUGCUGUCAUUCCUG | 5393 | UCGACGAAAUGGAGGAGUG | 5436 | GCACGGGUUACAACUGGCU | 5479 | GGUCUCCUAAAUUUCGCUG |
| 5351 | AACCUGCUGUCAUUCCUGA | 5394 | CGACGAAAUGGAGGAGUGU | 5437 | CACGGGUUACAACUGGCUG | 5480 | GUCUCCUAAAUUUCGCUGG |
| 5352 | ACCUGCUGUCAUUCCUGAU | 5395 | GACGAAAUGGAGGAGUGUU | 5438 | ACGGGUUACAACUGGCUGA | 5481 | UCUCCUAAAUUUCGCUGGC |
| 5353 | CCUGCUGUCAUUCCUGAUC | 5396 | ACGAAAUGGAGGAGUGUUC | 5439 | CGGGUUACAACUGGCUGAG | 5482 | CUCCUAAAUUUCGCUGGCA |
| 5354 | CUGCUGUCAUUCCUGAUCG | 5397 | CGAAAUGGAGGAGUGUUCC | 5440 | GGGUUACAACUGGCUGAGC | 5483 | UCCUAAAUUUCGCUGGCAA |
| 5355 | UGCUGUCAUUCCUGAUCGC | 5398 | GAAAUGGAGGAGUGUUCCA | 5441 | GGUUACAACUGGCUGAGCA | 5484 | CCUAAAUUUCGCUGGCAAG |
| 5356 | GCUGUCAUUCCUGAUCGCG | 5399 | AAAUGGAGGAGUGUUCCAA | 5442 | GUUACAACUGGCUGAGCAG | 5485 | CUAAAUUUCGCUGGCAAGC |
| 5357 | CUGUCAUUCCUGAUCGCGA | 5400 | AAUGGAGGAGUGUUCCAAA | 5443 | UUACAACUGGCUGAGCAGU | 5486 | UAAAUUUCGCUGGCAAGCA |
| 5358 | UGUCAUUCCUGAUCGCGAA | 5401 | AUGGAGGAGUGUUCCAAAC | 5444 | UACAACUGGCUGAGCAGUU | 5487 | AAAUUUCGCUGGCAAGCAA |
| 5359 | GUCAUUCCUGAUCGCGAAG | 5402 | UGGAGGAGUGUUCCAAACA | 5445 | ACAACUGGCUGAGCAGUUC | 5488 | AAUUUCGCUGGCAAGCAAG |
| 5360 | UCAUUCCUGAUCGCGAAGU | 5403 | GGAGGAGUGUUCCAAACAC | 5446 | CAACUGGCUGAGCAGUUCA | 5489 | AUUUCGCUGGCAAGCAAGC |
| 5361 | CAUUCCUGAUCGCGAAGUG | 5404 | GAGGAGUGUUCCAAACACC | 5447 | AACUGGCUGAGCAGUUCAA | 5490 | UUUCGCUGGCAAGCAAGCC |
| 5362 | AUUCCUGAUCGCGAAGUGC | 5405 | AGGAGUGUUCCAAACACCU | 5448 | ACUGGCUGAGCAGUUCAAG | 5491 | UUCGCUGGCAAGCAAGCCC |
| 5363 | UUCCUGAUCGCGAAGUGCU | 5406 | GGAGUGUUCCAAACACCUC | 5449 | CUGGCUGAGCAGUUCAAGC | 5492 | UCGCUGGCAAGCAAGCCCA |
| 5364 | UCCUGAUCGCGAAGUGCUC | 5407 | GAGUGUUCCAAACACCUCC | 5450 | UGGCUGAGCAGUUCAAGCA | 5493 | CGCUGGCAAGCAAGCCCAA |
| 5365 | CCUGAUCGCGAAGUGCUCU | 5408 | AGUGUUCCAAACACCUCCC | 5451 | GGCUGAGCAGUUCAAGCAG | 5494 | GCUGGCAAGCAAGCCCAAG |
| 5366 | CUGAUCGCGAAGUGCUCUA | 5409 | GUGUUCCAAACACCUCCCA | 5452 | GCUGAGCAGUUCAAGCAGA | 5495 | CUGGCAAGCAAGCCCAAGA |
| 5367 | UGAUCGCGAAGUGCUCUAC | 5410 | UGUUCCAAACACCUCCCAC | 5453 | CUGAGCAGUUCAAGCAGAA | 5496 | UGGCAAGCAAGCCCAAGAG |
| 5368 | GAUCGCGAAGUGCUCUACC | 5411 | GUUCCAAACACCUCCCACU | 5454 | UGAGCAGUUCAAGCAGAAG | 5497 | GGCAAGCAAGCCCAAGAGG |
| 5369 | AUCGCGAAGUGCUCUACCA | 5412 | UUCCAAACACCUCCCACUA | 5455 | GAGCAGUUCAAGCAGAAGG | 5498 | GCAAGCAAGCCCAAGAGGC |
| 5370 | UCGCGAAGUGCUCUACCAA | 5413 | UCCAAACACCUCCCACUAG | 5456 | AGCAGUUCAAGCAGAAGGC | 5499 | CAAGCAAGCCCAAGAGGCA |
| 5371 | CGCGAAGUGCUCUACCAAC | 5414 | CCAAACACCUCCCACUAGU | 5457 | GCAGUUCAAGCAGAAGGCC | 5500 | AAGCAAGCCCAAGAGGCAA |
| 5372 | GCGAAGUGCUCUACCAACA | 5415 | CAAACACCUCCCACUAGUC | 5458 | CAGUUCAAGCAGAAGGCCU | 5501 | AGCAAGCCCAAGAGGCAAC |
| 5373 | CGAAGUGCUCUACCAACAG | 5416 | AAACACCUCCCACUAGUCG | 5459 | AGUUCAAGCAGAAGGCCUU | 5502 | GCAAGCCCAAGAGGCAACA |
| 5374 | GAAGUGCUCUACCAACAGU | 5417 | AACACCUCCCACUAGUCGA | 5460 | GUUCAAGCAGAAGGCCUUA | 5503 | CAAGCCCAAGAGGCAACAC |

**FIG. 5 (page 264 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5504 | AAGCCCAAGAGGCAACACC | 5547 | ACUUGAGCAGUUUUGGGCG | 5590 | GGCAUUCAAUAUCUCGCUG | 5633 | CUGCCAUUGCUUCCCUCAU |
| 5505 | AGCCCAAGAGGCAACACCA | 5548 | CUUGAGCAGUUUUGGGCGA | 5591 | GCAUUCAAUAUCUCGCUGG | 5634 | UGCCAUUGCUUCCCUCAUG |
| 5506 | GCCCAAGAGGCAACACCAG | 5549 | UUGAGCAGUUUUGGGCGAA | 5592 | CAUUCAAUAUCUCGCUGGA | 5635 | GCCAUUGCUUCCCUCAUGU |
| 5507 | CCCAAGAGGCAACACCAGU | 5550 | UGAGCAGUUUUGGGCGAAC | 5593 | AUUCAAUAUCUCGCUGGAC | 5636 | CCAUUGCUUCCCUCAUGUC |
| 5508 | CCAAGAGGCAACACCAGUG | 5551 | GAGCAGUUUUGGGCGAACG | 5594 | UUCAAUAUCUCGCUGGACU | 5637 | CAUUGCUUCCCUCAUGUCC |
| 5509 | CAAGAGGCAACACCAGUGA | 5552 | AGCAGUUUUGGGCGAACGA | 5595 | UCAAUAUCUCGCUGGACUG | 5638 | AUUGCUUCCCUCAUGUCCU |
| 5510 | AAGAGGCAACACCAGUGAU | 5553 | GCAGUUUUGGGCGAACGAC | 5596 | CAAUAUCUCGCUGGACUGU | 5639 | UUGCUUCCCUCAUGUCCUU |
| 5511 | AGAGGCAACACCAGUGAUC | 5554 | CAGUUUUGGGCGAACGACA | 5597 | AAUAUCUCGCUGGACUGUC | 5640 | UGCUUCCCUCAUGUCCUUU |
| 5512 | GAGGCAACACCAGUGAUCC | 5555 | AGUUUUGGGCGAACGACAU | 5598 | AUAUCUCGCUGGACUGUCU | 5641 | GCUUCCCUCAUGUCCUUUA |
| 5513 | AGGCAACACCAGUGAUCCA | 5556 | GUUUUGGGCGAACGACAUG | 5599 | UAUCUCGCUGGACUGUCUA | 5642 | CUUCCCUCAUGUCCUUUAC |
| 5514 | GGCAACACCAGUGAUCCAG | 5557 | UUUUGGGCGAACGACAUGU | 5600 | AUCUCGCUGGACUGUCUAC | 5643 | UUCCCUCAUGUCCUUUACU |
| 5515 | GCAACACCAGUGAUCCAGU | 5558 | UUUGGGCGAACGACAUGUG | 5601 | UCUCGCUGGACUGUCUACU | 5644 | UCCCUCAUGUCCUUUACUG |
| 5516 | CAACACCAGUGAUCCAGUC | 5559 | UUGGGCGAACGACAUGUGG | 5602 | CUCGCUGGACUGUCUACUU | 5645 | CCCUCAUGUCCUUUACUGC |
| 5517 | AACACCAGUGAUCCAGUCU | 5560 | UGGGCGAACGACAUGUGGA | 5603 | UCGCUGGACUGUCUACUUU | 5646 | CCUCAUGUCCUUUACUGCU |
| 5518 | ACACCAGUGAUCCAGUCUA | 5561 | GGGCGAACGACAUGUGGAA | 5604 | CGCUGGACUGUCUACUUUG | 5647 | CUCAUGUCCUUUACUGCUG |
| 5519 | CACCAGUGAUCCAGUCUAA | 5562 | GGCGAACGACAUGUGGAAU | 5605 | GCUGGACUGUCUACUUUGC | 5648 | UCAUGUCCUUUACUGCUGC |
| 5520 | ACCAGUGAUCCAGUCUAAC | 5563 | GCGAACGACAUGUGGAAUU | 5606 | CUGGACUGUCUACUUUGCC | 5649 | CAUGUCCUUUACUGCUGCC |
| 5521 | CCAGUGAUCCAGUCUAACU | 5564 | CGAACGACAUGUGGAAUUU | 5607 | UGGACUGUCUACUUUGCCA | 5650 | AUGUCCUUUACUGCUGCCG |
| 5522 | CAGUGAUCCAGUCUAACUU | 5565 | GAACGACAUGUGGAAUUUC | 5608 | GGACUGUCUACUUUGCCAG | 5651 | UGUCCUUUACUGCUGCCGU |
| 5523 | AGUGAUCCAGUCUAACUUC | 5566 | AACGACAUGUGGAAUUUCA | 5609 | GACUGUCUACUUUGCCAGG | 5652 | GUCCUUUACUGCUGCCGUU |
| 5524 | GUGAUCCAGUCUAACUUCG | 5567 | ACGACAUGUGGAAUUUCAU | 5610 | ACUGUCUACUUUGCCAGGC | 5653 | UCCUUUACUGCUGCCGUUA |
| 5525 | UGAUCCAGUCUAACUUCGC | 5568 | CGACAUGUGGAAUUUCAUC | 5611 | CUGUCUACUUUGCCAGGCA | 5654 | CCUUUACUGCUGCCGUUAC |
| 5526 | GAUCCAGUCUAACUUCGCU | 5569 | GACAUGUGGAAUUUCAUCA | 5612 | UGUCUACUUUGCCAGGCAA | 5655 | CUUUACUGCUGCCGUUACA |
| 5527 | AUCCAGUCUAACUUCGCUA | 5570 | ACAUGUGGAAUUUCAUCAG | 5613 | GUCUACUUUGCCAGGCAAU | 5656 | UUUACUGCUGCCGUUACAA |
| 5528 | UCCAGUCUAACUUCGCUAA | 5571 | CAUGUGGAAUUUCAUCAGC | 5614 | UCUACUUUGCCAGGCAAUC | 5657 | UUACUGCUGCCGUUACAAG |
| 5529 | CCAGUCUAACUUCGCUAAA | 5572 | AUGUGGAAUUUCAUCAGCG | 5615 | CUACUUUGCCAGGCAAUCC | 5658 | UACUGCUGCCGUUACAAGC |
| 5530 | CAGUCUAACUUCGCUAAAC | 5573 | UGUGGAAUUUCAUCAGCGG | 5616 | UACUUUGCCAGGCAAUCCU | 5659 | ACUGCUGCCGUUACAAGCC |
| 5531 | AGUCUAACUUCGCUAAACU | 5574 | GUGGAAUUUCAUCAGCGGC | 5617 | ACUUUGCCAGGCAAUCCUG | 5660 | CUGCUGCCGUUACAAGCCC |
| 5532 | GUCUAACUUCGCUAAACUU | 5575 | UGGAAUUUCAUCAGCGGCA | 5618 | CUUUGCCAGGCAAUCCUGC | 5661 | UGCUGCCGUUACAAGCCCU |
| 5533 | UCUAACUUCGCUAAACUUG | 5576 | GGAAUUUCAUCAGCGGCAU | 5619 | UUUGCCAGGCAAUCCUGCC | 5662 | GCUGCCGUUACAAGCCCUC |
| 5534 | CUAACUUCGCUAAACUUGA | 5577 | GAAUUUCAUCAGCGGCAUU | 5620 | UUGCCAGGCAAUCCUGCCA | 5663 | CUGCCGUUACAAGCCCUCU |
| 5535 | UAACUUCGCUAAACUUGAG | 5578 | AAUUUCAUCAGCGGCAUUC | 5621 | UGCCAGGCAAUCCUGCCAU | 5664 | UGCCGUUACAAGCCCUCUG |
| 5536 | AACUUCGCUAAACUUGAGC | 5579 | AUUUCAUCAGCGGCAUUCA | 5622 | GCCAGGCAAUCCUGCCAUU | 5665 | GCCGUUACAAGCCCUCUGA |
| 5537 | ACUUCGCUAAACUUGAGCA | 5580 | UUUCAUCAGCGGCAUUCAA | 5623 | CCAGGCAAUCCUGCCAUUG | 5666 | CCGUUACAAGCCCUCUGAC |
| 5538 | CUUCGCUAAACUUGAGCAG | 5581 | UUCAUCAGCGGCAUUCAAU | 5624 | CAGGCAAUCCUGCCAUUGC | 5667 | CGUUACAAGCCCUCUGACC |
| 5539 | UUCGCUAAACUUGAGCAGU | 5582 | UCAUCAGCGGCAUUCAAUA | 5625 | AGGCAAUCCUGCCAUUGCU | 5668 | GUUACAAGCCCUCUGACCA |
| 5540 | UCGCUAAACUUGAGCAGUU | 5583 | CAUCAGCGGCAUUCAAUAU | 5626 | GGCAAUCCUGCCAUUGCUU | 5669 | UUACAAGCCCUCUGACCAC |
| 5541 | CGCUAAACUUGAGCAGUUU | 5584 | AUCAGCGGCAUUCAAUAUC | 5627 | GCAAUCCUGCCAUUGCUUC | 5670 | UACAAGCCCUCUGACCACC |
| 5542 | GCUAAACUUGAGCAGUUUU | 5585 | UCAGCGGCAUUCAAUAUCU | 5628 | CAAUCCUGCCAUUGCUUCC | 5671 | ACAAGCCCUCUGACCACCC |
| 5543 | CUAAACUUGAGCAGUUUUG | 5586 | CAGCGGCAUUCAAUAUCUC | 5629 | AAUCCUGCCAUUGCUUCCC | 5672 | CAAGCCCUCUGACCACCCA |
| 5544 | UAAACUUGAGCAGUUUUGG | 5587 | AGCGGCAUUCAAUAUCUCG | 5630 | AUCCUGCCAUUGCUUCCCU | 5673 | AAGCCCUCUGACCACCCAA |
| 5545 | AAACUUGAGCAGUUUUGGG | 5588 | GCGGCAUUCAAUAUCUCGC | 5631 | UCCUGCCAUUGCUUCCCUC | 5674 | AGCCCUCUGACCACCCAAC |
| 5546 | AACUUGAGCAGUUUUGGGC | 5589 | CGGCAUUCAAUAUCUCGCU | 5632 | CCUGCCAUUGCUUCCCUCA | 5675 | GCCCUCUGACCACCCAACA |

**FIG. 5 (page 265 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5676 | CCCUCUGACCACCCAACAA | 5719 | GGAUGGGUGGCCUCACAGA | 5762 | CAUUCGUCGUGAGCGGCUU | 5805 | GGGCCUUGGCAAAAUUUUG |
| 5677 | CCUCUGACCACCCAACAAA | 5720 | GAUGGGUGGCCUCACAGAU | 5763 | AUUCGUCGUGAGCGGCUUG | 5806 | GGCCUUGGCAAAAUUUUGG |
| 5678 | CUCUGACCACCCAACAAAC | 5721 | AUGGGUGGCCUCACAGAUU | 5764 | UUCGUCGUGAGCGGCUUGG | 5807 | GCCUUGGCAAAAUUUUGGU |
| 5679 | UCUGACCACCCAACAAACC | 5722 | UGGGUGGCCUCACAGAUUC | 5765 | UCGUCGUGAGCGGCUUGGC | 5808 | CCUUGGCAAAAUUUUGGUG |
| 5680 | CUGACCACCCAACAAACCC | 5723 | GGGUGGCCUCACAGAUUCG | 5766 | CGUCGUGAGCGGCUUGGCG | 5809 | CUUGGCAAAAUUUUGGUGG |
| 5681 | UGACCACCCAACAAACCCU | 5724 | GGUGGCCUCACAGAUUCGC | 5767 | GUCGUGAGCGGCUUGGCGG | 5810 | UUGGCAAAAUUUUGGUGGA |
| 5682 | GACCACCCAACAAACCCUC | 5725 | GUGGCCUCACAGAUUCGCG | 5768 | UCGUGAGCGGCUUGGCGGG | 5811 | UGGCAAAAUUUUGGUGGAC |
| 5683 | ACCACCCAACAAACCCUCC | 5726 | UGGCCUCACAGAUUCGCGA | 5769 | CGUGAGCGGCUUGGCGGGG | 5812 | GGCAAAAUUUUGGUGGACA |
| 5684 | CCACCCAACAAACCCUCCU | 5727 | GGCCUCACAGAUUCGCGAC | 5770 | GUGAGCGGCUUGGCGGGGG | 5813 | GCAAAAUUUUGGUGGACAU |
| 5685 | CACCCAACAAACCCUCCUU | 5728 | GCCUCACAGAUUCGCGACU | 5771 | UGAGCGGCUUGGCGGGGGC | 5814 | CAAAAUUUUGGUGGACAUU |
| 5686 | ACCCAACAAACCCUCCUUU | 5729 | CCUCACAGAUUCGCGACUC | 5772 | GAGCGGCUUGGCGGGGGCG | 5815 | AAAAUUUUGGUGGACAUUC |
| 5687 | CCCAACAAACCCUCCUUUU | 5730 | CUCACAGAUUCGCGACUCC | 5773 | AGCGGCUUGGCGGGGGCGG | 5816 | AAAUUUUGGUGGACAUUCU |
| 5688 | CCAACAAACCCUCCUUUUU | 5731 | UCACAGAUUCGCGACUCCG | 5774 | GCGGCUUGGCGGGGGCGGC | 5817 | AAUUUUGGUGGACAUUCUG |
| 5689 | CAACAAACCCUCCUUUUUA | 5732 | CACAGAUUCGCGACUCCGA | 5775 | CGGCUUGGCGGGGGCGGCA | 5818 | AUUUUGGUGGACAUUCUGC |
| 5690 | AACAAACCCUCCUUUUUAA | 5733 | ACAGAUUCGCGACUCCGAU | 5776 | GGCUUGGCGGGGGCGGCAG | 5819 | UUUUGGUGGACAUUCUGCC |
| 5691 | ACAAACCCUCCUUUUUAAC | 5734 | CAGAUUCGCGACUCCGAUG | 5777 | GCUUGGCGGGGGCGGCAGU | 5820 | UUUGGUGGACAUUCUGCCC |
| 5692 | CAAACCCUCCUUUUUAACA | 5735 | AGAUUCGCGACUCCGAUGC | 5778 | CUUGGCGGGGGCGGCAGUU | 5821 | UUGGUGGACAUUCUGCCCG |
| 5693 | AAACCCUCCUUUUUAACAU | 5736 | GAUUCGCGACUCCGAUGCU | 5779 | UUGGCGGGGGCGGCAGUUG | 5822 | UGGUGGACAUUCUGCCCGG |
| 5694 | AACCCUCCUUUUUAACAUC | 5737 | AUUCGCGACUCCGAUGCUU | 5780 | UGGCGGGGGCGGCAGUUGG | 5823 | GGUGGACAUUCUGCCCGGU |
| 5695 | ACCCUCCUUUUUAACAUCU | 5738 | UUCGCGACUCCGAUGCUUC | 5781 | GGCGGGGGCGGCAGUUGGC | 5824 | GUGGACAUUCUGCCCGGUU |
| 5696 | CCCUCCUUUUUAACAUCUU | 5739 | UCGCGACUCCGAUGCUUCU | 5782 | GCGGGGGCGGCAGUUGGCA | 5825 | UGGACAUUCUGCCCGGUUA |
| 5697 | CCUCCUUUUUAACAUCUUG | 5740 | CGCGACUCCGAUGCUUCUA | 5783 | CGGGGGCGGCAGUUGGCAG | 5826 | GGACAUUCUGCCCGGUUAC |
| 5698 | CUCCUUUUUAACAUCUUGG | 5741 | GCGACUCCGAUGCUUCUAC | 5784 | GGGGGCGGCAGUUGGCAGU | 5827 | GACAUUCUGCCCGGUUACG |
| 5699 | UCCUUUUUAACAUCUUGGG | 5742 | CGACUCCGAUGCUUCUACC | 5785 | GGGGCGGCAGUUGGCAGUG | 5828 | ACAUUCUGCCCGGUUACGG |
| 5700 | CCUUUUUAACAUCUUGGGG | 5743 | GACUCCGAUGCUUCUACCG | 5786 | GGGCGGCAGUUGGCAGUGU | 5829 | CAUUCUGCCCGGUUACGGC |
| 5701 | CUUUUUAACAUCUUGGGGG | 5744 | ACUCCGAUGCUUCUACCGC | 5787 | GGCGGCAGUUGGCAGUGUG | 5830 | AUUCUGCCCGGUUACGGCG |
| 5702 | UUUUUAACAUCUUGGGGGG | 5745 | CUCCGAUGCUUCUACCGCA | 5788 | GCGGCAGUUGGCAGUGUGG | 5831 | UUCUGCCCGGUUACGGCGC |
| 5703 | UUUUAACAUCUUGGGGGGA | 5746 | UCCGAUGCUUCUACCGCAU | 5789 | CGGCAGUUGGCAGUGUGGG | 5832 | UCUGCCCGGUUACGGCGCC |
| 5704 | UUUAACAUCUUGGGGGGAU | 5747 | CCGAUGCUUCUACCGCAUU | 5790 | GGCAGUUGGCAGUGUGGGC | 5833 | CUGCCCGGUUACGGCGCCG |
| 5705 | UUAACAUCUUGGGGGGAUG | 5748 | CGAUGCUUCUACCGCAUUC | 5791 | GCAGUUGGCAGUGUGGGCC | 5834 | UGCCCGGUUACGGCGCCGG |
| 5706 | UAACAUCUUGGGGGGAUGG | 5749 | GAUGCUUCUACCGCAUUCG | 5792 | CAGUUGGCAGUGUGGGCCU | 5835 | GCCCGGUUACGGCGCCGGC |
| 5707 | AACAUCUUGGGGGGAUGGG | 5750 | AUGCUUCUACCGCAUUCGU | 5793 | AGUUGGCAGUGUGGGCCUU | 5836 | CCCGGUUACGGCGCCGGCG |
| 5708 | ACAUCUUGGGGGGAUGGGU | 5751 | UGCUUCUACCGCAUUCGUC | 5794 | GUUGGCAGUGUGGGCCUUG | 5837 | CCGGUUACGGCGCCGGCGU |
| 5709 | CAUCUUGGGGGGAUGGGUG | 5752 | GCUUCUACCGCAUUCGUCG | 5795 | UUGGCAGUGUGGGCCUUGG | 5838 | CGGUUACGGCGCCGGCGUA |
| 5710 | AUCUUGGGGGGAUGGGUGG | 5753 | CUUCUACCGCAUUCGUCGU | 5796 | UGGCAGUGUGGGCCUUGGC | 5839 | GGUUACGGCGCCGGCGUAC |
| 5711 | UCUUGGGGGGAUGGGUGGC | 5754 | UUCUACCGCAUUCGUCGUG | 5797 | GGCAGUGUGGGCCUUGGCA | 5840 | GUUACGGCGCCGGCGUACG |
| 5712 | CUUGGGGGGAUGGGUGGCC | 5755 | UCUACCGCAUUCGUCGUGA | 5798 | GCAGUGUGGGCCUUGGCAA | 5841 | UUACGGCGCCGGCGUACGU |
| 5713 | UUGGGGGGAUGGGUGGCCU | 5756 | CUACCGCAUUCGUCGUGAG | 5799 | CAGUGUGGGCCUUGGCAAA | 5842 | UACGGCGCCGGCGUACGUG |
| 5714 | UGGGGGGAUGGGUGGCCUC | 5757 | UACCGCAUUCGUCGUGAGC | 5800 | AGUGUGGGCCUUGGCAAAA | 5843 | ACGGCGCCGGCGUACGUGG |
| 5715 | GGGGGGAUGGGUGGCCUCA | 5758 | ACCGCAUUCGUCGUGAGCG | 5801 | GUGUGGGCCUUGGCAAAAU | 5844 | CGGCGCCGGCGUACGUGGC |
| 5716 | GGGGGAUGGGUGGCCUCAC | 5759 | CCGCAUUCGUCGUGAGCGG | 5802 | UGUGGGCCUUGGCAAAAUU | 5845 | GGCGCCGGCGUACGUGGCG |
| 5717 | GGGGAUGGGUGGCCUCACA | 5760 | CGCAUUCGUCGUGAGCGGC | 5803 | GUGGGCCUUGGCAAAAUUU | 5846 | GCGCCGGCGUACGUGGCGC |
| 5718 | GGGAUGGGUGGCCUCACAG | 5761 | GCAUUCGUCGUGAGCGGCU | 5804 | UGGGCCUUGGCAAAAUUUU | 5847 | CGCCGGCGUACGUGGCGCU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5848 | GCCGGCGUACGUGGCGCUG | 5891 | GCGAGAUGCCUUCCACAGA | 5934 | CAUUCUAUCGCCCGGAGCA | 5977 | GCGAUUUUGCGCCGCCACG |
| 5849 | CCGGCGUACGUGGCGCUGU | 5892 | CGAGAUGCCUUCCACAGAG | 5935 | AUUCUAUCGCCCGGAGCAU | 5978 | CGAUUUUGCGCCGCCACGU |
| 5850 | CGGCGUACGUGGCGCUGUG | 5893 | GAGAUGCCUUCCACAGAGG | 5936 | UUCUAUCGCCCGGAGCAUU | 5979 | GAUUUUGCGCCGCCACGUG |
| 5851 | GGCGUACGUGGCGCUGUGG | 5894 | AGAUGCCUUCCACAGAGGA | 5937 | UCUAUCGCCCGGAGCAUUG | 5980 | AUUUUGCGCCGCCACGUGG |
| 5852 | GCGUACGUGGCGCUGUGGU | 5895 | GAUGCCUUCCACAGAGGAC | 5938 | CUAUCGCCCGGAGCAUUGG | 5981 | UUUUGCGCCGCCACGUGGG |
| 5853 | CGUACGUGGCGCUGUGGUU | 5896 | AUGCCUUCCACAGAGGACU | 5939 | UAUCGCCCGGAGCAUUGGU | 5982 | UUUGCGCCGCCACGUGGGC |
| 5854 | GUACGUGGCGCUGUGGUUA | 5897 | UGCCUUCCACAGAGGACUU | 5940 | AUCGCCCGGAGCAUUGGUG | 5983 | UUGCGCCGCCACGUGGGCC |
| 5855 | UACGUGGCGCUGUGGUUAC | 5898 | GCCUUCCACAGAGGACUUG | 5941 | UCGCCCGGAGCAUUGGUGG | 5984 | UGCGCCGCCACGUGGGCCC |
| 5856 | ACGUGGCGCUGUGGUUACC | 5899 | CCUUCCACAGAGGACUUGG | 5942 | CGCCCGGAGCAUUGGUGGU | 5985 | GCGCCGCCACGUGGGCCCG |
| 5857 | CGUGGCGCUGUGGUUACCU | 5900 | CUUCCACAGAGGACUUGGU | 5943 | GCCCGGAGCAUUGGUGGUG | 5986 | CGCCGCCACGUGGGCCCGG |
| 5858 | GUGGCGCUGUGGUUACCUU | 5901 | UUCCACAGAGGACUUGGUA | 5944 | CCCGGAGCAUUGGUGGUGG | 5987 | GCCGCCACGUGGGCCCGGG |
| 5859 | UGGCGCUGUGGUUACCUUC | 5902 | UCCACAGAGGACUUGGUAA | 5945 | CCGGAGCAUUGGUGGUGGA | 5988 | CCGCCACGUGGGCCCGGGC |
| 5860 | GGCGCUGUGGUUACCUUCA | 5903 | CCACAGAGGACUUGGUAAA | 5946 | CGGAGCAUUGGUGGUGGAG | 5989 | CGCCACGUGGGCCCGGGCG |
| 5861 | GCGCUGUGGUUACCUUCAA | 5904 | CACAGAGGACUUGGUAAAU | 5947 | GGAGCAUUGGUGGUGGAGG | 5990 | GCCACGUGGGCCCGGGCGA |
| 5862 | CGCUGUGGUUACCUUCAAG | 5905 | ACAGAGGACUUGGUAAAUU | 5948 | GAGCAUUGGUGGUGGAGGU | 5991 | CCACGUGGGCCCGGGCGAA |
| 5863 | GCUGUGGUUACCUUCAAGA | 5906 | CAGAGGACUUGGUAAAUUU | 5949 | AGCAUUGGUGGUGGAGGUG | 5992 | CACGUGGGCCCGGGCGAAG |
| 5864 | CUGUGGUUACCUUCAAGAU | 5907 | AGAGGACUUGGUAAAUUUG | 5950 | GCAUUGGUGGUGGAGGUGG | 5993 | ACGUGGGCCCGGGCGAAGG |
| 5865 | UGUGGUUACCUUCAAGAUC | 5908 | GAGGACUUGGUAAAUUUGC | 5951 | CAUUGGUGGUGGAGGUGGU | 5994 | CGUGGGCCCGGGCGAAGGG |
| 5866 | GUGGUUACCUUCAAGAUCA | 5909 | AGGACUUGGUAAAUUUGCU | 5952 | AUUGGUGGUGGAGGUGGUA | 5995 | GUGGGCCCGGGCGAAGGGG |
| 5867 | UGGUUACCUUCAAGAUCAU | 5910 | GGACUUGGUAAAUUUGCUC | 5953 | UUGGUGGUGGAGGUGGUAU | 5996 | UGGGCCCGGGCGAAGGGGC |
| 5868 | GGUUACCUUCAAGAUCAUG | 5911 | GACUUGGUAAAUUUGCUCC | 5954 | UGGUGGUGGAGGUGGUAUG | 5997 | GGGCCCGGGCGAAGGGGCC |
| 5869 | GUUACCUUCAAGAUCAUGA | 5912 | ACUUGGUAAAUUUGCUCCC | 5955 | GGUGGUGGAGGUGGUAUGC | 5998 | GGCCCGGGCGAAGGGGCCG |
| 5870 | UUACCUUCAAGAUCAUGAG | 5913 | CUUGGUAAAUUUGCUCCCG | 5956 | GUGGUGGAGGUGGUAUGCC | 5999 | GCCCGGGCGAAGGGGCCGU |
| 5871 | UACCUUCAAGAUCAUGAGC | 5914 | UUGGUAAAUUUGCUCCCGG | 5957 | UGGUGGAGGUGGUAUGCCC | 6000 | CCCGGGCGAAGGGGCCGUG |
| 5872 | ACCUUCAAGAUCAUGAGCG | 5915 | UGGUAAAUUUGCUCCCGGC | 5958 | GGUGGAGGUGGUAUGCCCG | 6001 | CCGGGCGAAGGGGCCGUGC |
| 5873 | CCUUCAAGAUCAUGAGCGG | 5916 | GGUAAAUUUGCUCCCGGCC | 5959 | GUGGAGGUGGUAUGCCCGG | 6002 | CGGGCGAAGGGGCCGUGCA |
| 5874 | CUUCAAGAUCAUGAGCGGC | 5917 | GUAAAUUUGCUCCCGGCCA | 5960 | UGGAGGUGGUAUGCCCGGC | 6003 | GGGCGAAGGGGCCGUGCAG |
| 5875 | UUCAAGAUCAUGAGCGGCG | 5918 | UAAAUUUGCUCCCGGCCAU | 5961 | GGAGGUGGUAUGCCCGGCG | 6004 | GGCGAAGGGGCCGUGCAGU |
| 5876 | UCAAGAUCAUGAGCGGCGA | 5919 | AAAUUUGCUCCCGGCCAUU | 5962 | GAGGUGGUAUGCCCGGCGA | 6005 | GCGAAGGGGCCGUGCAGUG |
| 5877 | CAAGAUCAUGAGCGGCGAG | 5920 | AAUUUGCUCCCGGCCAUUC | 5963 | AGGUGGUAUGCCCGGCGAU | 6006 | CGAAGGGGCCGUGCAGUGG |
| 5878 | AAGAUCAUGAGCGGCGAGA | 5921 | AUUUGCUCCCGGCCAUUCU | 5964 | GGUGGUAUGCCCGGCGAUU | 6007 | GAAGGGGCCGUGCAGUGGA |
| 5879 | AGAUCAUGAGCGGCGAGAU | 5922 | UUUGCUCCCGGCCAUUCUA | 5965 | GUGGUAUGCCCGGCGAUUU | 6008 | AAGGGGCCGUGCAGUGGAU |
| 5880 | GAUCAUGAGCGGCGAGAUG | 5923 | UUGCUCCCGGCCAUUCUAU | 5966 | UGGUAUGCCCGGCGAUUUU | 6009 | AGGGGCCGUGCAGUGGAUG |
| 5881 | AUCAUGAGCGGCGAGAUGC | 5924 | UGCUCCCGGCCAUUCUAUC | 5967 | GGUAUGCCCGGCGAUUUUG | 6010 | GGGGCCGUGCAGUGGAUGA |
| 5882 | UCAUGAGCGGCGAGAUGCC | 5925 | GCUCCCGGCCAUUCUAUCG | 5968 | GUAUGCCCGGCGAUUUUGC | 6011 | GGGCCGUGCAGUGGAUGAA |
| 5883 | CAUGAGCGGCGAGAUGCCU | 5926 | CUCCCGGCCAUUCUAUCGC | 5969 | UAUGCCCGGCGAUUUUGCG | 6012 | GGCCGUGCAGUGGAUGAAC |
| 5884 | AUGAGCGGCGAGAUGCCUU | 5927 | UCCCGGCCAUUCUAUCGCC | 5970 | AUGCCCGGCGAUUUUGCGC | 6013 | GCCGUGCAGUGGAUGAACC |
| 5885 | UGAGCGGCGAGAUGCCUUC | 5928 | CCCGGCCAUUCUAUCGCCC | 5971 | UGCCCGGCGAUUUUGCGCC | 6014 | CCGUGCAGUGGAUGAACCG |
| 5886 | GAGCGGCGAGAUGCCUUCC | 5929 | CCGGCCAUUCUAUCGCCCG | 5972 | GCCCGGCGAUUUUGCGCCG | 6015 | CGUGCAGUGGAUGAACCGU |
| 5887 | AGCGGCGAGAUGCCUUCCA | 5930 | CGGCCAUUCUAUCGCCCGG | 5973 | CCCGGCGAUUUUGCGCCGC | 6016 | GUGCAGUGGAUGAACCGUC |
| 5888 | GCGGCGAGAUGCCUUCCAC | 5931 | GGCCAUUCUAUCGCCCGGA | 5974 | CCGGCGAUUUUGCGCCGCC | 6017 | UGCAGUGGAUGAACCGUCU |
| 5889 | CGGCGAGAUGCCUUCCACA | 5932 | GCCAUUCUAUCGCCCGGAG | 5975 | CGGCGAUUUUGCGCCGCCA | 6018 | GCAGUGGAUGAACCGUCUA |
| 5890 | GGCGAGAUGCCUUCCACAG | 5933 | CCAUUCUAUCGCCCGGAGC | 5976 | GGCGAUUUUGCGCCGCCAC | 6019 | CAGUGGAUGAACCGUCUAA |

**FIG. 5 (page 267 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6020 | AGUGGAUGAACCGUCUAAU | 6063 | CGUGUCUCCCACGCAUUAC | 6106 | CGCGUGACCACCAUACUAU | 6149 | UCAGACGCCUCCACAAGUG |
| 6021 | GUGGAUGAACCGUCUAAUU | 6064 | GUGUCUCCCACGCAUUACG | 6107 | GCGUGACCACCAUACUAUC | 6150 | CAGACGCCUCCACAAGUGG |
| 6022 | UGGAUGAACCGUCUAAUUG | 6065 | UGUCUCCCACGCAUUACGU | 6108 | CGUGACCACCAUACUAUCA | 6151 | AGACGCCUCCACAAGUGGA |
| 6023 | GGAUGAACCGUCUAAUUGC | 6066 | GUCUCCCACGCAUUACGUC | 6109 | GUGACCACCAUACUAUCAU | 6152 | GACGCCUCCACAAGUGGAU |
| 6024 | GAUGAACCGUCUAAUUGCG | 6067 | UCUCCCACGCAUUACGUCC | 6110 | UGACCACCAUACUAUCAUC | 6153 | ACGCCUCCACAAGUGGAUC |
| 6025 | AUGAACCGUCUAAUUGCGU | 6068 | CUCCCACGCAUUACGUCCC | 6111 | GACCACCAUACUAUCAUCC | 6154 | CGCCUCCACAAGUGGAUCA |
| 6026 | UGAACCGUCUAAUUGCGUU | 6069 | UCCCACGCAUUACGUCCCU | 6112 | ACCACCAUACUAUCAUCCC | 6155 | GCCUCCACAAGUGGAUCAA |
| 6027 | GAACCGUCUAAUUGCGUUC | 6070 | CCCACGCAUUACGUCCCUG | 6113 | CCACCAUACUAUCAUCCCU | 6156 | CCUCCACAAGUGGAUCAAU |
| 6028 | AACCGUCUAAUUGCGUUCG | 6071 | CCACGCAUUACGUCCCUGA | 6114 | CACCAUACUAUCAUCCCUC | 6157 | CUCCACAAGUGGAUCAAUG |
| 6029 | ACCGUCUAAUUGCGUUCGC | 6072 | CACGCAUUACGUCCCUGAG | 6115 | ACCAUACUAUCAUCCCUCA | 6158 | UCCACAAGUGGAUCAAUGA |
| 6030 | CCGUCUAAUUGCGUUCGCA | 6073 | ACGCAUUACGUCCCUGAGU | 6116 | CCAUACUAUCAUCCCUCAC | 6159 | CCACAAGUGGAUCAAUGAA |
| 6031 | CGUCUAAUUGCGUUCGCAU | 6074 | CGCAUUACGUCCCUGAGUC | 6117 | CAUACUAUCAUCCCUCACU | 6160 | CACAAGUGGAUCAAUGAAG |
| 6032 | GUCUAAUUGCGUUCGCAUC | 6075 | GCAUUACGUCCCUGAGUCC | 6118 | AUACUAUCAUCCCUCACUG | 6161 | ACAAGUGGAUCAAUGAAGA |
| 6033 | UCUAAUUGCGUUCGCAUCG | 6076 | CAUUACGUCCCUGAGUCCG | 6119 | UACUAUCAUCCCUCACUGU | 6162 | CAAGUGGAUCAAUGAAGAU |
| 6034 | CUAAUUGCGUUCGCAUCGC | 6077 | AUUACGUCCCUGAGUCCGA | 6120 | ACUAUCAUCCCUCACUGUG | 6163 | AAGUGGAUCAAUGAAGAUU |
| 6035 | UAAUUGCGUUCGCAUCGCG | 6078 | UUACGUCCCUGAGUCCGAC | 6121 | CUAUCAUCCCUCACUGUGA | 6164 | AGUGGAUCAAUGAAGAUUG |
| 6036 | AAUUGCGUUCGCAUCGCGA | 6079 | UACGUCCCUGAGUCCGACG | 6122 | UAUCAUCCCUCACUGUGAC | 6165 | GUGGAUCAAUGAAGAUUGC |
| 6037 | AUUGCGUUCGCAUCGCGAG | 6080 | ACGUCCCUGAGUCCGACGC | 6123 | AUCAUCCCUCACUGUGACA | 6166 | UGGAUCAAUGAAGAUUGCU |
| 6038 | UUGCGUUCGCAUCGCGAGG | 6081 | CGUCCCUGAGUCCGACGCG | 6124 | UCAUCCCUCACUGUGACAU | 6167 | GGAUCAAUGAAGAUUGCUC |
| 6039 | UGCGUUCGCAUCGCGAGGC | 6082 | GUCCCUGAGUCCGACGCGG | 6125 | CAUCCCUCACUGUGACAUC | 6168 | GAUCAAUGAAGAUUGCUCC |
| 6040 | GCGUUCGCAUCGCGAGGCA | 6083 | UCCCUGAGUCCGACGCGGC | 6126 | AUCCCUCACUGUGACAUCC | 6169 | AUCAAUGAAGAUUGCUCCA |
| 6041 | CGUUCGCAUCGCGAGGCAA | 6084 | CCCUGAGUCCGACGCGGCA | 6127 | UCCCUCACUGUGACAUCCC | 6170 | UCAAUGAAGAUUGCUCCAC |
| 6042 | GUUCGCAUCGCGAGGCAAU | 6085 | CCUGAGUCCGACGCGGCAC | 6128 | CCCUCACUGUGACAUCCCU | 6171 | CAAUGAAGAUUGCUCCACC |
| 6043 | UUCGCAUCGCGAGGCAAUC | 6086 | CUGAGUCCGACGCGGCACG | 6129 | CCUCACUGUGACAUCCCUU | 6172 | AAUGAAGAUUGCUCCACCC |
| 6044 | UCGCAUCGCGAGGCAAUCA | 6087 | UGAGUCCGACGCGGCACGC | 6130 | CUCACUGUGACAUCCCUUC | 6173 | AUGAAGAUUGCUCCACCCC |
| 6045 | CGCAUCGCGAGGCAAUCAC | 6088 | GAGUCCGACGCGGCACGCC | 6131 | UCACUGUGACAUCCCUUCU | 6174 | UGAAGAUUGCUCCACCCCA |
| 6046 | GCAUCGCGAGGCAAUCACG | 6089 | AGUCCGACGCGGCACGCCG | 6132 | CACUGUGACAUCCCUUCUC | 6175 | GAAGAUUGCUCCACCCCAU |
| 6047 | CAUCGCGAGGCAAUCACGU | 6090 | GUCCGACGCGGCACGCCGC | 6133 | ACUGUGACAUCCCUUCUCA | 6176 | AAGAUUGCUCCACCCCAUG |
| 6048 | AUCGCGAGGCAAUCACGUG | 6091 | UCCGACGCGGCACGCCGCG | 6134 | CUGUGACAUCCCUUCUCAG | 6177 | AGAUUGCUCCACCCCAUGU |
| 6049 | UCGCGAGGCAAUCACGUGU | 6092 | CCGACGCGGCACGCCGCGU | 6135 | UGUGACAUCCCUUCUCAGA | 6178 | GAUUGCUCCACCCCAUGUG |
| 6050 | CGCGAGGCAAUCACGUGUC | 6093 | CGACGCGGCACGCCGCGUG | 6136 | GUGACAUCCCUUCUCAGAC | 6179 | AUUGCUCCACCCCAUGUGC |
| 6051 | GCGAGGCAAUCACGUGUCU | 6094 | GACGCGGCACGCCGCGUGA | 6137 | UGACAUCCCUUCUCAGACG | 6180 | UUGCUCCACCCCAUGUGCC |
| 6052 | CGAGGCAAUCACGUGUCUC | 6095 | ACGCGGCACGCCGCGUGAC | 6138 | GACAUCCCUUCUCAGACGC | 6181 | UGCUCCACCCCAUGUGCCG |
| 6053 | GAGGCAAUCACGUGUCUCC | 6096 | CGCGGCACGCCGCGUGACC | 6139 | ACAUCCCUUCUCAGACGCC | 6182 | GCUCCACCCCAUGUGCCGA |
| 6054 | AGGCAAUCACGUGUCUCCC | 6097 | GCGGCACGCCGCGUGACCA | 6140 | CAUCCCUUCUCAGACGCCU | 6183 | CUCCACCCCAUGUGCCGAA |
| 6055 | GGCAAUCACGUGUCUCCCA | 6098 | CGGCACGCCGCGUGACCAC | 6141 | AUCCCUUCUCAGACGCCUC | 6184 | UCCACCCCAUGUGCCGAAU |
| 6056 | GCAAUCACGUGUCUCCCAC | 6099 | GGCACGCCGCGUGACCACC | 6142 | UCCCUUCUCAGACGCCUCC | 6185 | CCACCCCAUGUGCCGAAUC |
| 6057 | CAAUCACGUGUCUCCCACG | 6100 | GCACGCCGCGUGACCACCA | 6143 | CCCUUCUCAGACGCCUCCA | 6186 | CACCCCAUGUGCCGAAUCU |
| 6058 | AAUCACGUGUCUCCCACGC | 6101 | CACGCCGCGUGACCACCAU | 6144 | CCUUCUCAGACGCCUCCAC | 6187 | ACCCCAUGUGCCGAAUCUU |
| 6059 | AUCACGUGUCUCCCACGCA | 6102 | ACGCCGCGUGACCACCAUA | 6145 | CUUCUCAGACGCCUCCACA | 6188 | CCCCAUGUGCCGAAUCUUG |
| 6060 | UCACGUGUCUCCCACGCAU | 6103 | CGCCGCGUGACCACCAUAC | 6146 | UUCUCAGACGCCUCCACAA | 6189 | CCCAUGUGCCGAAUCUUGG |
| 6061 | CACGUGUCUCCCACGCAUU | 6104 | GCCGCGUGACCACCAUACU | 6147 | UCUCAGACGCCUCCACAAG | 6190 | CCAUGUGCCGAAUCUUGGC |
| 6062 | ACGUGUCUCCCACGCAUUA | 6105 | CCGCGUGACCACCAUACUA | 6148 | CUCAGACGCCUCCACAAGU | 6191 | CAUGUGCCGAAUCUUGGCU |

**FIG. 5 (page 268 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6192 | AUGUGCCGAAUCUUGGCUA | 6235 | CACGUGCUGAGUGACUUCA | 6278 | UGCCCUUAAUGCCAGGCAU | 6321 | CUAUAAGGGAGAGUGGCGC |
| 6193 | UGUGCCGAAUCUUGGCUAU | 6236 | ACGUGCUGAGUGACUUCAA | 6279 | GCCCUUAAUGCCAGGCAUC | 6322 | UAUAAGGGAGAGUGGCGCG |
| 6194 | GUGCCGAAUCUUGGCUAUG | 6237 | CGUGCUGAGUGACUUCAAG | 6280 | CCCUUAAUGCCAGGCAUCC | 6323 | AUAAGGGAGAGUGGCGCGG |
| 6195 | UGCCGAAUCUUGGCUAUGG | 6238 | GUGCUGAGUGACUUCAAGA | 6281 | CCUUAAUGCCAGGCAUCCC | 6324 | UAAGGGAGAGUGGCGCGGA |
| 6196 | GCCGAAUCUUGGCUAUGGG | 6239 | UGCUGAGUGACUUCAAGAC | 6282 | CUUAAUGCCAGGCAUCCCC | 6325 | AAGGGAGAGUGGCGCGGAG |
| 6197 | CCGAAUCUUGGCUAUGGGA | 6240 | GCUGAGUGACUUCAAGACG | 6283 | UUAAUGCCAGGCAUCCCCC | 6326 | AGGGAGAGUGGCGCGGAGA |
| 6198 | CGAAUCUUGGCUAUGGGAG | 6241 | CUGAGUGACUUCAAGACGU | 6284 | UAAUGCCAGGCAUCCCCCU | 6327 | GGGAGAGUGGCGCGGAGAU |
| 6199 | GAAUCUUGGCUAUGGGAGG | 6242 | UGAGUGACUUCAAGACGUG | 6285 | AAUGCCAGGCAUCCCCCUC | 6328 | GGAGAGUGGCGCGGAGAUG |
| 6200 | AAUCUUGGCUAUGGGAGGU | 6243 | GAGUGACUUCAAGACGUGC | 6286 | AUGCCAGGCAUCCCCCUCC | 6329 | GAGAGUGGCGCGGAGAUGG |
| 6201 | AUCUUGGCUAUGGGAGGUA | 6244 | AGUGACUUCAAGACGUGCU | 6287 | UGCCAGGCAUCCCCCUCCU | 6330 | AGAGUGGCGCGGAGAUGGC |
| 6202 | UCUUGGCUAUGGGAGGUAU | 6245 | GUGACUUCAAGACGUGCUU | 6288 | GCCAGGCAUCCCCCUCCUC | 6331 | GAGUGGCGCGGAGAUGGCG |
| 6203 | CUUGGCUAUGGGAGGUAUG | 6246 | UGACUUCAAGACGUGCUUA | 6289 | CCAGGCAUCCCCCUCCUCU | 6332 | AGUGGCGCGGAGAUGGCGU |
| 6204 | UUGGCUAUGGGAGGUAUGG | 6247 | GACUUCAAGACGUGCUUAA | 6290 | CAGGCAUCCCCCUCCUCUC | 6333 | GUGGCGCGGAGAUGGCGUG |
| 6205 | UGGCUAUGGGAGGUAUGGG | 6248 | ACUUCAAGACGUGCUUAAA | 6291 | AGGCAUCCCCCUCCUCUCA | 6334 | UGGCGCGGAGAUGGCGUGA |
| 6206 | GGCUAUGGGAGGUAUGGGA | 6249 | CUUCAAGACGUGCUUAAAA | 6292 | GGCAUCCCCCUCCUCUCAU | 6335 | GGCGCGGAGAUGGCGUGAU |
| 6207 | GCUAUGGGAGGUAUGGGAU | 6250 | UUCAAGACGUGCUUAAAAG | 6293 | GCAUCCCCCUCCUCUCAUG | 6336 | GCGCGGAGAUGGCGUGAUG |
| 6208 | CUAUGGGAGGUAUGGGAUU | 6251 | UCAAGACGUGCUUAAAAGC | 6294 | CAUCCCCCUCCUCUCAUGG | 6337 | CGCGGAGAUGGCGUGAUGC |
| 6209 | UAUGGGAGGUAUGGGAUUG | 6252 | CAAGACGUGCUUAAAAGCA | 6295 | AUCCCCCUCCUCUCAUGGC | 6338 | GCGGAGAUGGCGUGAUGCA |
| 6210 | AUGGGAGGUAUGGGAUUGG | 6253 | AAGACGUGCUUAAAAGCAA | 6296 | UCCCCCUCCUCUCAUGGCC | 6339 | CGGAGAUGGCGUGAUGCAU |
| 6211 | UGGGAGGUAUGGGAUUGGG | 6254 | AGACGUGCUUAAAAGCAAA | 6297 | CCCCCUCCUCUCAUGGCCA | 6340 | GGAGAUGGCGUGAUGCAUA |
| 6212 | GGGAGGUAUGGGAUUGGGU | 6255 | GACGUGCUUAAAAGCAAAG | 6298 | CCCCUCCUCUCAUGGCCAA | 6341 | GAGAUGGCGUGAUGCAUAC |
| 6213 | GGAGGUAUGGGAUUGGGUC | 6256 | ACGUGCUUAAAAGCAAAGU | 6299 | CCCUCCUCUCAUGGCCAAG | 6342 | AGAUGGCGUGAUGCAUACG |
| 6214 | GAGGUAUGGGAUUGGGUCU | 6257 | CGUGCUUAAAAGCAAAGUU | 6300 | CCUCCUCUCAUGGCCAAGA | 6343 | GAUGGCGUGAUGCAUACGA |
| 6215 | AGGUAUGGGAUUGGGUCUU | 6258 | GUGCUUAAAAGCAAAGUUC | 6301 | CUCCUCUCAUGGCCAAGAG | 6344 | AUGGCGUGAUGCAUACGAC |
| 6216 | GGUAUGGGAUUGGGUCUUG | 6259 | UGCUUAAAAGCAAAGUUCG | 6302 | UCCUCUCAUGGCCAAGAGG | 6345 | UGGCGUGAUGCAUACGACA |
| 6217 | GUAUGGGAUUGGGUCUUGC | 6260 | GCUUAAAAGCAAAGUUCGU | 6303 | CCUCUCAUGGCCAAGAGGC | 6346 | GGCGUGAUGCAUACGACAU |
| 6218 | UAUGGGAUUGGGUCUUGCA | 6261 | CUUAAAAGCAAAGUUCGUG | 6304 | CUCUCAUGGCCAAGAGGCU | 6347 | GCGUGAUGCAUACGACAUG |
| 6219 | AUGGGAUUGGGUCUUGCAC | 6262 | UUAAAAGCAAAGUUCGUGC | 6305 | UCUCAUGGCCAAGAGGCUA | 6348 | CGUGAUGCAUACGACAUGC |
| 6220 | UGGGAUUGGGUCUUGCACG | 6263 | UAAAAGCAAAGUUCGUGCC | 6306 | CUCAUGGCCAAGAGGCUAU | 6349 | GUGAUGCAUACGACAUGCC |
| 6221 | GGGAUUGGGUCUUGCACGU | 6264 | AAAAGCAAAGUUCGUGCCC | 6307 | UCAUGGCCAAGAGGCUAUA | 6350 | UGAUGCAUACGACAUGCCC |
| 6222 | GGAUUGGGUCUUGCACGUG | 6265 | AAAGCAAAGUUCGUGCCCU | 6308 | CAUGGCCAAGAGGCUAUAA | 6351 | GAUGCAUACGACAUGCCCC |
| 6223 | GAUUGGGUCUUGCACGUGC | 6266 | AAGCAAAGUUCGUGCCCUU | 6309 | AUGGCCAAGAGGCUAUAAG | 6352 | AUGCAUACGACAUGCCCCU |
| 6224 | AUUGGGUCUUGCACGUGCU | 6267 | AGCAAAGUUCGUGCCCUUA | 6310 | UGGCCAAGAGGCUAUAAGG | 6353 | UGCAUACGACAUGCCCCUG |
| 6225 | UUGGGUCUUGCACGUGCUG | 6268 | GCAAAGUUCGUGCCCUUAA | 6311 | GGCCAAGAGGCUAUAAGGG | 6354 | GCAUACGACAUGCCCCUGC |
| 6226 | UGGGUCUUGCACGUGCUGA | 6269 | CAAAGUUCGUGCCCUUAAU | 6312 | GCCAAGAGGCUAUAAGGGA | 6355 | CAUACGACAUGCCCCUGCG |
| 6227 | GGGUCUUGCACGUGCUGAG | 6270 | AAAGUUCGUGCCCUUAAUG | 6313 | CCAAGAGGCUAUAAGGGAG | 6356 | AUACGACAUGCCCCUGCGG |
| 6228 | GGUCUUGCACGUGCUGAGU | 6271 | AAGUUCGUGCCCUUAAUGC | 6314 | CAAGAGGCUAUAAGGGAGA | 6357 | UACGACAUGCCCCUGCGGA |
| 6229 | GUCUUGCACGUGCUGAGUG | 6272 | AGUUCGUGCCCUUAAUGCC | 6315 | AAGAGGCUAUAAGGGAGAG | 6358 | ACGACAUGCCCCUGCGGAG |
| 6230 | UCUUGCACGUGCUGAGUGA | 6273 | GUUCGUGCCCUUAAUGCCA | 6316 | AGAGGCUAUAAGGGAGAGU | 6359 | CGACAUGCCCCUGCGGAGC |
| 6231 | CUUGCACGUGCUGAGUGAC | 6274 | UUCGUGCCCUUAAUGCCAG | 6317 | GAGGCUAUAAGGGAGAGUG | 6360 | GACAUGCCCCUGCGGAGCA |
| 6232 | UUGCACGUGCUGAGUGACU | 6275 | UCGUGCCCUUAAUGCCAGG | 6318 | AGGCUAUAAGGGAGAGUGG | 6361 | ACAUGCCCCUGCGGAGCAG |
| 6233 | UGCACGUGCUGAGUGACUU | 6276 | CGUGCCCUUAAUGCCAGGC | 6319 | GGCUAUAAGGGAGAGUGGC | 6362 | CAUGCCCCUGCGGAGCAGA |
| 6234 | GCACGUGCUGAGUGACUUC | 6277 | GUGCCCUUAAUGCCAGGCA | 6320 | GCUAUAAGGGAGAGUGGCG | 6363 | AUGCCCCUGCGGAGCAGAU |

**FIG. 5 (page 269 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6364 | UGCCCCUGCGGAGCAGAUC | 6407 | CGAUGAGAAUCACCGGGCC | 6450 | UGGAACCUUCCCCAUCAAU | 6493 | CCCAUCCCGGCUCCGAACU |
| 6365 | GCCCCUGCGGAGCAGAUCU | 6408 | GAUGAGAAUCACCGGGCCG | 6451 | GGAACCUUCCCCAUCAAUG | 6494 | CCAUCCCGGCUCCGAACUA |
| 6366 | CCCCUGCGGAGCAGAUCUG | 6409 | AUGAGAAUCACCGGGCCGA | 6452 | GAACCUUCCCCAUCAAUGC | 6495 | CAUCCCGGCUCCGAACUAC |
| 6367 | CCCUGCGGAGCAGAUCUGG | 6410 | UGAGAAUCACCGGGCCGAA | 6453 | AACCUUCCCCAUCAAUGCC | 6496 | AUCCCGGCUCCGAACUACA |
| 6368 | CCUGCGGAGCAGAUCUGGC | 6411 | GAGAAUCACCGGGCCGAAA | 6454 | ACCUUCCCCAUCAAUGCCU | 6497 | UCCCGGCUCCGAACUACAA |
| 6369 | CUGCGGAGCAGAUCUGGCA | 6412 | AGAAUCACCGGGCCGAAAA | 6455 | CCUUCCCCAUCAAUGCCUA | 6498 | CCCGGCUCCGAACUACAAG |
| 6370 | UGCGGAGCAGAUCUGGCAG | 6413 | GAAUCACCGGGCCGAAAAC | 6456 | CUUCCCCAUCAAUGCCUAC | 6499 | CCGGCUCCGAACUACAAGU |
| 6371 | GCGGAGCAGAUCUGGCAGG | 6414 | AAUCACCGGGCCGAAAACC | 6457 | UUCCCCAUCAAUGCCUACA | 6500 | CGGCUCCGAACUACAAGUU |
| 6372 | CGGAGCAGAUCUGGCAGGU | 6415 | AUCACCGGGCCGAAAACCU | 6458 | UCCCCAUCAAUGCCUACAC | 6501 | GGCUCCGAACUACAAGUUC |
| 6373 | GGAGCAGAUCUGGCAGGUC | 6416 | UCACCGGGCCGAAAACCUG | 6459 | CCCCAUCAAUGCCUACACC | 6502 | GCUCCGAACUACAAGUUCG |
| 6374 | GAGCAGAUCUGGCAGGUCA | 6417 | CACCGGGCCGAAAACCUGC | 6460 | CCCAUCAAUGCCUACACCA | 6503 | CUCCGAACUACAAGUUCGC |
| 6375 | AGCAGAUCUGGCAGGUCAC | 6418 | ACCGGGCCGAAAACCUGCA | 6461 | CCAUCAAUGCCUACACCAC | 6504 | UCCGAACUACAAGUUCGCG |
| 6376 | GCAGAUCUGGCAGGUCACA | 6419 | CCGGGCCGAAAACCUGCAG | 6462 | CAUCAAUGCCUACACCACA | 6505 | CCGAACUACAAGUUCGCGC |
| 6377 | CAGAUCUGGCAGGUCACAU | 6420 | CGGGCCGAAAACCUGCAGC | 6463 | AUCAAUGCCUACACCACAG | 6506 | CGAACUACAAGUUCGCGCU |
| 6378 | AGAUCUGGCAGGUCACAUC | 6421 | GGGCCGAAAACCUGCAGCA | 6464 | UCAAUGCCUACACCACAGG | 6507 | GAACUACAAGUUCGCGCUU |
| 6379 | GAUCUGGCAGGUCACAUCA | 6422 | GGCCGAAAACCUGCAGCAA | 6465 | CAAUGCCUACACCACAGGC | 6508 | AACUACAAGUUCGCGCUUU |
| 6380 | AUCUGGCAGGUCACAUCAA | 6423 | GCCGAAAACCUGCAGCAAC | 6466 | AAUGCCUACACCACAGGCC | 6509 | ACUACAAGUUCGCGCUUUG |
| 6381 | UCUGGCAGGUCACAUCAAG | 6424 | CCGAAAACCUGCAGCAACA | 6467 | AUGCCUACACCACAGGCCC | 6510 | CUACAAGUUCGCGCUUUGG |
| 6382 | CUGGCAGGUCACAUCAAGA | 6425 | CGAAAACCUGCAGCAACAC | 6468 | UGCCUACACCACAGGCCCU | 6511 | UACAAGUUCGCGCUUUGGA |
| 6383 | UGGCAGGUCACAUCAAGAA | 6426 | GAAAACCUGCAGCAACACA | 6469 | GCCUACACCACAGGCCCUG | 6512 | ACAAGUUCGCGCUUUGGAG |
| 6384 | GGCAGGUCACAUCAAGAAC | 6427 | AAAACCUGCAGCAACACAU | 6470 | CCUACACCACAGGCCCUGG | 6513 | CAAGUUCGCGCUUUGGAGG |
| 6385 | GCAGGUCACAUCAAGAACG | 6428 | AAACCUGCAGCAACACAUG | 6471 | CUACACCACAGGCCCUGGU | 6514 | AAGUUCGCGCUUUGGAGGG |
| 6386 | CAGGUCACAUCAAGAACGG | 6429 | AACCUGCAGCAACACAUGG | 6472 | UACACCACAGGCCCUGGUG | 6515 | AGUUCGCGCUUUGGAGGGU |
| 6387 | AGGUCACAUCAAGAACGGC | 6430 | ACCUGCAGCAACACAUGGC | 6473 | ACACCACAGGCCCUGGUGU | 6516 | GUUCGCGCUUUGGAGGGUG |
| 6388 | GGUCACAUCAAGAACGGCU | 6431 | CCUGCAGCAACACAUGGCA | 6474 | CACCACAGGCCCUGGUGUA | 6517 | UUCGCGCUUUGGAGGGUGU |
| 6389 | GUCACAUCAAGAACGGCUC | 6432 | CUGCAGCAACACAUGGCAU | 6475 | ACCACAGGCCCUGGUGUAC | 6518 | UCGCGCUUUGGAGGGUGUC |
| 6390 | UCACAUCAAGAACGGCUCG | 6433 | UGCAGCAACACAUGGCAUG | 6476 | CCACAGGCCCUGGUGUACC | 6519 | CGCGCUUUGGAGGGUGUCC |
| 6391 | CACAUCAAGAACGGCUCGA | 6434 | GCAGCAACACAUGGCAUGG | 6477 | CACAGGCCCUGGUGUACCC | 6520 | GCGCUUUGGAGGGUGUCCG |
| 6392 | ACAUCAAGAACGGCUCGAU | 6435 | CAGCAACACAUGGCAUGGA | 6478 | ACAGGCCCUGGUGUACCCA | 6521 | CGCUUUGGAGGGUGUCCGC |
| 6393 | CAUCAAGAACGGCUCGAUG | 6436 | AGCAACACAUGGCAUGGAA | 6479 | CAGGCCCUGGUGUACCCAU | 6522 | GCUUUGGAGGGUGUCCGCC |
| 6394 | AUCAAGAACGGCUCGAUGA | 6437 | GCAACACAUGGCAUGGAAC | 6480 | AGGCCCUGGUGUACCCAUC | 6523 | CUUUGGAGGGUGUCCGCCG |
| 6395 | UCAAGAACGGCUCGAUGAG | 6438 | CAACACAUGGCAUGGAACC | 6481 | GGCCCUGGUGUACCCAUCC | 6524 | UUUGGAGGGUGUCCGCCGA |
| 6396 | CAAGAACGGCUCGAUGAGA | 6439 | AACACAUGGCAUGGAACCU | 6482 | GCCCUGGUGUACCCAUCCC | 6525 | UUGGAGGGUGUCCGCCGAG |
| 6397 | AAGAACGGCUCGAUGAGAA | 6440 | ACACAUGGCAUGGAACCUU | 6483 | CCCUGGUGUACCCAUCCCG | 6526 | UGGAGGGUGUCCGCCGAGG |
| 6398 | AGAACGGCUCGAUGAGAAU | 6441 | CACAUGGCAUGGAACCUUC | 6484 | CCUGGUGUACCCAUCCCGG | 6527 | GGAGGGUGUCCGCCGAGGA |
| 6399 | GAACGGCUCGAUGAGAAUC | 6442 | ACAUGGCAUGGAACCUUCC | 6485 | CUGGUGUACCCAUCCCGGC | 6528 | GAGGGUGUCCGCCGAGGAC |
| 6400 | AACGGCUCGAUGAGAAUCA | 6443 | CAUGGCAUGGAACCUUCCC | 6486 | UGGUGUACCCAUCCCGGCU | 6529 | AGGGUGUCCGCCGAGGACU |
| 6401 | ACGGCUCGAUGAGAAUCAC | 6444 | AUGGCAUGGAACCUUCCCC | 6487 | GGUGUACCCAUCCCGGCUC | 6530 | GGGUGUCCGCCGAGGACUA |
| 6402 | CGGCUCGAUGAGAAUCACC | 6445 | UGGCAUGGAACCUUCCCCA | 6488 | GUGUACCCAUCCCGGCUCC | 6531 | GGUGUCCGCCGAGGACUAC |
| 6403 | GGCUCGAUGAGAAUCACCG | 6446 | GGCAUGGAACCUUCCCCAU | 6489 | UGUACCCAUCCCGGCUCCG | 6532 | GUGUCCGCCGAGGACUACG |
| 6404 | GCUCGAUGAGAAUCACCGG | 6447 | GCAUGGAACCUUCCCCAUC | 6490 | GUACCCAUCCCGGCUCCGA | 6533 | UGUCCGCCGAGGACUACGU |
| 6405 | CUCGAUGAGAAUCACCGGG | 6448 | CAUGGAACCUUCCCCAUCA | 6491 | UACCCAUCCCGGCUCCGAA | 6534 | GUCCGCCGAGGACUACGUG |
| 6406 | UCGAUGAGAAUCACCGGGC | 6449 | AUGGAACCUUCCCCAUCAA | 6492 | ACCCAUCCCGGCUCCGAAC | 6535 | UCCGCCGAGGACUACGUGG |

**FIG. 5 (page 270 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6536 | CCGCCGAGGACUACGUGGA | 6579 | UUAUGUCACCGGGGUAACA | 6622 | CAAGUUCCGGCCCCAGAGC | 6665 | GGAUACACCGCCACGCCCC |
| 6537 | CGCCGAGGACUACGUGGAG | 6580 | UAUGUCACCGGGGUAACAC | 6623 | AAGUUCCGGCCCCAGAGCU | 6666 | GAUACACCGCCACGCCCCU |
| 6538 | GCCGAGGACUACGUGGAGG | 6581 | AUGUCACCGGGGUAACACA | 6624 | AGUUCCGGCCCCAGAGCUC | 6667 | AUACACCGCCACGCCCCUA |
| 6539 | CCGAGGACUACGUGGAGGU | 6582 | UGUCACCGGGGUAACACAA | 6625 | GUUCCGGCCCCAGAGCUCU | 6668 | UACACCGCCACGCCCCUAA |
| 6540 | CGAGGACUACGUGGAGGUU | 6583 | GUCACCGGGGUAACACAAG | 6626 | UUCCGGCCCCAGAGCUCUU | 6669 | ACACCGCCACGCCCCUAAG |
| 6541 | GAGGACUACGUGGAGGUUC | 6584 | UCACCGGGGUAACACAAGA | 6627 | UCCGGCCCCAGAGCUCUUC | 6670 | CACCGCCACGCCCCUAAGU |
| 6542 | AGGACUACGUGGAGGUUCG | 6585 | CACCGGGGUAACACAAGAC | 6628 | CCGGCCCCAGAGCUCUUCA | 6671 | ACCGCCACGCCCCUAAGUG |
| 6543 | GGACUACGUGGAGGUUCGC | 6586 | ACCGGGGUAACACAAGACA | 6629 | CGGCCCCAGAGCUCUUCAC | 6672 | CCGCCACGCCCCUAAGUGC |
| 6544 | GACUACGUGGAGGUUCGCA | 6587 | CCGGGGUAACACAAGACAA | 6630 | GGCCCCAGAGCUCUUCACG | 6673 | CGCCACGCCCCUAAGUGCA |
| 6545 | ACUACGUGGAGGUUCGCAG | 6588 | CGGGGUAACACAAGACAAC | 6631 | GCCCCAGAGCUCUUCACGG | 6674 | GCCACGCCCCUAAGUGCAA |
| 6546 | CUACGUGGAGGUUCGCAGA | 6589 | GGGGUAACACAAGACAACA | 6632 | CCCCAGAGCUCUUCACGGA | 6675 | CCACGCCCCUAAGUGCAAA |
| 6547 | UACGUGGAGGUUCGCAGAG | 6590 | GGGUAACACAAGACAACAU | 6633 | CCCAGAGCUCUUCACGGAA | 6676 | CACGCCCCUAAGUGCAAAC |
| 6548 | ACGUGGAGGUUCGCAGAGU | 6591 | GGUAACACAAGACAACAUC | 6634 | CCAGAGCUCUUCACGGAAG | 6677 | ACGCCCCUAAGUGCAAACC |
| 6549 | CGUGGAGGUUCGCAGAGUG | 6592 | GUAACACAAGACAACAUCA | 6635 | CAGAGCUCUUCACGGAAGU | 6678 | CGCCCCUAAGUGCAAACCC |
| 6550 | GUGGAGGUUCGCAGAGUGG | 6593 | UAACACAAGACAACAUCAA | 6636 | AGAGCUCUUCACGGAAGUG | 6679 | GCCCCUAAGUGCAAACCCU |
| 6551 | UGGAGGUUCGCAGAGUGGG | 6594 | AACACAAGACAACAUCAAG | 6637 | GAGCUCUUCACGGAAGUGG | 6680 | CCCCUAAGUGCAAACCCUU |
| 6552 | GGAGGUUCGCAGAGUGGGU | 6595 | ACACAAGACAACAUCAAGU | 6638 | AGCUCUUCACGGAAGUGGA | 6681 | CCCUAAGUGCAAACCCUUG |
| 6553 | GAGGUUCGCAGAGUGGGUG | 6596 | CACAAGACAACAUCAAGUU | 6639 | GCUCUUCACGGAAGUGGAC | 6682 | CCUAAGUGCAAACCCUUGC |
| 6554 | AGGUUCGCAGAGUGGGUGA | 6597 | ACAAGACAACAUCAAGUUC | 6640 | CUCUUCACGGAAGUGGACG | 6683 | CUAAGUGCAAACCCUUGCU |
| 6555 | GGUUCGCAGAGUGGGUGAU | 6598 | CAAGACAACAUCAAGUUCC | 6641 | UCUUCACGGAAGUGGACGG | 6684 | UAAGUGCAAACCCUUGCUG |
| 6556 | GUUCGCAGAGUGGGUGAUU | 6599 | AAGACAACAUCAAGUUCCC | 6642 | CUUCACGGAAGUGGACGGC | 6685 | AAGUGCAAACCCUUGCUGC |
| 6557 | UUCGCAGAGUGGGUGAUUU | 6600 | AGACAACAUCAAGUUCCCC | 6643 | UUCACGGAAGUGGACGGCA | 6686 | AGUGCAAACCCUUGCUGCG |
| 6558 | UCGCAGAGUGGGUGAUUUC | 6601 | GACAACAUCAAGUUCCCCU | 6644 | UCACGGAAGUGGACGGCAU | 6687 | GUGCAAACCCUUGCUGCGG |
| 6559 | CGCAGAGUGGGUGAUUUCC | 6602 | ACAACAUCAAGUUCCCCUG | 6645 | CACGGAAGUGGACGGCAUC | 6688 | UGCAAACCCUUGCUGCGGG |
| 6560 | GCAGAGUGGGUGAUUUCCA | 6603 | CAACAUCAAGUUCCCCUGC | 6646 | ACGGAAGUGGACGGCAUCA | 6689 | GCAAACCCUUGCUGCGGGA |
| 6561 | CAGAGUGGGUGAUUUCCAU | 6604 | AACAUCAAGUUCCCCUGCC | 6647 | CGGAAGUGGACGGCAUCAG | 6690 | CAAACCCUUGCUGCGGGAC |
| 6562 | AGAGUGGGUGAUUUCCAUU | 6605 | ACAUCAAGUUCCCCUGCCA | 6648 | GGAAGUGGACGGCAUCAGG | 6691 | AAACCCUUGCUGCGGGACG |
| 6563 | GAGUGGGUGAUUUCCAUUA | 6606 | CAUCAAGUUCCCCUGCCAA | 6649 | GAAGUGGACGGCAUCAGGA | 6692 | AACCCUUGCUGCGGGACGA |
| 6564 | AGUGGGUGAUUUCCAUUAU | 6607 | AUCAAGUUCCCCUGCCAAG | 6650 | AAGUGGACGGCAUCAGGAU | 6693 | ACCCUUGCUGCGGGACGAA |
| 6565 | GUGGGUGAUUUCCAUUAUG | 6608 | UCAAGUUCCCCUGCCAAGU | 6651 | AGUGGACGGCAUCAGGAUA | 6694 | CCCUUGCUGCGGGACGAAG |
| 6566 | UGGGUGAUUUCCAUUAUGU | 6609 | CAAGUUCCCCUGCCAAGUU | 6652 | GUGGACGGCAUCAGGAUAC | 6695 | CCUUGCUGCGGGACGAAGU |
| 6567 | GGGUGAUUUCCAUUAUGUC | 6610 | AAGUUCCCCUGCCAAGUUC | 6653 | UGGACGGCAUCAGGAUACA | 6696 | CUUGCUGCGGGACGAAGUG |
| 6568 | GGUGAUUUCCAUUAUGUCA | 6611 | AGUUCCCCUGCCAAGUUCC | 6654 | GGACGGCAUCAGGAUACAC | 6697 | UUGCUGCGGGACGAAGUGU |
| 6569 | GUGAUUUCCAUUAUGUCAC | 6612 | GUUCCCCUGCCAAGUUCCG | 6655 | GACGGCAUCAGGAUACACC | 6698 | UGCUGCGGGACGAAGUGUC |
| 6570 | UGAUUUCCAUUAUGUCACC | 6613 | UUCCCCUGCCAAGUUCCGG | 6656 | ACGGCAUCAGGAUACACCG | 6699 | GCUGCGGGACGAAGUGUCG |
| 6571 | GAUUUCCAUUAUGUCACCG | 6614 | UCCCCUGCCAAGUUCCGGC | 6657 | CGGCAUCAGGAUACACCGC | 6700 | CUGCGGGACGAAGUGUCGU |
| 6572 | AUUUCCAUUAUGUCACCGG | 6615 | CCCCUGCCAAGUUCCGGCC | 6658 | GGCAUCAGGAUACACCGCC | 6701 | UGCGGGACGAAGUGUCGUU |
| 6573 | UUUCCAUUAUGUCACCGGG | 6616 | CCCUGCCAAGUUCCGGCCC | 6659 | GCAUCAGGAUACACCGCCA | 6702 | GCGGGACGAAGUGUCGUUC |
| 6574 | UUCCAUUAUGUCACCGGGG | 6617 | CCUGCCAAGUUCCGGCCCC | 6660 | CAUCAGGAUACACCGCCAC | 6703 | CGGGACGAAGUGUCGUUCU |
| 6575 | UCCAUUAUGUCACCGGGGU | 6618 | CUGCCAAGUUCCGGCCCCA | 6661 | AUCAGGAUACACCGCCACG | 6704 | GGGACGAAGUGUCGUUCUC |
| 6576 | CCAUUAUGUCACCGGGGUA | 6619 | UGCCAAGUUCCGGCCCCAG | 6662 | UCAGGAUACACCGCCACGC | 6705 | GGACGAAGUGUCGUUCUCA |
| 6577 | CAUUAUGUCACCGGGGUAA | 6620 | GCCAAGUUCCGGCCCCAGA | 6663 | CAGGAUACACCGCCACGCC | 6706 | GACGAAGUGUCGUUCUCAG |
| 6578 | AUUAUGUCACCGGGGUAAC | 6621 | CCAAGUUCCGGCCCCAGAG | 6664 | AGGAUACACCGCCACGCCC | 6707 | ACGAAGUGUCGUUCUCAGU |

**FIG. 5 (page 271 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6708 | CGAAGUGUCGUUCUCAGUA | 6751 | UCACAACUCCCAUGCGAGC | 6794 | CAUCCAUGCUGACAGACCC | 6837 | GCGUCGGAGAUUGGCUCGA |
| 6709 | GAAGUGUCGUUCUCAGUAG | 6752 | CACAACUCCCAUGCGAGCC | 6795 | AUCCAUGCUGACAGACCCA | 6838 | CGUCGGAGAUUGGCUCGAG |
| 6710 | AAGUGUCGUUCUCAGUAGG | 6753 | ACAACUCCCAUGCGAGCCA | 6796 | UCCAUGCUGACAGACCCAU | 6839 | GUCGGAGAUUGGCUCGAGG |
| 6711 | AGUGUCGUUCUCAGUAGGA | 6754 | CAACUCCCAUGCGAGCCAG | 6797 | CCAUGCUGACAGACCCAUC | 6840 | UCGGAGAUUGGCUCGAGGG |
| 6712 | GUGUCGUUCUCAGUAGGAC | 6755 | AACUCCCAUGCGAGCCAGA | 6798 | CAUGCUGACAGACCCAUCA | 6841 | CGGAGAUUGGCUCGAGGGU |
| 6713 | UGUCGUUCUCAGUAGGACU | 6756 | ACUCCCAUGCGAGCCAGAG | 6799 | AUGCUGACAGACCCAUCAC | 6842 | GGAGAUUGGCUCGAGGGUC |
| 6714 | GUCGUUCUCAGUAGGACUC | 6757 | CUCCCAUGCGAGCCAGAGC | 6800 | UGCUGACAGACCCAUCACA | 6843 | GAGAUUGGCUCGAGGGUCA |
| 6715 | UCGUUCUCAGUAGGACUCA | 6758 | UCCCAUGCGAGCCAGAGCC | 6801 | GCUGACAGACCCAUCACAC | 6844 | AGAUUGGCUCGAGGGUCAC |
| 6716 | CGUUCUCAGUAGGACUCAA | 6759 | CCCAUGCGAGCCAGAGCCG | 6802 | CUGACAGACCCAUCACACA | 6845 | GAUUGGCUCGAGGGUCACG |
| 6717 | GUUCUCAGUAGGACUCAAU | 6760 | CCAUGCGAGCCAGAGCCGG | 6803 | UGACAGACCCAUCACACAU | 6846 | AUUGGCUCGAGGGUCACGA |
| 6718 | UUCUCAGUAGGACUCAAUU | 6761 | CAUGCGAGCCAGAGCCGGA | 6804 | GACAGACCCAUCACACAUA | 6847 | UUGGCUCGAGGGUCACGAC |
| 6719 | UCUCAGUAGGACUCAAUUC | 6762 | AUGCGAGCCAGAGCCGGAC | 6805 | ACAGACCCAUCACACAUAA | 6848 | UGGCUCGAGGGUCACGACC |
| 6720 | CUCAGUAGGACUCAAUUCG | 6763 | UGCGAGCCAGAGCCGGACG | 6806 | CAGACCCAUCACACAUAAC | 6849 | GGCUCGAGGGUCACGACCC |
| 6721 | UCAGUAGGACUCAAUUCGU | 6764 | GCGAGCCAGAGCCGGACGU | 6807 | AGACCCAUCACACAUAACG | 6850 | GCUCGAGGGUCACGACCCU |
| 6722 | CAGUAGGACUCAAUUCGUU | 6765 | CGAGCCAGAGCCGGACGUG | 6808 | GACCCAUCACACAUAACGG | 6851 | CUCGAGGGUCACGACCCUC |
| 6723 | AGUAGGACUCAAUUCGUUC | 6766 | GAGCCAGAGCCGGACGUGG | 6809 | ACCCAUCACACAUAACGGC | 6852 | UCGAGGGUCACGACCCUCG |
| 6724 | GUAGGACUCAAUUCGUUCG | 6767 | AGCCAGAGCCGGACGUGGC | 6810 | CCCAUCACACAUAACGGCG | 6853 | CGAGGGUCACGACCCUCGC |
| 6725 | UAGGACUCAAUUCGUUCGU | 6768 | GCCAGAGCCGGACGUGGCA | 6811 | CCAUCACACAUAACGGCGG | 6854 | GAGGGUCACGACCCUCGCU |
| 6726 | AGGACUCAAUUCGUUCGUA | 6769 | CCAGAGCCGGACGUGGCAG | 6812 | CAUCACACAUAACGGCGGA | 6855 | AGGGUCACGACCCUCGCUA |
| 6727 | GGACUCAAUUCGUUCGUAG | 6770 | CAGAGCCGGACGUGGCAGU | 6813 | AUCACACAUAACGGCGGAA | 6856 | GGGUCACGACCCUCGCUAG |
| 6728 | GACUCAAUUCGUUCGUAGU | 6771 | AGAGCCGGACGUGGCAGUG | 6814 | UCACACAUAACGGCGGAAU | 6857 | GGUCACGACCCUCGCUAGC |
| 6729 | ACUCAAUUCGUUCGUAGUG | 6772 | GAGCCGGACGUGGCAGUGC | 6815 | CACACAUAACGGCGGAAUC | 6858 | GUCACGACCCUCGCUAGCU |
| 6730 | CUCAAUUCGUUCGUAGUGG | 6773 | AGCCGGACGUGGCAGUGCU | 6816 | ACACAUAACGGCGGAAUCG | 6859 | UCACGACCCUCGCUAGCUA |
| 6731 | UCAAUUCGUUCGUAGUGGG | 6774 | GCCGGACGUGGCAGUGCUA | 6817 | CACAUAACGGCGGAAUCGG | 6860 | CACGACCCUCGCUAGCUAG |
| 6732 | CAAUUCGUUCGUAGUGGGA | 6775 | CCGGACGUGGCAGUGCUAA | 6818 | ACAUAACGGCGGAAUCGGC | 6861 | ACGACCCUCGCUAGCUAGU |
| 6733 | AAUUCGUUCGUAGUGGGAU | 6776 | CGGACGUGGCAGUGCUAAC | 6819 | CAUAACGGCGGAAUCGGCG | 6862 | CGACCCUCGCUAGCUAGUU |
| 6734 | AUUCGUUCGUAGUGGGAUC | 6777 | GGACGUGGCAGUGCUAACA | 6820 | AUAACGGCGGAAUCGGCGC | 6863 | GACCCUCGCUAGCUAGUUC |
| 6735 | UUCGUUCGUAGUGGGAUCA | 6778 | GACGUGGCAGUGCUAACAU | 6821 | UAACGGCGGAAUCGGCGCG | 6864 | ACCCUCGCUAGCUAGUUCC |
| 6736 | UCGUUCGUAGUGGGAUCAC | 6779 | ACGUGGCAGUGCUAACAUC | 6822 | AACGGCGGAAUCGGCGCGU | 6865 | CCCUCGCUAGCUAGUUCCU |
| 6737 | CGUUCGUAGUGGGAUCACA | 6780 | CGUGGCAGUGCUAACAUCC | 6823 | ACGGCGGAAUCGGCGCGUC | 6866 | CCUCGCUAGCUAGUUCCUC |
| 6738 | GUUCGUAGUGGGAUCACAA | 6781 | GUGGCAGUGCUAACAUCCA | 6824 | CGGCGGAAUCGGCGCGUCG | 6867 | CUCGCUAGCUAGUUCCUCG |
| 6739 | UUCGUAGUGGGAUCACAAC | 6782 | UGGCAGUGCUAACAUCCAU | 6825 | GGCGGAAUCGGCGCGUCGG | 6868 | UCGCUAGCUAGUUCCUCGG |
| 6740 | UCGUAGUGGGAUCACAACU | 6783 | GGCAGUGCUAACAUCCAUG | 6826 | GCGGAAUCGGCGCGUCGGA | 6869 | CGCUAGCUAGUUCCUCGGC |
| 6741 | CGUAGUGGGAUCACAACUC | 6784 | GCAGUGCUAACAUCCAUGC | 6827 | CGGAAUCGGCGCGUCGGAG | 6870 | GCUAGCUAGUUCCUCGGCG |
| 6742 | GUAGUGGGAUCACAACUCC | 6785 | CAGUGCUAACAUCCAUGCU | 6828 | GGAAUCGGCGCGUCGGAGA | 6871 | CUAGCUAGUUCCUCGGCGA |
| 6743 | UAGUGGGAUCACAACUCCC | 6786 | AGUGCUAACAUCCAUGCUG | 6829 | GAAUCGGCGCGUCGGAGAU | 6872 | UAGCUAGUUCCUCGGCGAG |
| 6744 | AGUGGGAUCACAACUCCCA | 6787 | GUGCUAACAUCCAUGCUGA | 6830 | AAUCGGCGCGUCGGAGAUU | 6873 | AGCUAGUUCCUCGGCGAGU |
| 6745 | GUGGGAUCACAACUCCCAU | 6788 | UGCUAACAUCCAUGCUGAC | 6831 | AUCGGCGCGUCGGAGAUUG | 6874 | GCUAGUUCCUCGGCGAGUC |
| 6746 | UGGGAUCACAACUCCCAUG | 6789 | GCUAACAUCCAUGCUGACA | 6832 | UCGGCGCGUCGGAGAUUGG | 6875 | CUAGUUCCUCGGCGAGUCA |
| 6747 | GGGAUCACAACUCCCAUGC | 6790 | CUAACAUCCAUGCUGACAG | 6833 | CGGCGCGUCGGAGAUUGGC | 6876 | UAGUUCCUCGGCGAGUCAG |
| 6748 | GGAUCACAACUCCCAUGCG | 6791 | UAACAUCCAUGCUGACAGA | 6834 | GGCGCGUCGGAGAUUGGCU | 6877 | AGUUCCUCGGCGAGUCAGC |
| 6749 | GAUCACAACUCCCAUGCGA | 6792 | AACAUCCAUGCUGACAGAC | 6835 | GCGCGUCGGAGAUUGGCUC | 6878 | GUUCCUCGGCGAGUCAGCU |
| 6750 | AUCACAACUCCCAUGCGAG | 6793 | ACAUCCAUGCUGACAGACC | 6836 | CGCGUCGGAGAUUGGCUCG | 6879 | UUCCUCGGCGAGUCAGCUU |

**FIG. 5 (page 272 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6880 | UCCUCGGCGAGUCAGCUUU | 6923 | GUACCGCUCCCCAUGACUC | 6966 | UAACCUCUUGUGGGGGUCU | 7009 | GAGAAGGUAAUAAUACUAG |
| 6881 | CCUCGGCGAGUCAGCUUUC | 6924 | UACCGCUCCCCAUGACUCC | 6967 | AACCUCUUGUGGGGGUCUA | 7010 | AGAAGGUAAUAAUACUAGA |
| 6882 | CUCGGCGAGUCAGCUUUCG | 6925 | ACCGCUCCCCAUGACUCCC | 6968 | ACCUCUUGUGGGGGUCUAC | 7011 | GAAGGUAAUAAUACUAGAC |
| 6883 | UCGGCGAGUCAGCUUUCGC | 6926 | CCGCUCCCCAUGACUCCCC | 6969 | CCUCUUGUGGGGGUCUACC | 7012 | AAGGUAAUAAUACUAGACU |
| 6884 | CGGCGAGUCAGCUUUCGCC | 6927 | CGCUCCCCAUGACUCCCCU | 6970 | CUCUUGUGGGGGUCUACCG | 7013 | AGGUAAUAAUACUAGACUC |
| 6885 | GGCGAGUCAGCUUUCGCCC | 6928 | GCUCCCCAUGACUCCCCUG | 6971 | UCUUGUGGGGGUCUACCGC | 7014 | GGUAAUAAUACUAGACUCU |
| 6886 | GCGAGUCAGCUUUCGCCCC | 6929 | CUCCCCAUGACUCCCCUGG | 6972 | CUUGUGGGGGUCUACCGCU | 7015 | GUAAUAAUACUAGACUCUU |
| 6887 | CGAGUCAGCUUUCGCCCCG | 6930 | UCCCCAUGACUCCCCUGGU | 6973 | UUGUGGGGGUCUACCGCUA | 7016 | UAAUAAUACUAGACUCUUU |
| 6888 | GAGUCAGCUUUCGCCCCGU | 6931 | CCCCAUGACUCCCCUGGUA | 6974 | UGUGGGGGUCUACCGCUAC | 7017 | AAUAAUACUAGACUCUUUU |
| 6889 | AGUCAGCUUUCGCCCCGUC | 6932 | CCCAUGACUCCCCUGGUAC | 6975 | GUGGGGGUCUACCGCUACC | 7018 | AUAAUACUAGACUCUUUUG |
| 6890 | GUCAGCUUUCGCCCCGUCU | 6933 | CCAUGACUCCCCUGGUACU | 6976 | UGGGGGUCUACCGCUACCA | 7019 | UAAUACUAGACUCUUUUGA |
| 6891 | UCAGCUUUCGCCCCGUCUU | 6934 | CAUGACUCCCCUGGUACUG | 6977 | GGGGGUCUACCGCUACCAG | 7020 | AAUACUAGACUCUUUUGAG |
| 6892 | CAGCUUUCGCCCCGUCUUC | 6935 | AUGACUCCCCUGGUACUGA | 6978 | GGGGUCUACCGCUACCAGG | 7021 | AUACUAGACUCUUUUGAGU |
| 6893 | AGCUUUCGCCCCGUCUUCU | 6936 | UGACUCCCCUGGUACUGAU | 6979 | GGGUCUACCGCUACCAGGG | 7022 | UACUAGACUCUUUUGAGUC |
| 6894 | GCUUUCGCCCCGUCUUCUU | 6937 | GACUCCCCUGGUACUGAUC | 6980 | GGUCUACCGCUACCAGGGU | 7023 | ACUAGACUCUUUUGAGUCA |
| 6895 | CUUUCGCCCCGUCUUCUUC | 6938 | ACUCCCCUGGUACUGAUCU | 6981 | GUCUACCGCUACCAGGGUU | 7024 | CUAGACUCUUUUGAGUCAU |
| 6896 | UUUCGCCCCGUCUUCUUCA | 6939 | CUCCCCUGGUACUGAUCUC | 6982 | UCUACCGCUACCAGGGUUG | 7025 | UAGACUCUUUUGAGUCAUG |
| 6897 | UUCGCCCCGUCUUCUUCAG | 6940 | UCCCCUGGUACUGAUCUCC | 6983 | CUACCGCUACCAGGGUUGA | 7026 | AGACUCUUUUGAGUCAUGU |
| 6898 | UCGCCCCGUCUUCUUCAGG | 6941 | CCCCUGGUACUGAUCUCCU | 6984 | UACCGCUACCAGGGUUGAG | 7027 | GACUCUUUUGAGUCAUGUG |
| 6899 | CGCCCCGUCUUCUUCAGGC | 6942 | CCCUGGUACUGAUCUCCUC | 6985 | ACCGCUACCAGGGUUGAGA | 7028 | ACUCUUUUGAGUCAUGUGU |
| 6900 | GCCCCGUCUUCUUCAGGCC | 6943 | CCUGGUACUGAUCUCCUCG | 6986 | CCGCUACCAGGGUUGAGAC | 7029 | CUCUUUUGAGUCAUGUGUG |
| 6901 | CCCCGUCUUCUUCAGGCCA | 6944 | CUGGUACUGAUCUCCUCGA | 6987 | CGCUACCAGGGUUGAGACG | 7030 | UCUUUUGAGUCAUGUGUGG |
| 6902 | CCCGUCUUCUUCAGGCCAC | 6945 | UGGUACUGAUCUCCUCGAG | 6988 | GCUACCAGGGUUGAGACGG | 7031 | CUUUUGAGUCAUGUGUGGC |
| 6903 | CCGUCUUCUUCAGGCCACG | 6946 | GGUACUGAUCUCCUCGAGG | 6989 | CUACCAGGGUUGAGACGGA | 7032 | UUUUGAGUCAUGUGUGGCU |
| 6904 | CGUCUUCUUCAGGCCACGU | 6947 | GUACUGAUCUCCUCGAGGC | 6990 | UACCAGGGUUGAGACGGAC | 7033 | UUUGAGUCAUGUGUGGCUG |
| 6905 | GUCUUCUUCAGGCCACGUG | 6948 | UACUGAUCUCCUCGAGGCU | 6991 | ACCAGGGUUGAGACGGACG | 7034 | UUGAGUCAUGUGUGGCUGA |
| 6906 | UCUUCUUCAGGCCACGUGU | 6949 | ACUGAUCUCCUCGAGGCUA | 6992 | CCAGGGUUGAGACGGACGA | 7035 | UGAGUCAUGUGUGGCUGAG |
| 6907 | CUUCUUCAGGCCACGUGUA | 6950 | CUGAUCUCCUCGAGGCUAA | 6993 | CAGGGUUGAGACGGACGAG | 7036 | GAGUCAUGUGUGGCUGAGC |
| 6908 | UUCUUCAGGCCACGUGUAC | 6951 | UGAUCUCCUCGAGGCUAAC | 6994 | AGGGUUGAGACGGACGAGA | 7037 | AGUCAUGUGUGGCUGAGCA |
| 6909 | UCUUCAGGCCACGUGUACC | 6952 | GAUCUCCUCGAGGCUAACC | 6995 | GGGUUGAGACGGACGAGAA | 7038 | GUCAUGUGUGGCUGAGCAA |
| 6910 | CUUCAGGCCACGUGUACCG | 6953 | AUCUCCUCGAGGCUAACCU | 6996 | GGUUGAGACGGACGAGAAG | 7039 | UCAUGUGUGGCUGAGCAAA |
| 6911 | UUCAGGCCACGUGUACCGC | 6954 | UCUCCUCGAGGCUAACCUC | 6997 | GUUGAGACGGACGAGAAGG | 7040 | CAUGUGUGGCUGAGCAAAA |
| 6912 | UCAGGCCACGUGUACCGCU | 6955 | CUCCUCGAGGCUAACCUCU | 6998 | UUGAGACGGACGAGAAGGU | 7041 | AUGUGUGGCUGAGCAAAAU |
| 6913 | CAGGCCACGUGUACCGCUC | 6956 | UCCUCGAGGCUAACCUCUU | 6999 | UGAGACGGACGAGAAGGUA | 7042 | UGUGUGGCUGAGCAAAAUG |
| 6914 | AGGCCACGUGUACCGCUCC | 6957 | CCUCGAGGCUAACCUCUUG | 7000 | GAGACGGACGAGAAGGUAA | 7043 | GUGUGGCUGAGCAAAAUGA |
| 6915 | GGCCACGUGUACCGCUCCC | 6958 | CUCGAGGCUAACCUCUUGU | 7001 | AGACGGACGAGAAGGUAAU | 7044 | UGUGGCUGAGCAAAAUGAU |
| 6916 | GCCACGUGUACCGCUCCCC | 6959 | UCGAGGCUAACCUCUUGUG | 7002 | GACGGACGAGAAGGUAAUA | 7045 | GUGGCUGAGCAAAAUGAUG |
| 6917 | CCACGUGUACCGCUCCCCA | 6960 | CGAGGCUAACCUCUUGUGG | 7003 | ACGGACGAGAAGGUAAUAA | 7046 | UGGCUGAGCAAAAUGAUGA |
| 6918 | CACGUGUACCGCUCCCCAU | 6961 | GAGGCUAACCUCUUGUGGG | 7004 | CGGACGAGAAGGUAAUAAU | 7047 | GGCUGAGCAAAAUGAUGAC |
| 6919 | ACGUGUACCGCUCCCCAUG | 6962 | AGGCUAACCUCUUGUGGGG | 7005 | GGACGAGAAGGUAAUAAUA | 7048 | GCUGAGCAAAAUGAUGACA |
| 6920 | CGUGUACCGCUCCCCAUGA | 6963 | GGCUAACCUCUUGUGGGGG | 7006 | GACGAGAAGGUAAUAAUAC | 7049 | CUGAGCAAAAUGAUGACAG |
| 6921 | GUGUACCGCUCCCCAUGAC | 6964 | GCUAACCUCUUGUGGGGGU | 7007 | ACGAGAAGGUAAUAAUACU | 7050 | UGAGCAAAAUGAUGACAGG |
| 6922 | UGUACCGCUCCCCAUGACU | 6965 | CUAACCUCUUGUGGGGGUC | 7008 | CGAGAAGGUAAUAAUACUA | 7051 | GAGCAAAAUGAUGACAGGG |

**FIG. 5 (page 273 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7052 | AGCAAAAUGAUGACAGGGA | 7095 | GCGUCCGACCAAGAAGUUC | 7138 | CGGCCGGACUACAAUCCAC | 7181 | AGGACUACCAAGCUCCGAC |
| 7053 | GCAAAAUGAUGACAGGGAA | 7096 | CGUCCGACCAAGAAGUUCC | 7139 | GGCCGGACUACAAUCCACC | 7182 | GGACUACCAAGCUCCGACC |
| 7054 | CAAAAUGAUGACAGGGAAG | 7097 | GUCCGACCAAGAAGUUCCC | 7140 | GCCGGACUACAAUCCACCU | 7183 | GACUACCAAGCUCCGACCG |
| 7055 | AAAAUGAUGACAGGGAAGU | 7098 | UCCGACCAAGAAGUUCCCU | 7141 | CCGGACUACAAUCCACCUC | 7184 | ACUACCAAGCUCCGACCGU |
| 7056 | AAAUGAUGACAGGGAAGUC | 7099 | CCGACCAAGAAGUUCCCUC | 7142 | CGGACUACAAUCCACCUCU | 7185 | CUACCAAGCUCCGACCGUC |
| 7057 | AAUGAUGACAGGGAAGUCU | 7100 | CGACCAAGAAGUUCCCUCC | 7143 | GGACUACAAUCCACCUCUU | 7186 | UACCAAGCUCCGACCGUCC |
| 7058 | AUGAUGACAGGGAAGUCUC | 7101 | GACCAAGAAGUUCCCUCCA | 7144 | GACUACAAUCCACCUCUUA | 7187 | ACCAAGCUCCGACCGUCCA |
| 7059 | UGAUGACAGGGAAGUCUCG | 7102 | ACCAAGAAGUUCCCUCCAG | 7145 | ACUACAAUCCACCUCUUAC | 7188 | CCAAGCUCCGACCGUCCAC |
| 7060 | GAUGACAGGGAAGUCUCGG | 7103 | CCAAGAAGUUCCCUCCAGC | 7146 | CUACAAUCCACCUCUUACC | 7189 | CAAGCUCCGACCGUCCACG |
| 7061 | AUGACAGGGAAGUCUCGGU | 7104 | CAAGAAGUUCCCUCCAGCA | 7147 | UACAAUCCACCUCUUACCG | 7190 | AAGCUCCGACCGUCCACGG |
| 7062 | UGACAGGGAAGUCUCGGUU | 7105 | AAGAAGUUCCCUCCAGCAC | 7148 | ACAAUCCACCUCUUACCGA | 7191 | AGCUCCGACCGUCCACGGU |
| 7063 | GACAGGGAAGUCUCGGUUG | 7106 | AGAAGUUCCCUCCAGCACU | 7149 | CAAUCCACCUCUUACCGAG | 7192 | GCUCCGACCGUCCACGGUU |
| 7064 | ACAGGGAAGUCUCGGUUGC | 7107 | GAAGUUCCCUCCAGCACUA | 7150 | AAUCCACCUCUUACCGAGA | 7193 | CUCCGACCGUCCACGGUUG |
| 7065 | CAGGGAAGUCUCGGUUGCC | 7108 | AAGUUCCCUCCAGCACUAC | 7151 | AUCCACCUCUUACCGAGAC | 7194 | UCCGACCGUCCACGGUUGC |
| 7066 | AGGGAAGUCUCGGUUGCCG | 7109 | AGUUCCCUCCAGCACUACC | 7152 | UCCACCUCUUACCGAGACG | 7195 | CCGACCGUCCACGGUUGCG |
| 7067 | GGGAAGUCUCGGUUGCCGC | 7110 | GUUCCCUCCAGCACUACCG | 7153 | CCACCUCUUACCGAGACGU | 7196 | CGACCGUCCACGGUUGCGC |
| 7068 | GGAAGUCUCGGUUGCCGCG | 7111 | UUCCCUCCAGCACUACCGA | 7154 | CACCUCUUACCGAGACGUG | 7197 | GACCGUCCACGGUUGCGCU |
| 7069 | GAAGUCUCGGUUGCCGCGG | 7112 | UCCCUCCAGCACUACCGAU | 7155 | ACCUCUUACCGAGACGUGG | 7198 | ACCGUCCACGGUUGCGCUC |
| 7070 | AAGUCUCGGUUGCCGCGGA | 7113 | CCCUCCAGCACUACCGAUC | 7156 | CCUCUUACCGAGACGUGGA | 7199 | CCGUCCACGGUUGCGCUCU |
| 7071 | AGUCUCGGUUGCCGCGGAA | 7114 | CCUCCAGCACUACCGAUCU | 7157 | CUCUUACCGAGACGUGGAA | 7200 | CGUCCACGGUUGCGCUCUG |
| 7072 | GUCUCGGUUGCCGCGGAAA | 7115 | CUCCAGCACUACCGAUCUG | 7158 | UCUUACCGAGACGUGGAAG | 7201 | GUCCACGGUUGCGCUCUGC |
| 7073 | UCUCGGUUGCCGCGGAAAU | 7116 | UCCAGCACUACCGAUCUGG | 7159 | CUUACCGAGACGUGGAAGC | 7202 | UCCACGGUUGCGCUCUGCC |
| 7074 | CUCGGUUGCCGCGGAAAUC | 7117 | CCAGCACUACCGAUCUGGG | 7160 | UUACCGAGACGUGGAAGCA | 7203 | CCACGGUUGCGCUCUGCCU |
| 7075 | UCGGUUGCCGCGGAAAUCC | 7118 | CAGCACUACCGAUCUGGGC | 7161 | UACCGAGACGUGGAAGCAG | 7204 | CACGGUUGCGCUCUGCCUC |
| 7076 | CGGUUGCCGCGGAAAUCCU | 7119 | AGCACUACCGAUCUGGGCC | 7162 | ACCGAGACGUGGAAGCAGC | 7205 | ACGGUUGCGCUCUGCCUCC |
| 7077 | GGUUGCCGCGGAAAUCCUG | 7120 | GCACUACCGAUCUGGGCCC | 7163 | CCGAGACGUGGAAGCAGCA | 7206 | CGGUUGCGCUCUGCCUCCG |
| 7078 | GUUGCCGCGGAAAUCCUGC | 7121 | CACUACCGAUCUGGGCCCG | 7164 | CGAGACGUGGAAGCAGCAG | 7207 | GGUUGCGCUCUGCCUCCGG |
| 7079 | UUGCCGCGGAAAUCCUGCG | 7122 | ACUACCGAUCUGGGCCCGG | 7165 | GAGACGUGGAAGCAGCAGG | 7208 | GUUGCGCUCUGCCUCCGGC |
| 7080 | UGCCGCGGAAAUCCUGCGU | 7123 | CUACCGAUCUGGGCCCGGC | 7166 | AGACGUGGAAGCAGCAGGA | 7209 | UUGCGCUCUGCCUCCGGCA |
| 7081 | GCCGCGGAAAUCCUGCGUC | 7124 | UACCGAUCUGGGCCCGGCC | 7167 | GACGUGGAAGCAGCAGGAC | 7210 | UGCGCUCUGCCUCCGGCAA |
| 7082 | CCGCGGAAAUCCUGCGUCC | 7125 | ACCGAUCUGGGCCCGGCCG | 7168 | ACGUGGAAGCAGCAGGACU | 7211 | GCGCUCUGCCUCCGGCAAA |
| 7083 | CGCGGAAAUCCUGCGUCCG | 7126 | CCGAUCUGGGCCCGGCCGG | 7169 | CGUGGAAGCAGCAGGACUA | 7212 | CGCUCUGCCUCCGGCAAAG |
| 7084 | GCGGAAAUCCUGCGUCCGA | 7127 | CGAUCUGGGCCCGGCCGGA | 7170 | GUGGAAGCAGCAGGACUAC | 7213 | GCUCUGCCUCCGGCAAAGC |
| 7085 | CGGAAAUCCUGCGUCCGAC | 7128 | GAUCUGGGCCCGGCCGGAC | 7171 | UGGAAGCAGCAGGACUACC | 7214 | CUCUGCCUCCGGCAAAGCA |
| 7086 | GGAAAUCCUGCGUCCGACC | 7129 | AUCUGGGCCCGGCCGGACU | 7172 | GGAAGCAGCAGGACUACCA | 7215 | UCUGCCUCCGGCAAAGCAG |
| 7087 | GAAAUCCUGCGUCCGACCA | 7130 | UCUGGGCCCGGCCGGACUA | 7173 | GAAGCAGCAGGACUACCAA | 7216 | CUGCCUCCGGCAAAGCAGC |
| 7088 | AAAUCCUGCGUCCGACCAA | 7131 | CUGGGCCCGGCCGGACUAC | 7174 | AAGCAGCAGGACUACCAAG | 7217 | UGCCUCCGGCAAAGCAGCC |
| 7089 | AAUCCUGCGUCCGACCAAG | 7132 | UGGGCCCGGCCGGACUACA | 7175 | AGCAGCAGGACUACCAAGC | 7218 | GCCUCCGGCAAAGCAGCCC |
| 7090 | AUCCUGCGUCCGACCAAGA | 7133 | GGGCCCGGCCGGACUACAA | 7176 | GCAGCAGGACUACCAAGCU | 7219 | CCUCCGGCAAAGCAGCCCC |
| 7091 | UCCUGCGUCCGACCAAGAA | 7134 | GGCCCGGCCGGACUACAAU | 7177 | CAGCAGGACUACCAAGCUC | 7220 | CUCCGGCAAAGCAGCCCCC |
| 7092 | CCUGCGUCCGACCAAGAAG | 7135 | GCCCGGCCGGACUACAAUC | 7178 | AGCAGGACUACCAAGCUCC | 7221 | UCCGGCAAAGCAGCCCCCU |
| 7093 | CUGCGUCCGACCAAGAAGU | 7136 | CCCGGCCGGACUACAAUCC | 7179 | GCAGGACUACCAAGCUCCG | 7222 | CCGGCAAAGCAGCCCCCUG |
| 7094 | UGCGUCCGACCAAGAAGUU | 7137 | CCGGCCGGACUACAAUCCA | 7180 | CAGGACUACCAAGCUCCGA | 7223 | CGGCAAAGCAGCCCCCUGU |

**FIG. 5 (page 274 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7224 | GGCAAAGCAGCCCCCUGUU | 7267 | GUACAGCUCACUGAGUCCG | 7310 | UGGCCGCAAAGACCUUUGG | 7353 | UGAUACAGACCUUACCACC |
| 7225 | GCAAAGCAGCCCCCUGUUC | 7268 | UACAGCUCACUGAGUCCGU | 7311 | GGCCGCAAAGACCUUUGGC | 7354 | GAUACAGACCUUACCACCC |
| 7226 | CAAAGCAGCCCCCUGUUCC | 7269 | ACAGCUCACUGAGUCCGUU | 7312 | GCCGCAAAGACCUUUGGCC | 7355 | AUACAGACCUUACCACCCC |
| 7227 | AAAGCAGCCCCCUGUUCCC | 7270 | CAGCUCACUGAGUCCGUUG | 7313 | CCGCAAAGACCUUUGGCCA | 7356 | UACAGACCUUACCACCCCA |
| 7228 | AAGCAGCCCCCUGUUCCCU | 7271 | AGCUCACUGAGUCCGUUGU | 7314 | CGCAAAGACCUUUGGCCAG | 7357 | ACAGACCUUACCACCCCAA |
| 7229 | AGCAGCCCCCUGUUCCCUC | 7272 | GCUCACUGAGUCCGUUGUU | 7315 | GCAAAGACCUUUGGCCAGU | 7358 | CAGACCUUACCACCCCAAC |
| 7230 | GCAGCCCCCUGUUCCCUCU | 7273 | CUCACUGAGUCCGUUGUUU | 7316 | CAAAGACCUUUGGCCAGUC | 7359 | AGACCUUACCACCCCAACU |
| 7231 | CAGCCCCCUGUUCCCUCUC | 7274 | UCACUGAGUCCGUUGUUUC | 7317 | AAAGACCUUUGGCCAGUCA | 7360 | GACCUUACCACCCCAACUG |
| 7232 | AGCCCCCUGUUCCCUCUCC | 7275 | CACUGAGUCCGUUGUUUCU | 7318 | AAGACCUUUGGCCAGUCAG | 7361 | ACCUUACCACCCCAACUGA |
| 7233 | GCCCCCUGUUCCCUCUCCC | 7276 | ACUGAGUCCGUUGUUUCUA | 7319 | AGACCUUUGGCCAGUCAGA | 7362 | CCUUACCACCCCAACUGAG |
| 7234 | CCCCCUGUUCCCUCUCCCA | 7277 | CUGAGUCCGUUGUUUCUAC | 7320 | GACCUUUGGCCAGUCAGAG | 7363 | CUUACCACCCCAACUGAGA |
| 7235 | CCCCUGUUCCCUCUCCCAG | 7278 | UGAGUCCGUUGUUUCUACC | 7321 | ACCUUUGGCCAGUCAGAGC | 7364 | UUACCACCCCAACUGAGAC |
| 7236 | CCCUGUUCCCUCUCCCAGG | 7279 | GAGUCCGUUGUUUCUACCG | 7322 | CCUUUGGCCAGUCAGAGCC | 7365 | UACCACCCCAACUGAGACC |
| 7237 | CCUGUUCCCUCUCCCAGGA | 7280 | AGUCCGUUGUUUCUACCGC | 7323 | CUUUGGCCAGUCAGAGCCG | 7366 | ACCACCCCAACUGAGACCA |
| 7238 | CUGUUCCCUCUCCCAGGAG | 7281 | GUCCGUUGUUUCUACCGCU | 7324 | UUUGGCCAGUCAGAGCCGA | 7367 | CCACCCCAACUGAGACCAC |
| 7239 | UGUUCCCUCUCCCAGGAGG | 7282 | UCCGUUGUUUCUACCGCUU | 7325 | UUGGCCAGUCAGAGCCGAG | 7368 | CACCCCAACUGAGACCACA |
| 7240 | GUUCCCUCUCCCAGGAGGA | 7283 | CCGUUGUUUCUACCGCUUU | 7326 | UGGCCAGUCAGAGCCGAGC | 7369 | ACCCCAACUGAGACCACAG |
| 7241 | UUCCCUCUCCCAGGAGGAA | 7284 | CGUUGUUUCUACCGCUUUG | 7327 | GGCCAGUCAGAGCCGAGCU | 7370 | CCCCAACUGAGACCACAGA |
| 7242 | UCCCUCUCCCAGGAGGAAA | 7285 | GUUGUUUCUACCGCUUUGG | 7328 | GCCAGUCAGAGCCGAGCUC | 7371 | CCCAACUGAGACCACAGAC |
| 7243 | CCCUCUCCCAGGAGGAAAC | 7286 | UUGUUUCUACCGCUUUGGC | 7329 | CCAGUCAGAGCCGAGCUCA | 7372 | CCAACUGAGACCACAGACU |
| 7244 | CCUCUCCCAGGAGGAAACG | 7287 | UGUUUCUACCGCUUUGGCA | 7330 | CAGUCAGAGCCGAGCUCAG | 7373 | CAACUGAGACCACAGACUC |
| 7245 | CUCUCCCAGGAGGAAACGG | 7288 | GUUUCUACCGCUUUGGCAG | 7331 | AGUCAGAGCCGAGCUCAGA | 7374 | AACUGAGACCACAGACUCG |
| 7246 | UCUCCCAGGAGGAAACGGA | 7289 | UUUCUACCGCUUUGGCAGA | 7332 | GUCAGAGCCGAGCUCAGAC | 7375 | ACUGAGACCACAGACUCGG |
| 7247 | CUCCCAGGAGGAAACGGAC | 7290 | UUCUACCGCUUUGGCAGAG | 7333 | UCAGAGCCGAGCUCAGACC | 7376 | CUGAGACCACAGACUCGGG |
| 7248 | UCCCAGGAGGAAACGGACG | 7291 | UCUACCGCUUUGGCAGAGC | 7334 | CAGAGCCGAGCUCAGACCG | 7377 | UGAGACCACAGACUCGGGC |
| 7249 | CCCAGGAGGAAACGGACGG | 7292 | CUACCGCUUUGGCAGAGCU | 7335 | AGAGCCGAGCUCAGACCGU | 7378 | GAGACCACAGACUCGGGCC |
| 7250 | CCAGGAGGAAACGGACGGU | 7293 | UACCGCUUUGGCAGAGCUG | 7336 | GAGCCGAGCUCAGACCGUG | 7379 | AGACCACAGACUCGGGCCC |
| 7251 | CAGGAGGAAACGGACGGUA | 7294 | ACCGCUUUGGCAGAGCUGG | 7337 | AGCCGAGCUCAGACCGUGA | 7380 | GACCACAGACUCGGGCCCC |
| 7252 | AGGAGGAAACGGACGGUAC | 7295 | CCGCUUUGGCAGAGCUGGC | 7338 | GCCGAGCUCAGACCGUGAU | 7381 | ACCACAGACUCGGGCCCCA |
| 7253 | GGAGGAAACGGACGGUACA | 7296 | CGCUUUGGCAGAGCUGGCC | 7339 | CCGAGCUCAGACCGUGAUA | 7382 | CCACAGACUCGGGCCCCAU |
| 7254 | GAGGAAACGGACGGUACAG | 7297 | GCUUUGGCAGAGCUGGCCG | 7340 | CGAGCUCAGACCGUGAUAC | 7383 | CACAGACUCGGGCCCCAUC |
| 7255 | AGGAAACGGACGGUACAGC | 7298 | CUUUGGCAGAGCUGGCCGC | 7341 | GAGCUCAGACCGUGAUACA | 7384 | ACAGACUCGGGCCCCAUCG |
| 7256 | GGAAACGGACGGUACAGCU | 7299 | UUUGGCAGAGCUGGCCGCA | 7342 | AGCUCAGACCGUGAUACAG | 7385 | CAGACUCGGGCCCCAUCGU |
| 7257 | GAAACGGACGGUACAGCUC | 7300 | UUGGCAGAGCUGGCCGCAA | 7343 | GCUCAGACCGUGAUACAGA | 7386 | AGACUCGGGCCCCAUCGUC |
| 7258 | AAACGGACGGUACAGCUCA | 7301 | UGGCAGAGCUGGCCGCAAA | 7344 | CUCAGACCGUGAUACAGAC | 7387 | GACUCGGGCCCCAUCGUCG |
| 7259 | AACGGACGGUACAGCUCAC | 7302 | GGCAGAGCUGGCCGCAAAG | 7345 | UCAGACCGUGAUACAGACC | 7388 | ACUCGGGCCCCAUCGUCGU |
| 7260 | ACGGACGGUACAGCUCACU | 7303 | GCAGAGCUGGCCGCAAAGA | 7346 | CAGACCGUGAUACAGACCU | 7389 | CUCGGGCCCCAUCGUCGUG |
| 7261 | CGGACGGUACAGCUCACUG | 7304 | CAGAGCUGGCCGCAAAGAC | 7347 | AGACCGUGAUACAGACCUU | 7390 | UCGGGCCCCAUCGUCGUGG |
| 7262 | GGACGGUACAGCUCACUGA | 7305 | AGAGCUGGCCGCAAAGACC | 7348 | GACCGUGAUACAGACCUUA | 7391 | CGGGCCCCAUCGUCGUGGA |
| 7263 | GACGGUACAGCUCACUGAG | 7306 | GAGCUGGCCGCAAAGACCU | 7349 | ACCGUGAUACAGACCUUAC | 7392 | GGGCCCCAUCGUCGUGGAU |
| 7264 | ACGGUACAGCUCACUGAGU | 7307 | AGCUGGCCGCAAAGACCUU | 7350 | CCGUGAUACAGACCUUACC | 7393 | GGCCCCAUCGUCGUGGAUG |
| 7265 | CGGUACAGCUCACUGAGUC | 7308 | GCUGGCCGCAAAGACCUUU | 7351 | CGUGAUACAGACCUUACCA | 7394 | GCCCCAUCGUCGUGGAUGA |
| 7266 | GGUACAGCUCACUGAGUCC | 7309 | CUGGCCGCAAAGACCUUUG | 7352 | GUGAUACAGACCUUACCAC | 7395 | CCCCAUCGUCGUGGAUGAU |

**FIG. 5 (page 275 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7396 | CCCAUCGUCGUGGAUGAUG | 7439 | CAAUGCCUCCACUAGAGGG | 7482 | AUCAGACUCUUGGUCCACU | 7525 | UGCUGUUCGAUGUCAUACU |
| 7397 | CCAUCGUCGUGGAUGAUGC | 7440 | AAUGCCUCCACUAGAGGGG | 7483 | UCAGACUCUUGGUCCACUG | 7526 | GCUGUUCGAUGUCAUACUC |
| 7398 | CAUCGUCGUGGAUGAUGCA | 7441 | AUGCCUCCACUAGAGGGGG | 7484 | CAGACUCUUGGUCCACUGU | 7527 | CUGUUCGAUGUCAUACUCG |
| 7399 | AUCGUCGUGGAUGAUGCAU | 7442 | UGCCUCCACUAGAGGGGGA | 7485 | AGACUCUUGGUCCACUGUU | 7528 | UGUUCGAUGUCAUACUCGU |
| 7400 | UCGUCGUGGAUGAUGCAUC | 7443 | GCCUCCACUAGAGGGGGAG | 7486 | GACUCUUGGUCCACUGUUA | 7529 | GUUCGAUGUCAUACUCGUG |
| 7401 | CGUCGUGGAUGAUGCAUCC | 7444 | CCUCCACUAGAGGGGGAGC | 7487 | ACUCUUGGUCCACUGUUAG | 7530 | UUCGAUGUCAUACUCGUGG |
| 7402 | GUCGUGGAUGAUGCAUCCG | 7445 | CUCCACUAGAGGGGGAGCC | 7488 | CUCUUGGUCCACUGUUAGC | 7531 | UCGAUGUCAUACUCGUGGA |
| 7403 | UCGUGGAUGAUGCAUCCGA | 7446 | UCCACUAGAGGGGGAGCCC | 7489 | UCUUGGUCCACUGUUAGCG | 7532 | CGAUGUCAUACUCGUGGAC |
| 7404 | CGUGGAUGAUGCAUCCGAU | 7447 | CCACUAGAGGGGGAGCCCG | 7490 | CUUGGUCCACUGUUAGCGG | 7533 | GAUGUCAUACUCGUGGACU |
| 7405 | GUGGAUGAUGCAUCCGAUG | 7448 | CACUAGAGGGGGAGCCCGG | 7491 | UUGGUCCACUGUUAGCGGA | 7534 | AUGUCAUACUCGUGGACUG |
| 7406 | UGGAUGAUGCAUCCGAUGA | 7449 | ACUAGAGGGGGAGCCCGGU | 7492 | UGGUCCACUGUUAGCGGAU | 7535 | UGUCAUACUCGUGGACUGG |
| 7407 | GGAUGAUGCAUCCGAUGAC | 7450 | CUAGAGGGGGAGCCCGGUG | 7493 | GGUCCACUGUUAGCGGAUC | 7536 | GUCAUACUCGUGGACUGGG |
| 7408 | GAUGAUGCAUCCGAUGACG | 7451 | UAGAGGGGGAGCCCGGUGA | 7494 | GUCCACUGUUAGCGGAUCG | 7537 | UCAUACUCGUGGACUGGGG |
| 7409 | AUGAUGCAUCCGAUGACGG | 7452 | AGAGGGGGAGCCCGGUGAC | 7495 | UCCACUGUUAGCGGAUCGG | 7538 | CAUACUCGUGGACUGGGGC |
| 7410 | UGAUGCAUCCGAUGACGGA | 7453 | GAGGGGGAGCCCGGUGACC | 7496 | CCACUGUUAGCGGAUCGGA | 7539 | AUACUCGUGGACUGGGGCG |
| 7411 | GAUGCAUCCGAUGACGGAU | 7454 | AGGGGGAGCCCGGUGACCC | 7497 | CACUGUUAGCGGAUCGGAG | 7540 | UACUCGUGGACUGGGGCGC |
| 7412 | AUGCAUCCGAUGACGGAUC | 7455 | GGGGGAGCCCGGUGACCCG | 7498 | ACUGUUAGCGGAUCGGAGG | 7541 | ACUCGUGGACUGGGGCGCU |
| 7413 | UGCAUCCGAUGACGGAUCU | 7456 | GGGGAGCCCGGUGACCCGG | 7499 | CUGUUAGCGGAUCGGAGGA | 7542 | CUCGUGGACUGGGGCGCUU |
| 7414 | GCAUCCGAUGACGGAUCUU | 7457 | GGGAGCCCGGUGACCCGGA | 7500 | UGUUAGCGGAUCGGAGGAC | 7543 | UCGUGGACUGGGGCGCUUG |
| 7415 | CAUCCGAUGACGGAUCUUA | 7458 | GGAGCCCGGUGACCCGGAC | 7501 | GUUAGCGGAUCGGAGGACG | 7544 | CGUGGACUGGGGCGCUUGU |
| 7416 | AUCCGAUGACGGAUCUUAU | 7459 | GAGCCCGGUGACCCGGACU | 7502 | UUAGCGGAUCGGAGGACGU | 7545 | GUGGACUGGGGCGCUUGUA |
| 7417 | UCCGAUGACGGAUCUUAUU | 7460 | AGCCCGGUGACCCGGACUU | 7503 | UAGCGGAUCGGAGGACGUC | 7546 | UGGACUGGGGCGCUUGUAA |
| 7418 | CCGAUGACGGAUCUUAUUC | 7461 | GCCCGGUGACCCGGACUUG | 7504 | AGCGGAUCGGAGGACGUCG | 7547 | GGACUGGGGCGCUUGUAAC |
| 7419 | CGAUGACGGAUCUUAUUCG | 7462 | CCCGGUGACCCGGACUUGA | 7505 | GCGGAUCGGAGGACGUCGU | 7548 | GACUGGGGCGCUUGUAACA |
| 7420 | GAUGACGGAUCUUAUUCGU | 7463 | CCGGUGACCCGGACUUGAC | 7506 | CGGAUCGGAGGACGUCGUG | 7549 | ACUGGGGCGCUUGUAACAC |
| 7421 | AUGACGGAUCUUAUUCGUC | 7464 | CGGUGACCCGGACUUGACA | 7507 | GGAUCGGAGGACGUCGUGU | 7550 | CUGGGGCGCUUGUAACACC |
| 7422 | UGACGGAUCUUAUUCGUCA | 7465 | GGUGACCCGGACUUGACAU | 7508 | GAUCGGAGGACGUCGUGUG | 7551 | UGGGGCGCUUGUAACACCU |
| 7423 | GACGGAUCUUAUUCGUCAA | 7466 | GUGACCCGGACUUGACAUC | 7509 | AUCGGAGGACGUCGUGUGC | 7552 | GGGGCGCUUGUAACACCUU |
| 7424 | ACGGAUCUUAUUCGUCAAU | 7467 | UGACCCGGACUUGACAUCA | 7510 | UCGGAGGACGUCGUGUGCU | 7553 | GGGCGCUUGUAACACCUUG |
| 7425 | CGGAUCUUAUUCGUCAAUG | 7468 | GACCCGGACUUGACAUCAG | 7511 | CGGAGGACGUCGUGUGCUG | 7554 | GGCGCUUGUAACACCUUGC |
| 7426 | GGAUCUUAUUCGUCAAUGC | 7469 | ACCCGGACUUGACAUCAGA | 7512 | GGAGGACGUCGUGUGCUGU | 7555 | GCGCUUGUAACACCUUGCG |
| 7427 | GAUCUUAUUCGUCAAUGCC | 7470 | CCCGGACUUGACAUCAGAC | 7513 | GAGGACGUCGUGUGCUGUU | 7556 | CGCUUGUAACACCUUGCGC |
| 7428 | AUCUUAUUCGUCAAUGCCU | 7471 | CCGGACUUGACAUCAGACU | 7514 | AGGACGUCGUGUGCUGUUC | 7557 | GCUUGUAACACCUUGCGCG |
| 7429 | UCUUAUUCGUCAAUGCCUC | 7472 | CGGACUUGACAUCAGACUC | 7515 | GGACGUCGUGUGCUGUUCG | 7558 | CUUGUAACACCUUGCGCGG |
| 7430 | CUUAUUCGUCAAUGCCUCC | 7473 | GGACUUGACAUCAGACUCU | 7516 | GACGUCGUGUGCUGUUCGA | 7559 | UUGUAACACCUUGCGCGGC |
| 7431 | UUAUUCGUCAAUGCCUCCA | 7474 | GACUUGACAUCAGACUCUU | 7517 | ACGUCGUGUGCUGUUCGAU | 7560 | UGUAACACCUUGCGCGGCU |
| 7432 | UAUUCGUCAAUGCCUCCAC | 7475 | ACUUGACAUCAGACUCUUG | 7518 | CGUCGUGUGCUGUUCGAUG | 7561 | GUAACACCUUGCGCGGCUG |
| 7433 | AUUCGUCAAUGCCUCCACU | 7476 | CUUGACAUCAGACUCUUGG | 7519 | GUCGUGUGCUGUUCGAUGU | 7562 | UAACACCUUGCGCGGCUGA |
| 7434 | UUCGUCAAUGCCUCCACUA | 7477 | UUGACAUCAGACUCUUGGU | 7520 | UCGUGUGCUGUUCGAUGUC | 7563 | AACACCUUGCGCGGCUGAA |
| 7435 | UCGUCAAUGCCUCCACUAG | 7478 | UGACAUCAGACUCUUGGUC | 7521 | CGUGUGCUGUUCGAUGUCA | 7564 | ACACCUUGCGCGGCUGAAG |
| 7436 | CGUCAAUGCCUCCACUAGA | 7479 | GACAUCAGACUCUUGGUCC | 7522 | GUGUGCUGUUCGAUGUCAU | 7565 | CACCUUGCGCGGCUGAAGA |
| 7437 | GUCAAUGCCUCCACUAGAG | 7480 | ACAUCAGACUCUUGGUCCA | 7523 | UGUGCUGUUCGAUGUCAUA | 7566 | ACCUUGCGCGGCUGAAGAA |
| 7438 | UCAAUGCCUCCACUAGAGG | 7481 | CAUCAGACUCUUGGUCCAC | 7524 | GUGCUGUUCGAUGUCAUAC | 7567 | CCUUGCGCGGCUGAAGAAU |

**FIG. 5 (page 276 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7568 | CUUGCGCGGCUGAAGAAUC | 7611 | CAAUUCACUUUUGCGCCAU | 7654 | ACCCGUUCUGCUGUGACAC | 7697 | GCCUGCAGGUGGUGGACAG |
| 7569 | UUGCGCGGCUGAAGAAUCA | 7612 | AAUUCACUUUUGCGCCAUC | 7655 | CCCGUUCUGCUGUGACACG | 7698 | CCUGCAGGUGGUGGACAGU |
| 7570 | UGCGCGGCUGAAGAAUCAA | 7613 | AUUCACUUUUGCGCCAUCA | 7656 | CCGUUCUGCUGUGACACGG | 7699 | CUGCAGGUGGUGGACAGUA |
| 7571 | GCGCGGCUGAAGAAUCAAA | 7614 | UUCACUUUUGCGCCAUCAC | 7657 | CGUUCUGCUGUGACACGGC | 7700 | UGCAGGUGGUGGACAGUAC |
| 7572 | CGCGGCUGAAGAAUCAAAG | 7615 | UCACUUUUGCGCCAUCACA | 7658 | GUUCUGCUGUGACACGGCA | 7701 | GCAGGUGGUGGACAGUACC |
| 7573 | GCGGCUGAAGAAUCAAAGC | 7616 | CACUUUUGCGCCAUCACAA | 7659 | UUCUGCUGUGACACGGCAG | 7702 | CAGGUGGUGGACAGUACCU |
| 7574 | CGGCUGAAGAAUCAAAGCU | 7617 | ACUUUUGCGCCAUCACAAU | 7660 | UCUGCUGUGACACGGCAGA | 7703 | AGGUGGUGGACAGUACCUA |
| 7575 | GGCUGAAGAAUCAAAGCUG | 7618 | CUUUUGCGCCAUCACAAUA | 7661 | CUGCUGUGACACGGCAGAA | 7704 | GGUGGUGGACAGUACCUAC |
| 7576 | GCUGAAGAAUCAAAGCUGC | 7619 | UUUUGCGCCAUCACAAUAU | 7662 | UGCUGUGACACGGCAGAAG | 7705 | GUGGUGGACAGUACCUACA |
| 7577 | CUGAAGAAUCAAAGCUGCC | 7620 | UUUGCGCCAUCACAAUAUG | 7663 | GCUGUGACACGGCAGAAGA | 7706 | UGGUGGACAGUACCUACAA |
| 7578 | UGAAGAAUCAAAGCUGCCA | 7621 | UUGCGCCAUCACAAUAUGG | 7664 | CUGUGACACGGCAGAAGAA | 7707 | GGUGGACAGUACCUACAAU |
| 7579 | GAAGAAUCAAAGCUGCCAA | 7622 | UGCGCCAUCACAAUAUGGU | 7665 | UGUGACACGGCAGAAGAAG | 7708 | GUGGACAGUACCUACAAUG |
| 7580 | AAGAAUCAAAGCUGCCAAU | 7623 | GCGCCAUCACAAUAUGGUG | 7666 | GUGACACGGCAGAAGAAGG | 7709 | UGGACAGUACCUACAAUGA |
| 7581 | AGAAUCAAAGCUGCCAAUU | 7624 | CGCCAUCACAAUAUGGUGU | 7667 | UGACACGGCAGAAGAAGGU | 7710 | GGACAGUACCUACAAUGAA |
| 7582 | GAAUCAAAGCUGCCAAUUA | 7625 | GCCAUCACAAUAUGGUGUA | 7668 | GACACGGCAGAAGAAGGUG | 7711 | GACAGUACCUACAAUGAAG |
| 7583 | AAUCAAAGCUGCCAAUUAG | 7626 | CCAUCACAAUAUGGUGUAU | 7669 | ACACGGCAGAAGAAGGUGA | 7712 | ACAGUACCUACAAUGAAGU |
| 7584 | AUCAAAGCUGCCAAUUAGC | 7627 | CAUCACAAUAUGGUGUAUG | 7670 | CACGGCAGAAGAAGGUGAC | 7713 | CAGUACCUACAAUGAAGUG |
| 7585 | UCAAAGCUGCCAAUUAGCC | 7628 | AUCACAAUAUGGUGUAUGC | 7671 | ACGGCAGAAGAAGGUGACC | 7714 | AGUACCUACAAUGAAGUGC |
| 7586 | CAAAGCUGCCAAUUAGCCC | 7629 | UCACAAUAUGGUGUAUGCC | 7672 | CGGCAGAAGAAGGUGACCU | 7715 | GUACCUACAAUGAAGUGCU |
| 7587 | AAAGCUGCCAAUUAGCCCC | 7630 | CACAAUAUGGUGUAUGCCA | 7673 | GGCAGAAGAAGGUGACCUU | 7716 | UACCUACAAUGAAGUGCUU |
| 7588 | AAGCUGCCAAUUAGCCCCC | 7631 | ACAAUAUGGUGUAUGCCAC | 7674 | GCAGAAGAAGGUGACCUUC | 7717 | ACCUACAAUGAAGUGCUUA |
| 7589 | AGCUGCCAAUUAGCCCCCU | 7632 | CAAUAUGGUGUAUGCCACG | 7675 | CAGAAGAAGGUGACCUUCG | 7718 | CCUACAAUGAAGUGCUUAA |
| 7590 | GCUGCCAAUUAGCCCCCUG | 7633 | AAUAUGGUGUAUGCCACGA | 7676 | AGAAGAAGGUGACCUUCGA | 7719 | CUACAAUGAAGUGCUUAAG |
| 7591 | CUGCCAAUUAGCCCCCUGA | 7634 | AUAUGGUGUAUGCCACGAC | 7677 | GAAGAAGGUGACCUUCGAC | 7720 | UACAAUGAAGUGCUUAAGG |
| 7592 | UGCCAAUUAGCCCCCUGAG | 7635 | UAUGGUGUAUGCCACGACC | 7678 | AAGAAGGUGACCUUCGACC | 7721 | ACAAUGAAGUGCUUAAGGA |
| 7593 | GCCAAUUAGCCCCCUGAGC | 7636 | AUGGUGUAUGCCACGACCA | 7679 | AGAAGGUGACCUUCGACCG | 7722 | CAAUGAAGUGCUUAAGGAG |
| 7594 | CCAAUUAGCCCCCUGAGCA | 7637 | UGGUGUAUGCCACGACCAC | 7680 | GAAGGUGACCUUCGACCGC | 7723 | AAUGAAGUGCUUAAGGAGA |
| 7595 | CAAUUAGCCCCCUGAGCAA | 7638 | GGUGUAUGCCACGACCACC | 7681 | AAGGUGACCUUCGACCGCC | 7724 | AUGAAGUGCUUAAGGAGAU |
| 7596 | AAUUAGCCCCCUGAGCAAU | 7639 | GUGUAUGCCACGACCACCC | 7682 | AGGUGACCUUCGACCGCCU | 7725 | UGAAGUGCUUAAGGAGAUA |
| 7597 | AUUAGCCCCCUGAGCAAUU | 7640 | UGUAUGCCACGACCACCCG | 7683 | GGUGACCUUCGACCGCCUG | 7726 | GAAGUGCUUAAGGAGAUAA |
| 7598 | UUAGCCCCCUGAGCAAUUC | 7641 | GUAUGCCACGACCACCCGU | 7684 | GUGACCUUCGACCGCCUGC | 7727 | AAGUGCUUAAGGAGAUAAA |
| 7599 | UAGCCCCCUGAGCAAUUCA | 7642 | UAUGCCACGACCACCCGUU | 7685 | UGACCUUCGACCGCCUGCA | 7728 | AGUGCUUAAGGAGAUAAAG |
| 7600 | AGCCCCCUGAGCAAUUCAC | 7643 | AUGCCACGACCACCCGUUC | 7686 | GACCUUCGACCGCCUGCAG | 7729 | GUGCUUAAGGAGAUAAAGG |
| 7601 | GCCCCCUGAGCAAUUCACU | 7644 | UGCCACGACCACCCGUUCU | 7687 | ACCUUCGACCGCCUGCAGG | 7730 | UGCUUAAGGAGAUAAAGGC |
| 7602 | CCCCCUGAGCAAUUCACUU | 7645 | GCCACGACCACCCGUUCUG | 7688 | CCUUCGACCGCCUGCAGGU | 7731 | GCUUAAGGAGAUAAAGGCA |
| 7603 | CCCCUGAGCAAUUCACUUU | 7646 | CCACGACCACCCGUUCUGC | 7689 | CUUCGACCGCCUGCAGGUG | 7732 | CUUAAGGAGAUAAAGGCAC |
| 7604 | CCCUGAGCAAUUCACUUUU | 7647 | CACGACCACCCGUUCUGCU | 7690 | UUCGACCGCCUGCAGGUGG | 7733 | UUAAGGAGAUAAAGGCACG |
| 7605 | CCUGAGCAAUUCACUUUUG | 7648 | ACGACCACCCGUUCUGCUG | 7691 | UCGACCGCCUGCAGGUGGU | 7734 | UAAGGAGAUAAAGGCACGA |
| 7606 | CUGAGCAAUUCACUUUUGC | 7649 | CGACCACCCGUUCUGCUGU | 7692 | CGACCGCCUGCAGGUGGUG | 7735 | AAGGAGAUAAAGGCACGAG |
| 7607 | UGAGCAAUUCACUUUUGCG | 7650 | GACCACCCGUUCUGCUGUG | 7693 | GACCGCCUGCAGGUGGUGG | 7736 | AGGAGAUAAAGGCACGAGC |
| 7608 | GAGCAAUUCACUUUUGCGC | 7651 | ACCACCCGUUCUGCUGUGA | 7694 | ACCGCCUGCAGGUGGUGGA | 7737 | GGAGAUAAAGGCACGAGCA |
| 7609 | AGCAAUUCACUUUUGCGCC | 7652 | CCACCCGUUCUGCUGUGAC | 7695 | CCGCCUGCAGGUGGUGGAC | 7738 | GAGAUAAAGGCACGAGCAU |
| 7610 | GCAAUUCACUUUUGCGCCA | 7653 | CACCCGUUCUGCUGUGACA | 7696 | CGCCUGCAGGUGGUGGACA | 7739 | AGAUAAAGGCACGAGCAUC |

**FIG. 5 (page 277 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7740 | GAUAAAGGCACGAGCAUCC | 7783 | ACAGAGGAAGCUUGCGACC | 7826 | CAAAGUUCGGCUACGGGAA | 7869 | CAAGGCCAUUAACCACAUC |
| 7741 | AUAAAGGCACGAGCAUCCA | 7784 | CAGAGGAAGCUUGCGACCU | 7827 | AAAGUUCGGCUACGGGAAA | 7870 | AAGGCCAUUAACCACAUCA |
| 7742 | UAAAGGCACGAGCAUCCAG | 7785 | AGAGGAAGCUUGCGACCUG | 7828 | AAGUUCGGCUACGGGAAAA | 7871 | AGGCCAUUAACCACAUCAG |
| 7743 | AAAGGCACGAGCAUCCAGA | 7786 | GAGGAAGCUUGCGACCUGA | 7829 | AGUUCGGCUACGGGAAAAA | 7872 | GGCCAUUAACCACAUCAGC |
| 7744 | AAGGCACGAGCAUCCAGAG | 7787 | AGGAAGCUUGCGACCUGAC | 7830 | GUUCGGCUACGGGAAAAAG | 7873 | GCCAUUAACCACAUCAGCU |
| 7745 | AGGCACGAGCAUCCAGAGU | 7788 | GGAAGCUUGCGACCUGACG | 7831 | UUCGGCUACGGGAAAAAGG | 7874 | CCAUUAACCACAUCAGCUC |
| 7746 | GGCACGAGCAUCCAGAGUG | 7789 | GAAGCUUGCGACCUGACGC | 7832 | UCGGCUACGGGAAAAAGGA | 7875 | CAUUAACCACAUCAGCUCC |
| 7747 | GCACGAGCAUCCAGAGUGA | 7790 | AAGCUUGCGACCUGACGCC | 7833 | CGGCUACGGGAAAAAGGAU | 7876 | AUUAACCACAUCAGCUCCG |
| 7748 | CACGAGCAUCCAGAGUGAA | 7791 | AGCUUGCGACCUGACGCCC | 7834 | GGCUACGGGAAAAAGGAUG | 7877 | UUAACCACAUCAGCUCCGU |
| 7749 | ACGAGCAUCCAGAGUGAAG | 7792 | GCUUGCGACCUGACGCCCC | 7835 | GCUACGGGAAAAAGGAUGU | 7878 | UAACCACAUCAGCUCCGUG |
| 7750 | CGAGCAUCCAGAGUGAAGC | 7793 | CUUGCGACCUGACGCCCCC | 7836 | CUACGGGAAAAAGGAUGUU | 7879 | AACCACAUCAGCUCCGUGU |
| 7751 | GAGCAUCCAGAGUGAAGCC | 7794 | UUGCGACCUGACGCCCCCC | 7837 | UACGGGAAAAAGGAUGUUC | 7880 | ACCACAUCAGCUCCGUGUG |
| 7752 | AGCAUCCAGAGUGAAGCCA | 7795 | UGCGACCUGACGCCCCCCC | 7838 | ACGGGAAAAAGGAUGUUCG | 7881 | CCACAUCAGCUCCGUGUGG |
| 7753 | GCAUCCAGAGUGAAGCCAC | 7796 | GCGACCUGACGCCCCCCCA | 7839 | CGGGAAAAAGGAUGUUCGG | 7882 | CACAUCAGCUCCGUGUGGA |
| 7754 | CAUCCAGAGUGAAGCCACG | 7797 | CGACCUGACGCCCCCCCAC | 7840 | GGGAAAAAGGAUGUUCGGA | 7883 | ACAUCAGCUCCGUGUGGAA |
| 7755 | AUCCAGAGUGAAGCCACGC | 7798 | GACCUGACGCCCCCCCACU | 7841 | GGAAAAAGGAUGUUCGGAG | 7884 | CAUCAGCUCCGUGUGGAAG |
| 7756 | UCCAGAGUGAAGCCACGCU | 7799 | ACCUGACGCCCCCCCACUC | 7842 | GAAAAAGGAUGUUCGGAGC | 7885 | AUCAGCUCCGUGUGGAAGG |
| 7757 | CCAGAGUGAAGCCACGCUU | 7800 | CCUGACGCCCCCCCACUCA | 7843 | AAAAAGGAUGUUCGGAGCC | 7886 | UCAGCUCCGUGUGGAAGGA |
| 7758 | CAGAGUGAAGCCACGCUUG | 7801 | CUGACGCCCCCCCACUCAG | 7844 | AAAAGGAUGUUCGGAGCCA | 7887 | CAGCUCCGUGUGGAAGGAC |
| 7759 | AGAGUGAAGCCACGCUUGC | 7802 | UGACGCCCCCCCACUCAGC | 7845 | AAAGGAUGUUCGGAGCCAU | 7888 | AGCUCCGUGUGGAAGGACU |
| 7760 | GAGUGAAGCCACGCUUGCU | 7803 | GACGCCCCCCCACUCAGCC | 7846 | AAGGAUGUUCGGAGCCAUU | 7889 | GCUCCGUGUGGAAGGACUU |
| 7761 | AGUGAAGCCACGCUUGCUU | 7804 | ACGCCCCCCCACUCAGCCA | 7847 | AGGAUGUUCGGAGCCAUUC | 7890 | CUCCGUGUGGAAGGACUUG |
| 7762 | GUGAAGCCACGCUUGCUUA | 7805 | CGCCCCCCCACUCAGCCAG | 7848 | GGAUGUUCGGAGCCAUUCC | 7891 | UCCGUGUGGAAGGACUUGC |
| 7763 | UGAAGCCACGCUUGCUUAC | 7806 | GCCCCCCCACUCAGCCAGA | 7849 | GAUGUUCGGAGCCAUUCCC | 7892 | CCGUGUGGAAGGACUUGCU |
| 7764 | GAAGCCACGCUUGCUUACC | 7807 | CCCCCCCACUCAGCCAGAU | 7850 | AUGUUCGGAGCCAUUCCCG | 7893 | CGUGUGGAAGGACUUGCUG |
| 7765 | AAGCCACGCUUGCUUACCA | 7808 | CCCCCCACUCAGCCAGAUC | 7851 | UGUUCGGAGCCAUUCCCGC | 7894 | GUGUGGAAGGACUUGCUGG |
| 7766 | AGCCACGCUUGCUUACCAC | 7809 | CCCCCACUCAGCCAGAUCA | 7852 | GUUCGGAGCCAUUCCCGCA | 7895 | UGUGGAAGGACUUGCUGGA |
| 7767 | GCCACGCUUGCUUACCACA | 7810 | CCCCACUCAGCCAGAUCAA | 7853 | UUCGGAGCCAUUCCCGCAA | 7896 | GUGGAAGGACUUGCUGGAC |
| 7768 | CCACGCUUGCUUACCACAG | 7811 | CCCACUCAGCCAGAUCAAA | 7854 | UCGGAGCCAUUCCCGCAAG | 7897 | UGGAAGGACUUGCUGGACG |
| 7769 | CACGCUUGCUUACCACAGA | 7812 | CCACUCAGCCAGAUCAAAG | 7855 | CGGAGCCAUUCCCGCAAGG | 7898 | GGAAGGACUUGCUGGACGA |
| 7770 | ACGCUUGCUUACCACAGAG | 7813 | CACUCAGCCAGAUCAAAGU | 7856 | GGAGCCAUUCCCGCAAGGC | 7899 | GAAGGACUUGCUGGACGAC |
| 7771 | CGCUUGCUUACCACAGAGG | 7814 | ACUCAGCCAGAUCAAAGUU | 7857 | GAGCCAUUCCCGCAAGGCC | 7900 | AAGGACUUGCUGGACGACA |
| 7772 | GCUUGCUUACCACAGAGGA | 7815 | CUCAGCCAGAUCAAAGUUC | 7858 | AGCCAUUCCCGCAAGGCCA | 7901 | AGGACUUGCUGGACGACAA |
| 7773 | CUUGCUUACCACAGAGGAA | 7816 | UCAGCCAGAUCAAAGUUCG | 7859 | GCCAUUCCCGCAAGGCCAU | 7902 | GGACUUGCUGGACGACAAC |
| 7774 | UUGCUUACCACAGAGGAAG | 7817 | CAGCCAGAUCAAAGUUCGG | 7860 | CCAUUCCCGCAAGGCCAUU | 7903 | GACUUGCUGGACGACAACA |
| 7775 | UGCUUACCACAGAGGAAGC | 7818 | AGCCAGAUCAAAGUUCGGC | 7861 | CAUUCCCGCAAGGCCAUUA | 7904 | ACUUGCUGGACGACAACAA |
| 7776 | GCUUACCACAGAGGAAGCU | 7819 | GCCAGAUCAAAGUUCGGCU | 7862 | AUUCCCGCAAGGCCAUUAA | 7905 | CUUGCUGGACGACAACAAU |
| 7777 | CUUACCACAGAGGAAGCUU | 7820 | CCAGAUCAAAGUUCGGCUA | 7863 | UUCCCGCAAGGCCAUUAAC | 7906 | UUGCUGGACGACAACAAUA |
| 7778 | UUACCACAGAGGAAGCUUG | 7821 | CAGAUCAAAGUUCGGCUAC | 7864 | UCCCGCAAGGCCAUUAACC | 7907 | UGCUGGACGACAACAAUAC |
| 7779 | UACCACAGAGGAAGCUUGC | 7822 | AGAUCAAAGUUCGGCUACG | 7865 | CCCGCAAGGCCAUUAACCA | 7908 | GCUGGACGACAACAAUACC |
| 7780 | ACCACAGAGGAAGCUUGCG | 7823 | GAUCAAAGUUCGGCUACGG | 7866 | CCGCAAGGCCAUUAACCAC | 7909 | CUGGACGACAACAAUACCC |
| 7781 | CCACAGAGGAAGCUUGCGA | 7824 | AUCAAAGUUCGGCUACGGG | 7867 | CGCAAGGCCAUUAACCACA | 7910 | UGGACGACAACAAUACCCC |
| 7782 | CACAGAGGAAGCUUGCGAC | 7825 | UCAAAGUUCGGCUACGGGA | 7868 | GCAAGGCCAUUAACCACAU | 7911 | GGACGACAACAAUACCCCA |

**FIG. 5 (page 278 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7912 | GACGACAACAAUACCCCAA | 7955 | AUGAGGUCUUCGCUGUGAA | 7998 | UGCUCGCCUGAUCGUGUAU | 8041 | GAGAAGAGAGCGCUUCACG |
| 7913 | ACGACAACAAUACCCCAAU | 7956 | UGAGGUCUUCGCUGUGAAC | 7999 | GCUCGCCUGAUCGUGUAUC | 8042 | AGAAGAGAGCGCUUCACGA |
| 7914 | CGACAACAAUACCCCAAUU | 7957 | GAGGUCUUCGCUGUGAACC | 8000 | CUCGCCUGAUCGUGUAUCC | 8043 | GAAGAGAGCGCUUCACGAC |
| 7915 | GACAACAAUACCCCAAUUC | 7958 | AGGUCUUCGCUGUGAACCC | 8001 | UCGCCUGAUCGUGUAUCCG | 8044 | AAGAGAGCGCUUCACGACG |
| 7916 | ACAACAAUACCCCAAUUCC | 7959 | GGUCUUCGCUGUGAACCCA | 8002 | CGCCUGAUCGUGUAUCCGG | 8045 | AGAGAGCGCUUCACGACGU |
| 7917 | CAACAAUACCCCAAUUCCA | 7960 | GUCUUCGCUGUGAACCCAG | 8003 | GCCUGAUCGUGUAUCCGGA | 8046 | GAGAGCGCUUCACGACGUC |
| 7918 | AACAAUACCCCAAUUCCAA | 7961 | UCUUCGCUGUGAACCCAGC | 8004 | CCUGAUCGUGUAUCCGGAU | 8047 | AGAGCGCUUCACGACGUCA |
| 7919 | ACAAUACCCCAAUUCCAAC | 7962 | CUUCGCUGUGAACCCAGCG | 8005 | CUGAUCGUGUAUCCGGAUC | 8048 | GAGCGCUUCACGACGUCAU |
| 7920 | CAAUACCCCAAUUCCAACA | 7963 | UUCGCUGUGAACCCAGCGA | 8006 | UGAUCGUGUAUCCGGAUCU | 8049 | AGCGCUUCACGACGUCAUC |
| 7921 | AAUACCCCAAUUCCAACAA | 7964 | UCGCUGUGAACCCAGCGAA | 8007 | GAUCGUGUAUCCGGAUCUC | 8050 | GCGCUUCACGACGUCAUCA |
| 7922 | AUACCCCAAUUCCAACAAC | 7965 | CGCUGUGAACCCAGCGAAG | 8008 | AUCGUGUAUCCGGAUCUCG | 8051 | CGCUUCACGACGUCAUCAA |
| 7923 | UACCCCAAUUCCAACAACA | 7966 | GCUGUGAACCCAGCGAAGG | 8009 | UCGUGUAUCCGGAUCUCGG | 8052 | GCUUCACGACGUCAUCAAA |
| 7924 | ACCCCAAUUCCAACAACAA | 7967 | CUGUGAACCCAGCGAAGGG | 8010 | CGUGUAUCCGGAUCUCGGA | 8053 | CUUCACGACGUCAUCAAAA |
| 7925 | CCCCAAUUCCAACAACAAU | 7968 | UGUGAACCCAGCGAAGGGA | 8011 | GUGUAUCCGGAUCUCGGAU | 8054 | UUCACGACGUCAUCAAAAA |
| 7926 | CCCAAUUCCAACAACAAUC | 7969 | GUGAACCCAGCGAAGGGAG | 8012 | UGUAUCCGGAUCUCGGAUC | 8055 | UCACGACGUCAUCAAAAAA |
| 7927 | CCAAUUCCAACAACAAUCA | 7970 | UGAACCCAGCGAAGGGAGG | 8013 | GUAUCCGGAUCUCGGAUCC | 8056 | CACGACGUCAUCAAAAAAA |
| 7928 | CAAUUCCAACAACAAUCAU | 7971 | GAACCCAGCGAAGGGAGGU | 8014 | UAUCCGGAUCUCGGAUCCC | 8057 | ACGACGUCAUCAAAAAAAC |
| 7929 | AAUUCCAACAACAAUCAUG | 7972 | AACCCAGCGAAGGGAGGUC | 8015 | AUCCGGAUCUCGGAUCCCG | 8058 | CGACGUCAUCAAAAAAACU |
| 7930 | AUUCCAACAACAAUCAUGG | 7973 | ACCCAGCGAAGGGAGGUCG | 8016 | UCCGGAUCUCGGAUCCCGG | 8059 | GACGUCAUCAAAAAAACUG |
| 7931 | UUCCAACAACAAUCAUGGC | 7974 | CCCAGCGAAGGGAGGUCGG | 8017 | CCGGAUCUCGGAUCCCGGG | 8060 | ACGUCAUCAAAAAAACUGC |
| 7932 | UCCAACAACAAUCAUGGCC | 7975 | CCAGCGAAGGGAGGUCGGA | 8018 | CGGAUCUCGGAUCCCGGGU | 8061 | CGUCAUCAAAAAAACUGCC |
| 7933 | CCAACAACAAUCAUGGCCA | 7976 | CAGCGAAGGGAGGUCGGAA | 8019 | GGAUCUCGGAUCCCGGGUU | 8062 | GUCAUCAAAAAAACUGCCU |
| 7934 | CAACAACAAUCAUGGCCAA | 7977 | AGCGAAGGGAGGUCGGAAG | 8020 | GAUCUCGGAUCCCGGGUUU | 8063 | UCAUCAAAAAAACUGCCUU |
| 7935 | AACAACAAUCAUGGCCAAA | 7978 | GCGAAGGGAGGUCGGAAGC | 8021 | AUCUCGGAUCCCGGGUUUG | 8064 | CAUCAAAAAAACUGCCUUA |
| 7936 | ACAACAAUCAUGGCCAAAA | 7979 | CGAAGGGAGGUCGGAAGCC | 8022 | UCUCGGAUCCCGGGUUUGC | 8065 | AUCAAAAAAACUGCCUUAG |
| 7937 | CAACAAUCAUGGCCAAAAA | 7980 | GAAGGGAGGUCGGAAGCCU | 8023 | CUCGGAUCCCGGGUUUGCG | 8066 | UCAAAAAAACUGCCUUAGC |
| 7938 | AACAAUCAUGGCCAAAAAU | 7981 | AAGGGAGGUCGGAAGCCUG | 8024 | UCGGAUCCCGGGUUUGCGA | 8067 | CAAAAAAACUGCCUUAGCC |
| 7939 | ACAAUCAUGGCCAAAAAUG | 7982 | AGGGAGGUCGGAAGCCUGC | 8025 | CGGAUCCCGGGUUUGCGAG | 8068 | AAAAAAACUGCCUUAGCCG |
| 7940 | CAAUCAUGGCCAAAAAUGA | 7983 | GGGAGGUCGGAAGCCUGCU | 8026 | GGAUCCCGGGUUUGCGAGA | 8069 | AAAAAACUGCCUUAGCCGU |
| 7941 | AAUCAUGGCCAAAAAUGAG | 7984 | GGAGGUCGGAAGCCUGCUC | 8027 | GAUCCCGGGUUUGCGAGAA | 8070 | AAAAACUGCCUUAGCCGUG |
| 7942 | AUCAUGGCCAAAAAUGAGG | 7985 | GAGGUCGGAAGCCUGCUCG | 8028 | AUCCCGGGUUUGCGAGAAG | 8071 | AAAACUGCCUUAGCCGUGA |
| 7943 | UCAUGGCCAAAAAUGAGGU | 7986 | AGGUCGGAAGCCUGCUCGC | 8029 | UCCCGGGUUUGCGAGAAGA | 8072 | AAACUGCCUUAGCCGUGAU |
| 7944 | CAUGGCCAAAAAUGAGGUC | 7987 | GGUCGGAAGCCUGCUCGCC | 8030 | CCCGGGUUUGCGAGAAGAG | 8073 | AACUGCCUUAGCCGUGAUG |
| 7945 | AUGGCCAAAAAUGAGGUCU | 7988 | GUCGGAAGCCUGCUCGCCU | 8031 | CCGGGUUUGCGAGAAGAGA | 8074 | ACUGCCUUAGCCGUGAUGG |
| 7946 | UGGCCAAAAAUGAGGUCUU | 7989 | UCGGAAGCCUGCUCGCCUG | 8032 | CGGGUUUGCGAGAAGAGAG | 8075 | CUGCCUUAGCCGUGAUGGG |
| 7947 | GGCCAAAAAUGAGGUCUUC | 7990 | CGGAAGCCUGCUCGCCUGA | 8033 | GGGUUUGCGAGAAGAGAGC | 8076 | UGCCUUAGCCGUGAUGGGA |
| 7948 | GCCAAAAAUGAGGUCUUCG | 7991 | GGAAGCCUGCUCGCCUGAU | 8034 | GGUUUGCGAGAAGAGAGCG | 8077 | GCCUUAGCCGUGAUGGGAG |
| 7949 | CCAAAAAUGAGGUCUUCGC | 7992 | GAAGCCUGCUCGCCUGAUC | 8035 | GUUUGCGAGAAGAGAGCGC | 8078 | CCUUAGCCGUGAUGGGAGC |
| 7950 | CAAAAAUGAGGUCUUCGCU | 7993 | AAGCCUGCUCGCCUGAUCG | 8036 | UUUGCGAGAAGAGAGCGCU | 8079 | CUUAGCCGUGAUGGGAGCC |
| 7951 | AAAAAUGAGGUCUUCGCUG | 7994 | AGCCUGCUCGCCUGAUCGU | 8037 | UUGCGAGAAGAGAGCGCUU | 8080 | UUAGCCGUGAUGGGAGCCG |
| 7952 | AAAAUGAGGUCUUCGCUGU | 7995 | GCCUGCUCGCCUGAUCGUG | 8038 | UGCGAGAAGAGAGCGCUUC | 8081 | UAGCCGUGAUGGGAGCCGC |
| 7953 | AAAUGAGGUCUUCGCUGUG | 7996 | CCUGCUCGCCUGAUCGUGU | 8039 | GCGAGAAGAGAGCGCUUCA | 8082 | AGCCGUGAUGGGAGCCGCU |
| 7954 | AAUGAGGUCUUCGCUGUGA | 7997 | CUGCUCGCCUGAUCGUGUA | 8040 | CGAGAAGAGAGCGCUUCAC | 8083 | GCCGUGAUGGGAGCCGCUU |

**FIG. 5 (page 279 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8084 | CCGUGAUGGGAGCCGCUUA | 8127 | GCGGGUGGAAUUUCUUCUG | 8170 | CCAAUGGGGUUCUCUUAUG | 8213 | UAACCGAAAAGGACAUCAG |
| 8085 | CGUGAUGGGAGCCGCUUAU | 8128 | CGGGUGGAAUUUCUUCUGA | 8171 | CAAUGGGGUUCUCUUAUGA | 8214 | AACCGAAAAGGACAUCAGG |
| 8086 | GUGAUGGGAGCCGCUUAUG | 8129 | GGGUGGAAUUUCUUCUGAC | 8172 | AAUGGGGUUCUCUUAUGAU | 8215 | ACCGAAAAGGACAUCAGGG |
| 8087 | UGAUGGGAGCCGCUUAUGG | 8130 | GGUGGAAUUUCUUCUGACU | 8173 | AUGGGGUUCUCUUAUGAUA | 8216 | CCGAAAAGGACAUCAGGGU |
| 8088 | GAUGGGAGCCGCUUAUGGC | 8131 | GUGGAAUUUCUUCUGACUG | 8174 | UGGGGUUCUCUUAUGAUAC | 8217 | CGAAAAGGACAUCAGGGUC |
| 8089 | AUGGGAGCCGCUUAUGGCU | 8132 | UGGAAUUUCUUCUGACUGC | 8175 | GGGGUUCUCUUAUGAUACC | 8218 | GAAAAGGACAUCAGGGUCG |
| 8090 | UGGGAGCCGCUUAUGGCUU | 8133 | GGAAUUUCUUCUGACUGCU | 8176 | GGGUUCUCUUAUGAUACCC | 8219 | AAAAGGACAUCAGGGUCGA |
| 8091 | GGGAGCCGCUUAUGGCUUC | 8134 | GAAUUUCUUCUGACUGCUU | 8177 | GGUUCUCUUAUGAUACCCG | 8220 | AAAGGACAUCAGGGUCGAG |
| 8092 | GGAGCCGCUUAUGGCUUCC | 8135 | AAUUUCUUCUGACUGCUUG | 8178 | GUUCUCUUAUGAUACCCGC | 8221 | AAGGACAUCAGGGUCGAGG |
| 8093 | GAGCCGCUUAUGGCUUCCA | 8136 | AUUUCUUCUGACUGCUUGG | 8179 | UUCUCUUAUGAUACCCGCU | 8222 | AGGACAUCAGGGUCGAGGA |
| 8094 | AGCCGCUUAUGGCUUCCAA | 8137 | UUUCUUCUGACUGCUUGGA | 8180 | UCUCUUAUGAUACCCGCUG | 8223 | GGACAUCAGGGUCGAGGAA |
| 8095 | GCCGCUUAUGGCUUCCAAU | 8138 | UUCUUCUGACUGCUUGGAA | 8181 | CUCUUAUGAUACCCGCUGC | 8224 | GACAUCAGGGUCGAGGAAG |
| 8096 | CCGCUUAUGGCUUCCAAUA | 8139 | UCUUCUGACUGCUUGGAAG | 8182 | UCUUAUGAUACCCGCUGCU | 8225 | ACAUCAGGGUCGAGGAAGA |
| 8097 | CGCUUAUGGCUUCCAAUAC | 8140 | CUUCUGACUGCUUGGAAGU | 8183 | CUUAUGAUACCCGCUGCUU | 8226 | CAUCAGGGUCGAGGAAGAG |
| 8098 | GCUUAUGGCUUCCAAUACU | 8141 | UUCUGACUGCUUGGAAGUC | 8184 | UUAUGAUACCCGCUGCUUU | 8227 | AUCAGGGUCGAGGAAGAGG |
| 8099 | CUUAUGGCUUCCAAUACUC | 8142 | UCUGACUGCUUGGAAGUCG | 8185 | UAUGAUACCCGCUGCUUUG | 8228 | UCAGGGUCGAGGAAGAGGU |
| 8100 | UUAUGGCUUCCAAUACUCC | 8143 | CUGACUGCUUGGAAGUCGA | 8186 | AUGAUACCCGCUGCUUUGA | 8229 | CAGGGUCGAGGAAGAGGUC |
| 8101 | UAUGGCUUCCAAUACUCCC | 8144 | UGACUGCUUGGAAGUCGAA | 8187 | UGAUACCCGCUGCUUUGAC | 8230 | AGGGUCGAGGAAGAGGUCU |
| 8102 | AUGGCUUCCAAUACUCCCC | 8145 | GACUGCUUGGAAGUCGAAG | 8188 | GAUACCCGCUGCUUUGACU | 8231 | GGGUCGAGGAAGAGGUCUA |
| 8103 | UGGCUUCCAAUACUCCCCA | 8146 | ACUGCUUGGAAGUCGAAGA | 8189 | AUACCCGCUGCUUUGACUC | 8232 | GGUCGAGGAAGAGGUCUAU |
| 8104 | GGCUUCCAAUACUCCCCAG | 8147 | CUGCUUGGAAGUCGAAGAA | 8190 | UACCCGCUGCUUUGACUCC | 8233 | GUCGAGGAAGAGGUCUAUC |
| 8105 | GCUUCCAAUACUCCCCAGC | 8148 | UGCUUGGAAGUCGAAGAAC | 8191 | ACCCGCUGCUUUGACUCCA | 8234 | UCGAGGAAGAGGUCUAUCA |
| 8106 | CUUCCAAUACUCCCCAGCG | 8149 | GCUUGGAAGUCGAAGAACG | 8192 | CCCGCUGCUUUGACUCCAC | 8235 | CGAGGAAGAGGUCUAUCAG |
| 8107 | UUCCAAUACUCCCCAGCGC | 8150 | CUUGGAAGUCGAAGAACGA | 8193 | CCGCUGCUUUGACUCCACU | 8236 | GAGGAAGAGGUCUAUCAGU |
| 8108 | UCCAAUACUCCCCAGCGCA | 8151 | UUGGAAGUCGAAGAACGAC | 8194 | CGCUGCUUUGACUCCACUG | 8237 | AGGAAGAGGUCUAUCAGUG |
| 8109 | CCAAUACUCCCCAGCGCAG | 8152 | UGGAAGUCGAAGAACGACC | 8195 | GCUGCUUUGACUCCACUGU | 8238 | GGAAGAGGUCUAUCAGUGU |
| 8110 | CAAUACUCCCCAGCGCAGC | 8153 | GGAAGUCGAAGAACGACCC | 8196 | CUGCUUUGACUCCACUGUA | 8239 | GAAGAGGUCUAUCAGUGUU |
| 8111 | AAUACUCCCCAGCGCAGCG | 8154 | GAAGUCGAAGAACGACCCA | 8197 | UGCUUUGACUCCACUGUAA | 8240 | AAGAGGUCUAUCAGUGUUG |
| 8112 | AUACUCCCCAGCGCAGCGG | 8155 | AAGUCGAAGAACGACCCAA | 8198 | GCUUUGACUCCACUGUAAC | 8241 | AGAGGUCUAUCAGUGUUGU |
| 8113 | UACUCCCCAGCGCAGCGGG | 8156 | AGUCGAAGAACGACCCAAU | 8199 | CUUUGACUCCACUGUAACC | 8242 | GAGGUCUAUCAGUGUUGUG |
| 8114 | ACUCCCCAGCGCAGCGGGU | 8157 | GUCGAAGAACGACCCAAUG | 8200 | UUUGACUCCACUGUAACCG | 8243 | AGGUCUAUCAGUGUUGUGA |
| 8115 | CUCCCCAGCGCAGCGGGUG | 8158 | UCGAAGAACGACCCAAUGG | 8201 | UUGACUCCACUGUAACCGA | 8244 | GGUCUAUCAGUGUUGUGAC |
| 8116 | UCCCCAGCGCAGCGGGUGG | 8159 | CGAAGAACGACCCAAUGGG | 8202 | UGACUCCACUGUAACCGAA | 8245 | GUCUAUCAGUGUUGUGACC |
| 8117 | CCCCAGCGCAGCGGGUGGA | 8160 | GAAGAACGACCCAAUGGGG | 8203 | GACUCCACUGUAACCGAAA | 8246 | UCUAUCAGUGUUGUGACCU |
| 8118 | CCCAGCGCAGCGGGUGGAA | 8161 | AAGAACGACCCAAUGGGGU | 8204 | ACUCCACUGUAACCGAAAA | 8247 | CUAUCAGUGUUGUGACCUG |
| 8119 | CCAGCGCAGCGGGUGGAAU | 8162 | AGAACGACCCAAUGGGGUU | 8205 | CUCCACUGUAACCGAAAAG | 8248 | UAUCAGUGUUGUGACCUGG |
| 8120 | CAGCGCAGCGGGUGGAAUU | 8163 | GAACGACCCAAUGGGGUUC | 8206 | UCCACUGUAACCGAAAAGG | 8249 | AUCAGUGUUGUGACCUGGA |
| 8121 | AGCGCAGCGGGUGGAAUUU | 8164 | AACGACCCAAUGGGGUUCU | 8207 | CCACUGUAACCGAAAAGGA | 8250 | UCAGUGUUGUGACCUGGAG |
| 8122 | GCGCAGCGGGUGGAAUUUC | 8165 | ACGACCCAAUGGGGUUCUC | 8208 | CACUGUAACCGAAAAGGAC | 8251 | CAGUGUUGUGACCUGGAGC |
| 8123 | CGCAGCGGGUGGAAUUUCU | 8166 | CGACCCAAUGGGGUUCUCU | 8209 | ACUGUAACCGAAAAGGACA | 8252 | AGUGUUGUGACCUGGAGCC |
| 8124 | GCAGCGGGUGGAAUUUCUU | 8167 | GACCCAAUGGGGUUCUCUU | 8210 | CUGUAACCGAAAAGGACAU | 8253 | GUGUUGUGACCUGGAGCCC |
| 8125 | CAGCGGGUGGAAUUUCUUC | 8168 | ACCCAAUGGGGUUCUCUUA | 8211 | UGUAACCGAAAAGGACAUC | 8254 | UGUUGUGACCUGGAGCCCG |
| 8126 | AGCGGGUGGAAUUUCUUCU | 8169 | CCCAAUGGGGUUCUCUUAU | 8212 | GUAACCGAAAAGGACAUCA | 8255 | GUUGUGACCUGGAGCCCGA |

**FIG. 5 (page 280 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8256 | UUGUGACCUGGAGCCCGAA | 8299 | ACAGAUAGACUCUAUGUGG | 8342 | GAGACCUUUGUGGGUAUCG | 8385 | CACCACCAGCUUCGGGAAC |
| 8257 | UGUGACCUGGAGCCCGAAG | 8300 | CAGAUAGACUCUAUGUGGG | 8343 | AGACCUUUGUGGGUAUCGG | 8386 | ACCACCAGCUUCGGGAACA |
| 8258 | GUGACCUGGAGCCCGAAGC | 8301 | AGAUAGACUCUAUGUGGGC | 8344 | GACCUUUGUGGGUAUCGGA | 8387 | CCACCAGCUUCGGGAACAC |
| 8259 | UGACCUGGAGCCCGAAGCC | 8302 | GAUAGACUCUAUGUGGGCG | 8345 | ACCUUUGUGGGUAUCGGAG | 8388 | CACCAGCUUCGGGAACACG |
| 8260 | GACCUGGAGCCCGAAGCCC | 8303 | AUAGACUCUAUGUGGGCGG | 8346 | CCUUUGUGGGUAUCGGAGA | 8389 | ACCAGCUUCGGGAACACGC |
| 8261 | ACCUGGAGCCCGAAGCCCG | 8304 | UAGACUCUAUGUGGGCGGC | 8347 | CUUUGUGGGUAUCGGAGAU | 8390 | CCAGCUUCGGGAACACGCU |
| 8262 | CCUGGAGCCCGAAGCCCGC | 8305 | AGACUCUAUGUGGGCGGCC | 8348 | UUUGUGGGUAUCGGAGAUG | 8391 | CAGCUUCGGGAACACGCUG |
| 8263 | CUGGAGCCCGAAGCCCGCA | 8306 | GACUCUAUGUGGGCGGCCC | 8349 | UUGUGGGUAUCGGAGAUGU | 8392 | AGCUUCGGGAACACGCUGA |
| 8264 | UGGAGCCCGAAGCCCGCAA | 8307 | ACUCUAUGUGGGCGGCCCU | 8350 | UGUGGGUAUCGGAGAUGUC | 8393 | GCUUCGGGAACACGCUGAC |
| 8265 | GGAGCCCGAAGCCCGCAAA | 8308 | CUCUAUGUGGGCGGCCCUA | 8351 | GUGGGUAUCGGAGAUGUCG | 8394 | CUUCGGGAACACGCUGACG |
| 8266 | GAGCCCGAAGCCCGCAAAG | 8309 | UCUAUGUGGGCGGCCCUAU | 8352 | UGGGUAUCGGAGAUGUCGC | 8395 | UUCGGGAACACGCUGACGU |
| 8267 | AGCCCGAAGCCCGCAAAGU | 8310 | CUAUGUGGGCGGCCCUAUG | 8353 | GGGUAUCGGAGAUGUCGCG | 8396 | UCGGGAACACGCUGACGUG |
| 8268 | GCCCGAAGCCCGCAAAGUC | 8311 | UAUGUGGGCGGCCCUAUGC | 8354 | GGUAUCGGAGAUGUCGCGC | 8397 | CGGGAACACGCUGACGUGC |
| 8269 | CCCGAAGCCCGCAAAGUCA | 8312 | AUGUGGGCGGCCCUAUGCA | 8355 | GUAUCGGAGAUGUCGCGCA | 8398 | GGGAACACGCUGACGUGCU |
| 8270 | CCGAAGCCCGCAAAGUCAU | 8313 | UGUGGGCGGCCCUAUGCAC | 8356 | UAUCGGAGAUGUCGCGCAA | 8399 | GGAACACGCUGACGUGCUA |
| 8271 | CGAAGCCCGCAAAGUCAUC | 8314 | GUGGGCGGCCCUAUGCACA | 8357 | AUCGGAGAUGUCGCGCAAC | 8400 | GAACACGCUGACGUGCUAU |
| 8272 | GAAGCCCGCAAAGUCAUCA | 8315 | UGGGCGGCCCUAUGCACAA | 8358 | UCGGAGAUGUCGCGCAACC | 8401 | AACACGCUGACGUGCUAUC |
| 8273 | AAGCCCGCAAAGUCAUCAC | 8316 | GGGCGGCCCUAUGCACAAC | 8359 | CGGAGAUGUCGCGCAACCG | 8402 | ACACGCUGACGUGCUAUCU |
| 8274 | AGCCCGCAAAGUCAUCACC | 8317 | GGCGGCCCUAUGCACAACA | 8360 | GGAGAUGUCGCGCAACCGG | 8403 | CACGCUGACGUGCUAUCUC |
| 8275 | GCCCGCAAAGUCAUCACCG | 8318 | GCGGCCCUAUGCACAACAG | 8361 | GAGAUGUCGCGCAACCGGC | 8404 | ACGCUGACGUGCUAUCUCA |
| 8276 | CCCGCAAAGUCAUCACCGC | 8319 | CGGCCCUAUGCACAACAGC | 8362 | AGAUGUCGCGCAACCGGCG | 8405 | CGCUGACGUGCUAUCUCAA |
| 8277 | CCGCAAAGUCAUCACCGCC | 8320 | GGCCCUAUGCACAACAGCA | 8363 | GAUGUCGCGCAACCGGCGU | 8406 | GCUGACGUGCUAUCUCAAA |
| 8278 | CGCAAAGUCAUCACCGCCC | 8321 | GCCCUAUGCACAACAGCAA | 8364 | AUGUCGCGCAACCGGCGUC | 8407 | CUGACGUGCUAUCUCAAAG |
| 8279 | GCAAAGUCAUCACCGCCCU | 8322 | CCCUAUGCACAACAGCAAG | 8365 | UGUCGCGCAACCGGCGUCU | 8408 | UGACGUGCUAUCUCAAAGC |
| 8280 | CAAAGUCAUCACCGCCCUC | 8323 | CCUAUGCACAACAGCAAGG | 8366 | GUCGCGCAACCGGCGUCUA | 8409 | GACGUGCUAUCUCAAAGCC |
| 8281 | AAAGUCAUCACCGCCCUCA | 8324 | CUAUGCACAACAGCAAGGG | 8367 | UCGCGCAACCGGCGUCUAC | 8410 | ACGUGCUAUCUCAAAGCCA |
| 8282 | AAGUCAUCACCGCCCUCAC | 8325 | UAUGCACAACAGCAAGGGA | 8368 | CGCGCAACCGGCGUCUACA | 8411 | CGUGCUAUCUCAAAGCCAC |
| 8283 | AGUCAUCACCGCCCUCACA | 8326 | AUGCACAACAGCAAGGGAG | 8369 | GCGCAACCGGCGUCUACAC | 8412 | GUGCUAUCUCAAAGCCACG |
| 8284 | GUCAUCACCGCCCUCACAG | 8327 | UGCACAACAGCAAGGGAGA | 8370 | CGCAACCGGCGUCUACACC | 8413 | UGCUAUCUCAAAGCCACGG |
| 8285 | UCAUCACCGCCCUCACAGA | 8328 | GCACAACAGCAAGGGAGAC | 8371 | GCAACCGGCGUCUACACCA | 8414 | GCUAUCUCAAAGCCACGGC |
| 8286 | CAUCACCGCCCUCACAGAU | 8329 | CACAACAGCAAGGGAGACC | 8372 | CAACCGGCGUCUACACCAC | 8415 | CUAUCUCAAAGCCACGGCC |
| 8287 | AUCACCGCCCUCACAGAUA | 8330 | ACAACAGCAAGGGAGACCU | 8373 | AACCGGCGUCUACACCACC | 8416 | UAUCUCAAAGCCACGGCCG |
| 8288 | UCACCGCCCUCACAGAUAG | 8331 | CAACAGCAAGGGAGACCUU | 8374 | ACCGGCGUCUACACCACCA | 8417 | AUCUCAAAGCCACGGCCGC |
| 8289 | CACCGCCCUCACAGAUAGA | 8332 | AACAGCAAGGGAGACCUUU | 8375 | CCGGCGUCUACACCACCAG | 8418 | UCUCAAAGCCACGGCCGCC |
| 8290 | ACCGCCCUCACAGAUAGAC | 8333 | ACAGCAAGGGAGACCUUUG | 8376 | CGGCGUCUACACCACCAGC | 8419 | CUCAAAGCCACGGCCGCCA |
| 8291 | CCGCCCUCACAGAUAGACU | 8334 | CAGCAAGGGAGACCUUUGU | 8377 | GGCGUCUACACCACCAGCU | 8420 | UCAAAGCCACGGCCGCCAU |
| 8292 | CGCCCUCACAGAUAGACUC | 8335 | AGCAAGGGAGACCUUUGUG | 8378 | GCGUCUACACCACCAGCUU | 8421 | CAAAGCCACGGCCGCCAUC |
| 8293 | GCCCUCACAGAUAGACUCU | 8336 | GCAAGGGAGACCUUUGUGG | 8379 | CGUCUACACCACCAGCUUC | 8422 | AAAGCCACGGCCGCCAUCA |
| 8294 | CCCUCACAGAUAGACUCUA | 8337 | CAAGGGAGACCUUUGUGGG | 8380 | GUCUACACCACCAGCUUCG | 8423 | AAGCCACGGCCGCCAUCAG |
| 8295 | CCUCACAGAUAGACUCUAU | 8338 | AAGGGAGACCUUUGUGGGU | 8381 | UCUACACCACCAGCUUCGG | 8424 | AGCCACGGCCGCCAUCAGG |
| 8296 | CUCACAGAUAGACUCUAUG | 8339 | AGGGAGACCUUUGUGGGUA | 8382 | CUACACCACCAGCUUCGGG | 8425 | GCCACGGCCGCCAUCAGGG |
| 8297 | UCACAGAUAGACUCUAUGU | 8340 | GGGAGACCUUUGUGGGUAU | 8383 | UACACCACCAGCUUCGGGA | 8426 | CCACGGCCGCCAUCAGGGC |
| 8298 | CACAGAUAGACUCUAUGUG | 8341 | GGAGACCUUUGUGGGUAUC | 8384 | ACACCACCAGCUUCGGGAA | 8427 | CACGGCCGCCAUCAGGGCG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8428 | ACGGCCGCCAUCAGGGCGG | 8471 | UGGUUUGCGGUGAUGACUU | 8514 | CGUAGAGGAGGACAACCGA | 8557 | AUGACGAGAUACUCGGCUC |
| 8429 | CGGCCGCCAUCAGGGCGGC | 8472 | GGUUUGCGGUGAUGACUUA | 8515 | GUAGAGGAGGACAACCGAG | 8558 | UGACGAGAUACUCGGCUCC |
| 8430 | GGCCGCCAUCAGGGCGGCG | 8473 | GUUUGCGGUGAUGACUUAG | 8516 | UAGAGGAGGACAACCGAGC | 8559 | GACGAGAUACUCGGCUCCC |
| 8431 | GCCGCCAUCAGGGCGGCGG | 8474 | UUUGCGGUGAUGACUUAGU | 8517 | AGAGGAGGACAACCGAGCC | 8560 | ACGAGAUACUCGGCUCCCC |
| 8432 | CCGCCAUCAGGGCGGCGGC | 8475 | UUGCGGUGAUGACUUAGUC | 8518 | GAGGAGGACAACCGAGCCC | 8561 | CGAGAUACUCGGCUCCCCC |
| 8433 | CGCCAUCAGGGCGGCGGCG | 8476 | UGCGGUGAUGACUUAGUCG | 8519 | AGGAGGACAACCGAGCCCU | 8562 | GAGAUACUCGGCUCCCCCA |
| 8434 | GCCAUCAGGGCGGCGGCGC | 8477 | GCGGUGAUGACUUAGUCGU | 8520 | GGAGGACAACCGAGCCCUC | 8563 | AGAUACUCGGCUCCCCCAG |
| 8435 | CCAUCAGGGCGGCGGCGCU | 8478 | CGGUGAUGACUUAGUCGUC | 8521 | GAGGACAACCGAGCCCUCC | 8564 | GAUACUCGGCUCCCCCAGG |
| 8436 | CAUCAGGGCGGCGGCGCUG | 8479 | GGUGAUGACUUAGUCGUCA | 8522 | AGGACAACCGAGCCCUCCG | 8565 | AUACUCGGCUCCCCCAGGU |
| 8437 | AUCAGGGCGGCGGCGCUGA | 8480 | GUGAUGACUUAGUCGUCAU | 8523 | GGACAACCGAGCCCUCCGA | 8566 | UACUCGGCUCCCCCAGGUG |
| 8438 | UCAGGGCGGCGGCGCUGAG | 8481 | UGAUGACUUAGUCGUCAUC | 8524 | GACAACCGAGCCCUCCGAG | 8567 | ACUCGGCUCCCCCAGGUGA |
| 8439 | CAGGGCGGCGGCGCUGAGA | 8482 | GAUGACUUAGUCGUCAUCG | 8525 | ACAACCGAGCCCUCCGAGC | 8568 | CUCGGCUCCCCCAGGUGAC |
| 8440 | AGGGCGGCGGCGCUGAGAG | 8483 | AUGACUUAGUCGUCAUCGC | 8526 | CAACCGAGCCCUCCGAGCC | 8569 | UCGGCUCCCCCAGGUGACG |
| 8441 | GGGCGGCGGCGCUGAGAGA | 8484 | UGACUUAGUCGUCAUCGCU | 8527 | AACCGAGCCCUCCGAGCCU | 8570 | CGGCUCCCCCAGGUGACGC |
| 8442 | GGCGGCGGCGCUGAGAGAC | 8485 | GACUUAGUCGUCAUCGCUG | 8528 | ACCGAGCCCUCCGAGCCUU | 8571 | GGCUCCCCCAGGUGACGCU |
| 8443 | GCGGCGGCGCUGAGAGACU | 8486 | ACUUAGUCGUCAUCGCUGA | 8529 | CCGAGCCCUCCGAGCCUUC | 8572 | GCUCCCCCAGGUGACGCUC |
| 8444 | CGGCGGCGCUGAGAGACUG | 8487 | CUUAGUCGUCAUCGCUGAG | 8530 | CGAGCCCUCCGAGCCUUCA | 8573 | CUCCCCCAGGUGACGCUCC |
| 8445 | GGCGGCGCUGAGAGACUGC | 8488 | UUAGUCGUCAUCGCUGAGA | 8531 | GAGCCCUCCGAGCCUUCAC | 8574 | UCCCCCAGGUGACGCUCCG |
| 8446 | GCGGCGCUGAGAGACUGCA | 8489 | UAGUCGUCAUCGCUGAGAG | 8532 | AGCCCUCCGAGCCUUCACG | 8575 | CCCCCAGGUGACGCUCCGC |
| 8447 | CGGCGCUGAGAGACUGCAC | 8490 | AGUCGUCAUCGCUGAGAGC | 8533 | GCCCUCCGAGCCUUCACGG | 8576 | CCCCAGGUGACGCUCCGCA |
| 8448 | GGCGCUGAGAGACUGCACU | 8491 | GUCGUCAUCGCUGAGAGCG | 8534 | CCCUCCGAGCCUUCACGGA | 8577 | CCCAGGUGACGCUCCGCAG |
| 8449 | GCGCUGAGAGACUGCACUA | 8492 | UCGUCAUCGCUGAGAGCGA | 8535 | CCUCCGAGCCUUCACGGAG | 8578 | CCAGGUGACGCUCCGCAGC |
| 8450 | CGCUGAGAGACUGCACUAU | 8493 | CGUCAUCGCUGAGAGCGAC | 8536 | CUCCGAGCCUUCACGGAGG | 8579 | CAGGUGACGCUCCGCAGCC |
| 8451 | GCUGAGAGACUGCACUAUG | 8494 | GUCAUCGCUGAGAGCGACG | 8537 | UCCGAGCCUUCACGGAGGC | 8580 | AGGUGACGCUCCGCAGCCA |
| 8452 | CUGAGAGACUGCACUAUGU | 8495 | UCAUCGCUGAGAGCGACGG | 8538 | CCGAGCCUUCACGGAGGCU | 8581 | GGUGACGCUCCGCAGCCAG |
| 8453 | UGAGAGACUGCACUAUGUU | 8496 | CAUCGCUGAGAGCGACGGC | 8539 | CGAGCCUUCACGGAGGCUA | 8582 | GUGACGCUCCGCAGCCAGC |
| 8454 | GAGAGACUGCACUAUGUUG | 8497 | AUCGCUGAGAGCGACGGCG | 8540 | GAGCCUUCACGGAGGCUAU | 8583 | UGACGCUCCGCAGCCAGCA |
| 8455 | AGAGACUGCACUAUGUUGG | 8498 | UCGCUGAGAGCGACGGCGU | 8541 | AGCCUUCACGGAGGCUAUG | 8584 | GACGCUCCGCAGCCAGCAU |
| 8456 | GAGACUGCACUAUGUUGGU | 8499 | CGCUGAGAGCGACGGCGUA | 8542 | GCCUUCACGGAGGCUAUGA | 8585 | ACGCUCCGCAGCCAGCAUA |
| 8457 | AGACUGCACUAUGUUGGUU | 8500 | GCUGAGAGCGACGGCGUAG | 8543 | CCUUCACGGAGGCUAUGAC | 8586 | CGCUCCGCAGCCAGCAUAU |
| 8458 | GACUGCACUAUGUUGGUUU | 8501 | CUGAGAGCGACGGCGUAGA | 8544 | CUUCACGGAGGCUAUGACG | 8587 | GCUCCGCAGCCAGCAUAUG |
| 8459 | ACUGCACUAUGUUGGUUUG | 8502 | UGAGAGCGACGGCGUAGAG | 8545 | UUCACGGAGGCUAUGACGA | 8588 | CUCCGCAGCCAGCAUAUGA |
| 8460 | CUGCACUAUGUUGGUUUGC | 8503 | GAGAGCGACGGCGUAGAGG | 8546 | UCACGGAGGCUAUGACGAG | 8589 | UCCGCAGCCAGCAUAUGAC |
| 8461 | UGCACUAUGUUGGUUUGCG | 8504 | AGAGCGACGGCGUAGAGGA | 8547 | CACGGAGGCUAUGACGAGA | 8590 | CCGCAGCCAGCAUAUGACC |
| 8462 | GCACUAUGUUGGUUUGCGG | 8505 | GAGCGACGGCGUAGAGGAG | 8548 | ACGGAGGCUAUGACGAGAU | 8591 | CGCAGCCAGCAUAUGACCU |
| 8463 | CACUAUGUUGGUUUGCGGU | 8506 | AGCGACGGCGUAGAGGAGG | 8549 | CGGAGGCUAUGACGAGAUA | 8592 | GCAGCCAGCAUAUGACCUG |
| 8464 | ACUAUGUUGGUUUGCGGUG | 8507 | GCGACGGCGUAGAGGAGGA | 8550 | GGAGGCUAUGACGAGAUAC | 8593 | CAGCCAGCAUAUGACCUGG |
| 8465 | CUAUGUUGGUUUGCGGUGA | 8508 | CGACGGCGUAGAGGAGGAC | 8551 | GAGGCUAUGACGAGAUACU | 8594 | AGCCAGCAUAUGACCUGGA |
| 8466 | UAUGUUGGUUUGCGGUGAU | 8509 | GACGGCGUAGAGGAGGACA | 8552 | AGGCUAUGACGAGAUACUC | 8595 | GCCAGCAUAUGACCUGGAA |
| 8467 | AUGUUGGUUUGCGGUGAUG | 8510 | ACGGCGUAGAGGAGGACAA | 8553 | GGCUAUGACGAGAUACUCG | 8596 | CCAGCAUAUGACCUGGAAC |
| 8468 | UGUUGGUUUGCGGUGAUGA | 8511 | CGGCGUAGAGGAGGACAAC | 8554 | GCUAUGACGAGAUACUCGG | 8597 | CAGCAUAUGACCUGGAACU |
| 8469 | GUUGGUUUGCGGUGAUGAC | 8512 | GGCGUAGAGGAGGACAACC | 8555 | CUAUGACGAGAUACUCGGC | 8598 | AGCAUAUGACCUGGAACUA |
| 8470 | UUGGUUUGCGGUGAUGACU | 8513 | GCGUAGAGGAGGACAACCG | 8556 | UAUGACGAGAUACUCGGCU | 8599 | GCAUAUGACCUGGAACUAA |

**FIG. 5 (page 282 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8600 | CAUAUGACCUGGAACUAAU | 8643 | AGUCGCGCACGACGUGACG | 8686 | CGAGACCCUGAAACUCCCU | 8729 | UCCGACACACUCCAGUCAA |
| 8601 | AUAUGACCUGGAACUAAUA | 8644 | GUCGCGCACGACGUGACGG | 8687 | GAGACCCUGAAACUCCCUU | 8730 | CCGACACACUCCAGUCAAU |
| 8602 | UAUGACCUGGAACUAAUAA | 8645 | UCGCGCACGACGUGACGGG | 8688 | AGACCCUGAAACUCCCUUG | 8731 | CGACACACUCCAGUCAAUU |
| 8603 | AUGACCUGGAACUAAUAAC | 8646 | CGCGCACGACGUGACGGGU | 8689 | GACCCUGAAACUCCCUUGG | 8732 | GACACACUCCAGUCAAUUC |
| 8604 | UGACCUGGAACUAAUAACA | 8647 | GCGCACGACGUGACGGGUA | 8690 | ACCCUGAAACUCCCUUGGC | 8733 | ACACACUCCAGUCAAUUCC |
| 8605 | GACCUGGAACUAAUAACAU | 8648 | CGCACGACGUGACGGGUAA | 8691 | CCCUGAAACUCCCUUGGCG | 8734 | CACACUCCAGUCAAUUCCU |
| 8606 | ACCUGGAACUAAUAACAUC | 8649 | GCACGACGUGACGGGUAAA | 8692 | CCUGAAACUCCCUUGGCGC | 8735 | ACACUCCAGUCAAUUCCUG |
| 8607 | CCUGGAACUAAUAACAUCA | 8650 | CACGACGUGACGGGUAAAA | 8693 | CUGAAACUCCCUUGGCGCG | 8736 | CACUCCAGUCAAUUCCUGG |
| 8608 | CUGGAACUAAUAACAUCAU | 8651 | ACGACGUGACGGGUAAAAA | 8694 | UGAAACUCCCUUGGCGCGA | 8737 | ACUCCAGUCAAUUCCUGGU |
| 8609 | UGGAACUAAUAACAUCAUG | 8652 | CGACGUGACGGGUAAAAAG | 8695 | GAAACUCCCUUGGCGCGAG | 8738 | CUCCAGUCAAUUCCUGGUU |
| 8610 | GGAACUAAUAACAUCAUGU | 8653 | GACGUGACGGGUAAAAAGG | 8696 | AAACUCCCUUGGCGCGAGC | 8739 | UCCAGUCAAUUCCUGGUUG |
| 8611 | GAACUAAUAACAUCAUGUU | 8654 | ACGUGACGGGUAAAAAGGU | 8697 | AACUCCCUUGGCGCGAGCU | 8740 | CCAGUCAAUUCCUGGUUGG |
| 8612 | AACUAAUAACAUCAUGUUC | 8655 | CGUGACGGGUAAAAAGGUA | 8698 | ACUCCCUUGGCGCGAGCUG | 8741 | CAGUCAAUUCCUGGUUGGG |
| 8613 | ACUAAUAACAUCAUGUUCA | 8656 | GUGACGGGUAAAAAGGUAU | 8699 | CUCCCUUGGCGCGAGCUGU | 8742 | AGUCAAUUCCUGGUUGGGA |
| 8614 | CUAAUAACAUCAUGUUCAU | 8657 | UGACGGGUAAAAAGGUAUA | 8700 | UCCCUUGGCGCGAGCUGUA | 8743 | GUCAAUUCCUGGUUGGGAA |
| 8615 | UAAUAACAUCAUGUUCAUC | 8658 | GACGGGUAAAAAGGUAUAU | 8701 | CCCUUGGCGCGAGCUGUAU | 8744 | UCAAUUCCUGGUUGGGAAA |
| 8616 | AAUAACAUCAUGUUCAUCC | 8659 | ACGGGUAAAAAGGUAUAUU | 8702 | CCUUGGCGCGAGCUGUAUG | 8745 | CAAUUCCUGGUUGGGAAAC |
| 8617 | AUAACAUCAUGUUCAUCCA | 8660 | CGGGUAAAAAGGUAUAUUA | 8703 | CUUGGCGCGAGCUGUAUGG | 8746 | AAUUCCUGGUUGGGAAACA |
| 8618 | UAACAUCAUGUUCAUCCAA | 8661 | GGGUAAAAAGGUAUAUUAC | 8704 | UUGGCGCGAGCUGUAUGGG | 8747 | AUUCCUGGUUGGGAAACAU |
| 8619 | AACAUCAUGUUCAUCCAAC | 8662 | GGUAAAAAGGUAUAUUACC | 8705 | UGGCGCGAGCUGUAUGGGA | 8748 | UUCCUGGUUGGGAAACAUC |
| 8620 | ACAUCAUGUUCAUCCAACG | 8663 | GUAAAAAGGUAUAUUACCU | 8706 | GGCGCGAGCUGUAUGGGAG | 8749 | UCCUGGUUGGGAAACAUCA |
| 8621 | CAUCAUGUUCAUCCAACGU | 8664 | UAAAAAGGUAUAUUACCUA | 8707 | GCGCGAGCUGUAUGGGAGA | 8750 | CCUGGUUGGGAAACAUCAU |
| 8622 | AUCAUGUUCAUCCAACGUC | 8665 | AAAAAGGUAUAUUACCUAA | 8708 | CGCGAGCUGUAUGGGAGAC | 8751 | CUGGUUGGGAAACAUCAUA |
| 8623 | UCAUGUUCAUCCAACGUCU | 8666 | AAAAGGUAUAUUACCUAAC | 8709 | GCGAGCUGUAUGGGAGACA | 8752 | UGGUUGGGAAACAUCAUAG |
| 8624 | CAUGUUCAUCCAACGUCUC | 8667 | AAAGGUAUAUUACCUAACC | 8710 | CGAGCUGUAUGGGAGACAG | 8753 | GGUUGGGAAACAUCAUAGU |
| 8625 | AUGUUCAUCCAACGUCUCA | 8668 | AAGGUAUAUUACCUAACCC | 8711 | GAGCUGUAUGGGAGACAGU | 8754 | GUUGGGAAACAUCAUAGUC |
| 8626 | UGUUCAUCCAACGUCUCAG | 8669 | AGGUAUAUUACCUAACCCG | 8712 | AGCUGUAUGGGAGACAGUC | 8755 | UUGGGAAACAUCAUAGUCU |
| 8627 | GUUCAUCCAACGUCUCAGU | 8670 | GGUAUAUUACCUAACCCGA | 8713 | GCUGUAUGGGAGACAGUCC | 8756 | UGGGAAACAUCAUAGUCUA |
| 8628 | UUCAUCCAACGUCUCAGUC | 8671 | GUAUAUUACCUAACCCGAG | 8714 | CUGUAUGGGAGACAGUCCG | 8757 | GGGAAACAUCAUAGUCUAC |
| 8629 | UCAUCCAACGUCUCAGUCG | 8672 | UAUAUUACCUAACCCGAGA | 8715 | UGUAUGGGAGACAGUCCGA | 8758 | GGAAACAUCAUAGUCUACG |
| 8630 | CAUCCAACGUCUCAGUCGC | 8673 | AUAUUACCUAACCCGAGAC | 8716 | GUAUGGGAGACAGUCCGAC | 8759 | GAAACAUCAUAGUCUACGC |
| 8631 | AUCCAACGUCUCAGUCGCG | 8674 | UAUUACCUAACCCGAGACC | 8717 | UAUGGGAGACAGUCCGACA | 8760 | AAACAUCAUAGUCUACGCU |
| 8632 | UCCAACGUCUCAGUCGCGC | 8675 | AUUACCUAACCCGAGACCC | 8718 | AUGGGAGACAGUCCGACAC | 8761 | AACAUCAUAGUCUACGCUC |
| 8633 | CCAACGUCUCAGUCGCGCA | 8676 | UUACCUAACCCGAGACCCU | 8719 | UGGGAGACAGUCCGACACA | 8762 | ACAUCAUAGUCUACGCUCC |
| 8634 | CAACGUCUCAGUCGCGCAC | 8677 | UACCUAACCCGAGACCCUG | 8720 | GGGAGACAGUCCGACACAC | 8763 | CAUCAUAGUCUACGCUCCC |
| 8635 | AACGUCUCAGUCGCGCACG | 8678 | ACCUAACCCGAGACCCUGA | 8721 | GGAGACAGUCCGACACACU | 8764 | AUCAUAGUCUACGCUCCCA |
| 8636 | ACGUCUCAGUCGCGCACGA | 8679 | CCUAACCCGAGACCCUGAA | 8722 | GAGACAGUCCGACACACUC | 8765 | UCAUAGUCUACGCUCCCAC |
| 8637 | CGUCUCAGUCGCGCACGAC | 8680 | CUAACCCGAGACCCUGAAA | 8723 | AGACAGUCCGACACACUCC | 8766 | CAUAGUCUACGCUCCCACA |
| 8638 | GUCUCAGUCGCGCACGACG | 8681 | UAACCCGAGACCCUGAAAC | 8724 | GACAGUCCGACACACUCCA | 8767 | AUAGUCUACGCUCCCACAA |
| 8639 | UCUCAGUCGCGCACGACGU | 8682 | AACCCGAGACCCUGAAACU | 8725 | ACAGUCCGACACACUCCAG | 8768 | UAGUCUACGCUCCCACAAU |
| 8640 | CUCAGUCGCGCACGACGUG | 8683 | ACCCGAGACCCUGAAACUC | 8726 | CAGUCCGACACACUCCAGU | 8769 | AGUCUACGCUCCCACAAUA |
| 8641 | UCAGUCGCGCACGACGUGA | 8684 | CCCGAGACCCUGAAACUCC | 8727 | AGUCCGACACACUCCAGUC | 8770 | GUCUACGCUCCCACAAUAU |
| 8642 | CAGUCGCGCACGACGUGAC | 8685 | CCGAGACCCUGAAACUCCC | 8728 | GUCCGACACACUCCAGUCA | 8771 | UCUACGCUCCCACAAUAUG |

**FIG. 5 (page 283 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8772 | CUACGCUCCCACAAUAUGG | 8815 | UUUUUCUCAAUACUCCAGA | 8858 | UCGACUUCGAUAUGUACGG | 8901 | GGAUUUACCGGCAAUCAUU |
| 8773 | UACGCUCCCACAAUAUGGG | 8816 | UUUUCUCAAUACUCCAGAG | 8859 | CGACUUCGAUAUGUACGGA | 8902 | GAUUUACCGGCAAUCAUUC |
| 8774 | ACGCUCCCACAAUAUGGGU | 8817 | UUUCUCAAUACUCCAGAGC | 8860 | GACUUCGAUAUGUACGGAG | 8903 | AUUUACCGGCAAUCAUUCA |
| 8775 | CGCUCCCACAAUAUGGGUG | 8818 | UUCUCAAUACUCCAGAGCC | 8861 | ACUUCGAUAUGUACGGAGU | 8904 | UUUACCGGCAAUCAUUCAA |
| 8776 | GCUCCCACAAUAUGGGUGC | 8819 | UCUCAAUACUCCAGAGCCA | 8862 | CUUCGAUAUGUACGGAGUC | 8905 | UUACCGGCAAUCAUUCAAA |
| 8777 | CUCCCACAAUAUGGGUGCG | 8820 | CUCAAUACUCCAGAGCCAG | 8863 | UUCGAUAUGUACGGAGUCA | 8906 | UACCGGCAAUCAUUCAAAG |
| 8778 | UCCCACAAUAUGGGUGCGC | 8821 | UCAAUACUCCAGAGCCAGG | 8864 | UCGAUAUGUACGGAGUCAC | 8907 | ACCGGCAAUCAUUCAAAGA |
| 8779 | CCCACAAUAUGGGUGCGCA | 8822 | CAAUACUCCAGAGCCAGGA | 8865 | CGAUAUGUACGGAGUCACC | 8908 | CCGGCAAUCAUUCAAAGAC |
| 8780 | CCACAAUAUGGGUGCGCAU | 8823 | AAUACUCCAGAGCCAGGAA | 8866 | GAUAUGUACGGAGUCACCU | 8909 | CGGCAAUCAUUCAAAGACU |
| 8781 | CACAAUAUGGGUGCGCAUG | 8824 | AUACUCCAGAGCCAGGAAG | 8867 | AUAUGUACGGAGUCACCUA | 8910 | GGCAAUCAUUCAAAGACUC |
| 8782 | ACAAUAUGGGUGCGCAUGA | 8825 | UACUCCAGAGCCAGGAAGC | 8868 | UAUGUACGGAGUCACCUAC | 8911 | GCAAUCAUUCAAAGACUCC |
| 8783 | CAAUAUGGGUGCGCAUGAU | 8826 | ACUCCAGAGCCAGGAAGCC | 8869 | AUGUACGGAGUCACCUACU | 8912 | CAAUCAUUCAAAGACUCCA |
| 8784 | AAUAUGGGUGCGCAUGAUA | 8827 | CUCCAGAGCCAGGAAGCCC | 8870 | UGUACGGAGUCACCUACUC | 8913 | AAUCAUUCAAAGACUCCAU |
| 8785 | AUAUGGGUGCGCAUGAUAU | 8828 | UCCAGAGCCAGGAAGCCCU | 8871 | GUACGGAGUCACCUACUCU | 8914 | AUCAUUCAAAGACUCCAUG |
| 8786 | UAUGGGUGCGCAUGAUAUU | 8829 | CCAGAGCCAGGAAGCCCUU | 8872 | UACGGAGUCACCUACUCUA | 8915 | UCAUUCAAAGACUCCAUGG |
| 8787 | AUGGGUGCGCAUGAUAUUG | 8830 | CAGAGCCAGGAAGCCCUUG | 8873 | ACGGAGUCACCUACUCUAU | 8916 | CAUUCAAAGACUCCAUGGC |
| 8788 | UGGGUGCGCAUGAUAUUGA | 8831 | AGAGCCAGGAAGCCCUUGA | 8874 | CGGAGUCACCUACUCUAUC | 8917 | AUUCAAAGACUCCAUGGCU |
| 8789 | GGGUGCGCAUGAUAUUGAU | 8832 | GAGCCAGGAAGCCCUUGAG | 8875 | GGAGUCACCUACUCUAUCA | 8918 | UUCAAAGACUCCAUGGCUU |
| 8790 | GGUGCGCAUGAUAUUGAUG | 8833 | AGCCAGGAAGCCCUUGAGA | 8876 | GAGUCACCUACUCUAUCAC | 8919 | UCAAAGACUCCAUGGCUUA |
| 8791 | GUGCGCAUGAUAUUGAUGA | 8834 | GCCAGGAAGCCCUUGAGAA | 8877 | AGUCACCUACUCUAUCACU | 8920 | CAAAGACUCCAUGGCUUAA |
| 8792 | UGCGCAUGAUAUUGAUGAC | 8835 | CCAGGAAGCCCUUGAGAAA | 8878 | GUCACCUACUCUAUCACUC | 8921 | AAAGACUCCAUGGCUUAAG |
| 8793 | GCGCAUGAUAUUGAUGACC | 8836 | CAGGAAGCCCUUGAGAAAG | 8879 | UCACCUACUCUAUCACUCC | 8922 | AAGACUCCAUGGCUUAAGC |
| 8794 | CGCAUGAUAUUGAUGACCC | 8837 | AGGAAGCCCUUGAGAAAGC | 8880 | CACCUACUCUAUCACUCCG | 8923 | AGACUCCAUGGCUUAAGCG |
| 8795 | GCAUGAUAUUGAUGACCCA | 8838 | GGAAGCCCUUGAGAAAGCA | 8881 | ACCUACUCUAUCACUCCGC | 8924 | GACUCCAUGGCUUAAGCGC |
| 8796 | CAUGAUAUUGAUGACCCAC | 8839 | GAAGCCCUUGAGAAAGCAC | 8882 | CCUACUCUAUCACUCCGCU | 8925 | ACUCCAUGGCUUAAGCGCG |
| 8797 | AUGAUAUUGAUGACCCACU | 8840 | AAGCCCUUGAGAAAGCACU | 8883 | CUACUCUAUCACUCCGCUG | 8926 | CUCCAUGGCUUAAGCGCGU |
| 8798 | UGAUAUUGAUGACCCACUU | 8841 | AGCCCUUGAGAAAGCACUC | 8884 | UACUCUAUCACUCCGCUGG | 8927 | UCCAUGGCUUAAGCGCGUU |
| 8799 | GAUAUUGAUGACCCACUUU | 8842 | GCCCUUGAGAAAGCACUCG | 8885 | ACUCUAUCACUCCGCUGGA | 8928 | CCAUGGCUUAAGCGCGUUC |
| 8800 | AUAUUGAUGACCCACUUUU | 8843 | CCCUUGAGAAAGCACUCGA | 8886 | CUCUAUCACUCCGCUGGAU | 8929 | CAUGGCUUAAGCGCGUUCA |
| 8801 | UAUUGAUGACCCACUUUUU | 8844 | CCUUGAGAAAGCACUCGAC | 8887 | UCUAUCACUCCGCUGGAUU | 8930 | AUGGCUUAAGCGCGUUCAC |
| 8802 | AUUGAUGACCCACUUUUUC | 8845 | CUUGAGAAAGCACUCGACU | 8888 | CUAUCACUCCGCUGGAUUU | 8931 | UGGCUUAAGCGCGUUCACG |
| 8803 | UUGAUGACCCACUUUUUCU | 8846 | UUGAGAAAGCACUCGACUU | 8889 | UAUCACUCCGCUGGAUUUA | 8932 | GGCUUAAGCGCGUUCACGC |
| 8804 | UGAUGACCCACUUUUUCUC | 8847 | UGAGAAAGCACUCGACUUC | 8890 | AUCACUCCGCUGGAUUUAC | 8933 | GCUUAAGCGCGUUCACGCU |
| 8805 | GAUGACCCACUUUUUCUCA | 8848 | GAGAAAGCACUCGACUUCG | 8891 | UCACUCCGCUGGAUUUACC | 8934 | CUUAAGCGCGUUCACGCUG |
| 8806 | AUGACCCACUUUUUCUCAA | 8849 | AGAAAGCACUCGACUUCGA | 8892 | CACUCCGCUGGAUUUACCG | 8935 | UUAAGCGCGUUCACGCUGC |
| 8807 | UGACCCACUUUUUCUCAAU | 8850 | GAAAGCACUCGACUUCGAU | 8893 | ACUCCGCUGGAUUUACCGG | 8936 | UAAGCGCGUUCACGCUGCA |
| 8808 | GACCCACUUUUUCUCAAUA | 8851 | AAAGCACUCGACUUCGAUA | 8894 | CUCCGCUGGAUUUACCGGC | 8937 | AAGCGCGUUCACGCUGCAC |
| 8809 | ACCCACUUUUUCUCAAUAC | 8852 | AAGCACUCGACUUCGAUAU | 8895 | UCCGCUGGAUUUACCGGCA | 8938 | AGCGCGUUCACGCUGCACG |
| 8810 | CCCACUUUUUCUCAAUACU | 8853 | AGCACUCGACUUCGAUAUG | 8896 | CCGCUGGAUUUACCGGCAA | 8939 | GCGCGUUCACGCUGCACGG |
| 8811 | CCACUUUUUCUCAAUACUC | 8854 | GCACUCGACUUCGAUAUGU | 8897 | CGCUGGAUUUACCGGCAAU | 8940 | CGCGUUCACGCUGCACGGA |
| 8812 | CACUUUUUCUCAAUACUCC | 8855 | CACUCGACUUCGAUAUGUA | 8898 | GCUGGAUUUACCGGCAAUC | 8941 | GCGUUCACGCUGCACGGAU |
| 8813 | ACUUUUUCUCAAUACUCCA | 8856 | ACUCGACUUCGAUAUGUAC | 8899 | CUGGAUUUACCGGCAAUCA | 8942 | CGUUCACGCUGCACGGAUA |
| 8814 | CUUUUUCUCAAUACUCCAG | 8857 | CUCGACUUCGAUAUGUACG | 8900 | UGGAUUUACCGGCAAUCAU | 8943 | GUUCACGCUGCACGGAUAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8944 | UUCACGCUGCACGGAUACU | 8987 | CCGGAGCCCUCAGAAAACU | 9030 | GAGACAUCGGGCCCGAGCA | 9073 | GGAGGUAGAGCCAAAAUAU |
| 8945 | UCACGCUGCACGGAUACUC | 8988 | CGGAGCCCUCAGAAAACUU | 9031 | AGACAUCGGGCCCGAGCAG | 9074 | GAGGUAGAGCCAAAAUAUG |
| 8946 | CACGCUGCACGGAUACUCU | 8989 | GGAGCCCUCAGAAAACUUG | 9032 | GACAUCGGGCCCGAGCAGU | 9075 | AGGUAGAGCCAAAAUAUGU |
| 8947 | ACGCUGCACGGAUACUCUC | 8990 | GAGCCCUCAGAAAACUUGG | 9033 | ACAUCGGGCCCGAGCAGUC | 9076 | GGUAGAGCCAAAAUAUGUG |
| 8948 | CGCUGCACGGAUACUCUCC | 8991 | AGCCCUCAGAAAACUUGGG | 9034 | CAUCGGGCCCGAGCAGUCC | 9077 | GUAGAGCCAAAAUAUGUGG |
| 8949 | GCUGCACGGAUACUCUCCA | 8992 | GCCCUCAGAAAACUUGGGG | 9035 | AUCGGGCCCGAGCAGUCCG | 9078 | UAGAGCCAAAAUAUGUGGC |
| 8950 | CUGCACGGAUACUCUCCAC | 8993 | CCCUCAGAAAACUUGGGGU | 9036 | UCGGGCCCGAGCAGUCCGC | 9079 | AGAGCCAAAAUAUGUGGCA |
| 8951 | UGCACGGAUACUCUCCACA | 8994 | CCUCAGAAAACUUGGGGUA | 9037 | CGGGCCCGAGCAGUCCGCG | 9080 | GAGCCAAAAUAUGUGGCAU |
| 8952 | GCACGGAUACUCUCCACAC | 8995 | CUCAGAAAACUUGGGGUAC | 9038 | GGGCCCGAGCAGUCCGCGC | 9081 | AGCCAAAAUAUGUGGCAUA |
| 8953 | CACGGAUACUCUCCACACG | 8996 | UCAGAAAACUUGGGGUACC | 9039 | GGCCCGAGCAGUCCGCGCU | 9082 | GCCAAAAUAUGUGGCAUAU |
| 8954 | ACGGAUACUCUCCACACGA | 8997 | CAGAAAACUUGGGGUACCC | 9040 | GCCCGAGCAGUCCGCGCUA | 9083 | CCAAAAUAUGUGGCAUAUA |
| 8955 | CGGAUACUCUCCACACGAA | 8998 | AGAAAACUUGGGGUACCCC | 9041 | CCCGAGCAGUCCGCGCUAA | 9084 | CAAAAUAUGUGGCAUAUAC |
| 8956 | GGAUACUCUCCACACGAAC | 8999 | GAAAACUUGGGGUACCCCC | 9042 | CCGAGCAGUCCGCGCUAAG | 9085 | AAAAUAUGUGGCAUAUACC |
| 8957 | GAUACUCUCCACACGAACU | 9000 | AAAACUUGGGGUACCCCCG | 9043 | CGAGCAGUCCGCGCUAAGC | 9086 | AAAUAUGUGGCAUAUACCU |
| 8958 | AUACUCUCCACACGAACUC | 9001 | AAACUUGGGGUACCCCCGC | 9044 | GAGCAGUCCGCGCUAAGCU | 9087 | AAUAUGUGGCAUAUACCUC |
| 8959 | UACUCUCCACACGAACUCA | 9002 | AACUUGGGGUACCCCCGCU | 9045 | AGCAGUCCGCGCUAAGCUU | 9088 | AUAUGUGGCAUAUACCUCU |
| 8960 | ACUCUCCACACGAACUCAA | 9003 | ACUUGGGGUACCCCCGCUG | 9046 | GCAGUCCGCGCUAAGCUUA | 9089 | UAUGUGGCAUAUACCUCUU |
| 8961 | CUCUCCACACGAACUCAAC | 9004 | CUUGGGGUACCCCCGCUGA | 9047 | CAGUCCGCGCUAAGCUUAU | 9090 | AUGUGGCAUAUACCUCUUU |
| 8962 | UCUCCACACGAACUCAACC | 9005 | UUGGGGUACCCCCGCUGAG | 9048 | AGUCCGCGCUAAGCUUAUC | 9091 | UGUGGCAUAUACCUCUUUA |
| 8963 | CUCCACACGAACUCAACCG | 9006 | UGGGGUACCCCCGCUGAGA | 9049 | GUCCGCGCUAAGCUUAUCG | 9092 | GUGGCAUAUACCUCUUUAA |
| 8964 | UCCACACGAACUCAACCGG | 9007 | GGGGUACCCCCGCUGAGAG | 9050 | UCCGCGCUAAGCUUAUCGC | 9093 | UGGCAUAUACCUCUUUAAC |
| 8965 | CCACACGAACUCAACCGGG | 9008 | GGGUACCCCCGCUGAGAGC | 9051 | CCGCGCUAAGCUUAUCGCC | 9094 | GGCAUAUACCUCUUUAACU |
| 8966 | CACACGAACUCAACCGGGU | 9009 | GGUACCCCCGCUGAGAGCG | 9052 | CGCGCUAAGCUUAUCGCCC | 9095 | GCAUAUACCUCUUUAACUG |
| 8967 | ACACGAACUCAACCGGGUG | 9010 | GUACCCCCGCUGAGAGCGU | 9053 | GCGCUAAGCUUAUCGCCCA | 9096 | CAUAUACCUCUUUAACUGG |
| 8968 | CACGAACUCAACCGGGUGG | 9011 | UACCCCCGCUGAGAGCGUG | 9054 | CGCUAAGCUUAUCGCCCAG | 9097 | AUAUACCUCUUUAACUGGG |
| 8969 | ACGAACUCAACCGGGUGGC | 9012 | ACCCCCGCUGAGAGCGUGG | 9055 | GCUAAGCUUAUCGCCCAGG | 9098 | UAUACCUCUUUAACUGGGC |
| 8970 | CGAACUCAACCGGGUGGCC | 9013 | CCCCCGCUGAGAGCGUGGA | 9056 | CUAAGCUUAUCGCCCAGGG | 9099 | AUACCUCUUUAACUGGGCG |
| 8971 | GAACUCAACCGGGUGGCCG | 9014 | CCCCGCUGAGAGCGUGGAG | 9057 | UAAGCUUAUCGCCCAGGGA | 9100 | UACCUCUUUAACUGGGCGG |
| 8972 | AACUCAACCGGGUGGCCGG | 9015 | CCCGCUGAGAGCGUGGAGA | 9058 | AAGCUUAUCGCCCAGGGAG | 9101 | ACCUCUUUAACUGGGCGGU |
| 8973 | ACUCAACCGGGUGGCCGGA | 9016 | CCGCUGAGAGCGUGGAGAC | 9059 | AGCUUAUCGCCCAGGGAGG | 9102 | CCUCUUUAACUGGGCGGUA |
| 8974 | CUCAACCGGGUGGCCGGAG | 9017 | CGCUGAGAGCGUGGAGACA | 9060 | GCUUAUCGCCCAGGGAGGU | 9103 | CUCUUUAACUGGGCGGUAA |
| 8975 | UCAACCGGGUGGCCGGAGC | 9018 | GCUGAGAGCGUGGAGACAU | 9061 | CUUAUCGCCCAGGGAGGUA | 9104 | UCUUUAACUGGGCGGUAAA |
| 8976 | CAACCGGGUGGCCGGAGCC | 9019 | CUGAGAGCGUGGAGACAUC | 9062 | UUAUCGCCCAGGGAGGUAG | 9105 | CUUUAACUGGGCGGUAAAA |
| 8977 | AACCGGGUGGCCGGAGCCC | 9020 | UGAGAGCGUGGAGACAUCG | 9063 | UAUCGCCCAGGGAGGUAGA | 9106 | UUUAACUGGGCGGUAAAAA |
| 8978 | ACCGGGUGGCCGGAGCCCU | 9021 | GAGAGCGUGGAGACAUCGG | 9064 | AUCGCCCAGGGAGGUAGAG | 9107 | UUAACUGGGCGGUAAAAAC |
| 8979 | CCGGGUGGCCGGAGCCCUC | 9022 | AGAGCGUGGAGACAUCGGG | 9065 | UCGCCCAGGGAGGUAGAGC | 9108 | UAACUGGGCGGUAAAAACC |
| 8980 | CGGGUGGCCGGAGCCCUCA | 9023 | GAGCGUGGAGACAUCGGGC | 9066 | CGCCCAGGGAGGUAGAGCC | 9109 | AACUGGGCGGUAAAAACCA |
| 8981 | GGGUGGCCGGAGCCCUCAG | 9024 | AGCGUGGAGACAUCGGGCC | 9067 | GCCCAGGGAGGUAGAGCCA | 9110 | ACUGGGCGGUAAAAACCAA |
| 8982 | GGUGGCCGGAGCCCUCAGA | 9025 | GCGUGGAGACAUCGGGCCC | 9068 | CCCAGGGAGGUAGAGCCAA | 9111 | CUGGGCGGUAAAAACCAAA |
| 8983 | GUGGCCGGAGCCCUCAGAA | 9026 | CGUGGAGACAUCGGGCCCG | 9069 | CCAGGGAGGUAGAGCCAAA | 9112 | UGGGCGGUAAAAACCAAAC |
| 8984 | UGGCCGGAGCCCUCAGAAA | 9027 | GUGGAGACAUCGGGCCCGA | 9070 | CAGGGAGGUAGAGCCAAAA | 9113 | GGGCGGUAAAAACCAAACU |
| 8985 | GGCCGGAGCCCUCAGAAAA | 9028 | UGGAGACAUCGGGCCCGAG | 9071 | AGGGAGGUAGAGCCAAAAU | 9114 | GGCGGUAAAAACCAAACUC |
| 8986 | GCCGGAGCCCUCAGAAAAC | 9029 | GGAGACAUCGGGCCCGAGC | 9072 | GGGAGGUAGAGCCAAAAUA | 9115 | GCGGUAAAAACCAAACUCA |

**FIG. 5 (page 285 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9116 | CGGUAAAAACCAAACUCAA | 9159 | CAAACUCGAUUUAUCGGGU | 9202 | GGAGACAUUUAUCACAGCA | 9245 | UACUCCUGUGCCUACUCAU |
| 9117 | GGUAAAAACCAAACUCAAA | 9160 | AAACUCGAUUUAUCGGGUU | 9203 | GAGACAUUUAUCACAGCAU | 9246 | ACUCCUGUGCCUACUCAUA |
| 9118 | GUAAAAACCAAACUCAAAC | 9161 | AACUCGAUUUAUCGGGUUG | 9204 | AGACAUUUAUCACAGCAUG | 9247 | CUCCUGUGCCUACUCAUAC |
| 9119 | UAAAAACCAAACUCAAACU | 9162 | ACUCGAUUUAUCGGGUUGG | 9205 | GACAUUUAUCACAGCAUGU | 9248 | UCCUGUGCCUACUCAUACU |
| 9120 | AAAAACCAAACUCAAACUC | 9163 | CUCGAUUUAUCGGGUUGGU | 9206 | ACAUUUAUCACAGCAUGUC | 9249 | CCUGUGCCUACUCAUACUU |
| 9121 | AAAACCAAACUCAAACUCA | 9164 | UCGAUUUAUCGGGUUGGUU | 9207 | CAUUUAUCACAGCAUGUCU | 9250 | CUGUGCCUACUCAUACUUA |
| 9122 | AAACCAAACUCAAACUCAC | 9165 | CGAUUUAUCGGGUUGGUUU | 9208 | AUUUAUCACAGCAUGUCUC | 9251 | UGUGCCUACUCAUACUUAC |
| 9123 | AACCAAACUCAAACUCACU | 9166 | GAUUUAUCGGGUUGGUUUA | 9209 | UUUAUCACAGCAUGUCUCA | 9252 | GUGCCUACUCAUACUUACA |
| 9124 | ACCAAACUCAAACUCACUC | 9167 | AUUUAUCGGGUUGGUUUAC | 9210 | UUAUCACAGCAUGUCUCAU | 9253 | UGCCUACUCAUACUUACAG |
| 9125 | CCAAACUCAAACUCACUCC | 9168 | UUUAUCGGGUUGGUUUACG | 9211 | UAUCACAGCAUGUCUCAUG | 9254 | GCCUACUCAUACUUACAGU |
| 9126 | CAAACUCAAACUCACUCCA | 9169 | UUAUCGGGUUGGUUUACGG | 9212 | AUCACAGCAUGUCUCAUGC | 9255 | CCUACUCAUACUUACAGUA |
| 9127 | AAACUCAAACUCACUCCAU | 9170 | UAUCGGGUUGGUUUACGGU | 9213 | UCACAGCAUGUCUCAUGCC | 9256 | CUACUCAUACUUACAGUAG |
| 9128 | AACUCAAACUCACUCCAUU | 9171 | AUCGGGUUGGUUUACGGUA | 9214 | CACAGCAUGUCUCAUGCCC | 9257 | UACUCAUACUUACAGUAGG |
| 9129 | ACUCAAACUCACUCCAUUG | 9172 | UCGGGUUGGUUUACGGUAG | 9215 | ACAGCAUGUCUCAUGCCCG | 9258 | ACUCAUACUUACAGUAGGG |
| 9130 | CUCAAACUCACUCCAUUGC | 9173 | CGGGUUGGUUUACGGUAGG | 9216 | CAGCAUGUCUCAUGCCCGA | 9259 | CUCAUACUUACAGUAGGGG |
| 9131 | UCAAACUCACUCCAUUGCC | 9174 | GGGUUGGUUUACGGUAGGC | 9217 | AGCAUGUCUCAUGCCCGAC | 9260 | UCAUACUUACAGUAGGGGU |
| 9132 | CAAACUCACUCCAUUGCCU | 9175 | GGUUGGUUUACGGUAGGCG | 9218 | GCAUGUCUCAUGCCCGACC | 9261 | CAUACUUACAGUAGGGGUA |
| 9133 | AAACUCACUCCAUUGCCUG | 9176 | GUUGGUUUACGGUAGGCGC | 9219 | CAUGUCUCAUGCCCGACCC | 9262 | AUACUUACAGUAGGGGUAG |
| 9134 | AACUCACUCCAUUGCCUGC | 9177 | UUGGUUUACGGUAGGCGCC | 9220 | AUGUCUCAUGCCCGACCCC | 9263 | UACUUACAGUAGGGGUAGG |
| 9135 | ACUCACUCCAUUGCCUGCC | 9178 | UGGUUUACGGUAGGCGCCG | 9221 | UGUCUCAUGCCCGACCCCG | 9264 | ACUUACAGUAGGGGUAGGC |
| 9136 | CUCACUCCAUUGCCUGCCG | 9179 | GGUUUACGGUAGGCGCCGG | 9222 | GUCUCAUGCCCGACCCCGC | 9265 | CUUACAGUAGGGGUAGGCA |
| 9137 | UCACUCCAUUGCCUGCCGC | 9180 | GUUUACGGUAGGCGCCGGC | 9223 | UCUCAUGCCCGACCCCGCU | 9266 | UUACAGUAGGGGUAGGCAU |
| 9138 | CACUCCAUUGCCUGCCGCU | 9181 | UUUACGGUAGGCGCCGGCG | 9224 | CUCAUGCCCGACCCCGCUA | 9267 | UACAGUAGGGGUAGGCAUC |
| 9139 | ACUCCAUUGCCUGCCGCUG | 9182 | UUACGGUAGGCGCCGGCGG | 9225 | UCAUGCCCGACCCCGCUAU | 9268 | ACAGUAGGGGUAGGCAUCU |
| 9140 | CUCCAUUGCCUGCCGCUGC | 9183 | UACGGUAGGCGCCGGCGGG | 9226 | CAUGCCCGACCCCGCUAUU | 9269 | CAGUAGGGGUAGGCAUCUU |
| 9141 | UCCAUUGCCUGCCGCUGCC | 9184 | ACGGUAGGCGCCGGCGGGG | 9227 | AUGCCCGACCCCGCUAUUU | 9270 | AGUAGGGGUAGGCAUCUUC |
| 9142 | CCAUUGCCUGCCGCUGCCA | 9185 | CGGUAGGCGCCGGCGGGGG | 9228 | UGCCCGACCCCGCUAUUUA | 9271 | GUAGGGGUAGGCAUCUUCC |
| 9143 | CAUUGCCUGCCGCUGCCAA | 9186 | GGUAGGCGCCGGCGGGGGA | 9229 | GCCCGACCCCGCUAUUUAC | 9272 | UAGGGGUAGGCAUCUUCCU |
| 9144 | AUUGCCUGCCGCUGCCAAA | 9187 | GUAGGCGCCGGCGGGGGAG | 9230 | CCCGACCCCGCUAUUUACU | 9273 | AGGGGUAGGCAUCUUCCUG |
| 9145 | UUGCCUGCCGCUGCCAAAC | 9188 | UAGGCGCCGGCGGGGGAGA | 9231 | CCGACCCCGCUAUUUACUC | 9274 | GGGGUAGGCAUCUUCCUGC |
| 9146 | UGCCUGCCGCUGCCAAACU | 9189 | AGGCGCCGGCGGGGGAGAC | 9232 | CGACCCCGCUAUUUACUCC | 9275 | GGGUAGGCAUCUUCCUGCU |
| 9147 | GCCUGCCGCUGCCAAACUC | 9190 | GGCGCCGGCGGGGGAGACA | 9233 | GACCCCGCUAUUUACUCCU | 9276 | GGUAGGCAUCUUCCUGCUG |
| 9148 | CCUGCCGCUGCCAAACUCG | 9191 | GCGCCGGCGGGGGAGACAU | 9234 | ACCCCGCUAUUUACUCCUG | 9277 | GUAGGCAUCUUCCUGCUGC |
| 9149 | CUGCCGCUGCCAAACUCGA | 9192 | CGCCGGCGGGGGAGACAUU | 9235 | CCCCGCUAUUUACUCCUGU | 9278 | UAGGCAUCUUCCUGCUGCC |
| 9150 | UGCCGCUGCCAAACUCGAU | 9193 | GCCGGCGGGGGAGACAUUU | 9236 | CCCGCUAUUUACUCCUGUG | 9279 | AGGCAUCUUCCUGCUGCCU |
| 9151 | GCCGCUGCCAAACUCGAUU | 9194 | CCGGCGGGGGAGACAUUUA | 9237 | CCGCUAUUUACUCCUGUGC | 9280 | GGCAUCUUCCUGCUGCCUG |
| 9152 | CCGCUGCCAAACUCGAUUU | 9195 | CGGCGGGGGAGACAUUUAU | 9238 | CGCUAUUUACUCCUGUGCC | 9281 | GCAUCUUCCUGCUGCCUGC |
| 9153 | CGCUGCCAAACUCGAUUUA | 9196 | GGCGGGGGAGACAUUUAUC | 9239 | GCUAUUUACUCCUGUGCCU | 9282 | CAUCUUCCUGCUGCCUGCU |
| 9154 | GCUGCCAAACUCGAUUUAU | 9197 | GCGGGGGAGACAUUUAUCA | 9240 | CUAUUUACUCCUGUGCCUA | 9283 | AUCUUCCUGCUGCCUGCUC |
| 9155 | CUGCCAAACUCGAUUUAUC | 9198 | CGGGGGAGACAUUUAUCAC | 9241 | UAUUUACUCCUGUGCCUAC | 9284 | UCUUCCUGCUGCCUGCUCG |
| 9156 | UGCCAAACUCGAUUUAUCG | 9199 | GGGGGAGACAUUUAUCACA | 9242 | AUUUACUCCUGUGCCUACU | 9285 | CUUCCUGCUGCCUGCUCGG |
| 9157 | GCCAAACUCGAUUUAUCGG | 9200 | GGGGAGACAUUUAUCACAG | 9243 | UUUACUCCUGUGCCUACUC | 9286 | UUCCUGCUGCCUGCUCGGU |
| 9158 | CCAAACUCGAUUUAUCGGG | 9201 | GGGAGACAUUUAUCACAGC | 9244 | UUACUCCUGUGCCUACUCA | 9287 | UCCUGCUGCCUGCUCGGUA |

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| | |
|---|---|
| 9288 | CCUGCUGCCUGCUCGGUAG |
| 9289 | CUGCUGCCUGCUCGGUAGG |
| 9290 | UGCUGCCUGCUCGGUAGGC |
| 9291 | GCUGCCUGCUCGGUAGGCA |
| 9292 | CUGCCUGCUCGGUAGGCAG |
| 9293 | UGCCUGCUCGGUAGGCAGC |
| 9294 | GCCUGCUCGGUAGGCAGCU |
| 9295 | CCUGCUCGGUAGGCAGCUU |
| 9296 | CUGCUCGGUAGGCAGCUUA |
| 9297 | UGCUCGGUAGGCAGCUUAA |
| 9298 | GCUCGGUAGGCAGCUUAAC |
| 9299 | CUCGGUAGGCAGCUUAACA |
| 9300 | UCGGUAGGCAGCUUAACAC |
| 9301 | CGGUAGGCAGCUUAACACU |
| 9302 | GGUAGGCAGCUUAACACUC |
| 9303 | GUAGGCAGCUUAACACUCC |
| 9304 | UAGGCAGCUUAACACUCCG |
| 9305 | AGGCAGCUUAACACUCCGA |
| 9306 | GGCAGCUUAACACUCCGAC |
| 9307 | GCAGCUUAACACUCCGACC |
| 9308 | CAGCUUAACACUCCGACCU |
| 9309 | AGCUUAACACUCCGACCUU |
| 9310 | GCUUAACACUCCGACCUUA |
| 9311 | CUUAACACUCCGACCUUAG |
| 9312 | UUAACACUCCGACCUUAGG |
| 9313 | UAACACUCCGACCUUAGGG |
| 9314 | AACACUCCGACCUUAGGGU |
| 9315 | ACACUCCGACCUUAGGGUC |
| 9316 | CACUCCGACCUUAGGGUCC |
| 9317 | ACUCCGACCUUAGGGUCCC |
| 9318 | CUCCGACCUUAGGGUCCCC |
| 9319 | UCCGACCUUAGGGUCCCCU |
| 9320 | CCGACCUUAGGGUCCCCUU |
| 9321 | CGACCUUAGGGUCCCCUUU |
| 9322 | GACCUUAGGGUCCCCUUUU |
| 9323 | ACCUUAGGGUCCCCUUUUU |
| 9324 | CCUUAGGGUCCCCUUUUUU |
| 9325 | CUUAGGGUCCCCUUUUUUU |
| 9326 | UUAGGGUCCCCUUUUUUUU |
| 9327 | UAGGGUCCCCUUUUUUUUU |
| 9328 | AGGGUCCCCUUUUUUUUUU |
| 9329 | GGGUCCCCUUUUUUUUUUU |
| 9330 | GGUCCCCUUUUUUUUUUUU |
| 9331 | GUCCCCUUUUUUUUUUUUU |
| 9332 | UCCCCUUUUUUUUUUUUUU |
| 9333 | CCCCUUUUUUUUUUUUUUU |
| 9334 | CCCUUUUUUUUUUUUUUUU |
| 9335 | CCUUUUUUUUUUUUUUUUU |
| 9336 | CUUUUUUUUUUUUUUUUUG |
| 9337 | UUUUUUUUUUUUUUUUUGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | UUCACGCAGAAAGCGUCUA | 36 | GAGUGUCGAACAGCCUCCA | 71 | GAGAGCCAUAGUGGUCUGC | 106 | CCGGAAUUGCCGGGAUGAC |
| 2 | UCACGCAGAAAGCGUCUAG | 37 | AGUGUCGAACAGCCUCCAG | 72 | AGAGCCAUAGUGGUCUGCG | 107 | CGGAAUUGCCGGGAUGACC |
| 3 | CACGCAGAAAGCGUCUAGC | 38 | GUGUCGAACAGCCUCCAGG | 73 | GAGCCAUAGUGGUCUGCGG | 108 | GGAAUUGCCGGGAUGACCG |
| 4 | ACGCAGAAAGCGUCUAGCC | 39 | UGUCGAACAGCCUCCAGGA | 74 | AGCCAUAGUGGUCUGCGGA | 109 | GAAUUGCCGGGAUGACCGG |
| 5 | CGCAGAAAGCGUCUAGCCA | 40 | GUCGAACAGCCUCCAGGAC | 75 | GCCAUAGUGGUCUGCGGAA | 110 | AAUUGCCGGGAUGACCGGG |
| 6 | GCAGAAAGCGUCUAGCCAU | 41 | UCGAACAGCCUCCAGGACC | 76 | CCAUAGUGGUCUGCGGAAC | 111 | AUUGCCGGGAUGACCGGGU |
| 7 | CAGAAAGCGUCUAGCCAUG | 42 | CGAACAGCCUCCAGGACCC | 77 | CAUAGUGGUCUGCGGAACC | 112 | UUGCCGGGAUGACCGGGUC |
| 8 | AGAAAGCGUCUAGCCAUGG | 43 | GAACAGCCUCCAGGACCCC | 78 | AUAGUGGUCUGCGGAACCG | 113 | UGCCGGGAUGACCGGGUCC |
| 9 | GAAAGCGUCUAGCCAUGGC | 44 | AACAGCCUCCAGGACCCCC | 79 | UAGUGGUCUGCGGAACCGG | 114 | GCCGGGAUGACCGGGUCCU |
| 10 | AAAGCGUCUAGCCAUGGCG | 45 | ACAGCCUCCAGGACCCCCC | 80 | AGUGGUCUGCGGAACCGGU | 115 | CCGGGAUGACCGGGUCCUU |
| 11 | AAGCGUCUAGCCAUGGCGU | 46 | CAGCCUCCAGGACCCCCCC | 81 | GUGGUCUGCGGAACCGGUG | 116 | CGGGAUGACCGGGUCCUUU |
| 12 | AGCGUCUAGCCAUGGCGUU | 47 | AGCCUCCAGGACCCCCCCU | 82 | UGGUCUGCGGAACCGGUGA | 117 | GGGAUGACCGGGUCCUUUC |
| 13 | GCGUCUAGCCAUGGCGUUA | 48 | GCCUCCAGGACCCCCCCUC | 83 | GGUCUGCGGAACCGGUGAG | 118 | GGAUGACCGGGUCCUUUCU |
| 14 | CGUCUAGCCAUGGCGUUAG | 49 | CCUCCAGGACCCCCCCUCC | 84 | GUCUGCGGAACCGGUGAGU | 119 | GAUGACCGGGUCCUUUCUU |
| 15 | GUCUAGCCAUGGCGUUAGU | 50 | CUCCAGGACCCCCCCUCCC | 85 | UCUGCGGAACCGGUGAGUA | 120 | AUGACCGGGUCCUUUCUUG |
| 16 | UCUAGCCAUGGCGUUAGUA | 51 | UCCAGGACCCCCCCUCCCG | 86 | CUGCGGAACCGGUGAGUAC | 121 | UGACCGGGUCCUUUCUUGG |
| 17 | CUAGCCAUGGCGUUAGUAU | 52 | CCAGGACCCCCCCUCCCGG | 87 | UGCGGAACCGGUGAGUACA | 122 | GACCGGGUCCUUUCUUGGA |
| 18 | UAGCCAUGGCGUUAGUAUG | 53 | CAGGACCCCCCCUCCCGGG | 88 | GCGGAACCGGUGAGUACAC | 123 | ACCGGGUCCUUUCUUGGAU |
| 19 | AGCCAUGGCGUUAGUAUGA | 54 | AGGACCCCCCCUCCCGGGA | 89 | CGGAACCGGUGAGUACACC | 124 | CCGGGUCCUUUCUUGGAUA |
| 20 | GCCAUGGCGUUAGUAUGAG | 55 | GGACCCCCCCUCCCGGGAG | 90 | GGAACCGGUGAGUACACCG | 125 | CGGGUCCUUUCUUGGAUAA |
| 21 | CCAUGGCGUUAGUAUGAGU | 56 | GACCCCCCCUCCCGGGAGA | 91 | GAACCGGUGAGUACACCGG | 126 | GGGUCCUUUCUUGGAUAAA |
| 22 | CAUGGCGUUAGUAUGAGUG | 57 | ACCCCCCCUCCCGGGAGAG | 92 | AACCGGUGAGUACACCGGA | 127 | GGUCCUUUCUUGGAUAAAC |
| 23 | AUGGCGUUAGUAUGAGUGU | 58 | CCCCCCCUCCCGGGAGAGC | 93 | ACCGGUGAGUACACCGGAA | 128 | GUCCUUUCUUGGAUAAACC |
| 24 | UGGCGUUAGUAUGAGUGUC | 59 | CCCCCCUCCCGGGAGAGCC | 94 | CCGGUGAGUACACCGGAAU | 129 | UCCUUUCUUGGAUAAACCC |
| 25 | GGCGUUAGUAUGAGUGUCG | 60 | CCCCCUCCCGGGAGAGCCA | 95 | CGGUGAGUACACCGGAAUU | 130 | CCUUUCUUGGAUAAACCCG |
| 26 | GCGUUAGUAUGAGUGUCGA | 61 | CCCCUCCCGGGAGAGCCAU | 96 | GGUGAGUACACCGGAAUUG | 131 | CUUUCUUGGAUAAACCCGC |
| 27 | CGUUAGUAUGAGUGUCGAA | 62 | CCCUCCCGGGAGAGCCAUA | 97 | GUGAGUACACCGGAAUUGC | 132 | UUUCUUGGAUAAACCCGCU |
| 28 | GUUAGUAUGAGUGUCGAAC | 63 | CCUCCCGGGAGAGCCAUAG | 98 | UGAGUACACCGGAAUUGCC | 133 | UUCUUGGAUAAACCCGCUC |
| 29 | UUAGUAUGAGUGUCGAACA | 64 | CUCCCGGGAGAGCCAUAGU | 99 | GAGUACACCGGAAUUGCCG | 134 | UCUUGGAUAAACCCGCUCA |
| 30 | UAGUAUGAGUGUCGAACAG | 65 | UCCCGGGAGAGCCAUAGUG | 100 | AGUACACCGGAAUUGCCGG | 135 | CUUGGAUAAACCCGCUCAA |
| 31 | AGUAUGAGUGUCGAACAGC | 66 | CCCGGGAGAGCCAUAGUGG | 101 | GUACACCGGAAUUGCCGGG | 136 | UUGGAUAAACCCGCUCAAU |
| 32 | GUAUGAGUGUCGAACAGCC | 67 | CCGGGAGAGCCAUAGUGGU | 102 | UACACCGGAAUUGCCGGGA | 137 | UGGAUAAACCCGCUCAAUG |
| 33 | UAUGAGUGUCGAACAGCCU | 68 | CGGGAGAGCCAUAGUGGUC | 103 | ACACCGGAAUUGCCGGGAU | 138 | GGAUAAACCCGCUCAAUGC |
| 34 | AUGAGUGUCGAACAGCCUC | 69 | GGGAGAGCCAUAGUGGUCU | 104 | CACCGGAAUUGCCGGGAUG | 139 | GAUAAACCCGCUCAAUGCC |
| 35 | UGAGUGUCGAACAGCCUCC | 70 | GGAGAGCCAUAGUGGUCUG | 105 | ACCGGAAUUGCCGGGAUGA | 140 | AUAAACCCGCUCAAUGCCC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 141 | UAAACCCGCUCAAUGCCCG | 176 | CCCGCGAGACUGCUAGCCG | 211 | GAAAGGCCUUGUGGUACUG | 246 | CGAGUGCCCCGGGAGGUCU |
| 142 | AAACCCGCUCAAUGCCCGG | 177 | CCGCGAGACUGCUAGCCGA | 212 | AAAGGCCUUGUGGUACUGC | 247 | GAGUGCCCCGGGAGGUCUC |
| 143 | AACCCGCUCAAUGCCCGGA | 178 | CGCGAGACUGCUAGCCGAG | 213 | AAGGCCUUGUGGUACUGCC | 248 | AGUGCCCCGGGAGGUCUCG |
| 144 | ACCCGCUCAAUGCCCGGAG | 179 | GCGAGACUGCUAGCCGAGU | 214 | AGGCCUUGUGGUACUGCCU | 249 | GUGCCCCGGGAGGUCUCGU |
| 145 | CCCGCUCAAUGCCCGGAGA | 180 | CGAGACUGCUAGCCGAGUA | 215 | GGCCUUGUGGUACUGCCUG | 250 | UGCCCCGGGAGGUCUCGUA |
| 146 | CCGCUCAAUGCCCGGAGAU | 181 | GAGACUGCUAGCCGAGUAG | 216 | GCCUUGUGGUACUGCCUGA | 251 | GCCCCGGGAGGUCUCGUAG |
| 147 | CGCUCAAUGCCCGGAGAUU | 182 | AGACUGCUAGCCGAGUAGU | 217 | CCUUGUGGUACUGCCUGAU | 252 | CCCCGGGAGGUCUCGUAGA |
| 148 | GCUCAAUGCCCGGAGAUUU | 183 | GACUGCUAGCCGAGUAGUG | 218 | CUUGUGGUACUGCCUGAUA | 253 | CCCGGGAGGUCUCGUAGAC |
| 149 | CUCAAUGCCCGGAGAUUUG | 184 | ACUGCUAGCCGAGUAGUGU | 219 | UUGUGGUACUGCCUGAUAG | 254 | CCGGGAGGUCUCGUAGACC |
| 150 | UCAAUGCCCGGAGAUUUGG | 185 | CUGCUAGCCGAGUAGUGUU | 220 | UGUGGUACUGCCUGAUAGG | 255 | CGGGAGGUCUCGUAGACCG |
| 151 | CAAUGCCCGGAGAUUUGGG | 186 | UGCUAGCCGAGUAGUGUUG | 221 | GUGGUACUGCCUGAUAGGG | 256 | GGGAGGUCUCGUAGACCGU |
| 152 | AAUGCCCGGAGAUUUGGGC | 187 | GCUAGCCGAGUAGUGUUGG | 222 | UGGUACUGCCUGAUAGGGU | 257 | GGAGGUCUCGUAGACCGUG |
| 153 | AUGCCCGGAGAUUUGGGCG | 188 | CUAGCCGAGUAGUGUUGGG | 223 | GGUACUGCCUGAUAGGGUG | 258 | GAGGUCUCGUAGACCGUGC |
| 154 | UGCCCGGAGAUUUGGGCGU | 189 | UAGCCGAGUAGUGUUGGGU | 224 | GUACUGCCUGAUAGGGUGC | 259 | AGGUCUCGUAGACCGUGCA |
| 155 | GCCCGGAGAUUUGGGCGUG | 190 | AGCCGAGUAGUGUUGGGUC | 225 | UACUGCCUGAUAGGGUGCU | 260 | GGUCUCGUAGACCGUGCAC |
| 156 | CCCGGAGAUUUGGGCGUGC | 191 | GCCGAGUAGUGUUGGGUCG | 226 | ACUGCCUGAUAGGGUGCUU | 261 | GUCUCGUAGACCGUGCACC |
| 157 | CCGGAGAUUUGGGCGUGCC | 192 | CCGAGUAGUGUUGGGUCGC | 227 | CUGCCUGAUAGGGUGCUUG | 262 | UCUCGUAGACCGUGCACCA |
| 158 | CGGAGAUUUGGGCGUGCCC | 193 | CGAGUAGUGUUGGGUCGCG | 228 | UGCCUGAUAGGGUGCUUGC | 263 | CUCGUAGACCGUGCACCAU |
| 159 | GGAGAUUUGGGCGUGCCCC | 194 | GAGUAGUGUUGGGUCGCGA | 229 | GCCUGAUAGGGUGCUUGCG | 264 | UCGUAGACCGUGCACCAUG |
| 160 | GAGAUUUGGGCGUGCCCCC | 195 | AGUAGUGUUGGGUCGCGAA | 230 | CCUGAUAGGGUGCUUGCGA | 265 | CGUAGACCGUGCACCAUGA |
| 161 | AGAUUUGGGCGUGCCCCCG | 196 | GUAGUGUUGGGUCGCGAAA | 231 | CUGAUAGGGUGCUUGCGAG | 266 | GUAGACCGUGCACCAUGAG |
| 162 | GAUUUGGGCGUGCCCCCGC | 197 | UAGUGUUGGGUCGCGAAAG | 232 | UGAUAGGGUGCUUGCGAGU | 267 | UAGACCGUGCACCAUGAGC |
| 163 | AUUUGGGCGUGCCCCCGCG | 198 | AGUGUUGGGUCGCGAAAGG | 233 | GAUAGGGUGCUUGCGAGUG | 268 | AGACCGUGCACCAUGAGCA |
| 164 | UUUGGGCGUGCCCCCGCGA | 199 | GUGUUGGGUCGCGAAAGGC | 234 | AUAGGGUGCUUGCGAGUGC | 269 | GACCGUGCACCAUGAGCAC |
| 165 | UUGGGCGUGCCCCCGCGAG | 200 | UGUUGGGUCGCGAAAGGCC | 235 | UAGGGUGCUUGCGAGUGCC | 270 | ACCGUGCACCAUGAGCACG |
| 166 | UGGGCGUGCCCCCGCGAGA | 201 | GUUGGGUCGCGAAAGGCCU | 236 | AGGGUGCUUGCGAGUGCCC | 271 | CCGUGCACCAUGAGCACGA |
| 167 | GGGCGUGCCCCCGCGAGAC | 202 | UUGGGUCGCGAAAGGCCUU | 237 | GGGUGCUUGCGAGUGCCCC | 272 | CGUGCACCAUGAGCACGAA |
| 168 | GGCGUGCCCCCGCGAGACU | 203 | UGGGUCGCGAAAGGCCUUG | 238 | GGUGCUUGCGAGUGCCCCG | 273 | GUGCACCAUGAGCACGAAU |
| 169 | GCGUGCCCCCGCGAGACUG | 204 | GGGUCGCGAAAGGCCUUGU | 239 | GUGCUUGCGAGUGCCCCGG | 274 | UGCACCAUGAGCACGAAUC |
| 170 | CGUGCCCCCGCGAGACUGC | 205 | GGUCGCGAAAGGCCUUGUG | 240 | UGCUUGCGAGUGCCCCGGG | 275 | GCACCAUGAGCACGAAUCC |
| 171 | GUGCCCCCGCGAGACUGCU | 206 | GUCGCGAAAGGCCUUGUGG | 241 | GCUUGCGAGUGCCCCGGGA | 276 | CACCAUGAGCACGAAUCCU |
| 172 | UGCCCCCGCGAGACUGCUA | 207 | UCGCGAAAGGCCUUGUGGU | 242 | CUUGCGAGUGCCCCGGGAG | 277 | ACCAUGAGCACGAAUCCUA |
| 173 | GCCCCCGCGAGACUGCUAG | 208 | CGCGAAAGGCCUUGUGGUA | 243 | UUGCGAGUGCCCCGGGAGG | 278 | CCAUGAGCACGAAUCCUAA |
| 174 | CCCCCGCGAGACUGCUAGC | 209 | GCGAAAGGCCUUGUGGUAC | 244 | UGCGAGUGCCCCGGGAGGU | 279 | CAUGAGCACGAAUCCUAAA |
| 175 | CCCCGCGAGACUGCUAGCC | 210 | CGAAAGGCCUUGUGGUACU | 245 | GCGAGUGCCCCGGGAGGUC | 280 | AUGAGCACGAAUCCUAAAC |



**FIG. 6 (sheet 289 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 281 | UGAGCACGAAUCCUAAACC | 316 | AGAAACACCAACCGCCGCC | 351 | CCCGGGCGGUGGUCAGAUC | 386 | UGUUGCCGCGCAGGGGCCC |
| 282 | GAGCACGAAUCCUAAACCU | 317 | GAAACACCAACCGCCGCCC | 352 | CCGGGCGGUGGUCAGAUCG | 387 | GUUGCCGCGCAGGGGCCCU |
| 283 | AGCACGAAUCCUAAACCUC | 318 | AAACACCAACCGCCGCCCA | 353 | CGGGCGGUGGUCAGAUCGU | 388 | UUGCCGCGCAGGGGCCCUA |
| 284 | GCACGAAUCCUAAACCUCA | 319 | AACACCAACCGCCGCCCAC | 354 | GGGCGGUGGUCAGAUCGUU | 389 | UGCCGCGCAGGGGCCCUAA |
| 285 | CACGAAUCCUAAACCUCAA | 320 | ACACCAACCGCCGCCCACA | 355 | GGCGGUGGUCAGAUCGUUG | 390 | GCCGCGCAGGGGCCCUAAA |
| 286 | ACGAAUCCUAAACCUCAAA | 321 | CACCAACCGCCGCCCACAG | 356 | GCGGUGGUCAGAUCGUUGG | 391 | CCGCGCAGGGGCCCUAAAU |
| 287 | CGAAUCCUAAACCUCAAAG | 322 | ACCAACCGCCGCCCACAGG | 357 | CGGUGGUCAGAUCGUUGGU | 392 | CGCGCAGGGGCCCUAAAUU |
| 288 | GAAUCCUAAACCUCAAAGA | 323 | CCAACCGCCGCCCACAGGA | 358 | GGUGGUCAGAUCGUUGGUG | 393 | GCGCAGGGGCCCUAAAUUG |
| 289 | AAUCCUAAACCUCAAAGAA | 324 | CAACCGCCGCCCACAGGAC | 359 | GUGGUCAGAUCGUUGGUGG | 394 | CGCAGGGGCCCUAAAUUGG |
| 290 | AUCCUAAACCUCAAAGAAA | 325 | AACCGCCGCCCACAGGACG | 360 | UGGUCAGAUCGUUGGUGGA | 395 | GCAGGGGCCCUAAAUUGGG |
| 291 | UCCUAAACCUCAAAGAAAA | 326 | ACCGCCGCCCACAGGACGU | 361 | GGUCAGAUCGUUGGUGGAG | 396 | CAGGGGCCCUAAAUUGGGU |
| 292 | CCUAAACCUCAAAGAAAAA | 327 | CCGCCGCCCACAGGACGUC | 362 | GUCAGAUCGUUGGUGGAGU | 397 | AGGGGCCCUAAAUUGGGUG |
| 293 | CUAAACCUCAAAGAAAAAC | 328 | CGCCGCCCACAGGACGUCA | 363 | UCAGAUCGUUGGUGGAGUU | 398 | GGGGCCCUAAAUUGGGUGU |
| 294 | UAAACCUCAAAGAAAAACC | 329 | GCCGCCCACAGGACGUCAA | 364 | CAGAUCGUUGGUGGAGUUU | 399 | GGGCCCUAAAUUGGGUGUG |
| 295 | AAACCUCAAAGAAAAACCA | 330 | CCGCCCACAGGACGUCAAG | 365 | AGAUCGUUGGUGGAGUUUA | 400 | GGCCCUAAAUUGGGUGUGC |
| 296 | AACCUCAAAGAAAAACCAA | 331 | CGCCCACAGGACGUCAAGU | 366 | GAUCGUUGGUGGAGUUUAC | 401 | GCCCUAAAUUGGGUGUGCG |
| 297 | ACCUCAAAGAAAAACCAAA | 332 | GCCCACAGGACGUCAAGUU | 367 | AUCGUUGGUGGAGUUUACU | 402 | CCCUAAAUUGGGUGUGCGC |
| 298 | CCUCAAAGAAAAACCAAAA | 333 | CCCACAGGACGUCAAGUUC | 368 | UCGUUGGUGGAGUUUACUU | 403 | CCUAAAUUGGGUGUGCGCG |
| 299 | CUCAAAGAAAAACCAAAAG | 334 | CCACAGGACGUCAAGUUCC | 369 | CGUUGGUGGAGUUUACUUG | 404 | CUAAAUUGGGUGUGCGCGC |
| 300 | UCAAAGAAAAACCAAAAGA | 335 | CACAGGACGUCAAGUUCCC | 370 | GUUGGUGGAGUUUACUUGU | 405 | UAAAUUGGGUGUGCGCGCG |
| 301 | CAAAGAAAAACCAAAAGAA | 336 | ACAGGACGUCAAGUUCCCG | 371 | UUGGUGGAGUUUACUUGUU | 406 | AAAUUGGGUGUGCGCGCGA |
| 302 | AAAGAAAAACCAAAAGAAA | 337 | CAGGACGUCAAGUUCCCGG | 372 | UGGUGGAGUUUACUUGUUG | 407 | AAUUGGGUGUGCGCGCGAC |
| 303 | AAGAAAAACCAAAAGAAAC | 338 | AGGACGUCAAGUUCCCGGG | 373 | GGUGGAGUUUACUUGUUGC | 408 | AUUGGGUGUGCGCGCGACU |
| 304 | AGAAAAACCAAAAGAAACA | 339 | GGACGUCAAGUUCCCGGGC | 374 | GUGGAGUUUACUUGUUGCC | 409 | UUGGGUGUGCGCGCGACUC |
| 305 | GAAAAACCAAAAGAAACAC | 340 | GACGUCAAGUUCCCGGGCG | 375 | UGGAGUUUACUUGUUGCCG | 410 | UGGGUGUGCGCGCGACUCG |
| 306 | AAAAACCAAAAGAAACACC | 341 | ACGUCAAGUUCCCGGGCGG | 376 | GGAGUUUACUUGUUGCCGC | 411 | GGGUGUGCGCGCGACUCGG |
| 307 | AAAACCAAAAGAAACACCA | 342 | CGUCAAGUUCCCGGGCGGU | 377 | GAGUUUACUUGUUGCCGCG | 412 | GGUGUGCGCGCGACUCGGA |
| 308 | AAACCAAAAGAAACACCAA | 343 | GUCAAGUUCCCGGGCGGUG | 378 | AGUUUACUUGUUGCCGCGC | 413 | GUGUGCGCGCGACUCGGAA |
| 309 | AACCAAAAGAAACACCAAC | 344 | UCAAGUUCCCGGGCGGUGG | 379 | GUUUACUUGUUGCCGCGCA | 414 | UGUGCGCGCGACUCGGAAG |
| 310 | ACCAAAAGAAACACCAACC | 345 | CAAGUUCCCGGGCGGUGGU | 380 | UUUACUUGUUGCCGCGCAG | 415 | GUGCGCGCGACUCGGAAGA |
| 311 | CCAAAAGAAACACCAACCG | 346 | AAGUUCCCGGGCGGUGGUC | 381 | UUACUUGUUGCCGCGCAGG | 416 | UGCGCGCGACUCGGAAGAA |
| 312 | CAAAAGAAACACCAACCGC | 347 | AGUUCCCGGGCGGUGGUCA | 382 | UACUUGUUGCCGCGCAGGG | 417 | GCGCGCGACUCGGAAGAAU |
| 313 | AAAAGAAACACCAACCGCC | 348 | GUUCCCGGGCGGUGGUCAG | 383 | ACUUGUUGCCGCGCAGGGG | 418 | CGCGCGACUCGGAAGAAUU |
| 314 | AAAGAAACACCAACCGCCG | 349 | UUCCCGGGCGGUGGUCAGA | 384 | CUUGUUGCCGCGCAGGGGC | 419 | GCGCGACUCGGAAGAAUUC |
| 315 | AAGAAACACCAACCGCCGC | 350 | UCCCGGGCGGUGGUCAGAU | 385 | UUGUUGCCGCGCAGGGGCC | 420 | CGCGACUCGGAAGAAUUCG |



FIG. 6 (sheet 290 of 479)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 421 | GCGACUCGGAAGAAUUCGG | 456 | UGGACGGCGCCAGCCUAUU | 491 | CCACGGGCCGGUCCUGGGG | 526 | UGGCCCCUUUACGCCAAUG |
| 422 | CGACUCGGAAGAAUUCGGA | 457 | GGACGGCGCCAGCCUAUUC | 492 | CACGGGCCGGUCCUGGGGU | 527 | GGCCCCUUUACGCCAAUGA |
| 423 | GACUCGGAAGAAUUCGGAA | 458 | GACGGCGCCAGCCUAUUCC | 493 | ACGGGCCGGUCCUGGGGUC | 528 | GCCCCUUUACGCCAAUGAA |
| 424 | ACUCGGAAGAAUUCGGAAC | 459 | ACGGCGCCAGCCUAUUCCC | 494 | CGGGCCGGUCCUGGGGUCA | 529 | CCCCUUUACGCCAAUGAAG |
| 425 | CUCGGAAGAAUUCGGAACG | 460 | CGGCGCCAGCCUAUUCCCA | 495 | GGGCCGGUCCUGGGGUCAA | 530 | CCCUUUACGCCAAUGAAGG |
| 426 | UCGGAAGAAUUCGGAACGG | 461 | GGCGCCAGCCUAUUCCCAA | 496 | GGCCGGUCCUGGGGUCAAC | 531 | CCUUUACGCCAAUGAAGGC |
| 427 | CGGAAGAAUUCGGAACGGU | 462 | GCGCCAGCCUAUUCCCAAG | 497 | GCCGGUCCUGGGGUCAACC | 532 | CUUUACGCCAAUGAAGGCC |
| 428 | GGAAGAAUUCGGAACGGUC | 463 | CGCCAGCCUAUUCCCAAGG | 498 | CCGGUCCUGGGGUCAACCC | 533 | UUUACGCCAAUGAAGGCCU |
| 429 | GAAGAAUUCGGAACGGUCG | 464 | GCCAGCCUAUUCCCAAGGC | 499 | CGGUCCUGGGGUCAACCCG | 534 | UUACGCCAAUGAAGGCCUC |
| 430 | AAGAAUUCGGAACGGUCGC | 465 | CCAGCCUAUUCCCAAGGCG | 500 | GGUCCUGGGGUCAACCCGG | 535 | UACGCCAAUGAAGGCCUCG |
| 431 | AGAAUUCGGAACGGUCGCA | 466 | CAGCCUAUUCCCAAGGCGC | 501 | GUCCUGGGGUCAACCCGGG | 536 | ACGCCAAUGAAGGCCUCGG |
| 432 | GAAUUCGGAACGGUCGCAA | 467 | AGCCUAUUCCCAAGGCGCG | 502 | UCCUGGGGUCAACCCGGGU | 537 | CGCCAAUGAAGGCCUCGGG |
| 433 | AAUUCGGAACGGUCGCAAC | 468 | GCCUAUUCCCAAGGCGCGC | 503 | CCUGGGGUCAACCCGGGUA | 538 | GCCAAUGAAGGCCUCGGGU |
| 434 | AUUCGGAACGGUCGCAACC | 469 | CCUAUUCCCAAGGCGCGCC | 504 | CUGGGGUCAACCCGGGUAC | 539 | CCAAUGAAGGCCUCGGGUG |
| 435 | UUCGGAACGGUCGCAACCC | 470 | CUAUUCCCAAGGCGCGCCG | 505 | UGGGGUCAACCCGGGUACC | 540 | CAAUGAAGGCCUCGGGUGG |
| 436 | UCGGAACGGUCGCAACCCC | 471 | UAUUCCCAAGGCGCGCCGA | 506 | GGGGUCAACCCGGGUACCC | 541 | AAUGAAGGCCUCGGGUGGG |
| 437 | CGGAACGGUCGCAACCCCG | 472 | AUUCCCAAGGCGCGCCGAC | 507 | GGGUCAACCCGGGUACCCU | 542 | AUGAAGGCCUCGGGUGGGC |
| 438 | GGAACGGUCGCAACCCCGU | 473 | UUCCCAAGGCGCGCCGACC | 508 | GGUCAACCCGGGUACCCUU | 543 | UGAAGGCCUCGGGUGGGCA |
| 439 | GAACGGUCGCAACCCCGUG | 474 | UCCCAAGGCGCGCCGACCC | 509 | GUCAACCCGGGUACCCUUG | 544 | GAAGGCCUCGGGUGGGCAG |
| 440 | AACGGUCGCAACCCCGUGG | 475 | CCCAAGGCGCGCCGACCCA | 510 | UCAACCCGGGUACCCUUGG | 545 | AAGGCCUCGGGUGGGCAGG |
| 441 | ACGGUCGCAACCCCGUGGA | 476 | CCAAGGCGCGCCGACCCAC | 511 | CAACCCGGGUACCCUUGGC | 546 | AGGCCUCGGGUGGGCAGGG |
| 442 | CGGUCGCAACCCCGUGGAC | 477 | CAAGGCGCGCCGACCCACG | 512 | AACCCGGGUACCCUUGGCC | 547 | GGCCUCGGGUGGGCAGGGU |
| 443 | GGUCGCAACCCCGUGGACG | 478 | AAGGCGCGCCGACCCACGG | 513 | ACCCGGGUACCCUUGGCCC | 548 | GCCUCGGGUGGGCAGGGUG |
| 444 | GUCGCAACCCCGUGGACGG | 479 | AGGCGCGCCGACCCACGGG | 514 | CCCGGGUACCCUUGGCCCC | 549 | CCUCGGGUGGGCAGGGUGG |
| 445 | UCGCAACCCCGUGGACGGC | 480 | GGCGCGCCGACCCACGGGC | 515 | CCGGGUACCCUUGGCCCCU | 550 | CUCGGGUGGGCAGGGUGGU |
| 446 | CGCAACCCCGUGGACGGCG | 481 | GCGCGCCGACCCACGGGCC | 516 | CGGGUACCCUUGGCCCCUU | 551 | UCGGGUGGGCAGGGUGGUU |
| 447 | GCAACCCCGUGGACGGCGC | 482 | CGCGCCGACCCACGGGCCG | 517 | GGGUACCCUUGGCCCCUUU | 552 | CGGGUGGGCAGGGUGGUUG |
| 448 | CAACCCCGUGGACGGCGCC | 483 | GCGCCGACCCACGGGCCGG | 518 | GGUACCCUUGGCCCCUUUA | 553 | GGGUGGGCAGGGUGGUUGC |
| 449 | AACCCCGUGGACGGCGCCA | 484 | CGCCGACCCACGGGCCGGU | 519 | GUACCCUUGGCCCCUUUAC | 554 | GGUGGGCAGGGUGGUUGCU |
| 450 | ACCCCGUGGACGGCGCCAG | 485 | GCCGACCCACGGGCCGGUC | 520 | UACCCUUGGCCCCUUUACG | 555 | GUGGGCAGGGUGGUUGCUC |
| 451 | CCCCGUGGACGGCGCCAGC | 486 | CCGACCCACGGGCCGGUCC | 521 | ACCCUUGGCCCCUUUACGC | 556 | UGGGCAGGGUGGUUGCUCU |
| 452 | CCCGUGGACGGCGCCAGCC | 487 | CGACCCACGGGCCGGUCCU | 522 | CCCUUGGCCCCUUUACGCC | 557 | GGGCAGGGUGGUUGCUCUC |
| 453 | CCGUGGACGGCGCCAGCCU | 488 | GACCCACGGGCCGGUCCUG | 523 | CCUUGGCCCCUUUACGCCA | 558 | GGCAGGGUGGUUGCUCUCC |
| 454 | CGUGGACGGCGCCAGCCUA | 489 | ACCCACGGGCCGGUCCUGG | 524 | CUUGGCCCCUUUACGCCAA | 559 | GCAGGGUGGUUGCUCUCCC |
| 455 | GUGGACGGCGCCAGCCUAU | 490 | CCCACGGGCCGGUCCUGGG | 525 | UUGGCCCCUUUACGCCAAU | 560 | CAGGGUGGUUGCUCUCCCC |



**FIG. 6 (sheet 291 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 561 | AGGGUGGUUGCUCUCCCCC | 596 | AUUGGGGCCCCAAUGACCC | 631 | AAUUUGGGUAGGGUCAUCC | 666 | AUUCCCCCACCUCAUGGGG |
| 562 | GGGUGGUUGCUCUCCCCCC | 597 | UUGGGGCCCCAAUGACCCC | 632 | AUUUGGGUAGGGUCAUCCA | 667 | UUCCCCCACCUCAUGGGGU |
| 563 | GGUGGUUGCUCUCCCCCCG | 598 | UGGGGCCCCAAUGACCCCC | 633 | UUUGGGUAGGGUCAUCCAU | 668 | UCCCCCACCUCAUGGGGUA |
| 564 | GUGGUUGCUCUCCCCCCGA | 599 | GGGGCCCCAAUGACCCCCG | 634 | UUGGGUAGGGUCAUCCAUA | 669 | CCCCCACCUCAUGGGGUAC |
| 565 | UGGUUGCUCUCCCCCCGAA | 600 | GGGCCCCAAUGACCCCCGG | 635 | UGGGUAGGGUCAUCCAUAC | 670 | CCCCACCUCAUGGGGUACA |
| 566 | GGUUGCUCUCCCCCCGAAG | 601 | GGCCCCAAUGACCCCCGGC | 636 | GGGUAGGGUCAUCCAUACC | 671 | CCCACCUCAUGGGGUACAU |
| 567 | GUUGCUCUCCCCCCGAAGC | 602 | GCCCCAAUGACCCCCGGCG | 637 | GGUAGGGUCAUCCAUACCC | 672 | CCACCUCAUGGGGUACAUC |
| 568 | UUGCUCUCCCCCCGAAGCU | 603 | CCCCAAUGACCCCCGGCGG | 638 | GUAGGGUCAUCCAUACCCU | 673 | CACCUCAUGGGGUACAUCC |
| 569 | UGCUCUCCCCCCGAAGCUC | 604 | CCCAAUGACCCCCGGCGGA | 639 | UAGGGUCAUCCAUACCCUA | 674 | ACCUCAUGGGGUACAUCCC |
| 570 | GCUCUCCCCCCGAAGCUCU | 605 | CCAAUGACCCCCGGCGGAA | 640 | AGGGUCAUCCAUACCCUAA | 675 | CCUCAUGGGGUACAUCCCG |
| 571 | CUCUCCCCCCGAAGCUCUC | 606 | CAAUGACCCCCGGCGGAAA | 641 | GGGUCAUCCAUACCCUAAC | 676 | CUCAUGGGGUACAUCCCGC |
| 572 | UCUCCCCCCGAAGCUCUCG | 607 | AAUGACCCCCGGCGGAAAU | 642 | GGUCAUCCAUACCCUAACG | 677 | UCAUGGGGUACAUCCCGCU |
| 573 | CUCCCCCCGAAGCUCUCGG | 608 | AUGACCCCCGGCGGAAAUC | 643 | GUCAUCCAUACCCUAACGU | 678 | CAUGGGGUACAUCCCGCUC |
| 574 | UCCCCCCGAAGCUCUCGGC | 609 | UGACCCCCGGCGGAAAUCC | 644 | UCAUCCAUACCCUAACGUG | 679 | AUGGGGUACAUCCCGCUCG |
| 575 | CCCCCCGAAGCUCUCGGCC | 610 | GACCCCCGGCGGAAAUCCC | 645 | CAUCCAUACCCUAACGUGC | 680 | UGGGGUACAUCCCGCUCGU |
| 576 | CCCCCGAAGCUCUCGGCCU | 611 | ACCCCCGGCGGAAAUCCCC | 646 | AUCCAUACCCUAACGUGCG | 681 | GGGGUACAUCCCGCUCGUA |
| 577 | CCCCGAAGCUCUCGGCCUA | 612 | CCCCCGGCGGAAAUCCCCC | 647 | UCCAUACCCUAACGUGCGG | 682 | GGGUACAUCCCGCUCGUAG |
| 578 | CCCGAAGCUCUCGGCCUAA | 613 | CCCCGGCGGAAAUCCCCCA | 648 | CCAUACCCUAACGUGCGGA | 683 | GGUACAUCCCGCUCGUAGG |
| 579 | CCGAAGCUCUCGGCCUAAU | 614 | CCCGGCGGAAAUCCCCCAA | 649 | CAUACCCUAACGUGCGGAU | 684 | GUACAUCCCGCUCGUAGGC |
| 580 | CGAAGCUCUCGGCCUAAUU | 615 | CCGGCGGAAAUCCCCCAAU | 650 | AUACCCUAACGUGCGGAUU | 685 | UACAUCCCGCUCGUAGGCG |
| 581 | GAAGCUCUCGGCCUAAUUG | 616 | CGGCGGAAAUCCCCCAAUU | 651 | UACCCUAACGUGCGGAUUC | 686 | ACAUCCCGCUCGUAGGCGG |
| 582 | AAGCUCUCGGCCUAAUUGG | 617 | GGCGGAAAUCCCCCAAUUU | 652 | ACCCUAACGUGCGGAUUCC | 687 | CAUCCCGCUCGUAGGCGGC |
| 583 | AGCUCUCGGCCUAAUUGGG | 618 | GCGGAAAUCCCCCAAUUUG | 653 | CCCUAACGUGCGGAUUCCC | 688 | AUCCCGCUCGUAGGCGGCC |
| 584 | GCUCUCGGCCUAAUUGGGG | 619 | CGGAAAUCCCCCAAUUUGG | 654 | CCUAACGUGCGGAUUCCCC | 689 | UCCCGCUCGUAGGCGGCCC |
| 585 | CUCUCGGCCUAAUUGGGGC | 620 | GGAAAUCCCCCAAUUUGGG | 655 | CUAACGUGCGGAUUCCCCC | 690 | CCCGCUCGUAGGCGGCCCC |
| 586 | UCUCGGCCUAAUUGGGGCC | 621 | GAAAUCCCCCAAUUUGGGU | 656 | UAACGUGCGGAUUCCCCCA | 691 | CCGCUCGUAGGCGGCCCCG |
| 587 | CUCGGCCUAAUUGGGGCCC | 622 | AAAUCCCCCAAUUUGGGUA | 657 | AACGUGCGGAUUCCCCCAC | 692 | CGCUCGUAGGCGGCCCCGU |
| 588 | UCGGCCUAAUUGGGGCCCC | 623 | AAUCCCCCAAUUUGGGUAG | 658 | ACGUGCGGAUUCCCCCACC | 693 | GCUCGUAGGCGGCCCCGUU |
| 589 | CGGCCUAAUUGGGGCCCCA | 624 | AUCCCCCAAUUUGGGUAGG | 659 | CGUGCGGAUUCCCCCACCU | 694 | CUCGUAGGCGGCCCCGUUG |
| 590 | GGCCUAAUUGGGGCCCCAA | 625 | UCCCCCAAUUUGGGUAGGG | 660 | GUGCGGAUUCCCCCACCUC | 695 | UCGUAGGCGGCCCCGUUGG |
| 591 | GCCUAAUUGGGGCCCCAAU | 626 | CCCCCAAUUUGGGUAGGGU | 661 | UGCGGAUUCCCCCACCUCA | 696 | CGUAGGCGGCCCCGUUGGG |
| 592 | CCUAAUUGGGGCCCCAAUG | 627 | CCCCAAUUUGGGUAGGGUC | 662 | GCGGAUUCCCCCACCUCAU | 697 | GUAGGCGGCCCCGUUGGGG |
| 593 | CUAAUUGGGGCCCCAAUGA | 628 | CCCAAUUUGGGUAGGGUCA | 663 | CGGAUUCCCCCACCUCAUG | 698 | UAGGCGGCCCCGUUGGGGG |
| 594 | UAAUUGGGGCCCCAAUGAC | 629 | CCAAUUUGGGUAGGGUCAU | 664 | GGAUUCCCCCACCUCAUGG | 699 | AGGCGGCCCCGUUGGGGGC |
| 595 | AAUUGGGGCCCCAAUGACC | 630 | CAAUUUGGGUAGGGUCAUC | 665 | GAUUCCCCCACCUCAUGGG | 700 | GGCGGCCCCGUUGGGGGCG |



FIG. 6 (sheet 292 of 479)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 701 | GCGGCCCCGUUGGGGGCGU | 736 | CACGGUGUGAAGGUUCUUG | 771 | UGCAACAGGGAAUCUACCC | 806 | UCUUUGUCCUUGCACUUCU |
| 702 | CGGCCCCGUUGGGGGCGUC | 737 | ACGGUGUGAAGGUUCUUGA | 772 | GCAACAGGGAAUCUACCCG | 807 | CUUUGUCCUUGCACUUCUU |
| 703 | GGCCCCGUUGGGGGCGUCU | 738 | CGGUGUGAAGGUUCUUGAA | 773 | CAACAGGGAAUCUACCCGG | 808 | UUUGUCCUUGCACUUCUUU |
| 704 | GCCCCGUUGGGGGCGUCUC | 739 | GGUGUGAAGGUUCUUGAAG | 774 | AACAGGGAAUCUACCCGGU | 809 | UUGUCCUUGCACUUCUUUG |
| 705 | CCCCGUUGGGGGCGUCUCA | 740 | GUGUGAAGGUUCUUGAAGA | 775 | ACAGGGAAUCUACCCGGUU | 810 | UGUCCUUGCACUUCUUUGG |
| 706 | CCCGUUGGGGGCGUCUCAA | 741 | UGUGAAGGUUCUUGAAGAC | 776 | CAGGGAAUCUACCCGGUUG | 811 | GUCCUUGCACUUCUUUGGU |
| 707 | CCGUUGGGGGCGUCUCAAG | 742 | GUGAAGGUUCUUGAAGACG | 777 | AGGGAAUCUACCCGGUUGC | 812 | UCCUUGCACUUCUUUGGUG |
| 708 | CGUUGGGGGCGUCUCAAGG | 743 | UGAAGGUUCUUGAAGACGG | 778 | GGGAAUCUACCCGGUUGCC | 813 | CCUUGCACUUCUUUGGUGC |
| 709 | GUUGGGGGCGUCUCAAGGG | 744 | GAAGGUUCUUGAAGACGGG | 779 | GGAAUCUACCCGGUUGCCC | 814 | CUUGCACUUCUUUGGUGCC |
| 710 | UUGGGGGCGUCUCAAGGGC | 745 | AAGGUUCUUGAAGACGGGA | 780 | GAAUCUACCCGGUUGCCCU | 815 | UUGCACUUCUUUGGUGCCU |
| 711 | UGGGGGCGUCUCAAGGGCU | 746 | AGGUUCUUGAAGACGGGAU | 781 | AAUCUACCCGGUUGCCCUU | 816 | UGCACUUCUUUGGUGCCUG |
| 712 | GGGGGCGUCUCAAGGGCUC | 747 | GGUUCUUGAAGACGGGAUA | 782 | AUCUACCCGGUUGCCCUUU | 817 | GCACUUCUUUGGUGCCUGA |
| 713 | GGGGCGUCUCAAGGGCUCU | 748 | GUUCUUGAAGACGGGAUAA | 783 | UCUACCCGGUUGCCCUUUC | 818 | CACUUCUUUGGUGCCUGAC |
| 714 | GGGCGUCUCAAGGGCUCUC | 749 | UUCUUGAAGACGGGAUAAA | 784 | CUACCCGGUUGCCCUUUCU | 819 | ACUUCUUUGGUGCCUGACC |
| 715 | GGCGUCUCAAGGGCUCUCG | 750 | UCUUGAAGACGGGAUAAAC | 785 | UACCCGGUUGCCCUUUCUC | 820 | CUUCUUUGGUGCCUGACCG |
| 716 | GCGUCUCAAGGGCUCUCGC | 751 | CUUGAAGACGGGAUAAACU | 786 | ACCCGGUUGCCCUUUCUCU | 821 | UUCUUUGGUGCCUGACCGU |
| 717 | CGUCUCAAGGGCUCUCGCA | 752 | UUGAAGACGGGAUAAACUA | 787 | CCCGGUUGCCCUUUCUCUA | 822 | UCUUUGGUGCCUGACCGUC |
| 718 | GUCUCAAGGGCUCUCGCAC | 753 | UGAAGACGGGAUAAACUAU | 788 | CCGGUUGCCCUUUCUCUAU | 823 | CUUUGGUGCCUGACCGUCC |
| 719 | UCUCAAGGGCUCUCGCACA | 754 | GAAGACGGGAUAAACUAUG | 789 | CGGUUGCCCUUUCUCUAUC | 824 | UUUGGUGCCUGACCGUCCC |
| 720 | CUCAAGGGCUCUCGCACAC | 755 | AAGACGGGAUAAACUAUGC | 790 | GGUUGCCCUUUCUCUAUCU | 825 | UUGGUGCCUGACCGUCCCC |
| 721 | UCAAGGGCUCUCGCACACG | 756 | AGACGGGAUAAACUAUGCA | 791 | GUUGCCCUUUCUCUAUCUU | 826 | UGGUGCCUGACCGUCCCCG |
| 722 | CAAGGGCUCUCGCACACGG | 757 | GACGGGAUAAACUAUGCAA | 792 | UUGCCCUUUCUCUAUCUUU | 827 | GGUGCCUGACCGUCCCCGC |
| 723 | AAGGGCUCUCGCACACGGU | 758 | ACGGGAUAAACUAUGCAAC | 793 | UGCCCUUUCUCUAUCUUUG | 828 | GUGCCUGACCGUCCCCGCU |
| 724 | AGGGCUCUCGCACACGGUG | 759 | CGGGAUAAACUAUGCAACA | 794 | GCCCUUUCUCUAUCUUUGU | 829 | UGCCUGACCGUCCCCGCUU |
| 725 | GGGCUCUCGCACACGGUGU | 760 | GGGAUAAACUAUGCAACAG | 795 | CCCUUUCUCUAUCUUUGUC | 830 | GCCUGACCGUCCCCGCUUC |
| 726 | GGCUCUCGCACACGGUGUG | 761 | GGAUAAACUAUGCAACAGG | 796 | CCUUUCUCUAUCUUUGUCC | 831 | CCUGACCGUCCCCGCUUCC |
| 727 | GCUCUCGCACACGGUGUGA | 762 | GAUAAACUAUGCAACAGGG | 797 | CUUUCUCUAUCUUUGUCCU | 832 | CUGACCGUCCCCGCUUCCG |
| 728 | CUCUCGCACACGGUGUGAA | 763 | AUAAACUAUGCAACAGGGA | 798 | UUUCUCUAUCUUUGUCCUU | 833 | UGACCGUCCCCGCUUCCGC |
| 729 | UCUCGCACACGGUGUGAAG | 764 | UAAACUAUGCAACAGGGAA | 799 | UUCUCUAUCUUUGUCCUUG | 834 | GACCGUCCCCGCUUCCGCA |
| 730 | CUCGCACACGGUGUGAAGG | 765 | AAACUAUGCAACAGGGAAU | 800 | UCUCUAUCUUUGUCCUUGC | 835 | ACCGUCCCCGCUUCCGCAG |
| 731 | UCGCACACGGUGUGAAGGU | 766 | AACUAUGCAACAGGGAAUC | 801 | CUCUAUCUUUGUCCUUGCA | 836 | CCGUCCCCGCUUCCGCAGU |
| 732 | CGCACACGGUGUGAAGGUU | 767 | ACUAUGCAACAGGGAAUCU | 802 | UCUAUCUUUGUCCUUGCAC | 837 | CGUCCCCGCUUCCGCAGUU |
| 733 | GCACACGGUGUGAAGGUUC | 768 | CUAUGCAACAGGGAAUCUA | 803 | CUAUCUUUGUCCUUGCACU | 838 | GUCCCCGCUUCCGCAGUUC |
| 734 | CACACGGUGUGAAGGUUCU | 769 | UAUGCAACAGGGAAUCUAC | 804 | UAUCUUUGUCCUUGCACUU | 839 | UCCCCGCUUCCGCAGUUCC |
| 735 | ACACGGUGUGAAGGUUCUU | 770 | AUGCAACAGGGAAUCUACC | 805 | AUCUUUGUCCUUGCACUUC | 840 | CCCCGCUUCCGCAGUUCCU |

FIG. 6 (sheet 293 of 479)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 841 | CCCGCUUCCGCAGUUCCUU | 876 | GGUUUAUCAUGUCACUAAU | 911 | CCAUAGUCUACGAGGCCGA | 946 | GCACCUGGUUGUGUGCCCU |
| 842 | CCGCUUCCGCAGUUCCUUA | 877 | GUUUAUCAUGUCACUAAUG | 912 | CAUAGUCUACGAGGCCGAC | 947 | CACCUGGUUGUGUGCCCUG |
| 843 | CGCUUCCGCAGUUCCUUAC | 878 | UUUAUCAUGUCACUAAUGA | 913 | AUAGUCUACGAGGCCGACA | 948 | ACCUGGUUGUGUGCCCUGU |
| 844 | GCUUCCGCAGUUCCUUACC | 879 | UUAUCAUGUCACUAAUGAU | 914 | UAGUCUACGAGGCCGACAA | 949 | CCUGGUUGUGUGCCCUGUG |
| 845 | CUUCCGCAGUUCCUUACCG | 880 | UAUCAUGUCACUAAUGAUU | 915 | AGUCUACGAGGCCGACAAC | 950 | CUGGUUGUGUGCCCUGUGU |
| 846 | UUCCGCAGUUCCUUACCGU | 881 | AUCAUGUCACUAAUGAUUG | 916 | GUCUACGAGGCCGACAACC | 951 | UGGUUGUGUGCCCUGUGUC |
| 847 | UCCGCAGUUCCUUACCGUA | 882 | UCAUGUCACUAAUGAUUGC | 917 | UCUACGAGGCCGACAACCU | 952 | GGUUGUGUGCCCUGUGUCC |
| 848 | CCGCAGUUCCUUACCGUAA | 883 | CAUGUCACUAAUGAUUGCC | 918 | CUACGAGGCCGACAACCUG | 953 | GUUGUGUGCCCUGUGUCCU |
| 849 | CGCAGUUCCUUACCGUAAU | 884 | AUGUCACUAAUGAUUGCCC | 919 | UACGAGGCCGACAACCUGA | 954 | UUGUGUGCCCUGUGUCCUG |
| 850 | GCAGUUCCUUACCGUAAUG | 885 | UGUCACUAAUGAUUGCCCC | 920 | ACGAGGCCGACAACCUGAU | 955 | UGUGUGCCCUGUGUCCUGG |
| 851 | CAGUUCCUUACCGUAAUGC | 886 | GUCACUAAUGAUUGCCCCA | 921 | CGAGGCCGACAACCUGAUC | 956 | GUGUGCCCUGUGUCCUGGA |
| 852 | AGUUCCUUACCGUAAUGCU | 887 | UCACUAAUGAUUGCCCCAA | 922 | GAGGCCGACAACCUGAUCU | 957 | UGUGCCCUGUGUCCUGGAA |
| 853 | GUUCCUUACCGUAAUGCUU | 888 | CACUAAUGAUUGCCCCAAC | 923 | AGGCCGACAACCUGAUCUU | 958 | GUGCCCUGUGUCCUGGAAG |
| 854 | UUCCUUACCGUAAUGCUUC | 889 | ACUAAUGAUUGCCCCAACU | 924 | GGCCGACAACCUGAUCUUA | 959 | UGCCCUGUGUCCUGGAAGA |
| 855 | UCCUUACCGUAAUGCUUCU | 890 | CUAAUGAUUGCCCCAACUC | 925 | GCCGACAACCUGAUCUUAC | 960 | GCCCUGUGUCCUGGAAGAU |
| 856 | CCUUACCGUAAUGCUUCUG | 891 | UAAUGAUUGCCCCAACUCU | 926 | CCGACAACCUGAUCUUACA | 961 | CCCUGUGUCCUGGAAGAUA |
| 857 | CUUACCGUAAUGCUUCUGG | 892 | AAUGAUUGCCCCAACUCUU | 927 | CGACAACCUGAUCUUACAC | 962 | CCUGUGUCCUGGAAGAUAA |
| 858 | UUACCGUAAUGCUUCUGGG | 893 | AUGAUUGCCCCAACUCUUC | 928 | GACAACCUGAUCUUACACG | 963 | CUGUGUCCUGGAAGAUAAU |
| 859 | UACCGUAAUGCUUCUGGGG | 894 | UGAUUGCCCCAACUCUUCC | 929 | ACAACCUGAUCUUACACGC | 964 | UGUGUCCUGGAAGAUAAUG |
| 860 | ACCGUAAUGCUUCUGGGGU | 895 | GAUUGCCCCAACUCUUCCA | 930 | CAACCUGAUCUUACACGCA | 965 | GUGUCCUGGAAGAUAAUGU |
| 861 | CCGUAAUGCUUCUGGGGUU | 896 | AUUGCCCCAACUCUUCCAU | 931 | AACCUGAUCUUACACGCAC | 966 | UGUCCUGGAAGAUAAUGUC |
| 862 | CGUAAUGCUUCUGGGGUUU | 897 | UUGCCCCAACUCUUCCAUA | 932 | ACCUGAUCUUACACGCACC | 967 | GUCCUGGAAGAUAAUGUCA |
| 863 | GUAAUGCUUCUGGGGUUUA | 898 | UGCCCCAACUCUUCCAUAG | 933 | CCUGAUCUUACACGCACCU | 968 | UCCUGGAAGAUAAUGUCAG |
| 864 | UAAUGCUUCUGGGGUUUAU | 899 | GCCCCAACUCUUCCAUAGU | 934 | CUGAUCUUACACGCACCUG | 969 | CCUGGAAGAUAAUGUCAGU |
| 865 | AAUGCUUCUGGGGUUUAUC | 900 | CCCCAACUCUUCCAUAGUC | 935 | UGAUCUUACACGCACCUGG | 970 | CUGGAAGAUAAUGUCAGUA |
| 866 | AUGCUUCUGGGGUUUAUCA | 901 | CCCAACUCUUCCAUAGUCU | 936 | GAUCUUACACGCACCUGGU | 971 | UGGAAGAUAAUGUCAGUAG |
| 867 | UGCUUCUGGGGUUUAUCAU | 902 | CCAACUCUUCCAUAGUCUA | 937 | AUCUUACACGCACCUGGUU | 972 | GGAAGAUAAUGUCAGUAGG |
| 868 | GCUUCUGGGGUUUAUCAUG | 903 | CAACUCUUCCAUAGUCUAC | 938 | UCUUACACGCACCUGGUUG | 973 | GAAGAUAAUGUCAGUAGGU |
| 869 | CUUCUGGGGUUUAUCAUGU | 904 | AACUCUUCCAUAGUCUACG | 939 | CUUACACGCACCUGGUUGU | 974 | AAGAUAAUGUCAGUAGGUG |
| 870 | UUCUGGGGUUUAUCAUGUC | 905 | ACUCUUCCAUAGUCUACGA | 940 | UUACACGCACCUGGUUGUG | 975 | AGAUAAUGUCAGUAGGUGC |
| 871 | UCUGGGGUUUAUCAUGUCA | 906 | CUCUUCCAUAGUCUACGAG | 941 | UACACGCACCUGGUUGUGU | 976 | GAUAAUGUCAGUAGGUGCU |
| 872 | CUGGGGUUUAUCAUGUCAC | 907 | UCUUCCAUAGUCUACGAGG | 942 | ACACGCACCUGGUUGUGUG | 977 | AUAAUGUCAGUAGGUGCUG |
| 873 | UGGGGUUUAUCAUGUCACU | 908 | CUUCCAUAGUCUACGAGGC | 943 | CACGCACCUGGUUGUGUGC | 978 | UAAUGUCAGUAGGUGCUGG |
| 874 | GGGGUUUAUCAUGUCACUA | 909 | UUCCAUAGUCUACGAGGCC | 944 | ACGCACCUGGUUGUGUGCC | 979 | AAUGUCAGUAGGUGCUGGG |
| 875 | GGGUUUAUCAUGUCACUAA | 910 | UCCAUAGUCUACGAGGCCG | 945 | CGCACCUGGUUGUGUGCCC | 980 | AUGUCAGUAGGUGCUGGGU |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 981 | UGUCAGUAGGUGCUGGGUC | 1016 | UGUCAGCCCCGAGCUUCGG | 1051 | CUUCGGAGAGCCGUUGACU | 1086 | UGCCUUCUGCUCCGCGUUA |
| 982 | GUCAGUAGGUGCUGGGUCC | 1017 | GUCAGCCCCGAGCUUCGGA | 1052 | UUCGGAGAGCCGUUGACUA | 1087 | GCCUUCUGCUCCGCGUUAU |
| 983 | UCAGUAGGUGCUGGGUCCA | 1018 | UCAGCCCCGAGCUUCGGAG | 1053 | UCGGAGAGCCGUUGACUAC | 1088 | CCUUCUGCUCCGCGUUAUA |
| 984 | CAGUAGGUGCUGGGUCCAA | 1019 | CAGCCCCGAGCUUCGGAGC | 1054 | CGGAGAGCCGUUGACUACU | 1089 | CUUCUGCUCCGCGUUAUAC |
| 985 | AGUAGGUGCUGGGUCCAAA | 1020 | AGCCCCGAGCUUCGGAGCA | 1055 | GGAGAGCCGUUGACUACUU | 1090 | UUCUGCUCCGCGUUAUACG |
| 986 | GUAGGUGCUGGGUCCAAAU | 1021 | GCCCCGAGCUUCGGAGCAG | 1056 | GAGAGCCGUUGACUACUUA | 1091 | UCUGCUCCGCGUUAUACGU |
| 987 | UAGGUGCUGGGUCCAAAUC | 1022 | CCCCGAGCUUCGGAGCAGU | 1057 | AGAGCCGUUGACUACUUAG | 1092 | CUGCUCCGCGUUAUACGUC |
| 988 | AGGUGCUGGGUCCAAAUCA | 1023 | CCCGAGCUUCGGAGCAGUC | 1058 | GAGCCGUUGACUACUUAGC | 1093 | UGCUCCGCGUUAUACGUCG |
| 989 | GGUGCUGGGUCCAAAUCAC | 1024 | CCGAGCUUCGGAGCAGUCA | 1059 | AGCCGUUGACUACUUAGCA | 1094 | GCUCCGCGUUAUACGUCGG |
| 990 | GUGCUGGGUCCAAAUCACC | 1025 | CGAGCUUCGGAGCAGUCAC | 1060 | GCCGUUGACUACUUAGCAG | 1095 | CUCCGCGUUAUACGUCGGA |
| 991 | UGCUGGGUCCAAAUCACCC | 1026 | GAGCUUCGGAGCAGUCACG | 1061 | CCGUUGACUACUUAGCAGG | 1096 | UCCGCGUUAUACGUCGGAG |
| 992 | GCUGGGUCCAAAUCACCCC | 1027 | AGCUUCGGAGCAGUCACGG | 1062 | CGUUGACUACUUAGCAGGA | 1097 | CCGCGUUAUACGUCGGAGA |
| 993 | CUGGGUCCAAAUCACCCCC | 1028 | GCUUCGGAGCAGUCACGGC | 1063 | GUUGACUACUUAGCAGGAG | 1098 | CGCGUUAUACGUCGGAGAC |
| 994 | UGGGUCCAAAUCACCCCCA | 1029 | CUUCGGAGCAGUCACGGCC | 1064 | UUGACUACUUAGCAGGAGG | 1099 | GCGUUAUACGUCGGAGACG |
| 995 | GGGUCCAAAUCACCCCCAC | 1030 | UUCGGAGCAGUCACGGCCC | 1065 | UGACUACUUAGCAGGAGGG | 1100 | CGUUAUACGUCGGAGACGC |
| 996 | GGUCCAAAUCACCCCCACG | 1031 | UCGGAGCAGUCACGGCCCU | 1066 | GACUACUUAGCAGGAGGGG | 1101 | GUUAUACGUCGGAGACGCG |
| 997 | GUCCAAAUCACCCCCACGC | 1032 | CGGAGCAGUCACGGCCCUU | 1067 | ACUACUUAGCAGGAGGGGC | 1102 | UUAUACGUCGGAGACGCGU |
| 998 | UCCAAAUCACCCCCACGCU | 1033 | GGAGCAGUCACGGCCCUUC | 1068 | CUACUUAGCAGGAGGGGCU | 1103 | UAUACGUCGGAGACGCGUG |
| 999 | CCAAAUCACCCCCACGCUG | 1034 | GAGCAGUCACGGCCCUUCU | 1069 | UACUUAGCAGGAGGGGCUG | 1104 | AUACGUCGGAGACGCGUGU |
| 1000 | CAAAUCACCCCCACGCUGU | 1035 | AGCAGUCACGGCCCUUCUU | 1070 | ACUUAGCAGGAGGGGCUGC | 1105 | UACGUCGGAGACGCGUGUG |
| 1001 | AAAUCACCCCCACGCUGUC | 1036 | GCAGUCACGGCCCUUCUUC | 1071 | CUUAGCAGGAGGGGCUGCC | 1106 | ACGUCGGAGACGCGUGUGG |
| 1002 | AAUCACCCCCACGCUGUCA | 1037 | CAGUCACGGCCCUUCUUCG | 1072 | UUAGCAGGAGGGGCUGCCU | 1107 | CGUCGGAGACGCGUGUGGG |
| 1003 | AUCACCCCCACGCUGUCAG | 1038 | AGUCACGGCCCUUCUUCGG | 1073 | UAGCAGGAGGGGCUGCCUU | 1108 | GUCGGAGACGCGUGUGGGG |
| 1004 | UCACCCCCACGCUGUCAGC | 1039 | GUCACGGCCCUUCUUCGGA | 1074 | AGCAGGAGGGGCUGCCUUC | 1109 | UCGGAGACGCGUGUGGGGC |
| 1005 | CACCCCCACGCUGUCAGCC | 1040 | UCACGGCCCUUCUUCGGAG | 1075 | GCAGGAGGGGCUGCCUUCU | 1110 | CGGAGACGCGUGUGGGGCA |
| 1006 | ACCCCCACGCUGUCAGCCC | 1041 | CACGGCCCUUCUUCGGAGA | 1076 | CAGGAGGGGCUGCCUUCUG | 1111 | GGAGACGCGUGUGGGGCAU |
| 1007 | CCCCCACGCUGUCAGCCCC | 1042 | ACGGCCCUUCUUCGGAGAG | 1077 | AGGAGGGGCUGCCUUCUGC | 1112 | GAGACGCGUGUGGGGCAUU |
| 1008 | CCCCACGCUGUCAGCCCCG | 1043 | CGGCCCUUCUUCGGAGAGC | 1078 | GGAGGGGCUGCCUUCUGCU | 1113 | AGACGCGUGUGGGGCAUUA |
| 1009 | CCCACGCUGUCAGCCCCGA | 1044 | GGCCCUUCUUCGGAGAGCC | 1079 | GAGGGGCUGCCUUCUGCUC | 1114 | GACGCGUGUGGGGCAUUAU |
| 1010 | CCACGCUGUCAGCCCCGAG | 1045 | GCCCUUCUUCGGAGAGCCG | 1080 | AGGGGCUGCCUUCUGCUCC | 1115 | ACGCGUGUGGGGCAUUAUC |
| 1011 | CACGCUGUCAGCCCCGAGC | 1046 | CCCUUCUUCGGAGAGCCGU | 1081 | GGGGCUGCCUUCUGCUCCG | 1116 | CGCGUGUGGGGCAUUAUCC |
| 1012 | ACGCUGUCAGCCCCGAGCU | 1047 | CCUUCUUCGGAGAGCCGUU | 1082 | GGGCUGCCUUCUGCUCCGC | 1117 | GCGUGUGGGGCAUUAUCCU |
| 1013 | CGCUGUCAGCCCCGAGCUU | 1048 | CUUCUUCGGAGAGCCGUUG | 1083 | GGCUGCCUUCUGCUCCGCG | 1118 | CGUGUGGGGCAUUAUCCUU |
| 1014 | GCUGUCAGCCCCGAGCUUC | 1049 | UUCUUCGGAGAGCCGUUGA | 1084 | GCUGCCUUCUGCUCCGCGU | 1119 | GUGUGGGGCAUUAUCCUUG |
| 1015 | CUGUCAGCCCCGAGCUUCG | 1050 | UCUUCGGAGAGCCGUUGAC | 1085 | CUGCCUUCUGCUCCGCGUU | 1120 | UGUGGGGCAUUAUCCUUGG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1121 | GUGGGGCAUUAUCCUUGGU | 1156 | UAUAAGCCUCGCCAGCAUA | 1191 | CAACUGUUCCAUUUACAGU | 1226 | ACCGGAUGGCAUGGGACAU |
| 1122 | UGGGGCAUUAUCCUUGGUA | 1157 | AUAAGCCUCGCCAGCAUAC | 1192 | AACUGUUCCAUUUACAGUG | 1227 | CCGGAUGGCAUGGGACAUG |
| 1123 | GGGGCAUUAUCCUUGGUAG | 1158 | UAAGCCUCGCCAGCAUACU | 1193 | ACUGUUCCAUUUACAGUGG | 1228 | CGGAUGGCAUGGGACAUGA |
| 1124 | GGGCAUUAUCCUUGGUAGG | 1159 | AAGCCUCGCCAGCAUACUA | 1194 | CUGUUCCAUUUACAGUGGC | 1229 | GGAUGGCAUGGGACAUGAU |
| 1125 | GGCAUUAUCCUUGGUAGGC | 1160 | AGCCUCGCCAGCAUACUAC | 1195 | UGUUCCAUUUACAGUGGCC | 1230 | GAUGGCAUGGGACAUGAUG |
| 1126 | GCAUUAUCCUUGGUAGGCC | 1161 | GCCUCGCCAGCAUACUACG | 1196 | GUUCCAUUUACAGUGGCCA | 1231 | AUGGCAUGGGACAUGAUGA |
| 1127 | CAUUAUCCUUGGUAGGCCA | 1162 | CCUCGCCAGCAUACUACGG | 1197 | UUCCAUUUACAGUGGCCAU | 1232 | UGGCAUGGGACAUGAUGAU |
| 1128 | AUUAUCCUUGGUAGGCCAA | 1163 | CUCGCCAGCAUACUACGGU | 1198 | UCCAUUUACAGUGGCCAUA | 1233 | GGCAUGGGACAUGAUGAUG |
| 1129 | UUAUCCUUGGUAGGCCAAA | 1164 | UCGCCAGCAUACUACGGUG | 1199 | CCAUUUACAGUGGCCAUAU | 1234 | GCAUGGGACAUGAUGAUGA |
| 1130 | UAUCCUUGGUAGGCCAAAU | 1165 | CGCCAGCAUACUACGGUGC | 1200 | CAUUUACAGUGGCCAUAUU | 1235 | CAUGGGACAUGAUGAUGAA |
| 1131 | AUCCUUGGUAGGCCAAAUG | 1166 | GCCAGCAUACUACGGUGCA | 1201 | AUUUACAGUGGCCAUAUUA | 1236 | AUGGGACAUGAUGAUGAAA |
| 1132 | UCCUUGGUAGGCCAAAUGU | 1167 | CCAGCAUACUACGGUGCAG | 1202 | UUUACAGUGGCCAUAUUAC | 1237 | UGGGACAUGAUGAUGAAAU |
| 1133 | CCUUGGUAGGCCAAAUGUU | 1168 | CAGCAUACUACGGUGCAGG | 1203 | UUACAGUGGCCAUAUUACC | 1238 | GGGACAUGAUGAUGAAAUG |
| 1134 | CUUGGUAGGCCAAAUGUUC | 1169 | AGCAUACUACGGUGCAGGA | 1204 | UACAGUGGCCAUAUUACCG | 1239 | GGACAUGAUGAUGAAAUGG |
| 1135 | UUGGUAGGCCAAAUGUUCA | 1170 | GCAUACUACGGUGCAGGAC | 1205 | ACAGUGGCCAUAUUACCGG | 1240 | GACAUGAUGAUGAAAUGGU |
| 1136 | UGGUAGGCCAAAUGUUCAC | 1171 | CAUACUACGGUGCAGGACU | 1206 | CAGUGGCCAUAUUACCGGC | 1241 | ACAUGAUGAUGAAAUGGUC |
| 1137 | GGUAGGCCAAAUGUUCACC | 1172 | AUACUACGGUGCAGGACUG | 1207 | AGUGGCCAUAUUACCGGCC | 1242 | CAUGAUGAUGAAAUGGUCC |
| 1138 | GUAGGCCAAAUGUUCACCU | 1173 | UACUACGGUGCAGGACUGC | 1208 | GUGGCCAUAUUACCGGCCA | 1243 | AUGAUGAUGAAAUGGUCCC |
| 1139 | UAGGCCAAAUGUUCACCUA | 1174 | ACUACGGUGCAGGACUGCA | 1209 | UGGCCAUAUUACCGGCCAC | 1244 | UGAUGAUGAAAUGGUCCCC |
| 1140 | AGGCCAAAUGUUCACCUAU | 1175 | CUACGGUGCAGGACUGCAA | 1210 | GGCCAUAUUACCGGCCACC | 1245 | GAUGAUGAAAUGGUCCCCU |
| 1141 | GGCCAAAUGUUCACCUAUA | 1176 | UACGGUGCAGGACUGCAAC | 1211 | GCCAUAUUACCGGCCACCG | 1246 | AUGAUGAAAUGGUCCCCUA |
| 1142 | GCCAAAUGUUCACCUAUAA | 1177 | ACGGUGCAGGACUGCAACU | 1212 | CCAUAUUACCGGCCACCGG | 1247 | UGAUGAAAUGGUCCCCUAC |
| 1143 | CCAAAUGUUCACCUAUAAG | 1178 | CGGUGCAGGACUGCAACUG | 1213 | CAUAUUACCGGCCACCGGA | 1248 | GAUGAAAUGGUCCCCUACG |
| 1144 | CAAAUGUUCACCUAUAAGC | 1179 | GGUGCAGGACUGCAACUGU | 1214 | AUAUUACCGGCCACCGGAU | 1249 | AUGAAAUGGUCCCCUACGA |
| 1145 | AAAUGUUCACCUAUAAGCC | 1180 | GUGCAGGACUGCAACUGUU | 1215 | UAUUACCGGCCACCGGAUG | 1250 | UGAAAUGGUCCCCUACGAC |
| 1146 | AAUGUUCACCUAUAAGCCU | 1181 | UGCAGGACUGCAACUGUUC | 1216 | AUUACCGGCCACCGGAUGG | 1251 | GAAAUGGUCCCCUACGACG |
| 1147 | AUGUUCACCUAUAAGCCUC | 1182 | GCAGGACUGCAACUGUUCC | 1217 | UUACCGGCCACCGGAUGGC | 1252 | AAAUGGUCCCCUACGACGG |
| 1148 | UGUUCACCUAUAAGCCUCG | 1183 | CAGGACUGCAACUGUUCCA | 1218 | UACCGGCCACCGGAUGGCA | 1253 | AAUGGUCCCCUACGACGGC |
| 1149 | GUUCACCUAUAAGCCUCGC | 1184 | AGGACUGCAACUGUUCCAU | 1219 | ACCGGCCACCGGAUGGCAU | 1254 | AUGGUCCCCUACGACGGCC |
| 1150 | UUCACCUAUAAGCCUCGCC | 1185 | GGACUGCAACUGUUCCAUU | 1220 | CCGGCCACCGGAUGGCAUG | 1255 | UGGUCCCCUACGACGGCCC |
| 1151 | UCACCUAUAAGCCUCGCCA | 1186 | GACUGCAACUGUUCCAUUU | 1221 | CGGCCACCGGAUGGCAUGG | 1256 | GGUCCCCUACGACGGCCCU |
| 1152 | CACCUAUAAGCCUCGCCAG | 1187 | ACUGCAACUGUUCCAUUUA | 1222 | GGCCACCGGAUGGCAUGGG | 1257 | GUCCCCUACGACGGCCCUG |
| 1153 | ACCUAUAAGCCUCGCCAGC | 1188 | CUGCAACUGUUCCAUUUAC | 1223 | GCCACCGGAUGGCAUGGGA | 1258 | UCCCCUACGACGGCCCUGC |
| 1154 | CCUAUAAGCCUCGCCAGCA | 1189 | UGCAACUGUUCCAUUUACA | 1224 | CCACCGGAUGGCAUGGGAC | 1259 | CCCCUACGACGGCCCUGCU |
| 1155 | CUAUAAGCCUCGCCAGCAU | 1190 | GCAACUGUUCCAUUUACAG | 1225 | CACCGGAUGGCAUGGGACA | 1260 | CCCUACGACGGCCCUGCUG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1261 | CCUACGACGGCCCUGCUGA | 1296 | GAUUCCCCAGGUGGUCAUU | 1331 | GCCACUGGGGGGUCCUGCU | 1366 | GCGUCAACGGCUAACUGGG |
| 1262 | CUACGACGGCCCUGCUGAU | 1297 | AUUCCCCAGGUGGUCAUUG | 1332 | CCACUGGGGGGUCCUGCUC | 1367 | CGUCAACGGCUAACUGGGC |
| 1263 | UACGACGGCCCUGCUGAUG | 1298 | UUCCCCAGGUGGUCAUUGA | 1333 | CACUGGGGGGUCCUGCUCG | 1368 | GUCAACGGCUAACUGGGCC |
| 1264 | ACGACGGCCCUGCUGAUGG | 1299 | UCCCCAGGUGGUCAUUGAC | 1334 | ACUGGGGGGUCCUGCUCGC | 1369 | UCAACGGCUAACUGGGCCA |
| 1265 | CGACGGCCCUGCUGAUGGC | 1300 | CCCCAGGUGGUCAUUGACA | 1335 | CUGGGGGGUCCUGCUCGCC | 1370 | CAACGGCUAACUGGGCCAA |
| 1266 | GACGGCCCUGCUGAUGGCC | 1301 | CCCAGGUGGUCAUUGACAU | 1336 | UGGGGGGUCCUGCUCGCCG | 1371 | AACGGCUAACUGGGCCAAG |
| 1267 | ACGGCCCUGCUGAUGGCCC | 1302 | CCAGGUGGUCAUUGACAUC | 1337 | GGGGGGUCCUGCUCGCCGC | 1372 | ACGGCUAACUGGGCCAAGG |
| 1268 | CGGCCCUGCUGAUGGCCCA | 1303 | CAGGUGGUCAUUGACAUCA | 1338 | GGGGGUCCUGCUCGCCGCC | 1373 | CGGCUAACUGGGCCAAGGU |
| 1269 | GGCCCUGCUGAUGGCCCAG | 1304 | AGGUGGUCAUUGACAUCAU | 1339 | GGGGUCCUGCUCGCCGCCG | 1374 | GGCUAACUGGGCCAAGGUU |
| 1270 | GCCCUGCUGAUGGCCCAGU | 1305 | GGUGGUCAUUGACAUCAUU | 1340 | GGGUCCUGCUCGCCGCCGC | 1375 | GCUAACUGGGCCAAGGUUA |
| 1271 | CCCUGCUGAUGGCCCAGUU | 1306 | GUGGUCAUUGACAUCAUUG | 1341 | GGUCCUGCUCGCCGCCGCA | 1376 | CUAACUGGGCCAAGGUUAU |
| 1272 | CCUGCUGAUGGCCCAGUUG | 1307 | UGGUCAUUGACAUCAUUGC | 1342 | GUCCUGCUCGCCGCCGCAU | 1377 | UAACUGGGCCAAGGUUAUA |
| 1273 | CUGCUGAUGGCCCAGUUGU | 1308 | GGUCAUUGACAUCAUUGCC | 1343 | UCCUGCUCGCCGCCGCAUA | 1378 | AACUGGGCCAAGGUUAUAC |
| 1274 | UGCUGAUGGCCCAGUUGUU | 1309 | GUCAUUGACAUCAUUGCCG | 1344 | CCUGCUCGCCGCCGCAUAC | 1379 | ACUGGGCCAAGGUUAUACU |
| 1275 | GCUGAUGGCCCAGUUGUUG | 1310 | UCAUUGACAUCAUUGCCGG | 1345 | CUGCUCGCCGCCGCAUACU | 1380 | CUGGGCCAAGGUUAUACUG |
| 1276 | CUGAUGGCCCAGUUGUUGC | 1311 | CAUUGACAUCAUUGCCGGG | 1346 | UGCUCGCCGCCGCAUACUU | 1381 | UGGGCCAAGGUUAUACUGG |
| 1277 | UGAUGGCCCAGUUGUUGCG | 1312 | AUUGACAUCAUUGCCGGGG | 1347 | GCUCGCCGCCGCAUACUUU | 1382 | GGGCCAAGGUUAUACUGGU |
| 1278 | GAUGGCCCAGUUGUUGCGG | 1313 | UUGACAUCAUUGCCGGGGG | 1348 | CUCGCCGCCGCAUACUUUG | 1383 | GGCCAAGGUUAUACUGGUC |
| 1279 | AUGGCCCAGUUGUUGCGGA | 1314 | UGACAUCAUUGCCGGGGGC | 1349 | UCGCCGCCGCAUACUUUGC | 1384 | GCCAAGGUUAUACUGGUCU |
| 1280 | UGGCCCAGUUGUUGCGGAU | 1315 | GACAUCAUUGCCGGGGGCC | 1350 | CGCCGCCGCAUACUUUGCG | 1385 | CCAAGGUUAUACUGGUCUU |
| 1281 | GGCCCAGUUGUUGCGGAUU | 1316 | ACAUCAUUGCCGGGGGCCA | 1351 | GCCGCCGCAUACUUUGCGU | 1386 | CAAGGUUAUACUGGUCUUG |
| 1282 | GCCCAGUUGUUGCGGAUUC | 1317 | CAUCAUUGCCGGGGGCCAC | 1352 | CCGCCGCAUACUUUGCGUC | 1387 | AAGGUUAUACUGGUCUUGU |
| 1283 | CCCAGUUGUUGCGGAUUCC | 1318 | AUCAUUGCCGGGGGCCACU | 1353 | CGCCGCAUACUUUGCGUCA | 1388 | AGGUUAUACUGGUCUUGUU |
| 1284 | CCAGUUGUUGCGGAUUCCC | 1319 | UCAUUGCCGGGGGCCACUG | 1354 | GCCGCAUACUUUGCGUCAA | 1389 | GGUUAUACUGGUCUUGUUU |
| 1285 | CAGUUGUUGCGGAUUCCCC | 1320 | CAUUGCCGGGGGCCACUGG | 1355 | CCGCAUACUUUGCGUCAAC | 1390 | GUUAUACUGGUCUUGUUUC |
| 1286 | AGUUGUUGCGGAUUCCCCA | 1321 | AUUGCCGGGGGCCACUGGG | 1356 | CGCAUACUUUGCGUCAACG | 1391 | UUAUACUGGUCUUGUUUCU |
| 1287 | GUUGUUGCGGAUUCCCCAG | 1322 | UUGCCGGGGGCCACUGGGG | 1357 | GCAUACUUUGCGUCAACGG | 1392 | UAUACUGGUCUUGUUUCUG |
| 1288 | UUGUUGCGGAUUCCCCAGG | 1323 | UGCCGGGGGCCACUGGGGG | 1358 | CAUACUUUGCGUCAACGGC | 1393 | AUACUGGUCUUGUUUCUGU |
| 1289 | UGUUGCGGAUUCCCCAGGU | 1324 | GCCGGGGGCCACUGGGGGG | 1359 | AUACUUUGCGUCAACGGCU | 1394 | UACUGGUCUUGUUUCUGUU |
| 1290 | GUUGCGGAUUCCCCAGGUG | 1325 | CCGGGGGCCACUGGGGGGU | 1360 | UACUUUGCGUCAACGGCUA | 1395 | ACUGGUCUUGUUUCUGUUU |
| 1291 | UUGCGGAUUCCCCAGGUGG | 1326 | CGGGGGCCACUGGGGGGUC | 1361 | ACUUUGCGUCAACGGCUAA | 1396 | CUGGUCUUGUUUCUGUUUG |
| 1292 | UGCGGAUUCCCCAGGUGGU | 1327 | GGGGGCCACUGGGGGGUCC | 1362 | CUUUGCGUCAACGGCUAAC | 1397 | UGGUCUUGUUUCUGUUUGC |
| 1293 | GCGGAUUCCCCAGGUGGUC | 1328 | GGGGCCACUGGGGGGUCCU | 1363 | UUUGCGUCAACGGCUAACU | 1398 | GGUCUUGUUUCUGUUUGCA |
| 1294 | CGGAUUCCCCAGGUGGUCA | 1329 | GGGCCACUGGGGGGUCCUG | 1364 | UUGCGUCAACGGCUAACUG | 1399 | GUCUUGUUUCUGUUUGCAG |
| 1295 | GGAUUCCCCAGGUGGUCAU | 1330 | GGCCACUGGGGGGUCCUGC | 1365 | UGCGUCAACGGCUAACUGG | 1400 | UCUUGUUUCUGUUUGCAGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1401 | CUUGUUUCUGUUUGCAGGA | 1436 | AUACUGUGGGCGGUACUGU | 1471 | UCCCUUACCAGUUUCUUUA | 1506 | GCAGUUGCAGUUCGUAAAU |
| 1402 | UUGUUUCUGUUUGCAGGAG | 1437 | UACUGUGGGCGGUACUGUU | 1472 | CCCUUACCAGUUUCUUUAA | 1507 | CAGUUGCAGUUCGUAAAUA |
| 1403 | UGUUUCUGUUUGCAGGAGU | 1438 | ACUGUGGGCGGUACUGUUG | 1473 | CCUUACCAGUUUCUUUAAC | 1508 | AGUUGCAGUUCGUAAAUAC |
| 1404 | GUUUCUGUUUGCAGGAGUU | 1439 | CUGUGGGCGGUACUGUUGG | 1474 | CUUACCAGUUUCUUUAACC | 1509 | GUUGCAGUUCGUAAAUACC |
| 1405 | UUUCUGUUUGCAGGAGUUG | 1440 | UGUGGGCGGUACUGUUGGU | 1475 | UUACCAGUUUCUUUAACCC | 1510 | UUGCAGUUCGUAAAUACCA |
| 1406 | UUCUGUUUGCAGGAGUUGA | 1441 | GUGGGCGGUACUGUUGGUC | 1476 | UACCAGUUUCUUUAACCCC | 1511 | UGCAGUUCGUAAAUACCAA |
| 1407 | UCUGUUUGCAGGAGUUGAU | 1442 | UGGGCGGUACUGUUGGUCA | 1477 | ACCAGUUUCUUUAACCCCG | 1512 | GCAGUUCGUAAAUACCAAC |
| 1408 | CUGUUUGCAGGAGUUGAUG | 1443 | GGGCGGUACUGUUGGUCAA | 1478 | CCAGUUUCUUUAACCCCGG | 1513 | CAGUUCGUAAAUACCAACG |
| 1409 | UGUUUGCAGGAGUUGAUGG | 1444 | GGCGGUACUGUUGGUCAAG | 1479 | CAGUUUCUUUAACCCCGGG | 1514 | AGUUCGUAAAUACCAACGG |
| 1410 | GUUUGCAGGAGUUGAUGGC | 1445 | GCGGUACUGUUGGUCAAGG | 1480 | AGUUUCUUUAACCCCGGGC | 1515 | GUUCGUAAAUACCAACGGG |
| 1411 | UUUGCAGGAGUUGAUGGCC | 1446 | CGGUACUGUUGGUCAAGGU | 1481 | GUUUCUUUAACCCCGGGCC | 1516 | UUCGUAAAUACCAACGGGA |
| 1412 | UUGCAGGAGUUGAUGGCCG | 1447 | GGUACUGUUGGUCAAGGUC | 1482 | UUUCUUUAACCCCGGGCCG | 1517 | UCGUAAAUACCAACGGGAG |
| 1413 | UGCAGGAGUUGAUGGCCGC | 1448 | GUACUGUUGGUCAAGGUCU | 1483 | UUCUUUAACCCCGGGCCGC | 1518 | CGUAAAUACCAACGGGAGC |
| 1414 | GCAGGAGUUGAUGGCCGCA | 1449 | UACUGUUGGUCAAGGUCUG | 1484 | UCUUUAACCCCGGGCCGCA | 1519 | GUAAAUACCAACGGGAGCU |
| 1415 | CAGGAGUUGAUGGCCGCAC | 1450 | ACUGUUGGUCAAGGUCUGA | 1485 | CUUUAACCCCGGGCCGCAG | 1520 | UAAAUACCAACGGGAGCUG |
| 1416 | AGGAGUUGAUGGCCGCACC | 1451 | CUGUUGGUCAAGGUCUGAA | 1486 | UUUAACCCCGGGCCGCAGC | 1521 | AAAUACCAACGGGAGCUGG |
| 1417 | GGAGUUGAUGGCCGCACCC | 1452 | UGUUGGUCAAGGUCUGAAG | 1487 | UUAACCCCGGGCCGCAGCG | 1522 | AAUACCAACGGGAGCUGGC |
| 1418 | GAGUUGAUGGCCGCACCCA | 1453 | GUUGGUCAAGGUCUGAAGU | 1488 | UAACCCCGGGCCGCAGCGG | 1523 | AUACCAACGGGAGCUGGCA |
| 1419 | AGUUGAUGGCCGCACCCAU | 1454 | UUGGUCAAGGUCUGAAGUC | 1489 | AACCCCGGGCCGCAGCGGC | 1524 | UACCAACGGGAGCUGGCAU |
| 1420 | GUUGAUGGCCGCACCCAUA | 1455 | UGGUCAAGGUCUGAAGUCC | 1490 | ACCCCGGGCCGCAGCGGCA | 1525 | ACCAACGGGAGCUGGCAUA |
| 1421 | UUGAUGGCCGCACCCAUAC | 1456 | GGUCAAGGUCUGAAGUCCC | 1491 | CCCCGGGCCGCAGCGGCAG | 1526 | CCAACGGGAGCUGGCAUAU |
| 1422 | UGAUGGCCGCACCCAUACU | 1457 | GUCAAGGUCUGAAGUCCCU | 1492 | CCCGGGCCGCAGCGGCAGU | 1527 | CAACGGGAGCUGGCAUAUC |
| 1423 | GAUGGCCGCACCCAUACUG | 1458 | UCAAGGUCUGAAGUCCCUU | 1493 | CCGGGCCGCAGCGGCAGUU | 1528 | AACGGGAGCUGGCAUAUCA |
| 1424 | AUGGCCGCACCCAUACUGU | 1459 | CAAGGUCUGAAGUCCCUUA | 1494 | CGGGCCGCAGCGGCAGUUG | 1529 | ACGGGAGCUGGCAUAUCAA |
| 1425 | UGGCCGCACCCAUACUGUG | 1460 | AAGGUCUGAAGUCCCUUAC | 1495 | GGGCCGCAGCGGCAGUUGC | 1530 | CGGGAGCUGGCAUAUCAAU |
| 1426 | GGCCGCACCCAUACUGUGG | 1461 | AGGUCUGAAGUCCCUUACC | 1496 | GGCCGCAGCGGCAGUUGCA | 1531 | GGGAGCUGGCAUAUCAAUA |
| 1427 | GCCGCACCCAUACUGUGGG | 1462 | GGUCUGAAGUCCCUUACCA | 1497 | GCCGCAGCGGCAGUUGCAG | 1532 | GGAGCUGGCAUAUCAAUAG |
| 1428 | CCGCACCCAUACUGUGGGC | 1463 | GUCUGAAGUCCCUUACCAG | 1498 | CCGCAGCGGCAGUUGCAGU | 1533 | GAGCUGGCAUAUCAAUAGU |
| 1429 | CGCACCCAUACUGUGGGCG | 1464 | UCUGAAGUCCCUUACCAGU | 1499 | CGCAGCGGCAGUUGCAGUU | 1534 | AGCUGGCAUAUCAAUAGUA |
| 1430 | GCACCCAUACUGUGGGCGG | 1465 | CUGAAGUCCCUUACCAGUU | 1500 | GCAGCGGCAGUUGCAGUUC | 1535 | GCUGGCAUAUCAAUAGUAC |
| 1431 | CACCCAUACUGUGGGCGGU | 1466 | UGAAGUCCCUUACCAGUUU | 1501 | CAGCGGCAGUUGCAGUUCG | 1536 | CUGGCAUAUCAAUAGUACU |
| 1432 | ACCCAUACUGUGGGCGGUA | 1467 | GAAGUCCCUUACCAGUUUC | 1502 | AGCGGCAGUUGCAGUUCGU | 1537 | UGGCAUAUCAAUAGUACUG |
| 1433 | CCCAUACUGUGGGCGGUAC | 1468 | AAGUCCCUUACCAGUUUCU | 1503 | GCGGCAGUUGCAGUUCGUA | 1538 | GGCAUAUCAAUAGUACUGC |
| 1434 | CCAUACUGUGGGCGGUACU | 1469 | AGUCCCUUACCAGUUUCUU | 1504 | CGGCAGUUGCAGUUCGUAA | 1539 | GCAUAUCAAUAGUACUGCC |
| 1435 | CAUACUGUGGGCGGUACUG | 1470 | GUCCCUUACCAGUUUCUUU | 1505 | GGCAGUUGCAGUUCGUAAA | 1540 | CAUAUCAAUAGUACUGCCC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1541 | AUAUCAAUAGUACUGCCCU | 1576 | CUCCAGACCGGGUUUAUAG | 1611 | CCAUAAAUUCAACUCUUCU | 1646 | UGUCUAGCUGUAGGCCCCU |
| 1542 | UAUCAAUAGUACUGCCCUU | 1577 | UCCAGACCGGGUUUAUAGC | 1612 | CAUAAAUUCAACUCUUCUG | 1647 | GUCUAGCUGUAGGCCCCUU |
| 1543 | AUCAAUAGUACUGCCCUUA | 1578 | CCAGACCGGGUUUAUAGCC | 1613 | AUAAAUUCAACUCUUCUGG | 1648 | UCUAGCUGUAGGCCCCUUG |
| 1544 | UCAAUAGUACUGCCCUUAA | 1579 | CAGACCGGGUUUAUAGCCG | 1614 | UAAAUUCAACUCUUCUGGG | 1649 | CUAGCUGUAGGCCCCUUGC |
| 1545 | CAAUAGUACUGCCCUUAAC | 1580 | AGACCGGGUUUAUAGCCGG | 1615 | AAAUUCAACUCUUCUGGGU | 1650 | UAGCUGUAGGCCCCUUGCC |
| 1546 | AAUAGUACUGCCCUUAACU | 1581 | GACCGGGUUUAUAGCCGGC | 1616 | AAUUCAACUCUUCUGGGUG | 1651 | AGCUGUAGGCCCCUUGCCG |
| 1547 | AUAGUACUGCCCUUAACUG | 1582 | ACCGGGUUUAUAGCCGGCC | 1617 | AUUCAACUCUUCUGGGUGU | 1652 | GCUGUAGGCCCCUUGCCGC |
| 1548 | UAGUACUGCCCUUAACUGU | 1583 | CCGGGUUUAUAGCCGGCCU | 1618 | UUCAACUCUUCUGGGUGUC | 1653 | CUGUAGGCCCCUUGCCGCA |
| 1549 | AGUACUGCCCUUAACUGUA | 1584 | CGGGUUUAUAGCCGGCCUC | 1619 | UCAACUCUUCUGGGUGUCC | 1654 | UGUAGGCCCCUUGCCGCAU |
| 1550 | GUACUGCCCUUAACUGUAA | 1585 | GGGUUUAUAGCCGGCCUCA | 1620 | CAACUCUUCUGGGUGUCCA | 1655 | GUAGGCCCCUUGCCGCAUU |
| 1551 | UACUGCCCUUAACUGUAAU | 1586 | GGUUUAUAGCCGGCCUCAU | 1621 | AACUCUUCUGGGUGUCCAG | 1656 | UAGGCCCCUUGCCGCAUUC |
| 1552 | ACUGCCCUUAACUGUAAUG | 1587 | GUUUAUAGCCGGCCUCAUG | 1622 | ACUCUUCUGGGUGUCCAGA | 1657 | AGGCCCCUUGCCGCAUUCG |
| 1553 | CUGCCCUUAACUGUAAUGA | 1588 | UUUAUAGCCGGCCUCAUGU | 1623 | CUCUUCUGGGUGUCCAGAA | 1658 | GGCCCCUUGCCGCAUUCGA |
| 1554 | UGCCCUUAACUGUAAUGAC | 1589 | UUAUAGCCGGCCUCAUGUA | 1624 | UCUUCUGGGUGUCCAGAAC | 1659 | GCCCCUUGCCGCAUUCGAC |
| 1555 | GCCCUUAACUGUAAUGACA | 1590 | UAUAGCCGGCCUCAUGUAU | 1625 | CUUCUGGGUGUCCAGAACG | 1660 | CCCCUUGCCGCAUUCGACC |
| 1556 | CCCUUAACUGUAAUGACAG | 1591 | AUAGCCGGCCUCAUGUAUG | 1626 | UUCUGGGUGUCCAGAACGG | 1661 | CCCUUGCCGCAUUCGACCA |
| 1557 | CCUUAACUGUAAUGACAGC | 1592 | UAGCCGGCCUCAUGUAUGC | 1627 | UCUGGGUGUCCAGAACGGA | 1662 | CCUUGCCGCAUUCGACCAA |
| 1558 | CUUAACUGUAAUGACAGCC | 1593 | AGCCGGCCUCAUGUAUGCC | 1628 | CUGGGUGUCCAGAACGGAU | 1663 | CUUGCCGCAUUCGACCAAG |
| 1559 | UUAACUGUAAUGACAGCCU | 1594 | GCCGGCCUCAUGUAUGCCC | 1629 | UGGGUGUCCAGAACGGAUG | 1664 | UUGCCGCAUUCGACCAAGG |
| 1560 | UAACUGUAAUGACAGCCUC | 1595 | CCGGCCUCAUGUAUGCCCA | 1630 | GGGUGUCCAGAACGGAUGU | 1665 | UGCCGCAUUCGACCAAGGC |
| 1561 | AACUGUAAUGACAGCCUCC | 1596 | CGGCCUCAUGUAUGCCCAU | 1631 | GGUGUCCAGAACGGAUGUC | 1666 | GCCGCAUUCGACCAAGGCU |
| 1562 | ACUGUAAUGACAGCCUCCA | 1597 | GGCCUCAUGUAUGCCCAUA | 1632 | GUGUCCAGAACGGAUGUCU | 1667 | CCGCAUUCGACCAAGGCUG |
| 1563 | CUGUAAUGACAGCCUCCAG | 1598 | GCCUCAUGUAUGCCCAUAA | 1633 | UGUCCAGAACGGAUGUCUA | 1668 | CGCAUUCGACCAAGGCUGG |
| 1564 | UGUAAUGACAGCCUCCAGA | 1599 | CCUCAUGUAUGCCCAUAAA | 1634 | GUCCAGAACGGAUGUCUAG | 1669 | GCAUUCGACCAAGGCUGGG |
| 1565 | GUAAUGACAGCCUCCAGAC | 1600 | CUCAUGUAUGCCCAUAAAU | 1635 | UCCAGAACGGAUGUCUAGC | 1670 | CAUUCGACCAAGGCUGGGG |
| 1566 | UAAUGACAGCCUCCAGACC | 1601 | UCAUGUAUGCCCAUAAAUU | 1636 | CCAGAACGGAUGUCUAGCU | 1671 | AUUCGACCAAGGCUGGGGA |
| 1567 | AAUGACAGCCUCCAGACCG | 1602 | CAUGUAUGCCCAUAAAUUC | 1637 | CAGAACGGAUGUCUAGCUG | 1672 | UUCGACCAAGGCUGGGGAA |
| 1568 | AUGACAGCCUCCAGACCGG | 1603 | AUGUAUGCCCAUAAAUUCA | 1638 | AGAACGGAUGUCUAGCUGU | 1673 | UCGACCAAGGCUGGGGAAC |
| 1569 | UGACAGCCUCCAGACCGGG | 1604 | UGUAUGCCCAUAAAUUCAA | 1639 | GAACGGAUGUCUAGCUGUA | 1674 | CGACCAAGGCUGGGGAACU |
| 1570 | GACAGCCUCCAGACCGGGU | 1605 | GUAUGCCCAUAAAUUCAAC | 1640 | AACGGAUGUCUAGCUGUAG | 1675 | GACCAAGGCUGGGGAACUA |
| 1571 | ACAGCCUCCAGACCGGGUU | 1606 | UAUGCCCAUAAAUUCAACU | 1641 | ACGGAUGUCUAGCUGUAGG | 1676 | ACCAAGGCUGGGGAACUAU |
| 1572 | CAGCCUCCAGACCGGGUUU | 1607 | AUGCCCAUAAAUUCAACUC | 1642 | CGGAUGUCUAGCUGUAGGC | 1677 | CCAAGGCUGGGGAACUAUC |
| 1573 | AGCCUCCAGACCGGGUUUA | 1608 | UGCCCAUAAAUUCAACUCU | 1643 | GGAUGUCUAGCUGUAGGCC | 1678 | CAAGGCUGGGGAACUAUCA |
| 1574 | GCCUCCAGACCGGGUUUAU | 1609 | GCCCAUAAAUUCAACUCUU | 1644 | GAUGUCUAGCUGUAGGCCC | 1679 | AAGGCUGGGGAACUAUCAG |
| 1575 | CCUCCAGACCGGGUUUAUA | 1610 | CCCAUAAAUUCAACUCUUC | 1645 | AUGUCUAGCUGUAGGCCCC | 1680 | AGGCUGGGGAACUAUCAGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1681 | GGCUGGGGAACUAUCAGCU | 1716 | CCCCAGUGAUGACAAGCCG | 1751 | CCCCACGACCGUGCGGGGU | 1786 | GUCUGCGGUCCAGUCUACU |
| 1682 | GCUGGGGAACUAUCAGCUA | 1717 | CCCAGUGAUGACAAGCCGU | 1752 | CCCACGACCGUGCGGGGUG | 1787 | UCUGCGGUCCAGUCUACUG |
| 1683 | CUGGGGAACUAUCAGCUAU | 1718 | CCAGUGAUGACAAGCCGUA | 1753 | CCACGACCGUGCGGGGUGG | 1788 | CUGCGGUCCAGUCUACUGU |
| 1684 | UGGGGAACUAUCAGCUAUG | 1719 | CAGUGAUGACAAGCCGUAU | 1754 | CACGACCGUGCGGGGUGGU | 1789 | UGCGGUCCAGUCUACUGUU |
| 1685 | GGGGAACUAUCAGCUAUGC | 1720 | AGUGAUGACAAGCCGUAUU | 1755 | ACGACCGUGCGGGGUGGUG | 1790 | GCGGUCCAGUCUACUGUUU |
| 1686 | GGGAACUAUCAGCUAUGCC | 1721 | GUGAUGACAAGCCGUAUUG | 1756 | CGACCGUGCGGGGUGGUGC | 1791 | CGGUCCAGUCUACUGUUUC |
| 1687 | GGAACUAUCAGCUAUGCCA | 1722 | UGAUGACAAGCCGUAUUGC | 1757 | GACCGUGCGGGGUGGUGCC | 1792 | GGUCCAGUCUACUGUUUCA |
| 1688 | GAACUAUCAGCUAUGCCAC | 1723 | GAUGACAAGCCGUAUUGCU | 1758 | ACCGUGCGGGGUGGUGCCA | 1793 | GUCCAGUCUACUGUUUCAC |
| 1689 | AACUAUCAGCUAUGCCACC | 1724 | AUGACAAGCCGUAUUGCUG | 1759 | CCGUGCGGGGUGGUGCCAG | 1794 | UCCAGUCUACUGUUUCACA |
| 1690 | ACUAUCAGCUAUGCCACCA | 1725 | UGACAAGCCGUAUUGCUGG | 1760 | CGUGCGGGGUGGUGCCAGC | 1795 | CCAGUCUACUGUUUCACAC |
| 1691 | CUAUCAGCUAUGCCACCAU | 1726 | GACAAGCCGUAUUGCUGGC | 1761 | GUGCGGGGUGGUGCCAGCC | 1796 | CAGUCUACUGUUUCACACC |
| 1692 | UAUCAGCUAUGCCACCAUA | 1727 | ACAAGCCGUAUUGCUGGCA | 1762 | UGCGGGGUGGUGCCAGCCC | 1797 | AGUCUACUGUUUCACACCU |
| 1693 | AUCAGCUAUGCCACCAUAU | 1728 | CAAGCCGUAUUGCUGGCAC | 1763 | GCGGGGUGGUGCCAGCCCG | 1798 | GUCUACUGUUUCACACCUA |
| 1694 | UCAGCUAUGCCACCAUAUC | 1729 | AAGCCGUAUUGCUGGCACU | 1764 | CGGGGUGGUGCCAGCCCGG | 1799 | UCUACUGUUUCACACCUAG |
| 1695 | CAGCUAUGCCACCAUAUCG | 1730 | AGCCGUAUUGCUGGCACUA | 1765 | GGGGUGGUGCCAGCCCGGG | 1800 | CUACUGUUUCACACCUAGC |
| 1696 | AGCUAUGCCACCAUAUCGG | 1731 | GCCGUAUUGCUGGCACUAU | 1766 | GGGUGGUGCCAGCCCGGGA | 1801 | UACUGUUUCACACCUAGCC |
| 1697 | GCUAUGCCACCAUAUCGGG | 1732 | CCGUAUUGCUGGCACUAUC | 1767 | GGUGGUGCCAGCCCGGGAU | 1802 | ACUGUUUCACACCUAGCCC |
| 1698 | CUAUGCCACCAUAUCGGGC | 1733 | CGUAUUGCUGGCACUAUCC | 1768 | GUGGUGCCAGCCCGGGAUG | 1803 | CUGUUUCACACCUAGCCCA |
| 1699 | UAUGCCACCAUAUCGGGCC | 1734 | GUAUUGCUGGCACUAUCCC | 1769 | UGGUGCCAGCCCGGGAUGU | 1804 | UGUUUCACACCUAGCCCAG |
| 1700 | AUGCCACCAUAUCGGGCCC | 1735 | UAUUGCUGGCACUAUCCCC | 1770 | GGUGCCAGCCCGGGAUGUC | 1805 | GUUUCACACCUAGCCCAGU |
| 1701 | UGCCACCAUAUCGGGCCCC | 1736 | AUUGCUGGCACUAUCCCCC | 1771 | GUGCCAGCCCGGGAUGUCU | 1806 | UUUCACACCUAGCCCAGUG |
| 1702 | GCCACCAUAUCGGGCCCCA | 1737 | UUGCUGGCACUAUCCCCCA | 1772 | UGCCAGCCCGGGAUGUCUG | 1807 | UUCACACCUAGCCCAGUGG |
| 1703 | CCACCAUAUCGGGCCCCAG | 1738 | UGCUGGCACUAUCCCCCAC | 1773 | GCCAGCCCGGGAUGUCUGC | 1808 | UCACACCUAGCCCAGUGGU |
| 1704 | CACCAUAUCGGGCCCCAGU | 1739 | GCUGGCACUAUCCCCCACG | 1774 | CCAGCCCGGGAUGUCUGCG | 1809 | CACACCUAGCCCAGUGGUC |
| 1705 | ACCAUAUCGGGCCCCAGUG | 1740 | CUGGCACUAUCCCCCACGA | 1775 | CAGCCCGGGAUGUCUGCGG | 1810 | ACACCUAGCCCAGUGGUCG |
| 1706 | CCAUAUCGGGCCCCAGUGA | 1741 | UGGCACUAUCCCCCACGAC | 1776 | AGCCCGGGAUGUCUGCGGU | 1811 | CACCUAGCCCAGUGGUCGU |
| 1707 | CAUAUCGGGCCCCAGUGAU | 1742 | GGCACUAUCCCCCACGACC | 1777 | GCCCGGGAUGUCUGCGGUC | 1812 | ACCUAGCCCAGUGGUCGUU |
| 1708 | AUAUCGGGCCCCAGUGAUG | 1743 | GCACUAUCCCCCACGACCG | 1778 | CCCGGGAUGUCUGCGGUCC | 1813 | CCUAGCCCAGUGGUCGUUG |
| 1709 | UAUCGGGCCCCAGUGAUGA | 1744 | CACUAUCCCCCACGACCGU | 1779 | CCGGGAUGUCUGCGGUCCA | 1814 | CUAGCCCAGUGGUCGUUGG |
| 1710 | AUCGGGCCCCAGUGAUGAC | 1745 | ACUAUCCCCCACGACCGUG | 1780 | CGGGAUGUCUGCGGUCCAG | 1815 | UAGCCCAGUGGUCGUUGGC |
| 1711 | UCGGGCCCCAGUGAUGACA | 1746 | CUAUCCCCCACGACCGUGC | 1781 | GGGAUGUCUGCGGUCCAGU | 1816 | AGCCCAGUGGUCGUUGGCA |
| 1712 | CGGGCCCCAGUGAUGACAA | 1747 | UAUCCCCCACGACCGUGCG | 1782 | GGAUGUCUGCGGUCCAGUC | 1817 | GCCCAGUGGUCGUUGGCAC |
| 1713 | GGGCCCCAGUGAUGACAAG | 1748 | AUCCCCCACGACCGUGCGG | 1783 | GAUGUCUGCGGUCCAGUCU | 1818 | CCCAGUGGUCGUUGGCACU |
| 1714 | GGCCCCAGUGAUGACAAGC | 1749 | UCCCCCACGACCGUGCGGG | 1784 | AUGUCUGCGGUCCAGUCUA | 1819 | CCAGUGGUCGUUGGCACUA |
| 1715 | GCCCCAGUGAUGACAAGCC | 1750 | CCCCCACGACCGUGCGGGG | 1785 | UGUCUGCGGUCCAGUCUAC | 1820 | CAGUGGUCGUUGGCACUAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1821 | AGUGGUCGUUGGCACUACU | 1856 | CCACUUAUAACUGGGGCAG | 1891 | CUUCUCUUGAAUAACAUUA | 1926 | CUGGUUCGGCUGCACCUGG |
| 1822 | GUGGUCGUUGGCACUACUG | 1857 | CACUUAUAACUGGGGCAGC | 1892 | UUCUCUUGAAUAACAUUAG | 1927 | UGGUUCGGCUGCACCUGGA |
| 1823 | UGGUCGUUGGCACUACUGA | 1858 | ACUUAUAACUGGGGCAGCA | 1893 | UCUCUUGAAUAACAUUAGG | 1928 | GGUUCGGCUGCACCUGGAU |
| 1824 | GGUCGUUGGCACUACUGAC | 1859 | CUUAUAACUGGGGCAGCAA | 1894 | CUCUUGAAUAACAUUAGGC | 1929 | GUUCGGCUGCACCUGGAUG |
| 1825 | GUCGUUGGCACUACUGACC | 1860 | UUAUAACUGGGGCAGCAAC | 1895 | UCUUGAAUAACAUUAGGCC | 1930 | UUCGGCUGCACCUGGAUGA |
| 1826 | UCGUUGGCACUACUGACCG | 1861 | UAUAACUGGGGCAGCAACG | 1896 | CUUGAAUAACAUUAGGCCC | 1931 | UCGGCUGCACCUGGAUGAA |
| 1827 | CGUUGGCACUACUGACCGC | 1862 | AUAACUGGGGCAGCAACGA | 1897 | UUGAAUAACAUUAGGCCCC | 1932 | CGGCUGCACCUGGAUGAAC |
| 1828 | GUUGGCACUACUGACCGCA | 1863 | UAACUGGGGCAGCAACGAG | 1898 | UGAAUAACAUUAGGCCCCC | 1933 | GGCUGCACCUGGAUGAACU |
| 1829 | UUGGCACUACUGACCGCAG | 1864 | AACUGGGGCAGCAACGAGA | 1899 | GAAUAACAUUAGGCCCCCC | 1934 | GCUGCACCUGGAUGAACUC |
| 1830 | UGGCACUACUGACCGCAGA | 1865 | ACUGGGGCAGCAACGAGAC | 1900 | AAUAACAUUAGGCCCCCCG | 1935 | CUGCACCUGGAUGAACUCC |
| 1831 | GGCACUACUGACCGCAGAG | 1866 | CUGGGGCAGCAACGAGACU | 1901 | AUAACAUUAGGCCCCCCGC | 1936 | UGCACCUGGAUGAACUCCA |
| 1832 | GCACUACUGACCGCAGAGG | 1867 | UGGGGCAGCAACGAGACUG | 1902 | UAACAUUAGGCCCCCCGCU | 1937 | GCACCUGGAUGAACUCCAC |
| 1833 | CACUACUGACCGCAGAGGG | 1868 | GGGGCAGCAACGAGACUGA | 1903 | AACAUUAGGCCCCCCGCUG | 1938 | CACCUGGAUGAACUCCACG |
| 1834 | ACUACUGACCGCAGAGGGU | 1869 | GGGCAGCAACGAGACUGAC | 1904 | ACAUUAGGCCCCCCGCUGG | 1939 | ACCUGGAUGAACUCCACGG |
| 1835 | CUACUGACCGCAGAGGGUG | 1870 | GGCAGCAACGAGACUGACA | 1905 | CAUUAGGCCCCCCGCUGGC | 1940 | CCUGGAUGAACUCCACGGG |
| 1836 | UACUGACCGCAGAGGGUGU | 1871 | GCAGCAACGAGACUGACAU | 1906 | AUUAGGCCCCCCGCUGGCA | 1941 | CUGGAUGAACUCCACGGGG |
| 1837 | ACUGACCGCAGAGGGUGUC | 1872 | CAGCAACGAGACUGACAUC | 1907 | UUAGGCCCCCCGCUGGCAA | 1942 | UGGAUGAACUCCACGGGGU |
| 1838 | CUGACCGCAGAGGGUGUCC | 1873 | AGCAACGAGACUGACAUCC | 1908 | UAGGCCCCCCGCUGGCAAC | 1943 | GGAUGAACUCCACGGGGUU |
| 1839 | UGACCGCAGAGGGUGUCCC | 1874 | GCAACGAGACUGACAUCCU | 1909 | AGGCCCCCCGCUGGCAACU | 1944 | GAUGAACUCCACGGGGUUU |
| 1840 | GACCGCAGAGGGUGUCCCA | 1875 | CAACGAGACUGACAUCCUU | 1910 | GGCCCCCCGCUGGCAACUG | 1945 | AUGAACUCCACGGGGUUUG |
| 1841 | ACCGCAGAGGGUGUCCCAC | 1876 | AACGAGACUGACAUCCUUC | 1911 | GCCCCCCGCUGGCAACUGG | 1946 | UGAACUCCACGGGGUUUGU |
| 1842 | CCGCAGAGGGUGUCCCACU | 1877 | ACGAGACUGACAUCCUUCU | 1912 | CCCCCCGCUGGCAACUGGU | 1947 | GAACUCCACGGGGUUUGUG |
| 1843 | CGCAGAGGGUGUCCCACUU | 1878 | CGAGACUGACAUCCUUCUC | 1913 | CCCCCGCUGGCAACUGGUU | 1948 | AACUCCACGGGGUUUGUGA |
| 1844 | GCAGAGGGUGUCCCACUUA | 1879 | GAGACUGACAUCCUUCUCU | 1914 | CCCCGCUGGCAACUGGUUC | 1949 | ACUCCACGGGGUUUGUGAA |
| 1845 | CAGAGGGUGUCCCACUUAU | 1880 | AGACUGACAUCCUUCUCUU | 1915 | CCCGCUGGCAACUGGUUCG | 1950 | CUCCACGGGGUUUGUGAAG |
| 1846 | AGAGGGUGUCCCACUUAUA | 1881 | GACUGACAUCCUUCUCUUG | 1916 | CCGCUGGCAACUGGUUCGG | 1951 | UCCACGGGGUUUGUGAAGA |
| 1847 | GAGGGUGUCCCACUUAUAA | 1882 | ACUGACAUCCUUCUCUUGA | 1917 | CGCUGGCAACUGGUUCGGC | 1952 | CCACGGGGUUUGUGAAGAA |
| 1848 | AGGGUGUCCCACUUAUAAC | 1883 | CUGACAUCCUUCUCUUGAA | 1918 | GCUGGCAACUGGUUCGGCU | 1953 | CACGGGGUUUGUGAAGAAU |
| 1849 | GGGUGUCCCACUUAUAACU | 1884 | UGACAUCCUUCUCUUGAAU | 1919 | CUGGCAACUGGUUCGGCUG | 1954 | ACGGGGUUUGUGAAGAAUU |
| 1850 | GGUGUCCCACUUAUAACUG | 1885 | GACAUCCUUCUCUUGAAUA | 1920 | UGGCAACUGGUUCGGCUGC | 1955 | CGGGGUUUGUGAAGAAUUG |
| 1851 | GUGUCCCACUUAUAACUGG | 1886 | ACAUCCUUCUCUUGAAUAA | 1921 | GGCAACUGGUUCGGCUGCA | 1956 | GGGGUUUGUGAAGAAUUGC |
| 1852 | UGUCCCACUUAUAACUGGG | 1887 | CAUCCUUCUCUUGAAUAAC | 1922 | GCAACUGGUUCGGCUGCAC | 1957 | GGGUUUGUGAAGAAUUGCG |
| 1853 | GUCCCACUUAUAACUGGGG | 1888 | AUCCUUCUCUUGAAUAACA | 1923 | CAACUGGUUCGGCUGCACC | 1958 | GGUUUGUGAAGAAUUGCGG |
| 1854 | UCCCACUUAUAACUGGGGC | 1889 | UCCUUCUCUUGAAUAACAU | 1924 | AACUGGUUCGGCUGCACCU | 1959 | GUUUGUGAAGAAUUGCGGA |
| 1855 | CCCACUUAUAACUGGGGCA | 1890 | CCUUCUCUUGAAUAACAUU | 1925 | ACUGGUUCGGCUGCACCUG | 1960 | UUUGUGAAGAAUUGCGGAG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1961 | UUGUGAAGAAUUGCGGAGC | 1996 | GGGCCAACAGGCAACAACA | 2031 | UGAUUGCUUCCGCAAGCAC | 2066 | CCAGAUGUGGGUCAGGACC |
| 1962 | UGUGAAGAAUUGCGGAGCU | 1997 | GGCCAACAGGCAACAACAG | 2032 | GAUUGCUUCCGCAAGCACC | 2067 | CAGAUGUGGGUCAGGACCC |
| 1963 | GUGAAGAAUUGCGGAGCUC | 1998 | GCCAACAGGCAACAACAGC | 2033 | AUUGCUUCCGCAAGCACCC | 2068 | AGAUGUGGGUCAGGACCCU |
| 1964 | UGAAGAAUUGCGGAGCUCC | 1999 | CCAACAGGCAACAACAGCC | 2034 | UUGCUUCCGCAAGCACCCA | 2069 | GAUGUGGGUCAGGACCCUG |
| 1965 | GAAGAAUUGCGGAGCUCCG | 2000 | CAACAGGCAACAACAGCCU | 2035 | UGCUUCCGCAAGCACCCAG | 2070 | AUGUGGGUCAGGACCCUGG |
| 1966 | AAGAAUUGCGGAGCUCCGC | 2001 | AACAGGCAACAACAGCCUU | 2036 | GCUUCCGCAAGCACCCAGA | 2071 | UGUGGGUCAGGACCCUGGC |
| 1967 | AGAAUUGCGGAGCUCCGCC | 2002 | ACAGGCAACAACAGCCUUA | 2037 | CUUCCGCAAGCACCCAGAC | 2072 | GUGGGUCAGGACCCUGGCU |
| 1968 | GAAUUGCGGAGCUCCGCCC | 2003 | CAGGCAACAACAGCCUUAA | 2038 | UUCCGCAAGCACCCAGACG | 2073 | UGGGUCAGGACCCUGGCUC |
| 1969 | AAUUGCGGAGCUCCGCCCU | 2004 | AGGCAACAACAGCCUUAAG | 2039 | UCCGCAAGCACCCAGACGC | 2074 | GGGUCAGGACCCUGGCUCA |
| 1970 | AUUGCGGAGCUCCGCCCUG | 2005 | GGCAACAACAGCCUUAAGU | 2040 | CCGCAAGCACCCAGACGCC | 2075 | GGUCAGGACCCUGGCUCAC |
| 1971 | UUGCGGAGCUCCGCCCUGC | 2006 | GCAACAACAGCCUUAAGUG | 2041 | CGCAAGCACCCAGACGCCA | 2076 | GUCAGGACCCUGGCUCACC |
| 1972 | UGCGGAGCUCCGCCCUGCA | 2007 | CAACAACAGCCUUAAGUGU | 2042 | GCAAGCACCCAGACGCCAC | 2077 | UCAGGACCCUGGCUCACCC |
| 1973 | GCGGAGCUCCGCCCUGCAA | 2008 | AACAACAGCCUUAAGUGUC | 2043 | CAAGCACCCAGACGCCACC | 2078 | CAGGACCCUGGCUCACCCC |
| 1974 | CGGAGCUCCGCCCUGCAAC | 2009 | ACAACAGCCUUAAGUGUCC | 2044 | AAGCACCCAGACGCCACCU | 2079 | AGGACCCUGGCUCACCCCC |
| 1975 | GGAGCUCCGCCCUGCAACU | 2010 | CAACAGCCUUAAGUGUCCU | 2045 | AGCACCCAGACGCCACCUA | 2080 | GGACCCUGGCUCACCCCCC |
| 1976 | GAGCUCCGCCCUGCAACUU | 2011 | AACAGCCUUAAGUGUCCUA | 2046 | GCACCCAGACGCCACCUAC | 2081 | GACCCUGGCUCACCCCCCG |
| 1977 | AGCUCCGCCCUGCAACUUA | 2012 | ACAGCCUUAAGUGUCCUAC | 2047 | CACCCAGACGCCACCUACA | 2082 | ACCCUGGCUCACCCCCCGG |
| 1978 | GCUCCGCCCUGCAACUUAG | 2013 | CAGCCUUAAGUGUCCUACU | 2048 | ACCCAGACGCCACCUACAC | 2083 | CCCUGGCUCACCCCCCGGU |
| 1979 | CUCCGCCCUGCAACUUAGG | 2014 | AGCCUUAAGUGUCCUACUG | 2049 | CCCAGACGCCACCUACACC | 2084 | CCUGGCUCACCCCCCGGUG |
| 1980 | UCCGCCCUGCAACUUAGGG | 2015 | GCCUUAAGUGUCCUACUGA | 2050 | CCAGACGCCACCUACACCA | 2085 | CUGGCUCACCCCCCGGUGU |
| 1981 | CCGCCCUGCAACUUAGGGC | 2016 | CCUUAAGUGUCCUACUGAU | 2051 | CAGACGCCACCUACACCAG | 2086 | UGGCUCACCCCCCGGUGUU |
| 1982 | CGCCCUGCAACUUAGGGCC | 2017 | CUUAAGUGUCCUACUGAUU | 2052 | AGACGCCACCUACACCAGA | 2087 | GGCUCACCCCCCGGUGUUU |
| 1983 | GCCCUGCAACUUAGGGCCA | 2018 | UUAAGUGUCCUACUGAUUG | 2053 | GACGCCACCUACACCAGAU | 2088 | GCUCACCCCCCGGUGUUUG |
| 1984 | CCCUGCAACUUAGGGCCAA | 2019 | UAAGUGUCCUACUGAUUGC | 2054 | ACGCCACCUACACCAGAUG | 2089 | CUCACCCCCCGGUGUUUGG |
| 1985 | CCUGCAACUUAGGGCCAAC | 2020 | AAGUGUCCUACUGAUUGCU | 2055 | CGCCACCUACACCAGAUGU | 2090 | UCACCCCCCGGUGUUUGGU |
| 1986 | CUGCAACUUAGGGCCAACA | 2021 | AGUGUCCUACUGAUUGCUU | 2056 | GCCACCUACACCAGAUGUG | 2091 | CACCCCCCGGUGUUUGGUG |
| 1987 | UGCAACUUAGGGCCAACAG | 2022 | GUGUCCUACUGAUUGCUUC | 2057 | CCACCUACACCAGAUGUGG | 2092 | ACCCCCCGGUGUUUGGUGC |
| 1988 | GCAACUUAGGGCCAACAGG | 2023 | UGUCCUACUGAUUGCUUCC | 2058 | CACCUACACCAGAUGUGGG | 2093 | CCCCCCGGUGUUUGGUGCA |
| 1989 | CAACUUAGGGCCAACAGGC | 2024 | GUCCUACUGAUUGCUUCCG | 2059 | ACCUACACCAGAUGUGGGU | 2094 | CCCCCGGUGUUUGGUGCAC |
| 1990 | AACUUAGGGCCAACAGGCA | 2025 | UCCUACUGAUUGCUUCCGC | 2060 | CCUACACCAGAUGUGGGUC | 2095 | CCCCGGUGUUUGGUGCACU |
| 1991 | ACUUAGGGCCAACAGGCAA | 2026 | CCUACUGAUUGCUUCCGCA | 2061 | CUACACCAGAUGUGGGUCA | 2096 | CCCGGUGUUUGGUGCACUA |
| 1992 | CUUAGGGCCAACAGGCAAC | 2027 | CUACUGAUUGCUUCCGCAA | 2062 | UACACCAGAUGUGGGUCAG | 2097 | CCGGUGUUUGGUGCACUAC |
| 1993 | UUAGGGCCAACAGGCAACA | 2028 | UACUGAUUGCUUCCGCAAG | 2063 | ACACCAGAUGUGGGUCAGG | 2098 | CGGUGUUUGGUGCACUACC |
| 1994 | UAGGGCCAACAGGCAACAA | 2029 | ACUGAUUGCUUCCGCAAGC | 2064 | CACCAGAUGUGGGUCAGGA | 2099 | GGUGUUUGGUGCACUACCC |
| 1995 | AGGGCCAACAGGCAACAAC | 2030 | CUGAUUGCUUCCGCAAGCA | 2065 | ACCAGAUGUGGGUCAGGAC | 2100 | GUGUUUGGUGCACUACCCU |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2101 | UGUUUGGUGCACUACCCUU | 2136 | CCCGUGCACCGUAAAUUAC | 2171 | GCAUGUUCAUCGGAGGCCU | 2206 | GCGGCAUGCAAUUGGACCU |
| 2102 | GUUUGGUGCACUACCCUUA | 2137 | CCGUGCACCGUAAAUUACA | 2172 | CAUGUUCAUCGGAGGCCUA | 2207 | CGGCAUGCAAUUGGACCUA |
| 2103 | UUUGGUGCACUACCCUUAC | 2138 | CGUGCACCGUAAAUUACAC | 2173 | AUGUUCAUCGGAGGCCUAG | 2208 | GGCAUGCAAUUGGACCUAU |
| 2104 | UUGGUGCACUACCCUUACC | 2139 | GUGCACCGUAAAUUACACC | 2174 | UGUUCAUCGGAGGCCUAGA | 2209 | GCAUGCAAUUGGACCUAUG |
| 2105 | UGGUGCACUACCCUUACCG | 2140 | UGCACCGUAAAUUACACCA | 2175 | GUUCAUCGGAGGCCUAGAG | 2210 | CAUGCAAUUGGACCUAUGG |
| 2106 | GGUGCACUACCCUUACCGG | 2141 | GCACCGUAAAUUACACCAU | 2176 | UUCAUCGGAGGCCUAGAGC | 2211 | AUGCAAUUGGACCUAUGGU |
| 2107 | GUGCACUACCCUUACCGGU | 2142 | CACCGUAAAUUACACCAUC | 2177 | UCAUCGGAGGCCUAGAGCA | 2212 | UGCAAUUGGACCUAUGGUG |
| 2108 | UGCACUACCCUUACCGGUU | 2143 | ACCGUAAAUUACACCAUCU | 2178 | CAUCGGAGGCCUAGAGCAC | 2213 | GCAAUUGGACCUAUGGUGA |
| 2109 | GCACUACCCUUACCGGUUG | 2144 | CCGUAAAUUACACCAUCUU | 2179 | AUCGGAGGCCUAGAGCACA | 2214 | CAAUUGGACCUAUGGUGAG |
| 2110 | CACUACCCUUACCGGUUGU | 2145 | CGUAAAUUACACCAUCUUU | 2180 | UCGGAGGCCUAGAGCACAG | 2215 | AAUUGGACCUAUGGUGAGC |
| 2111 | ACUACCCUUACCGGUUGUG | 2146 | GUAAAUUACACCAUCUUUA | 2181 | CGGAGGCCUAGAGCACAGG | 2216 | AUUGGACCUAUGGUGAGCG |
| 2112 | CUACCCUUACCGGUUGUGG | 2147 | UAAAUUACACCAUCUUUAA | 2182 | GGAGGCCUAGAGCACAGGC | 2217 | UUGGACCUAUGGUGAGCGG |
| 2113 | UACCCUUACCGGUUGUGGC | 2148 | AAAUUACACCAUCUUUAAG | 2183 | GAGGCCUAGAGCACAGGCU | 2218 | UGGACCUAUGGUGAGCGGU |
| 2114 | ACCCUUACCGGUUGUGGCA | 2149 | AAUUACACCAUCUUUAAGG | 2184 | AGGCCUAGAGCACAGGCUU | 2219 | GGACCUAUGGUGAGCGGUG |
| 2115 | CCCUUACCGGUUGUGGCAU | 2150 | AUUACACCAUCUUUAAGGU | 2185 | GGCCUAGAGCACAGGCUUG | 2220 | GACCUAUGGUGAGCGGUGU |
| 2116 | CCUUACCGGUUGUGGCAUU | 2151 | UUACACCAUCUUUAAGGUG | 2186 | GCCUAGAGCACAGGCUUGA | 2221 | ACCUAUGGUGAGCGGUGUG |
| 2117 | CUUACCGGUUGUGGCAUUA | 2152 | UACACCAUCUUUAAGGUGC | 2187 | CCUAGAGCACAGGCUUGAA | 2222 | CCUAUGGUGAGCGGUGUGA |
| 2118 | UUACCGGUUGUGGCAUUAC | 2153 | ACACCAUCUUUAAGGUGCG | 2188 | CUAGAGCACAGGCUUGAAG | 2223 | CUAUGGUGAGCGGUGUGAC |
| 2119 | UACCGGUUGUGGCAUUACC | 2154 | CACCAUCUUUAAGGUGCGC | 2189 | UAGAGCACAGGCUUGAAGC | 2224 | UAUGGUGAGCGGUGUGACC |
| 2120 | ACCGGUUGUGGCAUUACCC | 2155 | ACCAUCUUUAAGGUGCGCA | 2190 | AGAGCACAGGCUUGAAGCG | 2225 | AUGGUGAGCGGUGUGACCU |
| 2121 | CCGGUUGUGGCAUUACCCG | 2156 | CCAUCUUUAAGGUGCGCAU | 2191 | GAGCACAGGCUUGAAGCGG | 2226 | UGGUGAGCGGUGUGACCUU |
| 2122 | CGGUUGUGGCAUUACCCGU | 2157 | CAUCUUUAAGGUGCGCAUG | 2192 | AGCACAGGCUUGAAGCGGC | 2227 | GGUGAGCGGUGUGACCUUG |
| 2123 | GGUUGUGGCAUUACCCGUG | 2158 | AUCUUUAAGGUGCGCAUGU | 2193 | GCACAGGCUUGAAGCGGCA | 2228 | GUGAGCGGUGUGACCUUGA |
| 2124 | GUUGUGGCAUUACCCGUGC | 2159 | UCUUUAAGGUGCGCAUGUU | 2194 | CACAGGCUUGAAGCGGCAU | 2229 | UGAGCGGUGUGACCUUGAA |
| 2125 | UUGUGGCAUUACCCGUGCA | 2160 | CUUUAAGGUGCGCAUGUUC | 2195 | ACAGGCUUGAAGCGGCAUG | 2230 | GAGCGGUGUGACCUUGAAG |
| 2126 | UGUGGCAUUACCCGUGCAC | 2161 | UUUAAGGUGCGCAUGUUCA | 2196 | CAGGCUUGAAGCGGCAUGC | 2231 | AGCGGUGUGACCUUGAAGA |
| 2127 | GUGGCAUUACCCGUGCACC | 2162 | UUAAGGUGCGCAUGUUCAU | 2197 | AGGCUUGAAGCGGCAUGCA | 2232 | GCGGUGUGACCUUGAAGAC |
| 2128 | UGGCAUUACCCGUGCACCG | 2163 | UAAGGUGCGCAUGUUCAUC | 2198 | GGCUUGAAGCGGCAUGCAA | 2233 | CGGUGUGACCUUGAAGACA |
| 2129 | GGCAUUACCCGUGCACCGU | 2164 | AAGGUGCGCAUGUUCAUCG | 2199 | GCUUGAAGCGGCAUGCAAU | 2234 | GGUGUGACCUUGAAGACAG |
| 2130 | GCAUUACCCGUGCACCGUA | 2165 | AGGUGCGCAUGUUCAUCGG | 2200 | CUUGAAGCGGCAUGCAAUU | 2235 | GUGUGACCUUGAAGACAGA |
| 2131 | CAUUACCCGUGCACCGUAA | 2166 | GGUGCGCAUGUUCAUCGGA | 2201 | UUGAAGCGGCAUGCAAUUG | 2236 | UGUGACCUUGAAGACAGAG |
| 2132 | AUUACCCGUGCACCGUAAA | 2167 | GUGCGCAUGUUCAUCGGAG | 2202 | UGAAGCGGCAUGCAAUUGG | 2237 | GUGACCUUGAAGACAGAGA |
| 2133 | UUACCCGUGCACCGUAAAU | 2168 | UGCGCAUGUUCAUCGGAGG | 2203 | GAAGCGGCAUGCAAUUGGA | 2238 | UGACCUUGAAGACAGAGAU |
| 2134 | UACCCGUGCACCGUAAAUU | 2169 | GCGCAUGUUCAUCGGAGGC | 2204 | AAGCGGCAUGCAAUUGGAC | 2239 | GACCUUGAAGACAGAGAUA |
| 2135 | ACCCGUGCACCGUAAAUUA | 2170 | CGCAUGUUCAUCGGAGGCC | 2205 | AGCGGCAUGCAAUUGGACC | 2240 | ACCUUGAAGACAGAGAUAG |





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|---|---|---|---|---|---|---|---|
| 2241 | CCUUGAAGACAGAGAUAGG | 2276 | UCCUGCACACCACCACACA | 2311 | UGCUCCUUCACACCUACGC | 2346 | UCUUAUACACCUACAUCAG |
| 2242 | CUUGAAGACAGAGAUAGGG | 2277 | CCUGCACACCACCACACAG | 2312 | GCUCCUUCACACCUACGCC | 2347 | CUUAUACACCUACAUCAGA |
| 2243 | UUGAAGACAGAGAUAGGGC | 2278 | CUGCACACCACCACACAGU | 2313 | CUCCUUCACACCUACGCCC | 2348 | UUAUACACCUACAUCAGAA |
| 2244 | UGAAGACAGAGAUAGGGCC | 2279 | UGCACACCACCACACAGUG | 2314 | UCCUUCACACCUACGCCCG | 2349 | UAUACACCUACAUCAGAAU |
| 2245 | GAAGACAGAGAUAGGGCCG | 2280 | GCACACCACCACACAGUGG | 2315 | CCUUCACACCUACGCCCGC | 2350 | AUACACCUACAUCAGAAUA |
| 2246 | AAGACAGAGAUAGGGCCGA | 2281 | CACACCACCACACAGUGGG | 2316 | CUUCACACCUACGCCCGCU | 2351 | UACACCUACAUCAGAAUAU |
| 2247 | AGACAGAGAUAGGGCCGAG | 2282 | ACACCACCACACAGUGGGC | 2317 | UUCACACCUACGCCCGCUC | 2352 | ACACCUACAUCAGAAUAUA |
| 2248 | GACAGAGAUAGGGCCGAGU | 2283 | CACCACCACACAGUGGGCC | 2318 | UCACACCUACGCCCGCUCU | 2353 | CACCUACAUCAGAAUAUAG |
| 2249 | ACAGAGAUAGGGCCGAGUU | 2284 | ACCACCACACAGUGGGCCA | 2319 | CACACCUACGCCCGCUCUU | 2354 | ACCUACAUCAGAAUAUAGU |
| 2250 | CAGAGAUAGGGCCGAGUUG | 2285 | CCACCACACAGUGGGCCAU | 2320 | ACACCUACGCCCGCUCUUA | 2355 | CCUACAUCAGAAUAUAGUA |
| 2251 | AGAGAUAGGGCCGAGUUGA | 2286 | CACCACACAGUGGGCCAUA | 2321 | CACCUACGCCCGCUCUUAG | 2356 | CUACAUCAGAAUAUAGUAG |
| 2252 | GAGAUAGGGCCGAGUUGAG | 2287 | ACCACACAGUGGGCCAUAU | 2322 | ACCUACGCCCGCUCUUAGC | 2357 | UACAUCAGAAUAUAGUAGA |
| 2253 | AGAUAGGGCCGAGUUGAGC | 2288 | CCACACAGUGGGCCAUAUU | 2323 | CCUACGCCCGCUCUUAGCA | 2358 | ACAUCAGAAUAUAGUAGAC |
| 2254 | GAUAGGGCCGAGUUGAGCC | 2289 | CACACAGUGGGCCAUAUUG | 2324 | CUACGCCCGCUCUUAGCAC | 2359 | CAUCAGAAUAUAGUAGACA |
| 2255 | AUAGGGCCGAGUUGAGCCC | 2290 | ACACAGUGGGCCAUAUUGC | 2325 | UACGCCCGCUCUUAGCACU | 2360 | AUCAGAAUAUAGUAGACAC |
| 2256 | UAGGGCCGAGUUGAGCCCG | 2291 | CACAGUGGGCCAUAUUGCC | 2326 | ACGCCCGCUCUUAGCACUG | 2361 | UCAGAAUAUAGUAGACACC |
| 2257 | AGGGCCGAGUUGAGCCCGC | 2292 | ACAGUGGGCCAUAUUGCCG | 2327 | CGCCCGCUCUUAGCACUGG | 2362 | CAGAAUAUAGUAGACACCC |
| 2258 | GGGCCGAGUUGAGCCCGCU | 2293 | CAGUGGGCCAUAUUGCCGU | 2328 | GCCCGCUCUUAGCACUGGU | 2363 | AGAAUAUAGUAGACACCCA |
| 2259 | GGCCGAGUUGAGCCCGCUC | 2294 | AGUGGGCCAUAUUGCCGUG | 2329 | CCCGCUCUUAGCACUGGUC | 2364 | GAAUAUAGUAGACACCCAA |
| 2260 | GCCGAGUUGAGCCCGCUCC | 2295 | GUGGGCCAUAUUGCCGUGC | 2330 | CCGCUCUUAGCACUGGUCU | 2365 | AAUAUAGUAGACACCCAAU |
| 2261 | CCGAGUUGAGCCCGCUCCU | 2296 | UGGGCCAUAUUGCCGUGCU | 2331 | CGCUCUUAGCACUGGUCUU | 2366 | AUAUAGUAGACACCCAAUA |
| 2262 | CGAGUUGAGCCCGCUCCUG | 2297 | GGGCCAUAUUGCCGUGCUC | 2332 | GCUCUUAGCACUGGUCUUA | 2367 | UAUAGUAGACACCCAAUAC |
| 2263 | GAGUUGAGCCCGCUCCUGC | 2298 | GGCCAUAUUGCCGUGCUCC | 2333 | CUCUUAGCACUGGUCUUAU | 2368 | AUAGUAGACACCCAAUACC |
| 2264 | AGUUGAGCCCGCUCCUGCA | 2299 | GCCAUAUUGCCGUGCUCCU | 2334 | UCUUAGCACUGGUCUUAUA | 2369 | UAGUAGACACCCAAUACCU |
| 2265 | GUUGAGCCCGCUCCUGCAC | 2300 | CCAUAUUGCCGUGCUCCUU | 2335 | CUUAGCACUGGUCUUAUAC | 2370 | AGUAGACACCCAAUACCUC |
| 2266 | UUGAGCCCGCUCCUGCACA | 2301 | CAUAUUGCCGUGCUCCUUC | 2336 | UUAGCACUGGUCUUAUACA | 2371 | GUAGACACCCAAUACCUCU |
| 2267 | UGAGCCCGCUCCUGCACAC | 2302 | AUAUUGCCGUGCUCCUUCA | 2337 | UAGCACUGGUCUUAUACAC | 2372 | UAGACACCCAAUACCUCUA |
| 2268 | GAGCCCGCUCCUGCACACC | 2303 | UAUUGCCGUGCUCCUUCAC | 2338 | AGCACUGGUCUUAUACACC | 2373 | AGACACCCAAUACCUCUAC |
| 2269 | AGCCCGCUCCUGCACACCA | 2304 | AUUGCCGUGCUCCUUCACA | 2339 | GCACUGGUCUUAUACACCU | 2374 | GACACCCAAUACCUCUACG |
| 2270 | GCCCGCUCCUGCACACCAC | 2305 | UUGCCGUGCUCCUUCACAC | 2340 | CACUGGUCUUAUACACCUA | 2375 | ACACCCAAUACCUCUACGG |
| 2271 | CCCGCUCCUGCACACCACC | 2306 | UGCCGUGCUCCUUCACACC | 2341 | ACUGGUCUUAUACACCUAC | 2376 | CACCCAAUACCUCUACGGC |
| 2272 | CCGCUCCUGCACACCACCA | 2307 | GCCGUGCUCCUUCACACCU | 2342 | CUGGUCUUAUACACCUACA | 2377 | ACCCAAUACCUCUACGGCC |
| 2273 | CGCUCCUGCACACCACCAC | 2308 | CCGUGCUCCUUCACACCUA | 2343 | UGGUCUUAUACACCUACAU | 2378 | CCCAAUACCUCUACGGCCU |
| 2274 | GCUCCUGCACACCACCACA | 2309 | CGUGCUCCUUCACACCUAC | 2344 | GGUCUUAUACACCUACAUC | 2379 | CCAAUACCUCUACGGCCUG |
| 2275 | CUCCUGCACACCACCACAC | 2310 | GUGCUCCUUCACACCUACG | 2345 | GUCUUAUACACCUACAUCA | 2380 | CAAUACCUCUACGGCCUGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2381 | AAUACCUCUACGGCCUGAG | 2416 | UGGGCCGUUAAGUGGGAAU | 2451 | UUUACUACUUGCUGAUGCC | 2486 | UGUUGAUCUUGCUCCUAAU |
| 2382 | AUACCUCUACGGCCUGAGC | 2417 | GGGCCGUUAAGUGGGAAUA | 2452 | UUACUACUUGCUGAUGCCC | 2487 | GUUGAUCUUGCUCCUAAUC |
| 2383 | UACCUCUACGGCCUGAGCU | 2418 | GGCCGUUAAGUGGGAAUAC | 2453 | UACUACUUGCUGAUGCCCG | 2488 | UUGAUCUUGCUCCUAAUCU |
| 2384 | ACCUCUACGGCCUGAGCUC | 2419 | GCCGUUAAGUGGGAAUACA | 2454 | ACUACUUGCUGAUGCCCGU | 2489 | UGAUCUUGCUCCUAAUCUG |
| 2385 | CCUCUACGGCCUGAGCUCC | 2420 | CCGUUAAGUGGGAAUACAU | 2455 | CUACUUGCUGAUGCCCGUA | 2490 | GAUCUUGCUCCUAAUCUGU |
| 2386 | CUCUACGGCCUGAGCUCCA | 2421 | CGUUAAGUGGGAAUACAUA | 2456 | UACUUGCUGAUGCCCGUAU | 2491 | AUCUUGCUCCUAAUCUGUC |
| 2387 | UCUACGGCCUGAGCUCCAG | 2422 | GUUAAGUGGGAAUACAUAA | 2457 | ACUUGCUGAUGCCCGUAUC | 2492 | UCUUGCUCCUAAUCUGUCA |
| 2388 | CUACGGCCUGAGCUCCAGC | 2423 | UUAAGUGGGAAUACAUAAU | 2458 | CUUGCUGAUGCCCGUAUCU | 2493 | CUUGCUCCUAAUCUGUCAG |
| 2389 | UACGGCCUGAGCUCCAGCA | 2424 | UAAGUGGGAAUACAUAAUG | 2459 | UUGCUGAUGCCCGUAUCUG | 2494 | UUGCUCCUAAUCUGUCAGG |
| 2390 | ACGGCCUGAGCUCCAGCAU | 2425 | AAGUGGGAAUACAUAAUGC | 2460 | UGCUGAUGCCCGUAUCUGC | 2495 | UGCUCCUAAUCUGUCAGGC |
| 2391 | CGGCCUGAGCUCCAGCAUC | 2426 | AGUGGGAAUACAUAAUGCU | 2461 | GCUGAUGCCCGUAUCUGCA | 2496 | GCUCCUAAUCUGUCAGGCA |
| 2392 | GGCCUGAGCUCCAGCAUCG | 2427 | GUGGGAAUACAUAAUGCUG | 2462 | CUGAUGCCCGUAUCUGCAC | 2497 | CUCCUAAUCUGUCAGGCAG |
| 2393 | GCCUGAGCUCCAGCAUCGU | 2428 | UGGGAAUACAUAAUGCUGG | 2463 | UGAUGCCCGUAUCUGCACU | 2498 | UCCUAAUCUGUCAGGCAGA |
| 2394 | CCUGAGCUCCAGCAUCGUC | 2429 | GGGAAUACAUAAUGCUGGU | 2464 | GAUGCCCGUAUCUGCACUU | 2499 | CCUAAUCUGUCAGGCAGAA |
| 2395 | CUGAGCUCCAGCAUCGUCU | 2430 | GGAAUACAUAAUGCUGGUC | 2465 | AUGCCCGUAUCUGCACUUG | 2500 | CUAAUCUGUCAGGCAGAAG |
| 2396 | UGAGCUCCAGCAUCGUCUC | 2431 | GAAUACAUAAUGCUGGUCU | 2466 | UGCCCGUAUCUGCACUUGC | 2501 | UAAUCUGUCAGGCAGAAGC |
| 2397 | GAGCUCCAGCAUCGUCUCG | 2432 | AAUACAUAAUGCUGGUCUU | 2467 | GCCCGUAUCUGCACUUGCC | 2502 | AAUCUGUCAGGCAGAAGCA |
| 2398 | AGCUCCAGCAUCGUCUCGU | 2433 | AUACAUAAUGCUGGUCUUU | 2468 | CCCGUAUCUGCACUUGCCU | 2503 | AUCUGUCAGGCAGAAGCAA |
| 2399 | GCUCCAGCAUCGUCUCGUG | 2434 | UACAUAAUGCUGGUCUUUU | 2469 | CCGUAUCUGCACUUGCCUG | 2504 | UCUGUCAGGCAGAAGCAAC |
| 2400 | CUCCAGCAUCGUCUCGUGG | 2435 | ACAUAAUGCUGGUCUUUUU | 2470 | CGUAUCUGCACUUGCCUGU | 2505 | CUGUCAGGCAGAAGCAACC |
| 2401 | UCCAGCAUCGUCUCGUGGG | 2436 | CAUAAUGCUGGUCUUUUUA | 2471 | GUAUCUGCACUUGCCUGUU | 2506 | UGUCAGGCAGAAGCAACCU |
| 2402 | CCAGCAUCGUCUCGUGGGC | 2437 | AUAAUGCUGGUCUUUUUAC | 2472 | UAUCUGCACUUGCCUGUUG | 2507 | GUCAGGCAGAAGCAACCUG |
| 2403 | CAGCAUCGUCUCGUGGGCC | 2438 | UAAUGCUGGUCUUUUUACU | 2473 | AUCUGCACUUGCCUGUUGA | 2508 | UCAGGCAGAAGCAACCUGC |
| 2404 | AGCAUCGUCUCGUGGGCCG | 2439 | AAUGCUGGUCUUUUUACUA | 2474 | UCUGCACUUGCCUGUUGAU | 2509 | CAGGCAGAAGCAACCUGCA |
| 2405 | GCAUCGUCUCGUGGGCCGU | 2440 | AUGCUGGUCUUUUUACUAC | 2475 | CUGCACUUGCCUGUUGAUC | 2510 | AGGCAGAAGCAACCUGCAA |
| 2406 | CAUCGUCUCGUGGGCCGUU | 2441 | UGCUGGUCUUUUUACUACU | 2476 | UGCACUUGCCUGUUGAUCU | 2511 | GGCAGAAGCAACCUGCAAG |
| 2407 | AUCGUCUCGUGGGCCGUUA | 2442 | GCUGGUCUUUUUACUACUU | 2477 | GCACUUGCCUGUUGAUCUU | 2512 | GCAGAAGCAACCUGCAAGA |
| 2408 | UCGUCUCGUGGGCCGUUAA | 2443 | CUGGUCUUUUUACUACUUG | 2478 | CACUUGCCUGUUGAUCUUG | 2513 | CAGAAGCAACCUGCAAGAA |
| 2409 | CGUCUCGUGGGCCGUUAAG | 2444 | UGGUCUUUUUACUACUUGC | 2479 | ACUUGCCUGUUGAUCUUGC | 2514 | AGAAGCAACCUGCAAGAAC |
| 2410 | GUCUCGUGGGCCGUUAAGU | 2445 | GGUCUUUUUACUACUUGCU | 2480 | CUUGCCUGUUGAUCUUGCU | 2515 | GAAGCAACCUGCAAGAACG |
| 2411 | UCUCGUGGGCCGUUAAGUG | 2446 | GUCUUUUUACUACUUGCUG | 2481 | UUGCCUGUUGAUCUUGCUC | 2516 | AAGCAACCUGCAAGAACGU |
| 2412 | CUCGUGGGCCGUUAAGUGG | 2447 | UCUUUUUACUACUUGCUGA | 2482 | UGCCUGUUGAUCUUGCUCC | 2517 | AGCAACCUGCAAGAACGUC |
| 2413 | UCGUGGGCCGUUAAGUGGG | 2448 | CUUUUUACUACUUGCUGAU | 2483 | GCCUGUUGAUCUUGCUCCU | 2518 | GCAACCUGCAAGAACGUCA |
| 2414 | CGUGGGCCGUUAAGUGGGA | 2449 | UUUUUACUACUUGCUGAUG | 2484 | CCUGUUGAUCUUGCUCCUA | 2519 | CAACCUGCAAGAACGUCAU |
| 2415 | GUGGGCCGUUAAGUGGGAA | 2450 | UUUUACUACUUGCUGAUGC | 2485 | CUGUUGAUCUUGCUCCUAA | 2520 | AACCUGCAAGAACGUCAUU |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2521 | ACCUGCAAGAACGUCAUUG | 2556 | GGCCGCAGGGAAUCAUGGG | 2591 | UCGUUGUGUGCUUGGCUUG | 2626 | UUGGUCCCUGGGGCCACCU |
| 2522 | CCUGCAAGAACGUCAUUGU | 2557 | GCCGCAGGGAAUCAUGGGU | 2592 | CGUUGUGUGCUUGGCUUGG | 2627 | UGGUCCCUGGGGCCACCUA |
| 2523 | CUGCAAGAACGUCAUUGUC | 2558 | CCGCAGGGAAUCAUGGGUU | 2593 | GUUGUGUGCUUGGCUUGGC | 2628 | GGUCCCUGGGGCCACCUAC |
| 2524 | UGCAAGAACGUCAUUGUCC | 2559 | CGCAGGGAAUCAUGGGUUC | 2594 | UUGUGUGCUUGGCUUGGCA | 2629 | GUCCCUGGGGCCACCUACC |
| 2525 | GCAAGAACGUCAUUGUCCU | 2560 | GCAGGGAAUCAUGGGUUCU | 2595 | UGUGUGCUUGGCUUGGCAU | 2630 | UCCCUGGGGCCACCUACCU |
| 2526 | CAAGAACGUCAUUGUCCUA | 2561 | CAGGGAAUCAUGGGUUCUU | 2596 | GUGUGCUUGGCUUGGCAUG | 2631 | CCCUGGGGCCACCUACCUU |
| 2527 | AAGAACGUCAUUGUCCUAA | 2562 | AGGGAAUCAUGGGUUCUUC | 2597 | UGUGCUUGGCUUGGCAUGU | 2632 | CCUGGGGCCACCUACCUUU |
| 2528 | AGAACGUCAUUGUCCUAAA | 2563 | GGGAAUCAUGGGUUCUUCU | 2598 | GUGCUUGGCUUGGCAUGUC | 2633 | CUGGGGCCACCUACCUUUG |
| 2529 | GAACGUCAUUGUCCUAAAC | 2564 | GGAAUCAUGGGUUCUUCUG | 2599 | UGCUUGGCUUGGCAUGUCA | 2634 | UGGGGCCACCUACCUUUGC |
| 2530 | AACGUCAUUGUCCUAAACG | 2565 | GAAUCAUGGGUUCUUCUGG | 2600 | GCUUGGCUUGGCAUGUCAA | 2635 | GGGGCCACCUACCUUUGCU |
| 2531 | ACGUCAUUGUCCUAAACGC | 2566 | AAUCAUGGGUUCUUCUGGG | 2601 | CUUGGCUUGGCAUGUCAAG | 2636 | GGGCCACCUACCUUUGCUU |
| 2532 | CGUCAUUGUCCUAAACGCG | 2567 | AUCAUGGGUUCUUCUGGGG | 2602 | UUGGCUUGGCAUGUCAAGG | 2637 | GGCCACCUACCUUUGCUUG |
| 2533 | GUCAUUGUCCUAAACGCGG | 2568 | UCAUGGGUUCUUCUGGGGC | 2603 | UGGCUUGGCAUGUCAAGGG | 2638 | GCCACCUACCUUUGCUUGG |
| 2534 | UCAUUGUCCUAAACGCGGC | 2569 | CAUGGGUUCUUCUGGGGCC | 2604 | GGCUUGGCAUGUCAAGGGC | 2639 | CCACCUACCUUUGCUUGGG |
| 2535 | CAUUGUCCUAAACGCGGCU | 2570 | AUGGGUUCUUCUGGGGCCU | 2605 | GCUUGGCAUGUCAAGGGCA | 2640 | CACCUACCUUUGCUUGGGC |
| 2536 | AUUGUCCUAAACGCGGCUG | 2571 | UGGGUUCUUCUGGGGCCUG | 2606 | CUUGGCAUGUCAAGGGCAG | 2641 | ACCUACCUUUGCUUGGGCG |
| 2537 | UUGUCCUAAACGCGGCUGC | 2572 | GGGUUCUUCUGGGGCCUGC | 2607 | UUGGCAUGUCAAGGGCAGG | 2642 | CCUACCUUUGCUUGGGCGU |
| 2538 | UGUCCUAAACGCGGCUGCG | 2573 | GGUUCUUCUGGGGCCUGCU | 2608 | UGGCAUGUCAAGGGCAGGU | 2643 | CUACCUUUGCUUGGGCGUU |
| 2539 | GUCCUAAACGCGGCUGCGG | 2574 | GUUCUUCUGGGGCCUGCUC | 2609 | GGCAUGUCAAGGGCAGGUU | 2644 | UACCUUUGCUUGGGCGUUU |
| 2540 | UCCUAAACGCGGCUGCGGC | 2575 | UUCUUCUGGGGCCUGCUCG | 2610 | GCAUGUCAAGGGCAGGUUG | 2645 | ACCUUUGCUUGGGCGUUUG |
| 2541 | CCUAAACGCGGCUGCGGCC | 2576 | UCUUCUGGGGCCUGCUCGU | 2611 | CAUGUCAAGGGCAGGUUGG | 2646 | CCUUUGCUUGGGCGUUUGG |
| 2542 | CUAAACGCGGCUGCGGCCG | 2577 | CUUCUGGGGCCUGCUCGUU | 2612 | AUGUCAAGGGCAGGUUGGU | 2647 | CUUUGCUUGGGCGUUUGGC |
| 2543 | UAAACGCGGCUGCGGCCGC | 2578 | UUCUGGGGCCUGCUCGUUG | 2613 | UGUCAAGGGCAGGUUGGUC | 2648 | UUUGCUUGGGCGUUUGGCC |
| 2544 | AAACGCGGCUGCGGCCGCA | 2579 | UCUGGGGCCUGCUCGUUGU | 2614 | GUCAAGGGCAGGUUGGUCC | 2649 | UUGCUUGGGCGUUUGGCCA |
| 2545 | AACGCGGCUGCGGCCGCAG | 2580 | CUGGGGCCUGCUCGUUGUG | 2615 | UCAAGGGCAGGUUGGUCCC | 2650 | UGCUUGGGCGUUUGGCCAC |
| 2546 | ACGCGGCUGCGGCCGCAGG | 2581 | UGGGGCCUGCUCGUUGUGU | 2616 | CAAGGGCAGGUUGGUCCCU | 2651 | GCUUGGGCGUUUGGCCACU |
| 2547 | CGCGGCUGCGGCCGCAGGG | 2582 | GGGGCCUGCUCGUUGUGUG | 2617 | AAGGGCAGGUUGGUCCCUG | 2652 | CUUGGGCGUUUGGCCACUA |
| 2548 | GCGGCUGCGGCCGCAGGGA | 2583 | GGGCCUGCUCGUUGUGUGC | 2618 | AGGGCAGGUUGGUCCCUGG | 2653 | UUGGGCGUUUGGCCACUAC |
| 2549 | CGGCUGCGGCCGCAGGGAA | 2584 | GGCCUGCUCGUUGUGUGCU | 2619 | GGGCAGGUUGGUCCCUGGG | 2654 | UGGGCGUUUGGCCACUACU |
| 2550 | GGCUGCGGCCGCAGGGAAU | 2585 | GCCUGCUCGUUGUGUGCUU | 2620 | GGCAGGUUGGUCCCUGGGG | 2655 | GGGCGUUUGGCCACUACUC |
| 2551 | GCUGCGGCCGCAGGGAAUC | 2586 | CCUGCUCGUUGUGUGCUUG | 2621 | GCAGGUUGGUCCCUGGGGC | 2656 | GGCGUUUGGCCACUACUCU |
| 2552 | CUGCGGCCGCAGGGAAUCA | 2587 | CUGCUCGUUGUGUGCUUGG | 2622 | CAGGUUGGUCCCUGGGGCC | 2657 | GCGUUUGGCCACUACUCUU |
| 2553 | UGCGGCCGCAGGGAAUCAU | 2588 | UGCUCGUUGUGUGCUUGGC | 2623 | AGGUUGGUCCCUGGGGCCA | 2658 | CGUUUGGCCACUACUCUUA |
| 2554 | GCGGCCGCAGGGAAUCAUG | 2589 | GCUCGUUGUGUGCUUGGCU | 2624 | GGUUGGUCCCUGGGGCCAC | 2659 | GUUUGGCCACUACUCUUAG |
| 2555 | CGGCCGCAGGGAAUCAUGG | 2590 | CUCGUUGUGUGCUUGGCUU | 2625 | GUUGGUCCCUGGGGCCACC | 2660 | UUUGGCCACUACUCUUAGU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2661 | UUGGCCACUACUCUUAGUC | 2696 | ACAGGGCCCUGGCCCUGGA | 2731 | ACUGUGGGUUGUCUUGUGC | 2766 | CUUUACACUUACCCCUGGG |
| 2662 | UGGCCACUACUCUUAGUCC | 2697 | CAGGGCCCUGGCCCUGGAC | 2732 | CUGUGGGUUGUCUUGUGCU | 2767 | UUUACACUUACCCCUGGGU |
| 2663 | GGCCACUACUCUUAGUCCG | 2698 | AGGGCCCUGGCCCUGGACU | 2733 | UGUGGGUUGUCUUGUGCUA | 2768 | UUACACUUACCCCUGGGUA |
| 2664 | GCCACUACUCUUAGUCCGU | 2699 | GGGCCCUGGCCCUGGACUC | 2734 | GUGGGUUGUCUUGUGCUAA | 2769 | UACACUUACCCCUGGGUAC |
| 2665 | CCACUACUCUUAGUCCGUC | 2700 | GGCCCUGGCCCUGGACUCA | 2735 | UGGGUUGUCUUGUGCUAAU | 2770 | ACACUUACCCCUGGGUACA |
| 2666 | CACUACUCUUAGUCCGUCU | 2701 | GCCCUGGCCCUGGACUCAA | 2736 | GGGUUGUCUUGUGCUAAUU | 2771 | CACUUACCCCUGGGUACAA |
| 2667 | ACUACUCUUAGUCCGUCUC | 2702 | CCCUGGCCCUGGACUCAAG | 2737 | GGUUGUCUUGUGCUAAUUG | 2772 | ACUUACCCCUGGGUACAAA |
| 2668 | CUACUCUUAGUCCGUCUCC | 2703 | CCUGGCCCUGGACUCAAGC | 2738 | GUUGUCUUGUGCUAAUUGU | 2773 | CUUACCCCUGGGUACAAAA |
| 2669 | UACUCUUAGUCCGUCUCCU | 2704 | CUGGCCCUGGACUCAAGCG | 2739 | UUGUCUUGUGCUAAUUGUU | 2774 | UUACCCCUGGGUACAAAAA |
| 2670 | ACUCUUAGUCCGUCUCCUC | 2705 | UGGCCCUGGACUCAAGCGA | 2740 | UGUCUUGUGCUAAUUGUUC | 2775 | UACCCCUGGGUACAAAAAG |
| 2671 | CUCUUAGUCCGUCUCCUCC | 2706 | GGCCCUGGACUCAAGCGAU | 2741 | GUCUUGUGCUAAUUGUUCU | 2776 | ACCCCUGGGUACAAAAAGA |
| 2672 | UCUUAGUCCGUCUCCUCCG | 2707 | GCCCUGGACUCAAGCGAUG | 2742 | UCUUGUGCUAAUUGUUCUU | 2777 | CCCCUGGGUACAAAAAGAA |
| 2673 | CUUAGUCCGUCUCCUCCGG | 2708 | CCCUGGACUCAAGCGAUGG | 2743 | CUUGUGCUAAUUGUUCUUA | 2778 | CCCUGGGUACAAAAAGAAG |
| 2674 | UUAGUCCGUCUCCUCCGGC | 2709 | CCUGGACUCAAGCGAUGGC | 2744 | UUGUGCUAAUUGUUCUUAC | 2779 | CCUGGGUACAAAAAGAAGG |
| 2675 | UAGUCCGUCUCCUCCGGCC | 2710 | CUGGACUCAAGCGAUGGCG | 2745 | UGUGCUAAUUGUUCUUACA | 2780 | CUGGGUACAAAAAGAAGGU |
| 2676 | AGUCCGUCUCCUCCGGCCC | 2711 | UGGACUCAAGCGAUGGCGG | 2746 | GUGCUAAUUGUUCUUACAA | 2781 | UGGGUACAAAAAGAAGGUA |
| 2677 | GUCCGUCUCCUCCGGCCCC | 2712 | GGACUCAAGCGAUGGCGGG | 2747 | UGCUAAUUGUUCUUACAAU | 2782 | GGGUACAAAAAGAAGGUAG |
| 2678 | UCCGUCUCCUCCGGCCCCA | 2713 | GACUCAAGCGAUGGCGGGA | 2748 | GCUAAUUGUUCUUACAAUC | 2783 | GGUACAAAAAGAAGGUAGU |
| 2679 | CCGUCUCCUCCGGCCCCAC | 2714 | ACUCAAGCGAUGGCGGGAC | 2749 | CUAAUUGUUCUUACAAUCU | 2784 | GUACAAAAAGAAGGUAGUG |
| 2680 | CGUCUCCUCCGGCCCCACA | 2715 | CUCAAGCGAUGGCGGGACU | 2750 | UAAUUGUUCUUACAAUCUU | 2785 | UACAAAAAGAAGGUAGUGC |
| 2681 | GUCUCCUCCGGCCCCACAG | 2716 | UCAAGCGAUGGCGGGACUG | 2751 | AAUUGUUCUUACAAUCUUU | 2786 | ACAAAAAGAAGGUAGUGCU |
| 2682 | UCUCCUCCGGCCCCACAGG | 2717 | CAAGCGAUGGCGGGACUGU | 2752 | AUUGUUCUUACAAUCUUUA | 2787 | CAAAAAGAAGGUAGUGCUG |
| 2683 | CUCCUCCGGCCCCACAGGG | 2718 | AAGCGAUGGCGGGACUGUG | 2753 | UUGUUCUUACAAUCUUUAC | 2788 | AAAAAGAAGGUAGUGCUGG |
| 2684 | UCCUCCGGCCCCACAGGGC | 2719 | AGCGAUGGCGGGACUGUGG | 2754 | UGUUCUUACAAUCUUUACA | 2789 | AAAAGAAGGUAGUGCUGGU |
| 2685 | CCUCCGGCCCCACAGGGCC | 2720 | GCGAUGGCGGGACUGUGGG | 2755 | GUUCUUACAAUCUUUACAC | 2790 | AAAGAAGGUAGUGCUGGUC |
| 2686 | CUCCGGCCCCACAGGGCCC | 2721 | CGAUGGCGGGACUGUGGGU | 2756 | UUCUUACAAUCUUUACACU | 2791 | AAGAAGGUAGUGCUGGUCA |
| 2687 | UCCGGCCCCACAGGGCCCU | 2722 | GAUGGCGGGACUGUGGGUU | 2757 | UCUUACAAUCUUUACACUU | 2792 | AGAAGGUAGUGCUGGUCAU |
| 2688 | CCGGCCCCACAGGGCCCUG | 2723 | AUGGCGGGACUGUGGGUUG | 2758 | CUUACAAUCUUUACACUUA | 2793 | GAAGGUAGUGCUGGUCAUG |
| 2689 | CGGCCCCACAGGGCCCUGG | 2724 | UGGCGGGACUGUGGGUUGU | 2759 | UUACAAUCUUUACACUUAC | 2794 | AAGGUAGUGCUGGUCAUGU |
| 2690 | GGCCCCACAGGGCCCUGGC | 2725 | GGCGGGACUGUGGGUUGUC | 2760 | UACAAUCUUUACACUUACC | 2795 | AGGUAGUGCUGGUCAUGUG |
| 2691 | GCCCCACAGGGCCCUGGCC | 2726 | GCGGGACUGUGGGUUGUCU | 2761 | ACAAUCUUUACACUUACCC | 2796 | GGUAGUGCUGGUCAUGUGG |
| 2692 | CCCCACAGGGCCCUGGCCC | 2727 | CGGGACUGUGGGUUGUCUU | 2762 | CAAUCUUUACACUUACCCC | 2797 | GUAGUGCUGGUCAUGUGGU |
| 2693 | CCCACAGGGCCCUGGCCCU | 2728 | GGGACUGUGGGUUGUCUUG | 2763 | AAUCUUUACACUUACCCCU | 2798 | UAGUGCUGGUCAUGUGGUG |
| 2694 | CCACAGGGCCCUGGCCCUG | 2729 | GGACUGUGGGUUGUCUUGU | 2764 | AUCUUUACACUUACCCCUG | 2799 | AGUGCUGGUCAUGUGGUGG |
| 2695 | CACAGGGCCCUGGCCCUGG | 2730 | GACUGUGGGUUGUCUUGUG | 2765 | UCUUUACACUUACCCCUGG | 2800 | GUGCUGGUCAUGUGGUGGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2801 | UGCUGGUCAUGUGGUGGCU | 2836 | CGAGUGGAGGCCAUCAUCC | 2871 | GUUGCAGGUUAAGGGUGGU | 2906 | UGCUCACAUGCCUCUUCCA |
| 2802 | GCUGGUCAUGUGGUGGCUU | 2837 | GAGUGGAGGCCAUCAUCCA | 2872 | UUGCAGGUUAAGGGUGGUC | 2907 | GCUCACAUGCCUCUUCCAC |
| 2803 | CUGGUCAUGUGGUGGCUUC | 2838 | AGUGGAGGCCAUCAUCCAC | 2873 | UGCAGGUUAAGGGUGGUCG | 2908 | CUCACAUGCCUCUUCCACC |
| 2804 | UGGUCAUGUGGUGGCUUCA | 2839 | GUGGAGGCCAUCAUCCACG | 2874 | GCAGGUUAAGGGUGGUCGU | 2909 | UCACAUGCCUCUUCCACCC |
| 2805 | GGUCAUGUGGUGGCUUCAG | 2840 | UGGAGGCCAUCAUCCACGU | 2875 | CAGGUUAAGGGUGGUCGUG | 2910 | CACAUGCCUCUUCCACCCU |
| 2806 | GUCAUGUGGUGGCUUCAGU | 2841 | GGAGGCCAUCAUCCACGUG | 2876 | AGGUUAAGGGUGGUCGUGA | 2911 | ACAUGCCUCUUCCACCCUG |
| 2807 | UCAUGUGGUGGCUUCAGUA | 2842 | GAGGCCAUCAUCCACGUGU | 2877 | GGUUAAGGGUGGUCGUGAC | 2912 | CAUGCCUCUUCCACCCUGC |
| 2808 | CAUGUGGUGGCUUCAGUAU | 2843 | AGGCCAUCAUCCACGUGUG | 2878 | GUUAAGGGUGGUCGUGACG | 2913 | AUGCCUCUUCCACCCUGCC |
| 2809 | AUGUGGUGGCUUCAGUAUU | 2844 | GGCCAUCAUCCACGUGUGG | 2879 | UUAAGGGUGGUCGUGACGC | 2914 | UGCCUCUUCCACCCUGCCU |
| 2810 | UGUGGUGGCUUCAGUAUUU | 2845 | GCCAUCAUCCACGUGUGGG | 2880 | UAAGGGUGGUCGUGACGCU | 2915 | GCCUCUUCCACCCUGCCUU |
| 2811 | GUGGUGGCUUCAGUAUUUC | 2846 | CCAUCAUCCACGUGUGGGU | 2881 | AAGGGUGGUCGUGACGCUG | 2916 | CCUCUUCCACCCUGCCUUG |
| 2812 | UGGUGGCUUCAGUAUUUCA | 2847 | CAUCAUCCACGUGUGGGUG | 2882 | AGGGUGGUCGUGACGCUGU | 2917 | CUCUUCCACCCUGCCUUGG |
| 2813 | GGUGGCUUCAGUAUUUCAU | 2848 | AUCAUCCACGUGUGGGUGC | 2883 | GGGUGGUCGUGACGCUGUC | 2918 | UCUUCCACCCUGCCUUGGG |
| 2814 | GUGGCUUCAGUAUUUCAUA | 2849 | UCAUCCACGUGUGGGUGCC | 2884 | GGUGGUCGUGACGCUGUCA | 2919 | CUUCCACCCUGCCUUGGGG |
| 2815 | UGGCUUCAGUAUUUCAUAG | 2850 | CAUCCACGUGUGGGUGCCC | 2885 | GUGGUCGUGACGCUGUCAU | 2920 | UUCCACCCUGCCUUGGGGU |
| 2816 | GGCUUCAGUAUUUCAUAGC | 2851 | AUCCACGUGUGGGUGCCCC | 2886 | UGGUCGUGACGCUGUCAUC | 2921 | UCCACCCUGCCUUGGGGUU |
| 2817 | GCUUCAGUAUUUCAUAGCC | 2852 | UCCACGUGUGGGUGCCCCC | 2887 | GGUCGUGACGCUGUCAUCA | 2922 | CCACCCUGCCUUGGGGUUU |
| 2818 | CUUCAGUAUUUCAUAGCCC | 2853 | CCACGUGUGGGUGCCCCCG | 2888 | GUCGUGACGCUGUCAUCAU | 2923 | CACCCUGCCUUGGGGUUUG |
| 2819 | UUCAGUAUUUCAUAGCCCG | 2854 | CACGUGUGGGUGCCCCCGU | 2889 | UCGUGACGCUGUCAUCAUG | 2924 | ACCCUGCCUUGGGGUUUGA |
| 2820 | UCAGUAUUUCAUAGCCCGA | 2855 | ACGUGUGGGUGCCCCCGUU | 2890 | CGUGACGCUGUCAUCAUGC | 2925 | CCCUGCCUUGGGGUUUGAG |
| 2821 | CAGUAUUUCAUAGCCCGAG | 2856 | CGUGUGGGUGCCCCCGUUG | 2891 | GUGACGCUGUCAUCAUGCU | 2926 | CCUGCCUUGGGGUUUGAGA |
| 2822 | AGUAUUUCAUAGCCCGAGU | 2857 | GUGUGGGUGCCCCCGUUGC | 2892 | UGACGCUGUCAUCAUGCUC | 2927 | CUGCCUUGGGGUUUGAGAU |
| 2823 | GUAUUUCAUAGCCCGAGUG | 2858 | UGUGGGUGCCCCCGUUGCA | 2893 | GACGCUGUCAUCAUGCUCA | 2928 | UGCCUUGGGGUUUGAGAUC |
| 2824 | UAUUUCAUAGCCCGAGUGG | 2859 | GUGGGUGCCCCCGUUGCAG | 2894 | ACGCUGUCAUCAUGCUCAC | 2929 | GCCUUGGGGUUUGAGAUCA |
| 2825 | AUUUCAUAGCCCGAGUGGA | 2860 | UGGGUGCCCCCGUUGCAGG | 2895 | CGCUGUCAUCAUGCUCACA | 2930 | CCUUGGGGUUUGAGAUCAC |
| 2826 | UUUCAUAGCCCGAGUGGAG | 2861 | GGGUGCCCCCGUUGCAGGU | 2896 | GCUGUCAUCAUGCUCACAU | 2931 | CUUGGGGUUUGAGAUCACA |
| 2827 | UUCAUAGCCCGAGUGGAGG | 2862 | GGUGCCCCCGUUGCAGGUU | 2897 | CUGUCAUCAUGCUCACAUG | 2932 | UUGGGGUUUGAGAUCACAA |
| 2828 | UCAUAGCCCGAGUGGAGGC | 2863 | GUGCCCCCGUUGCAGGUUA | 2898 | UGUCAUCAUGCUCACAUGC | 2933 | UGGGGUUUGAGAUCACAAA |
| 2829 | CAUAGCCCGAGUGGAGGCC | 2864 | UGCCCCCGUUGCAGGUUAA | 2899 | GUCAUCAUGCUCACAUGCC | 2934 | GGGGUUUGAGAUCACAAAA |
| 2830 | AUAGCCCGAGUGGAGGCCA | 2865 | GCCCCCGUUGCAGGUUAAG | 2900 | UCAUCAUGCUCACAUGCCU | 2935 | GGGUUUGAGAUCACAAAAA |
| 2831 | UAGCCCGAGUGGAGGCCAU | 2866 | CCCCCGUUGCAGGUUAAGG | 2901 | CAUCAUGCUCACAUGCCUC | 2936 | GGUUUGAGAUCACAAAAAU |
| 2832 | AGCCCGAGUGGAGGCCAUC | 2867 | CCCCGUUGCAGGUUAAGGG | 2902 | AUCAUGCUCACAUGCCUCU | 2937 | GUUUGAGAUCACAAAAAUC |
| 2833 | GCCCGAGUGGAGGCCAUCA | 2868 | CCCGUUGCAGGUUAAGGGU | 2903 | UCAUGCUCACAUGCCUCUU | 2938 | UUUGAGAUCACAAAAAUCC |
| 2834 | CCCGAGUGGAGGCCAUCAU | 2869 | CCGUUGCAGGUUAAGGGUG | 2904 | CAUGCUCACAUGCCUCUUC | 2939 | UUGAGAUCACAAAAAUCCU |
| 2835 | CCGAGUGGAGGCCAUCAUC | 2870 | CGUUGCAGGUUAAGGGUGG | 2905 | AUGCUCACAUGCCUCUUCC | 2940 | UGAGAUCACAAAAAUCCUC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2941 | GAGAUCACAAAAAUCCUCU | 2976 | CUUGUACCUGCUGCAACAU | 3011 | CCUACUUCCUCAGGGCGCG | 3046 | UGCCUACUAGCAAAGCACC |
| 2942 | AGAUCACAAAAAUCCUCUU | 2977 | UUGUACCUGCUGCAACAUU | 3012 | CUACUUCCUCAGGGCGCGC | 3047 | GCCUACUAGCAAAGCACCU |
| 2943 | GAUCACAAAAAUCCUCUUC | 2978 | UGUACCUGCUGCAACAUUC | 3013 | UACUUCCUCAGGGCGCGCG | 3048 | CCUACUAGCAAAGCACCUG |
| 2944 | AUCACAAAAAUCCUCUUCG | 2979 | GUACCUGCUGCAACAUUCA | 3014 | ACUUCCUCAGGGCGCGCGC | 3049 | CUACUAGCAAAGCACCUGG |
| 2945 | UCACAAAAAUCCUCUUCGG | 2980 | UACCUGCUGCAACAUUCAC | 3015 | CUUCCUCAGGGCGCGCGCC | 3050 | UACUAGCAAAGCACCUGGU |
| 2946 | CACAAAAAUCCUCUUCGGG | 2981 | ACCUGCUGCAACAUUCACU | 3016 | UUCCUCAGGGCGCGCGCCC | 3051 | ACUAGCAAAGCACCUGGUU |
| 2947 | ACAAAAAUCCUCUUCGGGA | 2982 | CCUGCUGCAACAUUCACUC | 3017 | UCCUCAGGGCGCGCGCCCU | 3052 | CUAGCAAAGCACCUGGUUU |
| 2948 | CAAAAAUCCUCUUCGGGAU | 2983 | CUGCUGCAACAUUCACUCA | 3018 | CCUCAGGGCGCGCGCCCUG | 3053 | UAGCAAAGCACCUGGUUUA |
| 2949 | AAAAAUCCUCUUCGGGAUA | 2984 | UGCUGCAACAUUCACUCAC | 3019 | CUCAGGGCGCGCGCCCUGC | 3054 | AGCAAAGCACCUGGUUUAU |
| 2950 | AAAAUCCUCUUCGGGAUAC | 2985 | GCUGCAACAUUCACUCACC | 3020 | UCAGGGCGCGCGCCCUGCU | 3055 | GCAAAGCACCUGGUUUAUG |
| 2951 | AAAUCCUCUUCGGGAUACU | 2986 | CUGCAACAUUCACUCACCA | 3021 | CAGGGCGCGCGCCCUGCUG | 3056 | CAAAGCACCUGGUUUAUGG |
| 2952 | AAUCCUCUUCGGGAUACUG | 2987 | UGCAACAUUCACUCACCAA | 3022 | AGGGCGCGCGCCCUGCUGA | 3057 | AAAGCACCUGGUUUAUGGC |
| 2953 | AUCCUCUUCGGGAUACUGG | 2988 | GCAACAUUCACUCACCAAG | 3023 | GGGCGCGCGCCCUGCUGAG | 3058 | AAGCACCUGGUUUAUGGCA |
| 2954 | UCCUCUUCGGGAUACUGGG | 2989 | CAACAUUCACUCACCAAGG | 3024 | GGCGCGCGCCCUGCUGAGG | 3059 | AGCACCUGGUUUAUGGCAA |
| 2955 | CCUCUUCGGGAUACUGGGC | 2990 | AACAUUCACUCACCAAGGU | 3025 | GCGCGCGCCCUGCUGAGGC | 3060 | GCACCUGGUUUAUGGCAAG |
| 2956 | CUCUUCGGGAUACUGGGCC | 2991 | ACAUUCACUCACCAAGGUC | 3026 | CGCGCGCCCUGCUGAGGCU | 3061 | CACCUGGUUUAUGGCAAGU |
| 2957 | UCUUCGGGAUACUGGGCCC | 2992 | CAUUCACUCACCAAGGUCC | 3027 | GCGCGCCCUGCUGAGGCUG | 3062 | ACCUGGUUUAUGGCAAGUA |
| 2958 | CUUCGGGAUACUGGGCCCC | 2993 | AUUCACUCACCAAGGUCCC | 3028 | CGCGCCCUGCUGAGGCUGU | 3063 | CCUGGUUUAUGGCAAGUAC |
| 2959 | UUCGGGAUACUGGGCCCCU | 2994 | UUCACUCACCAAGGUCCCC | 3029 | GCGCCCUGCUGAGGCUGUG | 3064 | CUGGUUUAUGGCAAGUACG |
| 2960 | UCGGGAUACUGGGCCCCUU | 2995 | UCACUCACCAAGGUCCCCU | 3030 | CGCCCUGCUGAGGCUGUGC | 3065 | UGGUUUAUGGCAAGUACGU |
| 2961 | CGGGAUACUGGGCCCCUUG | 2996 | CACUCACCAAGGUCCCCUA | 3031 | GCCCUGCUGAGGCUGUGCC | 3066 | GGUUUAUGGCAAGUACGUG |
| 2962 | GGGAUACUGGGCCCCUUGU | 2997 | ACUCACCAAGGUCCCCUAC | 3032 | CCCUGCUGAGGCUGUGCCU | 3067 | GUUUAUGGCAAGUACGUGC |
| 2963 | GGAUACUGGGCCCCUUGUA | 2998 | CUCACCAAGGUCCCCUACU | 3033 | CCUGCUGAGGCUGUGCCUA | 3068 | UUUAUGGCAAGUACGUGCA |
| 2964 | GAUACUGGGCCCCUUGUAC | 2999 | UCACCAAGGUCCCCUACUU | 3034 | CUGCUGAGGCUGUGCCUAC | 3069 | UUAUGGCAAGUACGUGCAG |
| 2965 | AUACUGGGCCCCUUGUACC | 3000 | CACCAAGGUCCCCUACUUC | 3035 | UGCUGAGGCUGUGCCUACU | 3070 | UAUGGCAAGUACGUGCAGG |
| 2966 | UACUGGGCCCCUUGUACCU | 3001 | ACCAAGGUCCCCUACUUCC | 3036 | GCUGAGGCUGUGCCUACUA | 3071 | AUGGCAAGUACGUGCAGGC |
| 2967 | ACUGGGCCCCUUGUACCUG | 3002 | CCAAGGUCCCCUACUUCCU | 3037 | CUGAGGCUGUGCCUACUAG | 3072 | UGGCAAGUACGUGCAGGCG |
| 2968 | CUGGGCCCCUUGUACCUGC | 3003 | CAAGGUCCCCUACUUCCUC | 3038 | UGAGGCUGUGCCUACUAGC | 3073 | GGCAAGUACGUGCAGGCGG |
| 2969 | UGGGCCCCUUGUACCUGCU | 3004 | AAGGUCCCCUACUUCCUCA | 3039 | GAGGCUGUGCCUACUAGCA | 3074 | GCAAGUACGUGCAGGCGGC |
| 2970 | GGGCCCCUUGUACCUGCUG | 3005 | AGGUCCCCUACUUCCUCAG | 3040 | AGGCUGUGCCUACUAGCAA | 3075 | CAAGUACGUGCAGGCGGCC |
| 2971 | GGCCCCUUGUACCUGCUGC | 3006 | GGUCCCCUACUUCCUCAGG | 3041 | GGCUGUGCCUACUAGCAAA | 3076 | AAGUACGUGCAGGCGGCCU |
| 2972 | GCCCCUUGUACCUGCUGCA | 3007 | GUCCCCUACUUCCUCAGGG | 3042 | GCUGUGCCUACUAGCAAAG | 3077 | AGUACGUGCAGGCGGCCUU |
| 2973 | CCCCUUGUACCUGCUGCAA | 3008 | UCCCCUACUUCCUCAGGGC | 3043 | CUGUGCCUACUAGCAAAGC | 3078 | GUACGUGCAGGCGGCCUUG |
| 2974 | CCCUUGUACCUGCUGCAAC | 3009 | CCCCUACUUCCUCAGGGCG | 3044 | UGUGCCUACUAGCAAAGCA | 3079 | UACGUGCAGGCGGCCUUGC |
| 2975 | CCUUGUACCUGCUGCAACA | 3010 | CCCUACUUCCUCAGGGCGC | 3045 | GUGCCUACUAGCAAAGCAC | 3080 | ACGUGCAGGCGGCCUUGCU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3081 | CGUGCAGGCGGCCUUGCUC | 3116 | CCGGAACCUACAUUUAUGA | 3151 | AAGGAUUGGGCAGCGUCUG | 3186 | GGUGGCCACAGAACCCAUC |
| 3082 | GUGCAGGCGGCCUUGCUCC | 3117 | CGGAACCUACAUUUAUGAC | 3152 | AGGAUUGGGCAGCGUCUGG | 3187 | GUGGCCACAGAACCCAUCG |
| 3083 | UGCAGGCGGCCUUGCUCCA | 3118 | GGAACCUACAUUUAUGACC | 3153 | GGAUUGGGCAGCGUCUGGG | 3188 | UGGCCACAGAACCCAUCGU |
| 3084 | GCAGGCGGCCUUGCUCCAC | 3119 | GAACCUACAUUUAUGACCA | 3154 | GAUUGGGCAGCGUCUGGGC | 3189 | GGCCACAGAACCCAUCGUA |
| 3085 | CAGGCGGCCUUGCUCCACC | 3120 | AACCUACAUUUAUGACCAU | 3155 | AUUGGGCAGCGUCUGGGCU | 3190 | GCCACAGAACCCAUCGUAU |
| 3086 | AGGCGGCCUUGCUCCACCU | 3121 | ACCUACAUUUAUGACCAUC | 3156 | UUGGGCAGCGUCUGGGCUC | 3191 | CCACAGAACCCAUCGUAUU |
| 3087 | GGCGGCCUUGCUCCACCUU | 3122 | CCUACAUUUAUGACCAUCU | 3157 | UGGGCAGCGUCUGGGCUCC | 3192 | CACAGAACCCAUCGUAUUC |
| 3088 | GCGGCCUUGCUCCACCUUG | 3123 | CUACAUUUAUGACCAUCUU | 3158 | GGGCAGCGUCUGGGCUCCG | 3193 | ACAGAACCCAUCGUAUUCU |
| 3089 | CGGCCUUGCUCCACCUUGG | 3124 | UACAUUUAUGACCAUCUUG | 3159 | GGCAGCGUCUGGGCUCCGC | 3194 | CAGAACCCAUCGUAUUCUC |
| 3090 | GGCCUUGCUCCACCUUGGU | 3125 | ACAUUUAUGACCAUCUUGC | 3160 | GCAGCGUCUGGGCUCCGCG | 3195 | AGAACCCAUCGUAUUCUCC |
| 3091 | GCCUUGCUCCACCUUGGUA | 3126 | CAUUUAUGACCAUCUUGCC | 3161 | CAGCGUCUGGGCUCCGCGA | 3196 | GAACCCAUCGUAUUCUCCG |
| 3092 | CCUUGCUCCACCUUGGUAG | 3127 | AUUUAUGACCAUCUUGCCC | 3162 | AGCGUCUGGGCUCCGCGAA | 3197 | AACCCAUCGUAUUCUCCGC |
| 3093 | CUUGCUCCACCUUGGUAGG | 3128 | UUUAUGACCAUCUUGCCCC | 3163 | GCGUCUGGGCUCCGCGAAU | 3198 | ACCCAUCGUAUUCUCCGCG |
| 3094 | UUGCUCCACCUUGGUAGGC | 3129 | UUAUGACCAUCUUGCCCCC | 3164 | CGUCUGGGCUCCGCGAAUU | 3199 | CCCAUCGUAUUCUCCGCGA |
| 3095 | UGCUCCACCUUGGUAGGCU | 3130 | UAUGACCAUCUUGCCCCCA | 3165 | GUCUGGGCUCCGCGAAUUA | 3200 | CCAUCGUAUUCUCCGCGAU |
| 3096 | GCUCCACCUUGGUAGGCUG | 3131 | AUGACCAUCUUGCCCCCAU | 3166 | UCUGGGCUCCGCGAAUUAA | 3201 | CAUCGUAUUCUCCGCGAUG |
| 3097 | CUCCACCUUGGUAGGCUGA | 3132 | UGACCAUCUUGCCCCCAUG | 3167 | CUGGGCUCCGCGAAUUAAC | 3202 | AUCGUAUUCUCCGCGAUGG |
| 3098 | UCCACCUUGGUAGGCUGAC | 3133 | GACCAUCUUGCCCCCAUGA | 3168 | UGGGCUCCGCGAAUUAACG | 3203 | UCGUAUUCUCCGCGAUGGA |
| 3099 | CCACCUUGGUAGGCUGACC | 3134 | ACCAUCUUGCCCCCAUGAA | 3169 | GGGCUCCGCGAAUUAACGG | 3204 | CGUAUUCUCCGCGAUGGAG |
| 3100 | CACCUUGGUAGGCUGACCG | 3135 | CCAUCUUGCCCCCAUGAAG | 3170 | GGCUCCGCGAAUUAACGGU | 3205 | GUAUUCUCCGCGAUGGAGA |
| 3101 | ACCUUGGUAGGCUGACCGG | 3136 | CAUCUUGCCCCCAUGAAGG | 3171 | GCUCCGCGAAUUAACGGUG | 3206 | UAUUCUCCGCGAUGGAGAC |
| 3102 | CCUUGGUAGGCUGACCGGA | 3137 | AUCUUGCCCCCAUGAAGGA | 3172 | CUCCGCGAAUUAACGGUGG | 3207 | AUUCUCCGCGAUGGAGACG |
| 3103 | CUUGGUAGGCUGACCGGAA | 3138 | UCUUGCCCCCAUGAAGGAU | 3173 | UCCGCGAAUUAACGGUGGC | 3208 | UUCUCCGCGAUGGAGACGA |
| 3104 | UUGGUAGGCUGACCGGAAC | 3139 | CUUGCCCCCAUGAAGGAUU | 3174 | CCGCGAAUUAACGGUGGCC | 3209 | UCUCCGCGAUGGAGACGAA |
| 3105 | UGGUAGGCUGACCGGAACC | 3140 | UUGCCCCCAUGAAGGAUUG | 3175 | CGCGAAUUAACGGUGGCCA | 3210 | CUCCGCGAUGGAGACGAAG |
| 3106 | GGUAGGCUGACCGGAACCU | 3141 | UGCCCCCAUGAAGGAUUGG | 3176 | GCGAAUUAACGGUGGCCAC | 3211 | UCCGCGAUGGAGACGAAGG |
| 3107 | GUAGGCUGACCGGAACCUA | 3142 | GCCCCCAUGAAGGAUUGGG | 3177 | CGAAUUAACGGUGGCCACA | 3212 | CCGCGAUGGAGACGAAGGU |
| 3108 | UAGGCUGACCGGAACCUAC | 3143 | CCCCCAUGAAGGAUUGGGC | 3178 | GAAUUAACGGUGGCCACAG | 3213 | CGCGAUGGAGACGAAGGUC |
| 3109 | AGGCUGACCGGAACCUACA | 3144 | CCCCAUGAAGGAUUGGGCA | 3179 | AAUUAACGGUGGCCACAGA | 3214 | GCGAUGGAGACGAAGGUCA |
| 3110 | GGCUGACCGGAACCUACAU | 3145 | CCCAUGAAGGAUUGGGCAG | 3180 | AUUAACGGUGGCCACAGAA | 3215 | CGAUGGAGACGAAGGUCAU |
| 3111 | GCUGACCGGAACCUACAUU | 3146 | CCAUGAAGGAUUGGGCAGC | 3181 | UUAACGGUGGCCACAGAAC | 3216 | GAUGGAGACGAAGGUCAUC |
| 3112 | CUGACCGGAACCUACAUUU | 3147 | CAUGAAGGAUUGGGCAGCG | 3182 | UAACGGUGGCCACAGAACC | 3217 | AUGGAGACGAAGGUCAUCA |
| 3113 | UGACCGGAACCUACAUUUA | 3148 | AUGAAGGAUUGGGCAGCGU | 3183 | AACGGUGGCCACAGAACCC | 3218 | UGGAGACGAAGGUCAUCAC |
| 3114 | GACCGGAACCUACAUUUAU | 3149 | UGAAGGAUUGGGCAGCGUC | 3184 | ACGGUGGCCACAGAACCCA | 3219 | GGAGACGAAGGUCAUCACG |
| 3115 | ACCGGAACCUACAUUUAUG | 3150 | GAAGGAUUGGGCAGCGUCU | 3185 | CGGUGGCCACAGAACCCAU | 3220 | GAGACGAAGGUCAUCACGU |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3221 | AGACGAAGGUCAUCACGUG | 3256 | GCGUGUGGGAACAUACUUG | 3291 | AGCUAGACGGGGCCGCGAA | 3326 | CCGACGACAUCAAGACGUC |
| 3222 | GACGAAGGUCAUCACGUGG | 3257 | CGUGUGGGAACAUACUUGC | 3292 | GCUAGACGGGGCCGCGAAA | 3327 | CGACGACAUCAAGACGUCG |
| 3223 | ACGAAGGUCAUCACGUGGG | 3258 | GUGUGGGAACAUACUUGCU | 3293 | CUAGACGGGGCCGCGAAAU | 3328 | GACGACAUCAAGACGUCGG |
| 3224 | CGAAGGUCAUCACGUGGGG | 3259 | UGUGGGAACAUACUUGCUG | 3294 | UAGACGGGGCCGCGAAAUU | 3329 | ACGACAUCAAGACGUCGGG |
| 3225 | GAAGGUCAUCACGUGGGGG | 3260 | GUGGGAACAUACUUGCUGU | 3295 | AGACGGGGCCGCGAAAUUU | 3330 | CGACAUCAAGACGUCGGGU |
| 3226 | AAGGUCAUCACGUGGGGGG | 3261 | UGGGAACAUACUUGCUGUU | 3296 | GACGGGGCCGCGAAAUUUU | 3331 | GACAUCAAGACGUCGGGUU |
| 3227 | AGGUCAUCACGUGGGGGGC | 3262 | GGGAACAUACUUGCUGUUC | 3297 | ACGGGGCCGCGAAAUUUUC | 3332 | ACAUCAAGACGUCGGGUUG |
| 3228 | GGUCAUCACGUGGGGGGCU | 3263 | GGAACAUACUUGCUGUUCU | 3298 | CGGGGCCGCGAAAUUUUCC | 3333 | CAUCAAGACGUCGGGUUGG |
| 3229 | GUCAUCACGUGGGGGGCUG | 3264 | GAACAUACUUGCUGUUCUU | 3299 | GGGGCCGCGAAAUUUUCCU | 3334 | AUCAAGACGUCGGGUUGGC |
| 3230 | UCAUCACGUGGGGGGCUGA | 3265 | AACAUACUUGCUGUUCUUC | 3300 | GGGCCGCGAAAUUUUCCUG | 3335 | UCAAGACGUCGGGUUGGCG |
| 3231 | CAUCACGUGGGGGGCUGAC | 3266 | ACAUACUUGCUGUUCUUCC | 3301 | GGCCGCGAAAUUUUCCUGG | 3336 | CAAGACGUCGGGUUGGCGA |
| 3232 | AUCACGUGGGGGGCUGACA | 3267 | CAUACUUGCUGUUCUUCCG | 3302 | GCCGCGAAAUUUUCCUGGG | 3337 | AAGACGUCGGGUUGGCGAC |
| 3233 | UCACGUGGGGGGCUGACAC | 3268 | AUACUUGCUGUUCUUCCGG | 3303 | CCGCGAAAUUUUCCUGGGG | 3338 | AGACGUCGGGUUGGCGACU |
| 3234 | CACGUGGGGGGCUGACACG | 3269 | UACUUGCUGUUCUUCCGGU | 3304 | CGCGAAAUUUUCCUGGGGC | 3339 | GACGUCGGGUUGGCGACUC |
| 3235 | ACGUGGGGGGCUGACACGG | 3270 | ACUUGCUGUUCUUCCGGUA | 3305 | GCGAAAUUUUCCUGGGGCC | 3340 | ACGUCGGGUUGGCGACUCC |
| 3236 | CGUGGGGGGCUGACACGGC | 3271 | CUUGCUGUUCUUCCGGUAU | 3306 | CGAAAUUUUCCUGGGGCCG | 3341 | CGUCGGGUUGGCGACUCCU |
| 3237 | GUGGGGGGCUGACACGGCC | 3272 | UUGCUGUUCUUCCGGUAUC | 3307 | GAAAUUUUCCUGGGGCCGG | 3342 | GUCGGGUUGGCGACUCCUC |
| 3238 | UGGGGGGCUGACACGGCCG | 3273 | UGCUGUUCUUCCGGUAUCA | 3308 | AAAUUUUCCUGGGGCCGGC | 3343 | UCGGGUUGGCGACUCCUCG |
| 3239 | GGGGGGCUGACACGGCCGC | 3274 | GCUGUUCUUCCGGUAUCAG | 3309 | AAUUUUCCUGGGGCCGGCC | 3344 | CGGGUUGGCGACUCCUCGC |
| 3240 | GGGGGCUGACACGGCCGCG | 3275 | CUGUUCUUCCGGUAUCAGC | 3310 | AUUUUCCUGGGGCCGGCCG | 3345 | GGGUUGGCGACUCCUCGCC |
| 3241 | GGGGCUGACACGGCCGCGU | 3276 | UGUUCUUCCGGUAUCAGCU | 3311 | UUUUCCUGGGGCCGGCCGA | 3346 | GGUUGGCGACUCCUCGCCC |
| 3242 | GGGCUGACACGGCCGCGUG | 3277 | GUUCUUCCGGUAUCAGCUA | 3312 | UUUCCUGGGGCCGGCCGAC | 3347 | GUUGGCGACUCCUCGCCCC |
| 3243 | GGCUGACACGGCCGCGUGU | 3278 | UUCUUCCGGUAUCAGCUAG | 3313 | UUCCUGGGGCCGGCCGACG | 3348 | UUGGCGACUCCUCGCCCCU |
| 3244 | GCUGACACGGCCGCGUGUG | 3279 | UCUUCCGGUAUCAGCUAGA | 3314 | UCCUGGGGCCGGCCGACGA | 3349 | UGGCGACUCCUCGCCCCUA |
| 3245 | CUGACACGGCCGCGUGUGG | 3280 | CUUCCGGUAUCAGCUAGAC | 3315 | CCUGGGGCCGGCCGACGAC | 3350 | GGCGACUCCUCGCCCCUAU |
| 3246 | UGACACGGCCGCGUGUGGG | 3281 | UUCCGGUAUCAGCUAGACG | 3316 | CUGGGGCCGGCCGACGACA | 3351 | GCGACUCCUCGCCCCUAUC |
| 3247 | GACACGGCCGCGUGUGGGA | 3282 | UCCGGUAUCAGCUAGACGG | 3317 | UGGGGCCGGCCGACGACAU | 3352 | CGACUCCUCGCCCCUAUCA |
| 3248 | ACACGGCCGCGUGUGGGAA | 3283 | CCGGUAUCAGCUAGACGGG | 3318 | GGGGCCGGCCGACGACAUC | 3353 | GACUCCUCGCCCCUAUCAC |
| 3249 | CACGGCCGCGUGUGGGAAC | 3284 | CGGUAUCAGCUAGACGGGG | 3319 | GGGCCGGCCGACGACAUCA | 3354 | ACUCCUCGCCCCUAUCACC |
| 3250 | ACGGCCGCGUGUGGGAACA | 3285 | GGUAUCAGCUAGACGGGGC | 3320 | GGCCGGCCGACGACAUCAA | 3355 | CUCCUCGCCCCUAUCACCG |
| 3251 | CGGCCGCGUGUGGGAACAU | 3286 | GUAUCAGCUAGACGGGGCC | 3321 | GCCGGCCGACGACAUCAAG | 3356 | UCCUCGCCCCUAUCACCGC |
| 3252 | GGCCGCGUGUGGGAACAUA | 3287 | UAUCAGCUAGACGGGGCCG | 3322 | CCGGCCGACGACAUCAAGA | 3357 | CCUCGCCCCUAUCACCGCG |
| 3253 | GCCGCGUGUGGGAACAUAC | 3288 | AUCAGCUAGACGGGGCCGC | 3323 | CGGCCGACGACAUCAAGAC | 3358 | CUCGCCCCUAUCACCGCGU |
| 3254 | CCGCGUGUGGGAACAUACU | 3289 | UCAGCUAGACGGGGCCGCG | 3324 | GGCCGACGACAUCAAGACG | 3359 | UCGCCCCUAUCACCGCGUA |
| 3255 | CGCGUGUGGGAACAUACUU | 3290 | CAGCUAGACGGGGCCGCGA | 3325 | GCCGACGACAUCAAGACGU | 3360 | CGCCCCUAUCACCGCGUAU |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3361 | GCCCCUAUCACCGCGUAUG | 3396 | GGUACUGGGCGCCAUAGUU | 3431 | GGGACAAAAAUGAAGCCGA | 3466 | UUAUCCACGGCAACACAAA |
| 3362 | CCCCUAUCACCGCGUAUGC | 3397 | GUACUGGGCGCCAUAGUUC | 3432 | GGACAAAAAUGAAGCCGAG | 3467 | UAUCCACGGCAACACAAAC |
| 3363 | CCCUAUCACCGCGUAUGCG | 3398 | UACUGGGCGCCAUAGUUCU | 3433 | GACAAAAAUGAAGCCGAGG | 3468 | AUCCACGGCAACACAAACG |
| 3364 | CCUAUCACCGCGUAUGCGC | 3399 | ACUGGGCGCCAUAGUUCUC | 3434 | ACAAAAAUGAAGCCGAGGG | 3469 | UCCACGGCAACACAAACGU |
| 3365 | CUAUCACCGCGUAUGCGCA | 3400 | CUGGGCGCCAUAGUUCUCA | 3435 | CAAAAAUGAAGCCGAGGGU | 3470 | CCACGGCAACACAAACGUU |
| 3366 | UAUCACCGCGUAUGCGCAG | 3401 | UGGGCGCCAUAGUUCUCAG | 3436 | AAAAAUGAAGCCGAGGGUG | 3471 | CACGGCAACACAAACGUUU |
| 3367 | AUCACCGCGUAUGCGCAGC | 3402 | GGGCGCCAUAGUUCUCAGC | 3437 | AAAAUGAAGCCGAGGGUGA | 3472 | ACGGCAACACAAACGUUUC |
| 3368 | UCACCGCGUAUGCGCAGCA | 3403 | GGCGCCAUAGUUCUCAGCC | 3438 | AAAUGAAGCCGAGGGUGAG | 3473 | CGGCAACACAAACGUUUCU |
| 3369 | CACCGCGUAUGCGCAGCAG | 3404 | GCGCCAUAGUUCUCAGCCU | 3439 | AAUGAAGCCGAGGGUGAGG | 3474 | GGCAACACAAACGUUUCUU |
| 3370 | ACCGCGUAUGCGCAGCAGA | 3405 | CGCCAUAGUUCUCAGCCUG | 3440 | AUGAAGCCGAGGGUGAGGU | 3475 | GCAACACAAACGUUUCUUG |
| 3371 | CCGCGUAUGCGCAGCAGAC | 3406 | GCCAUAGUUCUCAGCCUGA | 3441 | UGAAGCCGAGGGUGAGGUG | 3476 | CAACACAAACGUUUCUUGG |
| 3372 | CGCGUAUGCGCAGCAGACG | 3407 | CCAUAGUUCUCAGCCUGAC | 3442 | GAAGCCGAGGGUGAGGUGC | 3477 | AACACAAACGUUUCUUGGC |
| 3373 | GCGUAUGCGCAGCAGACGC | 3408 | CAUAGUUCUCAGCCUGACC | 3443 | AAGCCGAGGGUGAGGUGCA | 3478 | ACACAAACGUUUCUUGGCA |
| 3374 | CGUAUGCGCAGCAGACGCG | 3409 | AUAGUUCUCAGCCUGACCG | 3444 | AGCCGAGGGUGAGGUGCAG | 3479 | CACAAACGUUUCUUGGCAU |
| 3375 | GUAUGCGCAGCAGACGCGA | 3410 | UAGUUCUCAGCCUGACCGG | 3445 | GCCGAGGGUGAGGUGCAGU | 3480 | ACAAACGUUUCUUGGCAUU |
| 3376 | UAUGCGCAGCAGACGCGAG | 3411 | AGUUCUCAGCCUGACCGGC | 3446 | CCGAGGGUGAGGUGCAGUU | 3481 | CAAACGUUUCUUGGCAUUU |
| 3377 | AUGCGCAGCAGACGCGAGG | 3412 | GUUCUCAGCCUGACCGGCC | 3447 | CGAGGGUGAGGUGCAGUUC | 3482 | AAACGUUUCUUGGCAUUUG |
| 3378 | UGCGCAGCAGACGCGAGGG | 3413 | UUCUCAGCCUGACCGGCCG | 3448 | GAGGGUGAGGUGCAGUUCU | 3483 | AACGUUUCUUGGCAUUUGU |
| 3379 | GCGCAGCAGACGCGAGGGG | 3414 | UCUCAGCCUGACCGGCCGG | 3449 | AGGGUGAGGUGCAGUUCUU | 3484 | ACGUUUCUUGGCAUUUGUA |
| 3380 | CGCAGCAGACGCGAGGGGU | 3415 | CUCAGCCUGACCGGCCGGG | 3450 | GGGUGAGGUGCAGUUCUUA | 3485 | CGUUUCUUGGCAUUUGUAU |
| 3381 | GCAGCAGACGCGAGGGGUA | 3416 | UCAGCCUGACCGGCCGGGA | 3451 | GGUGAGGUGCAGUUCUUAU | 3486 | GUUUCUUGGCAUUUGUAUC |
| 3382 | CAGCAGACGCGAGGGGUAC | 3417 | CAGCCUGACCGGCCGGGAC | 3452 | GUGAGGUGCAGUUCUUAUC | 3487 | UUUCUUGGCAUUUGUAUCA |
| 3383 | AGCAGACGCGAGGGGUACU | 3418 | AGCCUGACCGGCCGGGACA | 3453 | UGAGGUGCAGUUCUUAUCC | 3488 | UUCUUGGCAUUUGUAUCAA |
| 3384 | GCAGACGCGAGGGGUACUG | 3419 | GCCUGACCGGCCGGGACAA | 3454 | GAGGUGCAGUUCUUAUCCA | 3489 | UCUUGGCAUUUGUAUCAAU |
| 3385 | CAGACGCGAGGGGUACUGG | 3420 | CCUGACCGGCCGGGACAAA | 3455 | AGGUGCAGUUCUUAUCCAC | 3490 | CUUGGCAUUUGUAUCAAUG |
| 3386 | AGACGCGAGGGGUACUGGG | 3421 | CUGACCGGCCGGGACAAAA | 3456 | GGUGCAGUUCUUAUCCACG | 3491 | UUGGCAUUUGUAUCAAUGG |
| 3387 | GACGCGAGGGGUACUGGGC | 3422 | UGACCGGCCGGGACAAAAA | 3457 | GUGCAGUUCUUAUCCACGG | 3492 | UGGCAUUUGUAUCAAUGGA |
| 3388 | ACGCGAGGGGUACUGGGCG | 3423 | GACCGGCCGGGACAAAAAU | 3458 | UGCAGUUCUUAUCCACGGC | 3493 | GGCAUUUGUAUCAAUGGAG |
| 3389 | CGCGAGGGGUACUGGGCGC | 3424 | ACCGGCCGGGACAAAAAUG | 3459 | GCAGUUCUUAUCCACGGCA | 3494 | GCAUUUGUAUCAAUGGAGU |
| 3390 | GCGAGGGGUACUGGGCGCC | 3425 | CCGGCCGGGACAAAAAUGA | 3460 | CAGUUCUUAUCCACGGCAA | 3495 | CAUUUGUAUCAAUGGAGUG |
| 3391 | CGAGGGGUACUGGGCGCCA | 3426 | CGGCCGGGACAAAAAUGAA | 3461 | AGUUCUUAUCCACGGCAAC | 3496 | AUUUGUAUCAAUGGAGUGA |
| 3392 | GAGGGGUACUGGGCGCCAU | 3427 | GGCCGGGACAAAAAUGAAG | 3462 | GUUCUUAUCCACGGCAACA | 3497 | UUUGUAUCAAUGGAGUGAU |
| 3393 | AGGGGUACUGGGCGCCAUA | 3428 | GCCGGGACAAAAAUGAAGC | 3463 | UUCUUAUCCACGGCAACAC | 3498 | UUGUAUCAAUGGAGUGAUG |
| 3394 | GGGGUACUGGGCGCCAUAG | 3429 | CCGGGACAAAAAUGAAGCC | 3464 | UCUUAUCCACGGCAACACA | 3499 | UGUAUCAAUGGAGUGAUGU |
| 3395 | GGGUACUGGGCGCCAUAGU | 3430 | CGGGACAAAAAUGAAGCCG | 3465 | CUUAUCCACGGCAACACAA | 3500 | GUAUCAAUGGAGUGAUGUG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3501 | UAUCAAUGGAGUGAUGUGG | 3536 | CCGGUUCUAAGACCCUUGC | 3571 | GUAGUGCAGAUGUACACCA | 3606 | GGUGGGGUGGCCUUCCCCC |
| 3502 | AUCAAUGGAGUGAUGUGGA | 3537 | CGGUUCUAAGACCCUUGCU | 3572 | UAGUGCAGAUGUACACCAA | 3607 | GUGGGGUGGCCUUCCCCCC |
| 3503 | UCAAUGGAGUGAUGUGGAC | 3538 | GGUUCUAAGACCCUUGCUG | 3573 | AGUGCAGAUGUACACCAAU | 3608 | UGGGGUGGCCUUCCCCCCC |
| 3504 | CAAUGGAGUGAUGUGGACA | 3539 | GUUCUAAGACCCUUGCUGG | 3574 | GUGCAGAUGUACACCAAUG | 3609 | GGGGUGGCCUUCCCCCCCU |
| 3505 | AAUGGAGUGAUGUGGACAC | 3540 | UUCUAAGACCCUUGCUGGC | 3575 | UGCAGAUGUACACCAAUGU | 3610 | GGGUGGCCUUCCCCCCCUG |
| 3506 | AUGGAGUGAUGUGGACACU | 3541 | UCUAAGACCCUUGCUGGCC | 3576 | GCAGAUGUACACCAAUGUA | 3611 | GGUGGCCUUCCCCCCCUGG |
| 3507 | UGGAGUGAUGUGGACACUC | 3542 | CUAAGACCCUUGCUGGCCC | 3577 | CAGAUGUACACCAAUGUAG | 3612 | GUGGCCUUCCCCCCCUGGA |
| 3508 | GGAGUGAUGUGGACACUCU | 3543 | UAAGACCCUUGCUGGCCCC | 3578 | AGAUGUACACCAAUGUAGA | 3613 | UGGCCUUCCCCCCCUGGAA |
| 3509 | GAGUGAUGUGGACACUCUU | 3544 | AAGACCCUUGCUGGCCCCA | 3579 | GAUGUACACCAAUGUAGAC | 3614 | GGCCUUCCCCCCCUGGAAA |
| 3510 | AGUGAUGUGGACACUCUUC | 3545 | AGACCCUUGCUGGCCCCAA | 3580 | AUGUACACCAAUGUAGACA | 3615 | GCCUUCCCCCCCUGGAAAG |
| 3511 | GUGAUGUGGACACUCUUCC | 3546 | GACCCUUGCUGGCCCCAAA | 3581 | UGUACACCAAUGUAGACAA | 3616 | CCUUCCCCCCCUGGAAAGG |
| 3512 | UGAUGUGGACACUCUUCCA | 3547 | ACCCUUGCUGGCCCCAAAG | 3582 | GUACACCAAUGUAGACAAA | 3617 | CUUCCCCCCCUGGAAAGGG |
| 3513 | GAUGUGGACACUCUUCCAU | 3548 | CCCUUGCUGGCCCCAAAGG | 3583 | UACACCAAUGUAGACAAAG | 3618 | UUCCCCCCCUGGAAAGGGU |
| 3514 | AUGUGGACACUCUUCCAUG | 3549 | CCUUGCUGGCCCCAAAGGC | 3584 | ACACCAAUGUAGACAAAGA | 3619 | UCCCCCCCUGGAAAGGGUU |
| 3515 | UGUGGACACUCUUCCAUGG | 3550 | CUUGCUGGCCCCAAAGGCC | 3585 | CACCAAUGUAGACAAAGAC | 3620 | CCCCCCCUGGAAAGGGUUC |
| 3516 | GUGGACACUCUUCCAUGGG | 3551 | UUGCUGGCCCCAAAGGCCC | 3586 | ACCAAUGUAGACAAAGACC | 3621 | CCCCCCUGGAAAGGGUUCG |
| 3517 | UGGACACUCUUCCAUGGGG | 3552 | UGCUGGCCCCAAAGGCCCG | 3587 | CCAAUGUAGACAAAGACCU | 3622 | CCCCCUGGAAAGGGUUCGC |
| 3518 | GGACACUCUUCCAUGGGGC | 3553 | GCUGGCCCCAAAGGCCCGG | 3588 | CAAUGUAGACAAAGACCUG | 3623 | CCCCUGGAAAGGGUUCGCU |
| 3519 | GACACUCUUCCAUGGGGCC | 3554 | CUGGCCCCAAAGGCCCGGU | 3589 | AAUGUAGACAAAGACCUGG | 3624 | CCCUGGAAAGGGUUCGCUC |
| 3520 | ACACUCUUCCAUGGGGCCG | 3555 | UGGCCCCAAAGGCCCGGUA | 3590 | AUGUAGACAAAGACCUGGU | 3625 | CCUGGAAAGGGUUCGCUCA |
| 3521 | CACUCUUCCAUGGGGCCGG | 3556 | GGCCCCAAAGGCCCGGUAG | 3591 | UGUAGACAAAGACCUGGUG | 3626 | CUGGAAAGGGUUCGCUCAC |
| 3522 | ACUCUUCCAUGGGGCCGGU | 3557 | GCCCCAAAGGCCCGGUAGU | 3592 | GUAGACAAAGACCUGGUGG | 3627 | UGGAAAGGGUUCGCUCACC |
| 3523 | CUCUUCCAUGGGGCCGGUU | 3558 | CCCCAAAGGCCCGGUAGUG | 3593 | UAGACAAAGACCUGGUGGG | 3628 | GGAAAGGGUUCGCUCACCC |
| 3524 | UCUUCCAUGGGGCCGGUUC | 3559 | CCCAAAGGCCCGGUAGUGC | 3594 | AGACAAAGACCUGGUGGGG | 3629 | GAAAGGGUUCGCUCACCCG |
| 3525 | CUUCCAUGGGGCCGGUUCU | 3560 | CCAAAGGCCCGGUAGUGCA | 3595 | GACAAAGACCUGGUGGGGU | 3630 | AAAGGGUUCGCUCACCCGG |
| 3526 | UUCCAUGGGGCCGGUUCUA | 3561 | CAAAGGCCCGGUAGUGCAG | 3596 | ACAAAGACCUGGUGGGGUG | 3631 | AAGGGUUCGCUCACCCGGU |
| 3527 | UCCAUGGGGCCGGUUCUAA | 3562 | AAAGGCCCGGUAGUGCAGA | 3597 | CAAAGACCUGGUGGGGUGG | 3632 | AGGGUUCGCUCACCCGGUG |
| 3528 | CCAUGGGGCCGGUUCUAAG | 3563 | AAGGCCCGGUAGUGCAGAU | 3598 | AAAGACCUGGUGGGGUGGC | 3633 | GGGUUCGCUCACCCGGUGU |
| 3529 | CAUGGGGCCGGUUCUAAGA | 3564 | AGGCCCGGUAGUGCAGAUG | 3599 | AAGACCUGGUGGGGUGGCC | 3634 | GGUUCGCUCACCCGGUGUA |
| 3530 | AUGGGGCCGGUUCUAAGAC | 3565 | GGCCCGGUAGUGCAGAUGU | 3600 | AGACCUGGUGGGGUGGCCU | 3635 | GUUCGCUCACCCGGUGUAC |
| 3531 | UGGGGCCGGUUCUAAGACC | 3566 | GCCCGGUAGUGCAGAUGUA | 3601 | GACCUGGUGGGGUGGCCUU | 3636 | UUCGCUCACCCGGUGUACU |
| 3532 | GGGGCCGGUUCUAAGACCC | 3567 | CCCGGUAGUGCAGAUGUAC | 3602 | ACCUGGUGGGGUGGCCUUC | 3637 | UCGCUCACCCGGUGUACUU |
| 3533 | GGGCCGGUUCUAAGACCCU | 3568 | CCGGUAGUGCAGAUGUACA | 3603 | CCUGGUGGGGUGGCCUUCC | 3638 | CGCUCACCCGGUGUACUUG |
| 3534 | GGCCGGUUCUAAGACCCUU | 3569 | CGGUAGUGCAGAUGUACAC | 3604 | CUGGUGGGGUGGCCUUCCC | 3639 | GCUCACCCGGUGUACUUGC |
| 3535 | GCCGGUUCUAAGACCCUUG | 3570 | GGUAGUGCAGAUGUACACC | 3605 | UGGUGGGGUGGCCUUCCCC | 3640 | CUCACCCGGUGUACUUGCG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3641 | UCACCCGGUGUACUUGCGG | 3676 | CUGGUUACCAGGCAUGCAG | 3711 | UAGACGGGGCGACACUCGC | 3746 | CGAGACCCAUCAGUUACCU |
| 3642 | CACCCGGUGUACUUGCGGG | 3677 | UGGUUACCAGGCAUGCAGA | 3712 | AGACGGGGCGACACUCGCG | 3747 | GAGACCCAUCAGUUACCUC |
| 3643 | ACCCGGUGUACUUGCGGGU | 3678 | GGUUACCAGGCAUGCAGAC | 3713 | GACGGGGCGACACUCGCGC | 3748 | AGACCCAUCAGUUACCUCA |
| 3644 | CCCGGUGUACUUGCGGGUC | 3679 | GUUACCAGGCAUGCAGACG | 3714 | ACGGGGCGACACUCGCGCC | 3749 | GACCCAUCAGUUACCUCAA |
| 3645 | CCGGUGUACUUGCGGGUCG | 3680 | UUACCAGGCAUGCAGACGU | 3715 | CGGGGCGACACUCGCGCCU | 3750 | ACCCAUCAGUUACCUCAAG |
| 3646 | CGGUGUACUUGCGGGUCGG | 3681 | UACCAGGCAUGCAGACGUC | 3716 | GGGGCGACACUCGCGCCUC | 3751 | CCCAUCAGUUACCUCAAGG |
| 3647 | GGUGUACUUGCGGGUCGGC | 3682 | ACCAGGCAUGCAGACGUCA | 3717 | GGGCGACACUCGCGCCUCC | 3752 | CCAUCAGUUACCUCAAGGG |
| 3648 | GUGUACUUGCGGGUCGGCG | 3683 | CCAGGCAUGCAGACGUCAU | 3718 | GGCGACACUCGCGCCUCCU | 3753 | CAUCAGUUACCUCAAGGGU |
| 3649 | UGUACUUGCGGGUCGGCGG | 3684 | CAGGCAUGCAGACGUCAUU | 3719 | GCGACACUCGCGCCUCCUU | 3754 | AUCAGUUACCUCAAGGGUU |
| 3650 | GUACUUGCGGGUCGGCGGA | 3685 | AGGCAUGCAGACGUCAUUC | 3720 | CGACACUCGCGCCUCCUUG | 3755 | UCAGUUACCUCAAGGGUUC |
| 3651 | UACUUGCGGGUCGGCGGAU | 3686 | GGCAUGCAGACGUCAUUCC | 3721 | GACACUCGCGCCUCCUUGC | 3756 | CAGUUACCUCAAGGGUUCC |
| 3652 | ACUUGCGGGUCGGCGGAUC | 3687 | GCAUGCAGACGUCAUUCCC | 3722 | ACACUCGCGCCUCCUUGCU | 3757 | AGUUACCUCAAGGGUUCCU |
| 3653 | CUUGCGGGUCGGCGGAUCU | 3688 | CAUGCAGACGUCAUUCCCG | 3723 | CACUCGCGCCUCCUUGCUC | 3758 | GUUACCUCAAGGGUUCCUC |
| 3654 | UUGCGGGUCGGCGGAUCUG | 3689 | AUGCAGACGUCAUUCCCGC | 3724 | ACUCGCGCCUCCUUGCUCA | 3759 | UUACCUCAAGGGUUCCUCG |
| 3655 | UGCGGGUCGGCGGAUCUGU | 3690 | UGCAGACGUCAUUCCCGCC | 3725 | CUCGCGCCUCCUUGCUCAG | 3760 | UACCUCAAGGGUUCCUCGG |
| 3656 | GCGGGUCGGCGGAUCUGUA | 3691 | GCAGACGUCAUUCCCGCCC | 3726 | UCGCGCCUCCUUGCUCAGC | 3761 | ACCUCAAGGGUUCCUCGGG |
| 3657 | CGGGUCGGCGGAUCUGUAC | 3692 | CAGACGUCAUUCCCGCCCG | 3727 | CGCGCCUCCUUGCUCAGCC | 3762 | CCUCAAGGGUUCCUCGGGU |
| 3658 | GGGUCGGCGGAUCUGUACC | 3693 | AGACGUCAUUCCCGCCCGU | 3728 | GCGCCUCCUUGCUCAGCCC | 3763 | CUCAAGGGUUCCUCGGGUG |
| 3659 | GGUCGGCGGAUCUGUACCU | 3694 | GACGUCAUUCCCGCCCGUA | 3729 | CGCCUCCUUGCUCAGCCCG | 3764 | UCAAGGGUUCCUCGGGUGG |
| 3660 | GUCGGCGGAUCUGUACCUG | 3695 | ACGUCAUUCCCGCCCGUAG | 3730 | GCCUCCUUGCUCAGCCCGA | 3765 | CAAGGGUUCCUCGGGUGGC |
| 3661 | UCGGCGGAUCUGUACCUGG | 3696 | CGUCAUUCCCGCCCGUAGA | 3731 | CCUCCUUGCUCAGCCCGAG | 3766 | AAGGGUUCCUCGGGUGGCC |
| 3662 | CGGCGGAUCUGUACCUGGU | 3697 | GUCAUUCCCGCCCGUAGAC | 3732 | CUCCUUGCUCAGCCCGAGA | 3767 | AGGGUUCCUCGGGUGGCCC |
| 3663 | GGCGGAUCUGUACCUGGUU | 3698 | UCAUUCCCGCCCGUAGACG | 3733 | UCCUUGCUCAGCCCGAGAC | 3768 | GGGUUCCUCGGGUGGCCCG |
| 3664 | GCGGAUCUGUACCUGGUUA | 3699 | CAUUCCCGCCCGUAGACGG | 3734 | CCUUGCUCAGCCCGAGACC | 3769 | GGUUCCUCGGGUGGCCCGA |
| 3665 | CGGAUCUGUACCUGGUUAC | 3700 | AUUCCCGCCCGUAGACGGG | 3735 | CUUGCUCAGCCCGAGACCC | 3770 | GUUCCUCGGGUGGCCCGAU |
| 3666 | GGAUCUGUACCUGGUUACC | 3701 | UUCCCGCCCGUAGACGGGG | 3736 | UUGCUCAGCCCGAGACCCA | 3771 | UUCCUCGGGUGGCCCGAUC |
| 3667 | GAUCUGUACCUGGUUACCA | 3702 | UCCCGCCCGUAGACGGGGC | 3737 | UGCUCAGCCCGAGACCCAU | 3772 | UCCUCGGGUGGCCCGAUCA |
| 3668 | AUCUGUACCUGGUUACCAG | 3703 | CCCGCCCGUAGACGGGGCG | 3738 | GCUCAGCCCGAGACCCAUC | 3773 | CCUCGGGUGGCCCGAUCAU |
| 3669 | UCUGUACCUGGUUACCAGG | 3704 | CCGCCCGUAGACGGGGCGA | 3739 | CUCAGCCCGAGACCCAUCA | 3774 | CUCGGGUGGCCCGAUCAUG |
| 3670 | CUGUACCUGGUUACCAGGC | 3705 | CGCCCGUAGACGGGGCGAC | 3740 | UCAGCCCGAGACCCAUCAG | 3775 | UCGGGUGGCCCGAUCAUGU |
| 3671 | UGUACCUGGUUACCAGGCA | 3706 | GCCCGUAGACGGGGCGACA | 3741 | CAGCCCGAGACCCAUCAGU | 3776 | CGGGUGGCCCGAUCAUGUG |
| 3672 | GUACCUGGUUACCAGGCAU | 3707 | CCCGUAGACGGGGCGACAC | 3742 | AGCCCGAGACCCAUCAGUU | 3777 | GGGUGGCCCGAUCAUGUGC |
| 3673 | UACCUGGUUACCAGGCAUG | 3708 | CCGUAGACGGGGCGACACU | 3743 | GCCCGAGACCCAUCAGUUA | 3778 | GGUGGCCCGAUCAUGUGCC |
| 3674 | ACCUGGUUACCAGGCAUGC | 3709 | CGUAGACGGGGCGACACUC | 3744 | CCCGAGACCCAUCAGUUAC | 3779 | GUGGCCCGAUCAUGUGCCC |
| 3675 | CCUGGUUACCAGGCAUGCA | 3710 | GUAGACGGGGCGACACUCG | 3745 | CCGAGACCCAUCAGUUACC | 3780 | UGGCCCGAUCAUGUGCCCU |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3781 | GGCCCGAUCAUGUGCCCUU | 3816 | UGUUUUCAGGGCCGCCGUG | 3851 | CGAAGGCGCUCGAGUUCGU | 3886 | GAGACCACGAUGCGCUCAC |
| 3782 | GCCCGAUCAUGUGCCCUUC | 3817 | GUUUUCAGGGCCGCCGUGU | 3852 | GAAGGCGCUCGAGUUCGUC | 3887 | AGACCACGAUGCGCUCACC |
| 3783 | CCCGAUCAUGUGCCCUUCC | 3818 | UUUUCAGGGCCGCCGUGUG | 3853 | AAGGCGCUCGAGUUCGUCC | 3888 | GACCACGAUGCGCUCACCU |
| 3784 | CCGAUCAUGUGCCCUUCCG | 3819 | UUUCAGGGCCGCCGUGUGC | 3854 | AGGCGCUCGAGUUCGUCCC | 3889 | ACCACGAUGCGCUCACCUG |
| 3785 | CGAUCAUGUGCCCUUCCGG | 3820 | UUCAGGGCCGCCGUGUGCA | 3855 | GGCGCUCGAGUUCGUCCCG | 3890 | CCACGAUGCGCUCACCUGU |
| 3786 | GAUCAUGUGCCCUUCCGGG | 3821 | UCAGGGCCGCCGUGUGCAC | 3856 | GCGCUCGAGUUCGUCCCGG | 3891 | CACGAUGCGCUCACCUGUG |
| 3787 | AUCAUGUGCCCUUCCGGGC | 3822 | CAGGGCCGCCGUGUGCACG | 3857 | CGCUCGAGUUCGUCCCGGU | 3892 | ACGAUGCGCUCACCUGUGU |
| 3788 | UCAUGUGCCCUUCCGGGCA | 3823 | AGGGCCGCCGUGUGCACGC | 3858 | GCUCGAGUUCGUCCCGGUC | 3893 | CGAUGCGCUCACCUGUGUU |
| 3789 | CAUGUGCCCUUCCGGGCAU | 3824 | GGGCCGCCGUGUGCACGCG | 3859 | CUCGAGUUCGUCCCGGUCG | 3894 | GAUGCGCUCACCUGUGUUC |
| 3790 | AUGUGCCCUUCCGGGCAUG | 3825 | GGCCGCCGUGUGCACGCGG | 3860 | UCGAGUUCGUCCCGGUCGA | 3895 | AUGCGCUCACCUGUGUUCA |
| 3791 | UGUGCCCUUCCGGGCAUGU | 3826 | GCCGCCGUGUGCACGCGGG | 3861 | CGAGUUCGUCCCGGUCGAA | 3896 | UGCGCUCACCUGUGUUCAC |
| 3792 | GUGCCCUUCCGGGCAUGUG | 3827 | CCGCCGUGUGCACGCGGGG | 3862 | GAGUUCGUCCCGGUCGAAA | 3897 | GCGCUCACCUGUGUUCACU |
| 3793 | UGCCCUUCCGGGCAUGUGG | 3828 | CGCCGUGUGCACGCGGGGU | 3863 | AGUUCGUCCCGGUCGAAAA | 3898 | CGCUCACCUGUGUUCACUG |
| 3794 | GCCCUUCCGGGCAUGUGGU | 3829 | GCCGUGUGCACGCGGGGUG | 3864 | GUUCGUCCCGGUCGAAAAC | 3899 | GCUCACCUGUGUUCACUGA |
| 3795 | CCCUUCCGGGCAUGUGGUA | 3830 | CCGUGUGCACGCGGGGUGU | 3865 | UUCGUCCCGGUCGAAAACC | 3900 | CUCACCUGUGUUCACUGAC |
| 3796 | CCUUCCGGGCAUGUGGUAG | 3831 | CGUGUGCACGCGGGGUGUU | 3866 | UCGUCCCGGUCGAAAACCU | 3901 | UCACCUGUGUUCACUGACA |
| 3797 | CUUCCGGGCAUGUGGUAGG | 3832 | GUGUGCACGCGGGGUGUUG | 3867 | CGUCCCGGUCGAAAACCUG | 3902 | CACCUGUGUUCACUGACAA |
| 3798 | UUCCGGGCAUGUGGUAGGU | 3833 | UGUGCACGCGGGGUGUUGC | 3868 | GUCCCGGUCGAAAACCUGG | 3903 | ACCUGUGUUCACUGACAAC |
| 3799 | UCCGGGCAUGUGGUAGGUG | 3834 | GUGCACGCGGGGUGUUGCG | 3869 | UCCCGGUCGAAAACCUGGA | 3904 | CCUGUGUUCACUGACAACA |
| 3800 | CCGGGCAUGUGGUAGGUGU | 3835 | UGCACGCGGGGUGUUGCGA | 3870 | CCCGGUCGAAAACCUGGAG | 3905 | CUGUGUUCACUGACAACAG |
| 3801 | CGGGCAUGUGGUAGGUGUU | 3836 | GCACGCGGGGUGUUGCGAA | 3871 | CCGGUCGAAAACCUGGAGA | 3906 | UGUGUUCACUGACAACAGU |
| 3802 | GGGCAUGUGGUAGGUGUUU | 3837 | CACGCGGGGUGUUGCGAAG | 3872 | CGGUCGAAAACCUGGAGAC | 3907 | GUGUUCACUGACAACAGUA |
| 3803 | GGCAUGUGGUAGGUGUUUU | 3838 | ACGCGGGGUGUUGCGAAGG | 3873 | GGUCGAAAACCUGGAGACC | 3908 | UGUUCACUGACAACAGUAC |
| 3804 | GCAUGUGGUAGGUGUUUUC | 3839 | CGCGGGGUGUUGCGAAGGC | 3874 | GUCGAAAACCUGGAGACCA | 3909 | GUUCACUGACAACAGUACG |
| 3805 | CAUGUGGUAGGUGUUUUCA | 3840 | GCGGGGUGUUGCGAAGGCG | 3875 | UCGAAAACCUGGAGACCAC | 3910 | UUCACUGACAACAGUACGC |
| 3806 | AUGUGGUAGGUGUUUUCAG | 3841 | CGGGGUGUUGCGAAGGCGC | 3876 | CGAAAACCUGGAGACCACG | 3911 | UCACUGACAACAGUACGCC |
| 3807 | UGUGGUAGGUGUUUUCAGG | 3842 | GGGGUGUUGCGAAGGCGCU | 3877 | GAAAACCUGGAGACCACGA | 3912 | CACUGACAACAGUACGCCC |
| 3808 | GUGGUAGGUGUUUUCAGGG | 3843 | GGGUGUUGCGAAGGCGCUC | 3878 | AAAACCUGGAGACCACGAU | 3913 | ACUGACAACAGUACGCCCC |
| 3809 | UGGUAGGUGUUUUCAGGGC | 3844 | GGUGUUGCGAAGGCGCUCG | 3879 | AAACCUGGAGACCACGAUG | 3914 | CUGACAACAGUACGCCCCC |
| 3810 | GGUAGGUGUUUUCAGGGCC | 3845 | GUGUUGCGAAGGCGCUCGA | 3880 | AACCUGGAGACCACGAUGC | 3915 | UGACAACAGUACGCCCCCU |
| 3811 | GUAGGUGUUUUCAGGGCCG | 3846 | UGUUGCGAAGGCGCUCGAG | 3881 | ACCUGGAGACCACGAUGCG | 3916 | GACAACAGUACGCCCCCUG |
| 3812 | UAGGUGUUUUCAGGGCCGC | 3847 | GUUGCGAAGGCGCUCGAGU | 3882 | CCUGGAGACCACGAUGCGC | 3917 | ACAACAGUACGCCCCCUGC |
| 3813 | AGGUGUUUUCAGGGCCGCC | 3848 | UUGCGAAGGCGCUCGAGUU | 3883 | CUGGAGACCACGAUGCGCU | 3918 | CAACAGUACGCCCCCUGCA |
| 3814 | GGUGUUUUCAGGGCCGCCG | 3849 | UGCGAAGGCGCUCGAGUUC | 3884 | UGGAGACCACGAUGCGCUC | 3919 | AACAGUACGCCCCCUGCAG |
| 3815 | GUGUUUUCAGGGCCGCCGU | 3850 | GCGAAGGCGCUCGAGUUCG | 3885 | GGAGACCACGAUGCGCUCA | 3920 | ACAGUACGCCCCCUGCAGU |

**FIG. 6 (sheet 315 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3921 | CAGUACGCCCCCUGCAGUC | 3956 | UGGGGCACCUCCAUGCACC | 3991 | AGCACAAAGGUGCCCGCCG | 4026 | GUACAAGGUGCUGGUGCUA |
| 3922 | AGUACGCCCCCUGCAGUCC | 3957 | GGGGCACCUCCAUGCACCC | 3992 | GCACAAAGGUGCCCGCCGC | 4027 | UACAAGGUGCUGGUGCUAA |
| 3923 | GUACGCCCCCUGCAGUCCC | 3958 | GGGCACCUCCAUGCACCCA | 3993 | CACAAAGGUGCCCGCCGCU | 4028 | ACAAGGUGCUGGUGCUAAA |
| 3924 | UACGCCCCCUGCAGUCCCU | 3959 | GGCACCUCCAUGCACCCAC | 3994 | ACAAAGGUGCCCGCCGCUU | 4029 | CAAGGUGCUGGUGCUAAAC |
| 3925 | ACGCCCCCUGCAGUCCCUC | 3960 | GCACCUCCAUGCACCCACC | 3995 | CAAAGGUGCCCGCCGCUUA | 4030 | AAGGUGCUGGUGCUAAACC |
| 3926 | CGCCCCCUGCAGUCCCUCA | 3961 | CACCUCCAUGCACCCACCG | 3996 | AAAGGUGCCCGCCGCUUAC | 4031 | AGGUGCUGGUGCUAAACCC |
| 3927 | GCCCCCUGCAGUCCCUCAU | 3962 | ACCUCCAUGCACCCACCGG | 3997 | AAGGUGCCCGCCGCUUACG | 4032 | GGUGCUGGUGCUAAACCCG |
| 3928 | CCCCCUGCAGUCCCUCAUG | 3963 | CCUCCAUGCACCCACCGGA | 3998 | AGGUGCCCGCCGCUUACGC | 4033 | GUGCUGGUGCUAAACCCGU |
| 3929 | CCCCUGCAGUCCCUCAUGA | 3964 | CUCCAUGCACCCACCGGAA | 3999 | GGUGCCCGCCGCUUACGCG | 4034 | UGCUGGUGCUAAACCCGUC |
| 3930 | CCCUGCAGUCCCUCAUGAG | 3965 | UCCAUGCACCCACCGGAAG | 4000 | GUGCCCGCCGCUUACGCGG | 4035 | GCUGGUGCUAAACCCGUCC |
| 3931 | CCUGCAGUCCCUCAUGAGU | 3966 | CCAUGCACCCACCGGAAGC | 4001 | UGCCCGCCGCUUACGCGGC | 4036 | CUGGUGCUAAACCCGUCCG |
| 3932 | CUGCAGUCCCUCAUGAGUU | 3967 | CAUGCACCCACCGGAAGCG | 4002 | GCCCGCCGCUUACGCGGCC | 4037 | UGGUGCUAAACCCGUCCGU |
| 3933 | UGCAGUCCCUCAUGAGUUC | 3968 | AUGCACCCACCGGAAGCGG | 4003 | CCCGCCGCUUACGCGGCCC | 4038 | GGUGCUAAACCCGUCCGUC |
| 3934 | GCAGUCCCUCAUGAGUUCC | 3969 | UGCACCCACCGGAAGCGGG | 4004 | CCGCCGCUUACGCGGCCCA | 4039 | GUGCUAAACCCGUCCGUCG |
| 3935 | CAGUCCCUCAUGAGUUCCA | 3970 | GCACCCACCGGAAGCGGGA | 4005 | CGCCGCUUACGCGGCCCAA | 4040 | UGCUAAACCCGUCCGUCGC |
| 3936 | AGUCCCUCAUGAGUUCCAA | 3971 | CACCCACCGGAAGCGGGAA | 4006 | GCCGCUUACGCGGCCCAAG | 4041 | GCUAAACCCGUCCGUCGCA |
| 3937 | GUCCCUCAUGAGUUCCAAG | 3972 | ACCCACCGGAAGCGGGAAG | 4007 | CCGCUUACGCGGCCCAAGG | 4042 | CUAAACCCGUCCGUCGCAG |
| 3938 | UCCCUCAUGAGUUCCAAGU | 3973 | CCCACCGGAAGCGGGAAGA | 4008 | CGCUUACGCGGCCCAAGGG | 4043 | UAAACCCGUCCGUCGCAGC |
| 3939 | CCCUCAUGAGUUCCAAGUG | 3974 | CCACCGGAAGCGGGAAGAG | 4009 | GCUUACGCGGCCCAAGGGU | 4044 | AAACCCGUCCGUCGCAGCA |
| 3940 | CCUCAUGAGUUCCAAGUGG | 3975 | CACCGGAAGCGGGAAGAGC | 4010 | CUUACGCGGCCCAAGGGUA | 4045 | AACCCGUCCGUCGCAGCAA |
| 3941 | CUCAUGAGUUCCAAGUGGG | 3976 | ACCGGAAGCGGGAAGAGCA | 4011 | UUACGCGGCCCAAGGGUAC | 4046 | ACCCGUCCGUCGCAGCAAC |
| 3942 | UCAUGAGUUCCAAGUGGGG | 3977 | CCGGAAGCGGGAAGAGCAC | 4012 | UACGCGGCCCAAGGGUACA | 4047 | CCCGUCCGUCGCAGCAACG |
| 3943 | CAUGAGUUCCAAGUGGGGC | 3978 | CGGAAGCGGGAAGAGCACA | 4013 | ACGCGGCCCAAGGGUACAA | 4048 | CCGUCCGUCGCAGCAACGU |
| 3944 | AUGAGUUCCAAGUGGGGCA | 3979 | GGAAGCGGGAAGAGCACAA | 4014 | CGCGGCCCAAGGGUACAAG | 4049 | CGUCCGUCGCAGCAACGUU |
| 3945 | UGAGUUCCAAGUGGGGCAC | 3980 | GAAGCGGGAAGAGCACAAA | 4015 | GCGGCCCAAGGGUACAAGG | 4050 | GUCCGUCGCAGCAACGUUC |
| 3946 | GAGUUCCAAGUGGGGCACC | 3981 | AAGCGGGAAGAGCACAAAG | 4016 | CGGCCCAAGGGUACAAGGU | 4051 | UCCGUCGCAGCAACGUUCG |
| 3947 | AGUUCCAAGUGGGGCACCU | 3982 | AGCGGGAAGAGCACAAAGG | 4017 | GGCCCAAGGGUACAAGGUG | 4052 | CCGUCGCAGCAACGUUCGG |
| 3948 | GUUCCAAGUGGGGCACCUC | 3983 | GCGGGAAGAGCACAAAGGU | 4018 | GCCCAAGGGUACAAGGUGC | 4053 | CGUCGCAGCAACGUUCGGG |
| 3949 | UUCCAAGUGGGGCACCUCC | 3984 | CGGGAAGAGCACAAAGGUG | 4019 | CCCAAGGGUACAAGGUGCU | 4054 | GUCGCAGCAACGUUCGGGU |
| 3950 | UCCAAGUGGGGCACCUCCA | 3985 | GGGAAGAGCACAAAGGUGC | 4020 | CCAAGGGUACAAGGUGCUG | 4055 | UCGCAGCAACGUUCGGGUU |
| 3951 | CCAAGUGGGGCACCUCCAU | 3986 | GGAAGAGCACAAAGGUGCC | 4021 | CAAGGGUACAAGGUGCUGG | 4056 | CGCAGCAACGUUCGGGUUC |
| 3952 | CAAGUGGGGCACCUCCAUG | 3987 | GAAGAGCACAAAGGUGCCC | 4022 | AAGGGUACAAGGUGCUGGU | 4057 | GCAGCAACGUUCGGGUUCG |
| 3953 | AAGUGGGGCACCUCCAUGC | 3988 | AAGAGCACAAAGGUGCCCG | 4023 | AGGGUACAAGGUGCUGGUG | 4058 | CAGCAACGUUCGGGUUCGG |
| 3954 | AGUGGGGCACCUCCAUGCA | 3989 | AGAGCACAAAGGUGCCCGC | 4024 | GGGUACAAGGUGCUGGUGC | 4059 | AGCAACGUUCGGGUUCGGG |
| 3955 | GUGGGGCACCUCCAUGCAC | 3990 | GAGCACAAAGGUGCCCGCC | 4025 | GGUACAAGGUGCUGGUGCU | 4060 | GCAACGUUCGGGUUCGGGG |

**FIG. 6 (sheet 316 of 479)**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4061 | CAACGUUCGGGUUCGGGGC | 4096 | UACGGCGUGGACCCCAACA | 4131 | GACUGUCACCACCGGAGCC | 4166 | CUUAUGGCAAGUUCUUCGC |
| 4062 | AACGUUCGGGUUCGGGGCA | 4097 | ACGGCGUGGACCCCAACAU | 4132 | ACUGUCACCACCGGAGCCG | 4167 | UUAUGGCAAGUUCUUCGCC |
| 4063 | ACGUUCGGGUUCGGGGCAU | 4098 | CGGCGUGGACCCCAACAUC | 4133 | CUGUCACCACCGGAGCCGG | 4168 | UAUGGCAAGUUCUUCGCCG |
| 4064 | CGUUCGGGUUCGGGGCAUA | 4099 | GGCGUGGACCCCAACAUCA | 4134 | UGUCACCACCGGAGCCGGU | 4169 | AUGGCAAGUUCUUCGCCGA |
| 4065 | GUUCGGGUUCGGGGCAUAC | 4100 | GCGUGGACCCCAACAUCAG | 4135 | GUCACCACCGGAGCCGGUA | 4170 | UGGCAAGUUCUUCGCCGAC |
| 4066 | UUCGGGUUCGGGGCAUACA | 4101 | CGUGGACCCCAACAUCAGG | 4136 | UCACCACCGGAGCCGGUAU | 4171 | GGCAAGUUCUUCGCCGACG |
| 4067 | UCGGGUUCGGGGCAUACAU | 4102 | GUGGACCCCAACAUCAGGA | 4137 | CACCACCGGAGCCGGUAUA | 4172 | GCAAGUUCUUCGCCGACGG |
| 4068 | CGGGUUCGGGGCAUACAUG | 4103 | UGGACCCCAACAUCAGGAC | 4138 | ACCACCGGAGCCGGUAUAA | 4173 | CAAGUUCUUCGCCGACGGG |
| 4069 | GGGUUCGGGGCAUACAUGU | 4104 | GGACCCCAACAUCAGGACC | 4139 | CCACCGGAGCCGGUAUAAC | 4174 | AAGUUCUUCGCCGACGGGG |
| 4070 | GGUUCGGGGCAUACAUGUC | 4105 | GACCCCAACAUCAGGACCG | 4140 | CACCGGAGCCGGUAUAACA | 4175 | AGUUCUUCGCCGACGGGGG |
| 4071 | GUUCGGGGCAUACAUGUCA | 4106 | ACCCCAACAUCAGGACCGG | 4141 | ACCGGAGCCGGUAUAACAU | 4176 | GUUCUUCGCCGACGGGGGG |
| 4072 | UUCGGGGCAUACAUGUCAA | 4107 | CCCCAACAUCAGGACCGGA | 4142 | CCGGAGCCGGUAUAACAUA | 4177 | UUCUUCGCCGACGGGGGGU |
| 4073 | UCGGGGCAUACAUGUCAAG | 4108 | CCCAACAUCAGGACCGGAG | 4143 | CGGAGCCGGUAUAACAUAC | 4178 | UCUUCGCCGACGGGGGGUG |
| 4074 | CGGGGCAUACAUGUCAAGA | 4109 | CCAACAUCAGGACCGGAGU | 4144 | GGAGCCGGUAUAACAUACU | 4179 | CUUCGCCGACGGGGGGUGC |
| 4075 | GGGGCAUACAUGUCAAGAG | 4110 | CAACAUCAGGACCGGAGUU | 4145 | GAGCCGGUAUAACAUACUC | 4180 | UUCGCCGACGGGGGGUGCU |
| 4076 | GGGCAUACAUGUCAAGAGC | 4111 | AACAUCAGGACCGGAGUUA | 4146 | AGCCGGUAUAACAUACUCU | 4181 | UCGCCGACGGGGGGUGCUC |
| 4077 | GGCAUACAUGUCAAGAGCA | 4112 | ACAUCAGGACCGGAGUUAG | 4147 | GCCGGUAUAACAUACUCUA | 4182 | CGCCGACGGGGGGUGCUCC |
| 4078 | GCAUACAUGUCAAGAGCAU | 4113 | CAUCAGGACCGGAGUUAGG | 4148 | CCGGUAUAACAUACUCUAC | 4183 | GCCGACGGGGGGUGCUCGC |
| 4079 | CAUACAUGUCAAGAGCAUA | 4114 | AUCAGGACCGGAGUUAGGA | 4149 | CGGUAUAACAUACUCUACU | 4184 | CCGACGGGGGGUGCUCGGG |
| 4080 | AUACAUGUCAAGAGCAUAC | 4115 | UCAGGACCGGAGUUAGGAC | 4150 | GGUAUAACAUACUCUACUU | 4185 | CGACGGGGGGUGCUCGGGC |
| 4081 | UACAUGUCAAGAGCAUACG | 4116 | CAGGACCGGAGUUAGGACU | 4151 | GUAUAACAUACUCUACUUA | 4186 | GACGGGGGGUGCUCGGGCG |
| 4082 | ACAUGUCAAGAGCAUACGG | 4117 | AGGACCGGAGUUAGGACUG | 4152 | UAUAACAUACUCUACUUAU | 4187 | ACGGGGGGUGCUCGGGCGG |
| 4083 | CAUGUCAAGAGCAUACGGC | 4118 | GGACCGGAGUUAGGACUGU | 4153 | AUAACAUACUCUACUUAUG | 4188 | CGGGGGGUGCUCGGGCGGC |
| 4084 | AUGUCAAGAGCAUACGGCG | 4119 | GACCGGAGUUAGGACUGUC | 4154 | UAACAUACUCUACUUAUGG | 4189 | GGGGGGUGCUCGGGCGGCG |
| 4085 | UGUCAAGAGCAUACGGCGU | 4120 | ACCGGAGUUAGGACUGUCA | 4155 | AACAUACUCUACUUAUGGC | 4190 | GGGGGUGCUCGGGCGGCGC |
| 4086 | GUCAAGAGCAUACGGCGUG | 4121 | CCGGAGUUAGGACUGUCAC | 4156 | ACAUACUCUACUUAUGGCA | 4191 | GGGGUGCUCGGGCGGCGCG |
| 4087 | UCAAGAGCAUACGGCGUGG | 4122 | CGGAGUUAGGACUGUCACC | 4157 | CAUACUCUACUUAUGGCAA | 4192 | GGGUGCUCGGGCGGCGCGU |
| 4088 | CAAGAGCAUACGGCGUGGA | 4123 | GGAGUUAGGACUGUCACCA | 4158 | AUACUCUACUUAUGGCAAG | 4193 | GGUGCUCGGGCGGCGCGUA |
| 4089 | AAGAGCAUACGGCGUGGAC | 4124 | GAGUUAGGACUGUCACCAC | 4159 | UACUCUACUUAUGGCAAGU | 4194 | GUGCUCGGGCGGCGCGUAU |
| 4090 | AGAGCAUACGGCGUGGACC | 4125 | AGUUAGGACUGUCACCACC | 4160 | ACUCUACUUAUGGCAAGUU | 4195 | UGCUCGGGCGGCGCGUAUG |
| 4091 | GAGCAUACGGCGUGGACCC | 4126 | GUUAGGACUGUCACCACCG | 4161 | CUCUACUUAUGGCAAGUUC | 4196 | GCUCGGGCGGCGCGUAUGA |
| 4092 | AGCAUACGGCGUGGACCCC | 4127 | UUAGGACUGUCACCACCGG | 4162 | UCUACUUAUGGCAAGUUCU | 4197 | CUCGGGCGGCGCGUAUGAC |
| 4093 | GCAUACGGCGUGGACCCCA | 4128 | UAGGACUGUCACCACCGGA | 4163 | CUACUUAUGGCAAGUUCUU | 4198 | UCGGGCGGCGCGUAUGACG |
| 4094 | CAUACGGCGUGGACCCCAA | 4129 | AGGACUGUCACCACCGGAG | 4164 | UACUUAUGGCAAGUUCUUC | 4199 | CGGGCGGCGCGUAUGACGU |
| 4095 | AUACGGCGUGGACCCCAAC | 4130 | GGACUGUCACCACCGGAGC | 4165 | ACUUAUGGCAAGUUCUUCG | 4200 | GGGCGGCGCGUAUGACGUA |



FIG. 6 (sheet 317 of 479)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4201 | GGCGGCGCGUAUGACGUAA | 4236 | CCAUUCCCAGGACGCUACC | 4271 | GCACAGUCCUUGACCAGGC | 4306 | AGGCUCGUUGUCUUGGCGA |
| 4202 | GCGGCGCGUAUGACGUAAU | 4237 | CAUUCCCAGGACGCUACCA | 4272 | CACAGUCCUUGACCAGGCA | 4307 | GGCUCGUUGUCUUGGCGAC |
| 4203 | CGGCGCGUAUGACGUAAUC | 4238 | AUUCCCAGGACGCUACCAC | 4273 | ACAGUCCUUGACCAGGCAG | 4308 | GCUCGUUGUCUUGGCGACG |
| 4204 | GGCGCGUAUGACGUAAUCA | 4239 | UUCCCAGGACGCUACCACC | 4274 | CAGUCCUUGACCAGGCAGA | 4309 | CUCGUUGUCUUGGCGACGG |
| 4205 | GCGCGUAUGACGUAAUCAU | 4240 | UCCCAGGACGCUACCACCA | 4275 | AGUCCUUGACCAGGCAGAG | 4310 | UCGUUGUCUUGGCGACGGC |
| 4206 | CGCGUAUGACGUAAUCAUA | 4241 | CCCAGGACGCUACCACCAU | 4276 | GUCCUUGACCAGGCAGAGA | 4311 | CGUUGUCUUGGCGACGGCC |
| 4207 | GCGUAUGACGUAAUCAUAU | 4242 | CCAGGACGCUACCACCAUC | 4277 | UCCUUGACCAGGCAGAGAC | 4312 | GUUGUCUUGGCGACGGCCA |
| 4208 | CGUAUGACGUAAUCAUAUG | 4243 | CAGGACGCUACCACCAUCC | 4278 | CCUUGACCAGGCAGAGACG | 4313 | UUGUCUUGGCGACGGCCAU |
| 4209 | GUAUGACGUAAUCAUAUGC | 4244 | AGGACGCUACCACCAUCCU | 4279 | CUUGACCAGGCAGAGACGG | 4314 | UGUCUUGGCGACGGCCAUU |
| 4210 | UAUGACGUAAUCAUAUGCG | 4245 | GGACGCUACCACCAUCCUU | 4280 | UUGACCAGGCAGAGACGGC | 4315 | GUCUUGGCGACGGCCAUUC |
| 4211 | AUGACGUAAUCAUAUGCGA | 4246 | GACGCUACCACCAUCCUUG | 4281 | UGACCAGGCAGAGACGGCU | 4316 | UCUUGGCGACGGCCAUUCC |
| 4212 | UGACGUAAUCAUAUGCGAC | 4247 | ACGCUACCACCAUCCUUGG | 4282 | GACCAGGCAGAGACGGCUG | 4317 | CUUGGCGACGGCCAUUCCC |
| 4213 | GACGUAAUCAUAUGCGACG | 4248 | CGCUACCACCAUCCUUGGG | 4283 | ACCAGGCAGAGACGGCUGG | 4318 | UUGGCGACGGCCAUUCCCC |
| 4214 | ACGUAAUCAUAUGCGACGA | 4249 | GCUACCACCAUCCUUGGGA | 4284 | CCAGGCAGAGACGGCUGGA | 4319 | UGGCGACGGCCAUUCCCCC |
| 4215 | CGUAAUCAUAUGCGACGAG | 4250 | CUACCACCAUCCUUGGGAU | 4285 | CAGGCAGAGACGGCUGGAG | 4320 | GGCGACGGCCAUUCCCCCC |
| 4216 | GUAAUCAUAUGCGACGAGU | 4251 | UACCACCAUCCUUGGGAUA | 4286 | AGGCAGAGACGGCUGGAGC | 4321 | GCGACGGCCAUUCCCCCCG |
| 4217 | UAAUCAUAUGCGACGAGUG | 4252 | ACCACCAUCCUUGGGAUAG | 4287 | GGCAGAGACGGCUGGAGCU | 4322 | CGACGGCCAUUCCCCCCGG |
| 4218 | AAUCAUAUGCGACGAGUGC | 4253 | CCACCAUCCUUGGGAUAGG | 4288 | GCAGAGACGGCUGGAGCUA | 4323 | GACGGCCAUUCCCCCCGGC |
| 4219 | AUCAUAUGCGACGAGUGCC | 4254 | CACCAUCCUUGGGAUAGGC | 4289 | CAGAGACGGCUGGAGCUAG | 4324 | ACGGCCAUUCCCCCCGGCA |
| 4220 | UCAUAUGCGACGAGUGCCA | 4255 | ACCAUCCUUGGGAUAGGCA | 4290 | AGAGACGGCUGGAGCUAGG | 4325 | CGGCCAUUCCCCCCGGCAG |
| 4221 | CAUAUGCGACGAGUGCCAU | 4256 | CCAUCCUUGGGAUAGGCAC | 4291 | GAGACGGCUGGAGCUAGGC | 4326 | GGCCAUUCCCCCCGGCAGU |
| 4222 | AUAUGCGACGAGUGCCAUU | 4257 | CAUCCUUGGGAUAGGCACA | 4292 | AGACGGCUGGAGCUAGGCU | 4327 | GCCAUUCCCCCCGGCAGUG |
| 4223 | UAUGCGACGAGUGCCAUUC | 4258 | AUCCUUGGGAUAGGCACAG | 4293 | GACGGCUGGAGCUAGGCUC | 4328 | CCAUUCCCCCCGGCAGUGU |
| 4224 | AUGCGACGAGUGCCAUUCC | 4259 | UCCUUGGGAUAGGCACAGU | 4294 | ACGGCUGGAGCUAGGCUCG | 4329 | CAUUCCCCCCGGCAGUGUA |
| 4225 | UGCGACGAGUGCCAUUCCC | 4260 | CCUUGGGAUAGGCACAGUC | 4295 | CGGCUGGAGCUAGGCUCGU | 4330 | AUUCCCCCCGGCAGUGUAA |
| 4226 | GCGACGAGUGCCAUUCCCA | 4261 | CUUGGGAUAGGCACAGUCC | 4296 | GGCUGGAGCUAGGCUCGUU | 4331 | UUCCCCCCGGCAGUGUAAC |
| 4227 | CGACGAGUGCCAUUCCCAG | 4262 | UUGGGAUAGGCACAGUCCU | 4297 | GCUGGAGCUAGGCUCGUUG | 4332 | UCCCCCCGGCAGUGUAACG |
| 4228 | GACGAGUGCCAUUCCCAGG | 4263 | UGGGAUAGGCACAGUCCUU | 4298 | CUGGAGCUAGGCUCGUUGU | 4333 | CCCCCCGGCAGUGUAACGA |
| 4229 | ACGAGUGCCAUUCCCAGGA | 4264 | GGGAUAGGCACAGUCCUUG | 4299 | UGGAGCUAGGCUCGUUGUC | 4334 | CCCCCGGCAGUGUAACGAC |
| 4230 | CGAGUGCCAUUCCCAGGAC | 4265 | GGAUAGGCACAGUCCUUGA | 4300 | GGAGCUAGGCUCGUUGUCU | 4335 | CCCCGGCAGUGUAACGACG |
| 4231 | GAGUGCCAUUCCCAGGACG | 4266 | GAUAGGCACAGUCCUUGAC | 4301 | GAGCUAGGCUCGUUGUCUU | 4336 | CCCGGCAGUGUAACGACGC |
| 4232 | AGUGCCAUUCCCAGGACGC | 4267 | AUAGGCACAGUCCUUGACC | 4302 | AGCUAGGCUCGUUGUCUUG | 4337 | CCGGCAGUGUAACGACGCC |
| 4233 | GUGCCAUUCCCAGGACGCU | 4268 | UAGGCACAGUCCUUGACCA | 4303 | GCUAGGCUCGUUGUCUUGG | 4338 | CGGCAGUGUAACGACGCCC |
| 4234 | UGCCAUUCCCAGGACGCUA | 4269 | AGGCACAGUCCUUGACCAG | 4304 | CUAGGCUCGUUGUCUUGGC | 4339 | GGCAGUGUAACGACGCCCC |
| 4235 | GCCAUUCCCAGGACGCUAC | 4270 | GGCACAGUCCUUGACCAGG | 4305 | UAGGCUCGUUGUCUUGGCG | 4340 | GCAGUGUAACGACGCCCCA |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4341 | CAGUGUAACGACGCCCCAC | 4376 | UGGCCCUGCCUUCGGAGGG | 4411 | GGCAGAGCCAUCCCCCUUG | 4446 | UAGGCAUCUCAUCUUCUGC |
| 4342 | AGUGUAACGACGCCCCACC | 4377 | GGCCCUGCCUUCGGAGGGG | 4412 | GCAGAGCCAUCCCCCUUGU | 4447 | AGGCAUCUCAUCUUCUGCC |
| 4343 | GUGUAACGACGCCCCACCC | 4378 | GCCCUGCCUUCGGAGGGGG | 4413 | CAGAGCCAUCCCCCUUGUU | 4448 | GGCAUCUCAUCUUCUGCCA |
| 4344 | UGUAACGACGCCCCACCCC | 4379 | CCCUGCCUUCGGAGGGGGA | 4414 | AGAGCCAUCCCCCUUGUUC | 4449 | GCAUCUCAUCUUCUGCCAC |
| 4345 | GUAACGACGCCCCACCCCA | 4380 | CCUGCCUUCGGAGGGGGAA | 4415 | GAGCCAUCCCCCUUGUUCU | 4450 | CAUCUCAUCUUCUGCCACU |
| 4346 | UAACGACGCCCCACCCCAA | 4381 | CUGCCUUCGGAGGGGGAAA | 4416 | AGCCAUCCCCCUUGUUCUU | 4451 | AUCUCAUCUUCUGCCACUC |
| 4347 | AACGACGCCCCACCCCAAC | 4382 | UGCCUUCGGAGGGGGAAAU | 4417 | GCCAUCCCCCUUGUUCUUA | 4452 | UCUCAUCUUCUGCCACUCU |
| 4348 | ACGACGCCCCACCCCAACA | 4383 | GCCUUCGGAGGGGGAAAUC | 4418 | CCAUCCCCCUUGUUCUUAU | 4453 | CUCAUCUUCUGCCACUCUA |
| 4349 | CGACGCCCCACCCCAACAU | 4384 | CCUUCGGAGGGGGAAAUCC | 4419 | CAUCCCCCUUGUUCUUAUA | 4454 | UCAUCUUCUGCCACUCUAA |
| 4350 | GACGCCCCACCCCAACAUU | 4385 | CUUCGGAGGGGGAAAUCCC | 4420 | AUCCCCCUUGUUCUUAUAA | 4455 | CAUCUUCUGCCACUCUAAG |
| 4351 | ACGCCCCACCCCAACAUUG | 4386 | UUCGGAGGGGGAAAUCCCC | 4421 | UCCCCCUUGUUCUUAUAAA | 4456 | AUCUUCUGCCACUCUAAGA |
| 4352 | CGCCCCACCCCAACAUUGA | 4387 | UCGGAGGGGGAAAUCCCCU | 4422 | CCCCCUUGUUCUUAUAAAG | 4457 | UCUUCUGCCACUCUAAGAA |
| 4353 | GCCCCACCCCAACAUUGAG | 4388 | CGGAGGGGGAAAUCCCCUU | 4423 | CCCCUUGUUCUUAUAAAGG | 4458 | CUUCUGCCACUCUAAGAAA |
| 4354 | CCCCACCCCAACAUUGAGG | 4389 | GGAGGGGGAAAUCCCCUUC | 4424 | CCCUUGUUCUUAUAAAGGG | 4459 | UUCUGCCACUCUAAGAAAA |
| 4355 | CCCACCCCAACAUUGAGGA | 4390 | GAGGGGGAAAUCCCCUUCU | 4425 | CCUUGUUCUUAUAAAGGGC | 4460 | UCUGCCACUCUAAGAAAAA |
| 4356 | CCACCCCAACAUUGAGGAG | 4391 | AGGGGGAAAUCCCCUUCUA | 4426 | CUUGUUCUUAUAAAGGGCG | 4461 | CUGCCACUCUAAGAAAAAA |
| 4357 | CACCCCAACAUUGAGGAGG | 4392 | GGGGGAAAUCCCCUUCUAC | 4427 | UUGUUCUUAUAAAGGGCGG | 4462 | UGCCACUCUAAGAAAAAAU |
| 4358 | ACCCCAACAUUGAGGAGGU | 4393 | GGGGAAAUCCCCUUCUACG | 4428 | UGUUCUUAUAAAGGGCGGU | 4463 | GCCACUCUAAGAAAAAAUG |
| 4359 | CCCCAACAUUGAGGAGGUG | 4394 | GGGAAAUCCCCUUCUACGG | 4429 | GUUCUUAUAAAGGGCGGUA | 4464 | CCACUCUAAGAAAAAAUGU |
| 4360 | CCCAACAUUGAGGAGGUGG | 4395 | GGAAAUCCCCUUCUACGGC | 4430 | UUCUUAUAAAGGGCGGUAG | 4465 | CACUCUAAGAAAAAAUGUG |
| 4361 | CCAACAUUGAGGAGGUGGC | 4396 | GAAAUCCCCUUCUACGGCA | 4431 | UCUUAUAAAGGGCGGUAGG | 4466 | ACUCUAAGAAAAAAUGUGA |
| 4362 | CAACAUUGAGGAGGUGGCC | 4397 | AAAUCCCCUUCUACGGCAG | 4432 | CUUAUAAAGGGCGGUAGGC | 4467 | CUCUAAGAAAAAAUGUGAU |
| 4363 | AACAUUGAGGAGGUGGCCC | 4398 | AAUCCCCUUCUACGGCAGA | 4433 | UUAUAAAGGGCGGUAGGCA | 4468 | UCUAAGAAAAAAUGUGAUG |
| 4364 | ACAUUGAGGAGGUGGCCCU | 4399 | AUCCCCUUCUACGGCAGAG | 4434 | UAUAAAGGGCGGUAGGCAU | 4469 | CUAAGAAAAAAUGUGAUGA |
| 4365 | CAUUGAGGAGGUGGCCCUG | 4400 | UCCCCUUCUACGGCAGAGC | 4435 | AUAAAGGGCGGUAGGCAUC | 4470 | UAAGAAAAAAUGUGAUGAA |
| 4366 | AUUGAGGAGGUGGCCCUGC | 4401 | CCCCUUCUACGGCAGAGCC | 4436 | UAAAGGGCGGUAGGCAUCU | 4471 | AAGAAAAAAUGUGAUGAAC |
| 4367 | UUGAGGAGGUGGCCCUGCC | 4402 | CCCUUCUACGGCAGAGCCA | 4437 | AAAGGGCGGUAGGCAUCUC | 4472 | AGAAAAAAUGUGAUGAACU |
| 4368 | UGAGGAGGUGGCCCUGCCU | 4403 | CCUUCUACGGCAGAGCCAU | 4438 | AAGGGCGGUAGGCAUCUCA | 4473 | GAAAAAAUGUGAUGAACUU |
| 4369 | GAGGAGGUGGCCCUGCCUU | 4404 | CUUCUACGGCAGAGCCAUC | 4439 | AGGGCGGUAGGCAUCUCAU | 4474 | AAAAAAUGUGAUGAACUUG |
| 4370 | AGGAGGUGGCCCUGCCUUC | 4405 | UUCUACGGCAGAGCCAUCC | 4440 | GGGCGGUAGGCAUCUCAUC | 4475 | AAAAAUGUGAUGAACUUGC |
| 4371 | GGAGGUGGCCCUGCCUUCG | 4406 | UCUACGGCAGAGCCAUCCC | 4441 | GGCGGUAGGCAUCUCAUCU | 4476 | AAAAUGUGAUGAACUUGCC |
| 4372 | GAGGUGGCCCUGCCUUCGG | 4407 | CUACGGCAGAGCCAUCCCC | 4442 | GCGGUAGGCAUCUCAUCUU | 4477 | AAAUGUGAUGAACUUGCCA |
| 4373 | AGGUGGCCCUGCCUUCGGA | 4408 | UACGGCAGAGCCAUCCCCC | 4443 | CGGUAGGCAUCUCAUCUUC | 4478 | AAUGUGAUGAACUUGCCAA |
| 4374 | GGUGGCCCUGCCUUCGGAG | 4409 | ACGGCAGAGCCAUCCCCCU | 4444 | GGUAGGCAUCUCAUCUUCU | 4479 | AUGUGAUGAACUUGCCAAA |
| 4375 | GUGGCCCUGCCUUCGGAGG | 4410 | CGGCAGAGCCAUCCCCCUU | 4445 | GUAGGCAUCUCAUCUUCUG | 4480 | UGUGAUGAACUUGCCAAAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4481 | GUGAUGAACUUGCCAAACA | 4516 | GUGAAUGCCGUGGCAUAUU | 4551 | CGCCGUCAUACCCGCGACA | 4586 | GCAGCACUGACGCGCUCAU |
| 4482 | UGAUGAACUUGCCAAACAA | 4517 | UGAAUGCCGUGGCAUAUUA | 4552 | GCCGUCAUACCCGCGACAG | 4587 | CAGCACUGACGCGCUCAUG |
| 4483 | GAUGAACUUGCCAAACAAU | 4518 | GAAUGCCGUGGCAUAUUAU | 4553 | CCGUCAUACCCGCGACAGG | 4588 | AGCACUGACGCGCUCAUGA |
| 4484 | AUGAACUUGCCAAACAAUU | 4519 | AAUGCCGUGGCAUAUUAUA | 4554 | CGUCAUACCCGCGACAGGA | 4589 | GCACUGACGCGCUCAUGAC |
| 4485 | UGAACUUGCCAAACAAUUG | 4520 | AUGCCGUGGCAUAUUAUAG | 4555 | GUCAUACCCGCGACAGGAG | 4590 | CACUGACGCGCUCAUGACG |
| 4486 | GAACUUGCCAAACAAUUGA | 4521 | UGCCGUGGCAUAUUAUAGA | 4556 | UCAUACCCGCGACAGGAGA | 4591 | ACUGACGCGCUCAUGACGG |
| 4487 | AACUUGCCAAACAAUUGAC | 4522 | GCCGUGGCAUAUUAUAGAG | 4557 | CAUACCCGCGACAGGAGAC | 4592 | CUGACGCGCUCAUGACGGG |
| 4488 | ACUUGCCAAACAAUUGACC | 4523 | CCGUGGCAUAUUAUAGAGG | 4558 | AUACCCGCGACAGGAGACG | 4593 | UGACGCGCUCAUGACGGGU |
| 4489 | CUUGCCAAACAAUUGACCA | 4524 | CGUGGCAUAUUAUAGAGGU | 4559 | UACCCGCGACAGGAGACGU | 4594 | GACGCGCUCAUGACGGGUU |
| 4490 | UUGCCAAACAAUUGACCAG | 4525 | GUGGCAUAUUAUAGAGGUC | 4560 | ACCCGCGACAGGAGACGUA | 4595 | ACGCGCUCAUGACGGGUUU |
| 4491 | UGCCAAACAAUUGACCAGU | 4526 | UGGCAUAUUAUAGAGGUCU | 4561 | CCCGCGACAGGAGACGUAG | 4596 | CGCGCUCAUGACGGGUUUU |
| 4492 | GCCAAACAAUUGACCAGUC | 4527 | GGCAUAUUAUAGAGGUCUA | 4562 | CCGCGACAGGAGACGUAGU | 4597 | GCGCUCAUGACGGGUUUUA |
| 4493 | CCAAACAAUUGACCAGUCU | 4528 | GCAUAUUAUAGAGGUCUAG | 4563 | CGCGACAGGAGACGUAGUC | 4598 | CGCUCAUGACGGGUUUUAC |
| 4494 | CAAACAAUUGACCAGUCUG | 4529 | CAUAUUAUAGAGGUCUAGA | 4564 | GCGACAGGAGACGUAGUCG | 4599 | GCUCAUGACGGGUUUUACC |
| 4495 | AAACAAUUGACCAGUCUGG | 4530 | AUAUUAUAGAGGUCUAGAC | 4565 | CGACAGGAGACGUAGUCGU | 4600 | CUCAUGACGGGUUUUACCG |
| 4496 | AACAAUUGACCAGUCUGGG | 4531 | UAUUAUAGAGGUCUAGACG | 4566 | GACAGGAGACGUAGUCGUG | 4601 | UCAUGACGGGUUUUACCGG |
| 4497 | ACAAUUGACCAGUCUGGGC | 4532 | AUUAUAGAGGUCUAGACGU | 4567 | ACAGGAGACGUAGUCGUGU | 4602 | CAUGACGGGUUUUACCGGC |
| 4498 | CAAUUGACCAGUCUGGGCG | 4533 | UUAUAGAGGUCUAGACGUC | 4568 | CAGGAGACGUAGUCGUGUG | 4603 | AUGACGGGUUUUACCGGCG |
| 4499 | AAUUGACCAGUCUGGGCGU | 4534 | UAUAGAGGUCUAGACGUCG | 4569 | AGGAGACGUAGUCGUGUGC | 4604 | UGACGGGUUUUACCGGCGA |
| 4500 | AUUGACCAGUCUGGGCGUG | 4535 | AUAGAGGUCUAGACGUCGC | 4570 | GGAGACGUAGUCGUGUGCA | 4605 | GACGGGUUUUACCGGCGAC |
| 4501 | UUGACCAGUCUGGGCGUGA | 4536 | UAGAGGUCUAGACGUCGCC | 4571 | GAGACGUAGUCGUGUGCAG | 4606 | ACGGGUUUUACCGGCGACU |
| 4502 | UGACCAGUCUGGGCGUGAA | 4537 | AGAGGUCUAGACGUCGCCG | 4572 | AGACGUAGUCGUGUGCAGC | 4607 | CGGGUUUUACCGGCGACUU |
| 4503 | GACCAGUCUGGGCGUGAAU | 4538 | GAGGUCUAGACGUCGCCGU | 4573 | GACGUAGUCGUGUGCAGCA | 4608 | GGGUUUUACCGGCGACUUU |
| 4504 | ACCAGUCUGGGCGUGAAUG | 4539 | AGGUCUAGACGUCGCCGUC | 4574 | ACGUAGUCGUGUGCAGCAC | 4609 | GGUUUUACCGGCGACUUUG |
| 4505 | CCAGUCUGGGCGUGAAUGC | 4540 | GGUCUAGACGUCGCCGUCA | 4575 | CGUAGUCGUGUGCAGCACU | 4610 | GUUUUACCGGCGACUUUGA |
| 4506 | CAGUCUGGGCGUGAAUGCC | 4541 | GUCUAGACGUCGCCGUCAU | 4576 | GUAGUCGUGUGCAGCACUG | 4611 | UUUUACCGGCGACUUUGAU |
| 4507 | AGUCUGGGCGUGAAUGCCG | 4542 | UCUAGACGUCGCCGUCAUA | 4577 | UAGUCGUGUGCAGCACUGA | 4612 | UUUACCGGCGACUUUGAUU |
| 4508 | GUCUGGGCGUGAAUGCCGU | 4543 | CUAGACGUCGCCGUCAUAC | 4578 | AGUCGUGUGCAGCACUGAC | 4613 | UUACCGGCGACUUUGAUUC |
| 4509 | UCUGGGCGUGAAUGCCGUG | 4544 | UAGACGUCGCCGUCAUACC | 4579 | GUCGUGUGCAGCACUGACG | 4614 | UACCGGCGACUUUGAUUCU |
| 4510 | CUGGGCGUGAAUGCCGUGG | 4545 | AGACGUCGCCGUCAUACCC | 4580 | UCGUGUGCAGCACUGACGC | 4615 | ACCGGCGACUUUGAUUCUG |
| 4511 | UGGGCGUGAAUGCCGUGGC | 4546 | GACGUCGCCGUCAUACCCG | 4581 | CGUGUGCAGCACUGACGCG | 4616 | CCGGCGACUUUGAUUCUGU |
| 4512 | GGGCGUGAAUGCCGUGGCA | 4547 | ACGUCGCCGUCAUACCCGC | 4582 | GUGUGCAGCACUGACGCGC | 4617 | CGGCGACUUUGAUUCUGUC |
| 4513 | GGCGUGAAUGCCGUGGCAU | 4548 | CGUCGCCGUCAUACCCGCG | 4583 | UGUGCAGCACUGACGCGCU | 4618 | GGCGACUUUGAUUCUGUCA |
| 4514 | GCGUGAAUGCCGUGGCAUA | 4549 | GUCGCCGUCAUACCCGCGA | 4584 | GUGCAGCACUGACGCGCUC | 4619 | GCGACUUUGAUUCUGUCAU |
| 4515 | CGUGAAUGCCGUGGCAUAU | 4550 | UCGCCGUCAUACCCGCGAC | 4585 | UGCAGCACUGACGCGCUCA | 4620 | CGACUUUGAUUCUGUCAUA |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4621 | GACUUUGAUUCUGUCAUAG | 4656 | CACUCAGACGGUGGACUUC | 4691 | UCACCAUUGAGACUACUAC | 4726 | GUGUCCAGAAGCCAGCGUA |
| 4622 | ACUUUGAUUCUGUCAUAGA | 4657 | ACUCAGACGGUGGACUUCA | 4692 | CACCAUUGAGACUACUACA | 4727 | UGUCCAGAAGCCAGCGUAG |
| 4623 | CUUUGAUUCUGUCAUAGAC | 4658 | CUCAGACGGUGGACUUCAG | 4693 | ACCAUUGAGACUACUACAG | 4728 | GUCCAGAAGCCAGCGUAGG |
| 4624 | UUUGAUUCUGUCAUAGACU | 4659 | UCAGACGGUGGACUUCAGU | 4694 | CCAUUGAGACUACUACAGU | 4729 | UCCAGAAGCCAGCGUAGGG |
| 4625 | UUGAUUCUGUCAUAGACUG | 4660 | CAGACGGUGGACUUCAGUC | 4695 | CAUUGAGACUACUACAGUG | 4730 | CCAGAAGCCAGCGUAGGGG |
| 4626 | UGAUUCUGUCAUAGACUGC | 4661 | AGACGGUGGACUUCAGUCU | 4696 | AUUGAGACUACUACAGUGC | 4731 | CAGAAGCCAGCGUAGGGGC |
| 4627 | GAUUCUGUCAUAGACUGCA | 4662 | GACGGUGGACUUCAGUCUG | 4697 | UUGAGACUACUACAGUGCC | 4732 | AGAAGCCAGCGUAGGGGCC |
| 4628 | AUUCUGUCAUAGACUGCAA | 4663 | ACGGUGGACUUCAGUCUGG | 4698 | UGAGACUACUACAGUGCCC | 4733 | GAAGCCAGCGUAGGGGCCG |
| 4629 | UUCUGUCAUAGACUGCAAC | 4664 | CGGUGGACUUCAGUCUGGA | 4699 | GAGACUACUACAGUGCCCC | 4734 | AAGCCAGCGUAGGGGCCGU |
| 4630 | UCUGUCAUAGACUGCAACU | 4665 | GGUGGACUUCAGUCUGGAU | 4700 | AGACUACUACAGUGCCCCA | 4735 | AGCCAGCGUAGGGGCCGUA |
| 4631 | CUGUCAUAGACUGCAACUC | 4666 | GUGGACUUCAGUCUGGAUC | 4701 | GACUACUACAGUGCCCCAG | 4736 | GCCAGCGUAGGGGCCGUAC |
| 4632 | UGUCAUAGACUGCAACUCC | 4667 | UGGACUUCAGUCUGGAUCC | 4702 | ACUACUACAGUGCCCCAGG | 4737 | CCAGCGUAGGGGCCGUACA |
| 4633 | GUCAUAGACUGCAACUCCG | 4668 | GGACUUCAGUCUGGAUCCC | 4703 | CUACUACAGUGCCCCAGGA | 4738 | CAGCGUAGGGGCCGUACAG |
| 4634 | UCAUAGACUGCAACUCCGC | 4669 | GACUUCAGUCUGGAUCCCA | 4704 | UACUACAGUGCCCCAGGAC | 4739 | AGCGUAGGGGCCGUACAGG |
| 4635 | CAUAGACUGCAACUCCGCC | 4670 | ACUUCAGUCUGGAUCCCAC | 4705 | ACUACAGUGCCCCAGGACG | 4740 | GCGUAGGGGCCGUACAGGG |
| 4636 | AUAGACUGCAACUCCGCCG | 4671 | CUUCAGUCUGGAUCCCACC | 4706 | CUACAGUGCCCCAGGACGC | 4741 | CGUAGGGGCCGUACAGGGA |
| 4637 | UAGACUGCAACUCCGCCGU | 4672 | UUCAGUCUGGAUCCCACCU | 4707 | UACAGUGCCCCAGGACGCA | 4742 | GUAGGGGCCGUACAGGGAG |
| 4638 | AGACUGCAACUCCGCCGUC | 4673 | UCAGUCUGGAUCCCACCUU | 4708 | ACAGUGCCCCAGGACGCAG | 4743 | UAGGGGCCGUACAGGGAGA |
| 4639 | GACUGCAACUCCGCCGUCA | 4674 | CAGUCUGGAUCCCACCUUC | 4709 | CAGUGCCCCAGGACGCAGU | 4744 | AGGGGCCGUACAGGGAGAG |
| 4640 | ACUGCAACUCCGCCGUCAC | 4675 | AGUCUGGAUCCCACCUUCA | 4710 | AGUGCCCCAGGACGCAGUG | 4745 | GGGGCCGUACAGGGAGAGG |
| 4641 | CUGCAACUCCGCCGUCACU | 4676 | GUCUGGAUCCCACCUUCAC | 4711 | GUGCCCCAGGACGCAGUGU | 4746 | GGGCCGUACAGGGAGAGGU |
| 4642 | UGCAACUCCGCCGUCACUC | 4677 | UCUGGAUCCCACCUUCACC | 4712 | UGCCCCAGGACGCAGUGUC | 4747 | GGCCGUACAGGGAGAGGUA |
| 4643 | GCAACUCCGCCGUCACUCA | 4678 | CUGGAUCCCACCUUCACCA | 4713 | GCCCCAGGACGCAGUGUCC | 4748 | GCCGUACAGGGAGAGGUAG |
| 4644 | CAACUCCGCCGUCACUCAG | 4679 | UGGAUCCCACCUUCACCAU | 4714 | CCCCAGGACGCAGUGUCCA | 4749 | CCGUACAGGGAGAGGUAGG |
| 4645 | AACUCCGCCGUCACUCAGA | 4680 | GGAUCCCACCUUCACCAUU | 4715 | CCCAGGACGCAGUGUCCAG | 4750 | CGUACAGGGAGAGGUAGGC |
| 4646 | ACUCCGCCGUCACUCAGAC | 4681 | GAUCCCACCUUCACCAUUG | 4716 | CCAGGACGCAGUGUCCAGA | 4751 | GUACAGGGAGAGGUAGGCA |
| 4647 | CUCCGCCGUCACUCAGACG | 4682 | AUCCCACCUUCACCAUUGA | 4717 | CAGGACGCAGUGUCCAGAA | 4752 | UACAGGGAGAGGUAGGCAC |
| 4648 | UCCGCCGUCACUCAGACGG | 4683 | UCCCACCUUCACCAUUGAG | 4718 | AGGACGCAGUGUCCAGAAG | 4753 | ACAGGGAGAGGUAGGCACG |
| 4649 | CCGCCGUCACUCAGACGGU | 4684 | CCCACCUUCACCAUUGAGA | 4719 | GGACGCAGUGUCCAGAAGC | 4754 | CAGGGAGAGGUAGGCACGG |
| 4650 | CGCCGUCACUCAGACGGUG | 4685 | CCACCUUCACCAUUGAGAC | 4720 | GACGCAGUGUCCAGAAGCC | 4755 | AGGGAGAGGUAGGCACGGC |
| 4651 | GCCGUCACUCAGACGGUGG | 4686 | CACCUUCACCAUUGAGACU | 4721 | ACGCAGUGUCCAGAAGCCA | 4756 | GGGAGAGGUAGGCACGGCA |
| 4652 | CCGUCACUCAGACGGUGGA | 4687 | ACCUUCACCAUUGAGACUA | 4722 | CGCAGUGUCCAGAAGCCAG | 4757 | GGAGAGGUAGGCACGGCAU |
| 4653 | CGUCACUCAGACGGUGGAC | 4688 | CCUUCACCAUUGAGACUAC | 4723 | GCAGUGUCCAGAAGCCAGC | 4758 | GAGAGGUAGGCACGGCAUA |
| 4654 | GUCACUCAGACGGUGGACU | 4689 | CUUCACCAUUGAGACUACU | 4724 | CAGUGUCCAGAAGCCAGCG | 4759 | AGAGGUAGGCACGGCAUAU |
| 4655 | UCACUCAGACGGUGGACUU | 4690 | UUCACCAUUGAGACUACUA | 4725 | AGUGUCCAGAAGCCAGCGU | 4760 | GAGGUAGGCACGGCAUAUA |



FIG. 6 (sheet 321 of 479)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4761 | AGGUAGGCACGGCAUAUAC | 4796 | GGGAGAGACCGUCCGGCAU | 4831 | CUCUGUGAGUGCUACGAUG | 4866 | UGAUCUGACUCCUGCUGAG |
| 4762 | GGUAGGCACGGCAUAUACC | 4797 | GGAGAGACCGUCCGGCAUU | 4832 | UCUGUGAGUGCUACGAUGC | 4867 | GAUCUGACUCCUGCUGAGA |
| 4763 | GUAGGCACGGCAUAUACCG | 4798 | GAGAGACCGUCCGGCAUUU | 4833 | CUGUGAGUGCUACGAUGCC | 4868 | AUCUGACUCCUGCUGAGAC |
| 4764 | UAGGCACGGCAUAUACCGG | 4799 | AGAGACCGUCCGGCAUUUU | 4834 | UGUGAGUGCUACGAUGCCG | 4869 | UCUGACUCCUGCUGAGACU |
| 4765 | AGGCACGGCAUAUACCGGU | 4800 | GAGACCGUCCGGCAUUUUC | 4835 | GUGAGUGCUACGAUGCCGG | 4870 | CUGACUCCUGCUGAGACUA |
| 4766 | GGCACGGCAUAUACCGGUA | 4801 | AGACCGUCCGGCAUUUUCG | 4836 | UGAGUGCUACGAUGCCGGG | 4871 | UGACUCCUGCUGAGACUAC |
| 4767 | GCACGGCAUAUACCGGUAU | 4802 | GACCGUCCGGCAUUUUCGA | 4837 | GAGUGCUACGAUGCCGGGU | 4872 | GACUCCUGCUGAGACUACC |
| 4768 | CACGGCAUAUACCGGUAUG | 4803 | ACCGUCCGGCAUUUUCGAC | 4838 | AGUGCUACGAUGCCGGGUG | 4873 | ACUCCUGCUGAGACUACCG |
| 4769 | ACGGCAUAUACCGGUAUGU | 4804 | CCGUCCGGCAUUUUCGACU | 4839 | GUGCUACGAUGCCGGGUGU | 4874 | CUCCUGCUGAGACUACCGU |
| 4770 | CGGCAUAUACCGGUAUGUU | 4805 | CGUCCGGCAUUUUCGACUC | 4840 | UGCUACGAUGCCGGGUGUG | 4875 | UCCUGCUGAGACUACCGUG |
| 4771 | GGCAUAUACCGGUAUGUUU | 4806 | GUCCGGCAUUUUCGACUCU | 4841 | GCUACGAUGCCGGGUGUGC | 4876 | CCUGCUGAGACUACCGUGA |
| 4772 | GCAUAUACCGGUAUGUUUC | 4807 | UCCGGCAUUUUCGACUCUG | 4842 | CUACGAUGCCGGGUGUGCA | 4877 | CUGCUGAGACUACCGUGAG |
| 4773 | CAUAUACCGGUAUGUUUCG | 4808 | CCGGCAUUUUCGACUCUGU | 4843 | UACGAUGCCGGGUGUGCAU | 4878 | UGCUGAGACUACCGUGAGG |
| 4774 | AUAUACCGGUAUGUUUCGU | 4809 | CGGCAUUUUCGACUCUGUG | 4844 | ACGAUGCCGGGUGUGCAUG | 4879 | GCUGAGACUACCGUGAGGU |
| 4775 | UAUACCGGUAUGUUUCGUC | 4810 | GGCAUUUUCGACUCUGUGG | 4845 | CGAUGCCGGGUGUGCAUGG | 4880 | CUGAGACUACCGUGAGGUU |
| 4776 | AUACCGGUAUGUUUCGUCU | 4811 | GCAUUUUCGACUCUGUGGU | 4846 | GAUGCCGGGUGUGCAUGGU | 4881 | UGAGACUACCGUGAGGUUG |
| 4777 | UACCGGUAUGUUUCGUCUG | 4812 | CAUUUUCGACUCUGUGGUG | 4847 | AUGCCGGGUGUGCAUGGUA | 4882 | GAGACUACCGUGAGGUUGC |
| 4778 | ACCGGUAUGUUUCGUCUGG | 4813 | AUUUUCGACUCUGUGGUGC | 4848 | UGCCGGGUGUGCAUGGUAU | 4883 | AGACUACCGUGAGGUUGCG |
| 4779 | CCGGUAUGUUUCGUCUGGG | 4814 | UUUUCGACUCUGUGGUGCU | 4849 | GCCGGGUGUGCAUGGUAUG | 4884 | GACUACCGUGAGGUUGCGU |
| 4780 | CGGUAUGUUUCGUCUGGGG | 4815 | UUUCGACUCUGUGGUGCUC | 4850 | CCGGGUGUGCAUGGUAUGA | 4885 | ACUACCGUGAGGUUGCGUG |
| 4781 | GGUAUGUUUCGUCUGGGGA | 4816 | UUCGACUCUGUGGUGCUCU | 4851 | CGGGUGUGCAUGGUAUGAU | 4886 | CUACCGUGAGGUUGCGUGC |
| 4782 | GUAUGUUUCGUCUGGGGAG | 4817 | UCGACUCUGUGGUGCUCUG | 4852 | GGGUGUGCAUGGUAUGAUC | 4887 | UACCGUGAGGUUGCGUGCU |
| 4783 | UAUGUUUCGUCUGGGGAGA | 4818 | CGACUCUGUGGUGCUCUGU | 4853 | GGUGUGCAUGGUAUGAUCU | 4888 | ACCGUGAGGUUGCGUGCUU |
| 4784 | AUGUUUCGUCUGGGGAGAG | 4819 | GACUCUGUGGUGCUCUGUG | 4854 | GUGUGCAUGGUAUGAUCUG | 4889 | CCGUGAGGUUGCGUGCUUA |
| 4785 | UGUUUCGUCUGGGGAGAGA | 4820 | ACUCUGUGGUGCUCUGUGA | 4855 | UGUGCAUGGUAUGAUCUGA | 4890 | CGUGAGGUUGCGUGCUUAC |
| 4786 | GUUUCGUCUGGGGAGAGAC | 4821 | CUCUGUGGUGCUCUGUGAG | 4856 | GUGCAUGGUAUGAUCUGAC | 4891 | GUGAGGUUGCGUGCUUACC |
| 4787 | UUUCGUCUGGGGAGAGACC | 4822 | UCUGUGGUGCUCUGUGAGU | 4857 | UGCAUGGUAUGAUCUGACU | 4892 | UGAGGUUGCGUGCUUACCU |
| 4788 | UUCGUCUGGGGAGAGACCG | 4823 | CUGUGGUGCUCUGUGAGUG | 4858 | GCAUGGUAUGAUCUGACUC | 4893 | GAGGUUGCGUGCUUACCUG |
| 4789 | UCGUCUGGGGAGAGACCGU | 4824 | UGUGGUGCUCUGUGAGUGC | 4859 | CAUGGUAUGAUCUGACUCC | 4894 | AGGUUGCGUGCUUACCUGA |
| 4790 | CGUCUGGGGAGAGACCGUC | 4825 | GUGGUGCUCUGUGAGUGCU | 4860 | AUGGUAUGAUCUGACUCCU | 4895 | GGUUGCGUGCUUACCUGAA |
| 4791 | GUCUGGGGAGAGACCGUCC | 4826 | UGGUGCUCUGUGAGUGCUA | 4861 | UGGUAUGAUCUGACUCCUG | 4896 | GUUGCGUGCUUACCUGAAC |
| 4792 | UCUGGGGAGAGACCGUCCG | 4827 | GGUGCUCUGUGAGUGCUAC | 4862 | GGUAUGAUCUGACUCCUGC | 4897 | UUGCGUGCUUACCUGAACA |
| 4793 | CUGGGGAGAGACCGUCCGG | 4828 | GUGCUCUGUGAGUGCUACG | 4863 | GUAUGAUCUGACUCCUGCU | 4898 | UGCGUGCUUACCUGAACAC |
| 4794 | UGGGGAGAGACCGUCCGGC | 4829 | UGCUCUGUGAGUGCUACGA | 4864 | UAUGAUCUGACUCCUGCUG | 4899 | GCGUGCUUACCUGAACACC |
| 4795 | GGGGAGAGACCGUCCGGCA | 4830 | GCUCUGUGAGUGCUACGAU | 4865 | AUGAUCUGACUCCUGCUGA | 4900 | CGUGCUUACCUGAACACCC |



FIG. 6 (sheet 322 of 479)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4901 | GUGCUUACCUGAACACCCC | 4936 | CAAGAACAUCUGGAAUUCU | 4971 | AGGGCUUACUAACAUCGAC | 5006 | AGGCAAAGCAGGGUGGGGA |
| 4902 | UGCUUACCUGAACACCCCC | 4937 | AAGAACAUCUGGAAUUCUG | 4972 | GGGCUUACUAACAUCGACG | 5007 | GGCAAAGCAGGGUGGGGAA |
| 4903 | GCUUACCUGAACACCCCCG | 4938 | AGAACAUCUGGAAUUCUGG | 4973 | GGCUUACUAACAUCGACGC | 5008 | GCAAAGCAGGGUGGGGAAA |
| 4904 | CUUACCUGAACACCCCCGG | 4939 | GAACAUCUGGAAUUCUGGG | 4974 | GCUUACUAACAUCGACGCC | 5009 | CAAAGCAGGGUGGGGAAAA |
| 4905 | UUACCUGAACACCCCCGGG | 4940 | AACAUCUGGAAUUCUGGGA | 4975 | CUUACUAACAUCGACGCCC | 5010 | AAAGCAGGGUGGGGAAAAC |
| 4906 | UACCUGAACACCCCCGGGC | 4941 | ACAUCUGGAAUUCUGGGAA | 4976 | UUACUAACAUCGACGCCCA | 5011 | AAGCAGGGUGGGGAAAACU |
| 4907 | ACCUGAACACCCCCGGGCU | 4942 | CAUCUGGAAUUCUGGGAAG | 4977 | UACUAACAUCGACGCCCAC | 5012 | AGCAGGGUGGGGAAAACUU |
| 4908 | CCUGAACACCCCCGGGCUC | 4943 | AUCUGGAAUUCUGGGAAGG | 4978 | ACUAACAUCGACGCCCACA | 5013 | GCAGGGUGGGGAAAACUUC |
| 4909 | CUGAACACCCCCGGGCUCC | 4944 | UCUGGAAUUCUGGGAAGGG | 4979 | CUAACAUCGACGCCCACAU | 5014 | CAGGGUGGGGAAAACUUCC |
| 4910 | UGAACACCCCCGGGCUCCC | 4945 | CUGGAAUUCUGGGAAGGGG | 4980 | UAACAUCGACGCCCACAUG | 5015 | AGGGUGGGGAAAACUUCCC |
| 4911 | GAACACCCCCGGGCUCCCU | 4946 | UGGAAUUCUGGGAAGGGGU | 4981 | AACAUCGACGCCCACAUGC | 5016 | GGGUGGGGAAAACUUCCCA |
| 4912 | AACACCCCCGGGCUCCCUG | 4947 | GGAAUUCUGGGAAGGGGUG | 4982 | ACAUCGACGCCCACAUGCU | 5017 | GGUGGGGAAAACUUCCCAU |
| 4913 | ACACCCCCGGGCUCCCUGU | 4948 | GAAUUCUGGGAAGGGGUGU | 4983 | CAUCGACGCCCACAUGCUG | 5018 | GUGGGGAAAACUUCCCAUA |
| 4914 | CACCCCCGGGCUCCCUGUC | 4949 | AAUUCUGGGAAGGGGUGUU | 4984 | AUCGACGCCCACAUGCUGU | 5019 | UGGGGAAAACUUCCCAUAC |
| 4915 | ACCCCCGGGCUCCCUGUCU | 4950 | AUUCUGGGAAGGGGUGUUC | 4985 | UCGACGCCCACAUGCUGUC | 5020 | GGGGAAAACUUCCCAUACC |
| 4916 | CCCCCGGGCUCCCUGUCUG | 4951 | UUCUGGGAAGGGGUGUUCA | 4986 | CGACGCCCACAUGCUGUCA | 5021 | GGGAAAACUUCCCAUACCU |
| 4917 | CCCCGGGCUCCCUGUCUGU | 4952 | UCUGGGAAGGGGUGUUCAC | 4987 | GACGCCCACAUGCUGUCAC | 5022 | GGAAAACUUCCCAUACCUU |
| 4918 | CCCGGGCUCCCUGUCUGUC | 4953 | CUGGGAAGGGGUGUUCACA | 4988 | ACGCCCACAUGCUGUCACA | 5023 | GAAAACUUCCCAUACCUUG |
| 4919 | CCGGGCUCCCUGUCUGUCA | 4954 | UGGGAAGGGGUGUUCACAG | 4989 | CGCCCACAUGCUGUCACAG | 5024 | AAAACUUCCCAUACCUUGU |
| 4920 | CGGGCUCCCUGUCUGUCAA | 4955 | GGGAAGGGGUGUUCACAGG | 4990 | GCCCACAUGCUGUCACAGG | 5025 | AAACUUCCCAUACCUUGUG |
| 4921 | GGGCUCCCUGUCUGUCAAG | 4956 | GGAAGGGGUGUUCACAGGG | 4991 | CCCACAUGCUGUCACAGGC | 5026 | AACUUCCCAUACCUUGUGG |
| 4922 | GGCUCCCUGUCUGUCAAGA | 4957 | GAAGGGGUGUUCACAGGGC | 4992 | CCACAUGCUGUCACAGGCA | 5027 | ACUUCCCAUACCUUGUGGC |
| 4923 | GCUCCCUGUCUGUCAAGAA | 4958 | AAGGGGUGUUCACAGGGCU | 4993 | CACAUGCUGUCACAGGCAA | 5028 | CUUCCCAUACCUUGUGGCA |
| 4924 | CUCCCUGUCUGUCAAGAAC | 4959 | AGGGGUGUUCACAGGGCUU | 4994 | ACAUGCUGUCACAGGCAAA | 5029 | UUCCCAUACCUUGUGGCAU |
| 4925 | UCCCUGUCUGUCAAGAACA | 4960 | GGGGUGUUCACAGGGCUUA | 4995 | CAUGCUGUCACAGGCAAAG | 5030 | UCCCAUACCUUGUGGCAUA |
| 4926 | CCCUGUCUGUCAAGAACAU | 4961 | GGGUGUUCACAGGGCUUAC | 4996 | AUGCUGUCACAGGCAAAGC | 5031 | CCCAUACCUUGUGGCAUAC |
| 4927 | CCUGUCUGUCAAGAACAUC | 4962 | GGUGUUCACAGGGCUUACU | 4997 | UGCUGUCACAGGCAAAGCA | 5032 | CCAUACCUUGUGGCAUACC |
| 4928 | CUGUCUGUCAAGAACAUCU | 4963 | GUGUUCACAGGGCUUACUA | 4998 | GCUGUCACAGGCAAAGCAG | 5033 | CAUACCUUGUGGCAUACCA |
| 4929 | UGUCUGUCAAGAACAUCUG | 4964 | UGUUCACAGGGCUUACUAA | 4999 | CUGUCACAGGCAAAGCAGG | 5034 | AUACCUUGUGGCAUACCAA |
| 4930 | GUCUGUCAAGAACAUCUGG | 4965 | GUUCACAGGGCUUACUAAC | 5000 | UGUCACAGGCAAAGCAGGG | 5035 | UACCUUGUGGCAUACCAAG |
| 4931 | UCUGUCAAGAACAUCUGGA | 4966 | UUCACAGGGCUUACUAACA | 5001 | GUCACAGGCAAAGCAGGGU | 5036 | ACCUUGUGGCAUACCAAGC |
| 4932 | CUGUCAAGAACAUCUGGAA | 4967 | UCACAGGGCUUACUAACAU | 5002 | UCACAGGCAAAGCAGGGUG | 5037 | CCUUGUGGCAUACCAAGCA |
| 4933 | UGUCAAGAACAUCUGGAAU | 4968 | CACAGGGCUUACUAACAUC | 5003 | CACAGGCAAAGCAGGGUGG | 5038 | CUUGUGGCAUACCAAGCAA |
| 4934 | GUCAAGAACAUCUGGAAUU | 4969 | ACAGGGCUUACUAACAUCG | 5004 | ACAGGCAAAGCAGGGUGGG | 5039 | UUGUGGCAUACCAAGCAAC |
| 4935 | UCAAGAACAUCUGGAAUUC | 4970 | CAGGGCUUACUAACAUCGA | 5005 | CAGGCAAAGCAGGGUGGGG | 5040 | UGUGGCAUACCAAGCAACA |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5041 | GUGGCAUACCAAGCAACAG | 5076 | GGCGCCCCCCCCCAGCUGG | 5111 | GCAUGAUCUGUCUCAAACC | 5146 | ACUCCCCUCCUGUACAGGC |
| 5042 | UGGCAUACCAAGCAACAGU | 5077 | GCGCCCCCCCCCAGCUGGG | 5112 | CAUGAUCUGUCUCAAACCG | 5147 | CUCCCCUCCUGUACAGGCU |
| 5043 | GGCAUACCAAGCAACAGUC | 5078 | CGCCCCCCCCCAGCUGGGA | 5113 | AUGAUCUGUCUCAAACCGA | 5148 | UCCCCUCCUGUACAGGCUG |
| 5044 | GCAUACCAAGCAACAGUCU | 5079 | GCCCCCCCCCAGCUGGGAU | 5114 | UGAUCUGUCUCAAACCGAC | 5149 | CCCCUCCUGUACAGGCUGG |
| 5045 | CAUACCAAGCAACAGUCUG | 5080 | CCCCCCCCCAGCUGGGAUA | 5115 | GAUCUGUCUCAAACCGACU | 5150 | CCCUCCUGUACAGGCUGGG |
| 5046 | AUACCAAGCAACAGUCUGU | 5081 | CCCCCCCCAGCUGGGAUAC | 5116 | AUCUGUCUCAAACCGACUU | 5151 | CCUCCUGUACAGGCUGGGG |
| 5047 | UACCAAGCAACAGUCUGUG | 5082 | CCCCCCCAGCUGGGAUACA | 5117 | UCUGUCUCAAACCGACUUU | 5152 | CUCCUGUACAGGCUGGGGG |
| 5048 | ACCAAGCAACAGUCUGUGU | 5083 | CCCCCCAGCUGGGAUACAA | 5118 | CUGUCUCAAACCGACUUUA | 5153 | UCCUGUACAGGCUGGGGGC |
| 5049 | CCAAGCAACAGUCUGUGUU | 5084 | CCCCCAGCUGGGAUACAAU | 5119 | UGUCUCAAACCGACUUUAA | 5154 | CCUGUACAGGCUGGGGGCC |
| 5050 | CAAGCAACAGUCUGUGUUC | 5085 | CCCCAGCUGGGAUACAAUG | 5120 | GUCUCAAACCGACUUUAAC | 5155 | CUGUACAGGCUGGGGGCCG |
| 5051 | AAGCAACAGUCUGUGUUCG | 5086 | CCCAGCUGGGAUACAAUGU | 5121 | UCUCAAACCGACUUUAACU | 5156 | UGUACAGGCUGGGGGCCGU |
| 5052 | AGCAACAGUCUGUGUUCGU | 5087 | CCAGCUGGGAUACAAUGUG | 5122 | CUCAAACCGACUUUAACUG | 5157 | GUACAGGCUGGGGGCCGUU |
| 5053 | GCAACAGUCUGUGUUCGUG | 5088 | CAGCUGGGAUACAAUGUGG | 5123 | UCAAACCGACUUUAACUGG | 5158 | UACAGGCUGGGGGCCGUUC |
| 5054 | CAACAGUCUGUGUUCGUGC | 5089 | AGCUGGGAUACAAUGUGGA | 5124 | CAAACCGACUUUAACUGGC | 5159 | ACAGGCUGGGGGCCGUUCA |
| 5055 | AACAGUCUGUGUUCGUGCG | 5090 | GCUGGGAUACAAUGUGGAA | 5125 | AAACCGACUUUAACUGGCC | 5160 | CAGGCUGGGGGCCGUUCAG |
| 5056 | ACAGUCUGUGUUCGUGCGA | 5091 | CUGGGAUACAAUGUGGAAG | 5126 | AACCGACUUUAACUGGCCC | 5161 | AGGCUGGGGGCCGUUCAGA |
| 5057 | CAGUCUGUGUUCGUGCGAA | 5092 | UGGGAUACAAUGUGGAAGU | 5127 | ACCGACUUUAACUGGCCCC | 5162 | GGCUGGGGGCCGUUCAGAA |
| 5058 | AGUCUGUGUUCGUGCGAAG | 5093 | GGGAUACAAUGUGGAAGUG | 5128 | CCGACUUUAACUGGCCCCA | 5163 | GCUGGGGGCCGUUCAGAAU |
| 5059 | GUCUGUGUUCGUGCGAAGG | 5094 | GGAUACAAUGUGGAAGUGC | 5129 | CGACUUUAACUGGCCCCAC | 5164 | CUGGGGGCCGUUCAGAAUG |
| 5060 | UCUGUGUUCGUGCGAAGGC | 5095 | GAUACAAUGUGGAAGUGCA | 5130 | GACUUUAACUGGCCCCACU | 5165 | UGGGGGCCGUUCAGAAUGA |
| 5061 | CUGUGUUCGUGCGAAGGCG | 5096 | AUACAAUGUGGAAGUGCAU | 5131 | ACUUUAACUGGCCCCACUC | 5166 | GGGGGCCGUUCAGAAUGAG |
| 5062 | UGUGUUCGUGCGAAGGCGC | 5097 | UACAAUGUGGAAGUGCAUG | 5132 | CUUUAACUGGCCCCACUCC | 5167 | GGGGCCGUUCAGAAUGAGA |
| 5063 | GUGUUCGUGCGAAGGCGCC | 5098 | ACAAUGUGGAAGUGCAUGA | 5133 | UUUAACUGGCCCCACUCCC | 5168 | GGGCCGUUCAGAAUGAGAU |
| 5064 | UGUUCGUGCGAAGGCGCCC | 5099 | CAAUGUGGAAGUGCAUGAU | 5134 | UUAACUGGCCCCACUCCCC | 5169 | GGCCGUUCAGAAUGAGAUC |
| 5065 | GUUCGUGCGAAGGCGCCCC | 5100 | AAUGUGGAAGUGCAUGAUC | 5135 | UAACUGGCCCCACUCCCCU | 5170 | GCCGUUCAGAAUGAGAUCA |
| 5066 | UUCGUGCGAAGGCGCCCCC | 5101 | AUGUGGAAGUGCAUGAUCU | 5136 | AACUGGCCCCACUCCCCUC | 5171 | CCGUUCAGAAUGAGAUCAC |
| 5067 | UCGUGCGAAGGCGCCCCCC | 5102 | UGUGGAAGUGCAUGAUCUG | 5137 | ACUGGCCCCACUCCCCUCC | 5172 | CGUUCAGAAUGAGAUCACA |
| 5068 | CGUGCGAAGGCGCCCCCCC | 5103 | GUGGAAGUGCAUGAUCUGU | 5138 | CUGGCCCCACUCCCCUCCU | 5173 | GUUCAGAAUGAGAUCACAC |
| 5069 | GUGCGAAGGCGCCCCCCCC | 5104 | UGGAAGUGCAUGAUCUGUC | 5139 | UGGCCCCACUCCCCUCCUG | 5174 | UUCAGAAUGAGAUCACACU |
| 5070 | UGCGAAGGCGCCCCCCCCC | 5105 | GGAAGUGCAUGAUCUGUCU | 5140 | GGCCCCACUCCCCUCCUGU | 5175 | UCAGAAUGAGAUCACACUG |
| 5071 | GCGAAGGCGCCCCCCCCCA | 5106 | GAAGUGCAUGAUCUGUCUC | 5141 | GCCCCACUCCCCUCCUGUA | 5176 | CAGAAUGAGAUCACACUGA |
| 5072 | CGAAGGCGCCCCCCCCCAG | 5107 | AAGUGCAUGAUCUGUCUCA | 5142 | CCCCACUCCCCUCCUGUAC | 5177 | AGAAUGAGAUCACACUGAC |
| 5073 | GAAGGCGCCCCCCCCCAGC | 5108 | AGUGCAUGAUCUGUCUCAA | 5143 | CCCACUCCCCUCCUGUACA | 5178 | GAAUGAGAUCACACUGACA |
| 5074 | AAGGCGCCCCCCCCCAGCU | 5109 | GUGCAUGAUCUGUCUCAAA | 5144 | CCACUCCCCUCCUGUACAG | 5179 | AAUGAGAUCACACUGACAC |
| 5075 | AGGCGCCCCCCCCCAGCUG | 5110 | UGCAUGAUCUGUCUCAAAC | 5145 | CACUCCCCUCCUGUACAGG | 5180 | AUGAGAUCACACUGACACA |



**FIG. 6 (sheet 324 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5181 | UGAGAUCACACUGACACAC | 5216 | UCAUGGCUUGCAUGUCCGC | 5251 | ACCAGCACUUGGGUCUUGG | 5286 | GGCCUUAGCGGCCUACUGC |
| 5182 | GAGAUCACACUGACACACC | 5217 | CAUGGCUUGCAUGUCCGCA | 5252 | CCAGCACUUGGGUCUUGGU | 5287 | GCCUUAGCGGCCUACUGCU |
| 5183 | AGAUCACACUGACACACCC | 5218 | AUGGCUUGCAUGUCCGCAG | 5253 | CAGCACUUGGGUCUUGGUA | 5288 | CCUUAGCGGCCUACUGCUU |
| 5184 | GAUCACACUGACACACCCC | 5219 | UGGCUUGCAUGUCCGCAGA | 5254 | AGCACUUGGGUCUUGGUAG | 5289 | CUUAGCGGCCUACUGCUUG |
| 5185 | AUCACACUGACACACCCCA | 5220 | GGCUUGCAUGUCCGCAGAC | 5255 | GCACUUGGGUCUUGGUAGG | 5290 | UUAGCGGCCUACUGCUUGA |
| 5186 | UCACACUGACACACCCCAU | 5221 | GCUUGCAUGUCCGCAGACU | 5256 | CACUUGGGUCUUGGUAGGG | 5291 | UAGCGGCCUACUGCUUGAC |
| 5187 | CACACUGACACACCCCAUC | 5222 | CUUGCAUGUCCGCAGACUU | 5257 | ACUUGGGUCUUGGUAGGGG | 5292 | AGCGGCCUACUGCUUGACG |
| 5188 | ACACUGACACACCCCAUCA | 5223 | UUGCAUGUCCGCAGACUUG | 5258 | CUUGGGUCUUGGUAGGGGG | 5293 | GCGGCCUACUGCUUGACGG |
| 5189 | CACUGACACACCCCAUCAC | 5224 | UGCAUGUCCGCAGACUUGG | 5259 | UUGGGUCUUGGUAGGGGGU | 5294 | CGGCCUACUGCUUGACGGU |
| 5190 | ACUGACACACCCCAUCACC | 5225 | GCAUGUCCGCAGACUUGGA | 5260 | UGGGUCUUGGUAGGGGGUG | 5295 | GGCCUACUGCUUGACGGUG |
| 5191 | CUGACACACCCCAUCACCA | 5226 | CAUGUCCGCAGACUUGGAG | 5261 | GGGUCUUGGUAGGGGGUGU | 5296 | GCCUACUGCUUGACGGUGG |
| 5192 | UGACACACCCCAUCACCAA | 5227 | AUGUCCGCAGACUUGGAGG | 5262 | GGUCUUGGUAGGGGGUGUU | 5297 | CCUACUGCUUGACGGUGGG |
| 5193 | GACACACCCCAUCACCAAG | 5228 | UGUCCGCAGACUUGGAGGU | 5263 | GUCUUGGUAGGGGGUGUUG | 5298 | CUACUGCUUGACGGUGGGC |
| 5194 | ACACACCCCAUCACCAAGU | 5229 | GUCCGCAGACUUGGAGGUC | 5264 | UCUUGGUAGGGGGUGUUGU | 5299 | UACUGCUUGACGGUGGGCU |
| 5195 | CACACCCCAUCACCAAGUA | 5230 | UCCGCAGACUUGGAGGUCA | 5265 | CUUGGUAGGGGGUGUUGUG | 5300 | ACUGCUUGACGGUGGGCUC |
| 5196 | ACACCCCAUCACCAAGUAC | 5231 | CCGCAGACUUGGAGGUCAU | 5266 | UUGGUAGGGGGUGUUGUGG | 5301 | CUGCUUGACGGUGGGCUCG |
| 5197 | CACCCCAUCACCAAGUACA | 5232 | CGCAGACUUGGAGGUCAUU | 5267 | UGGUAGGGGGUGUUGUGGC | 5302 | UGCUUGACGGUGGGCUCGG |
| 5198 | ACCCCAUCACCAAGUACAU | 5233 | GCAGACUUGGAGGUCAUUA | 5268 | GGUAGGGGGUGUUGUGGCG | 5303 | GCUUGACGGUGGGCUCGGU |
| 5199 | CCCCAUCACCAAGUACAUC | 5234 | CAGACUUGGAGGUCAUUAC | 5269 | GUAGGGGGUGUUGUGGCGG | 5304 | CUUGACGGUGGGCUCGGUG |
| 5200 | CCCAUCACCAAGUACAUCA | 5235 | AGACUUGGAGGUCAUUACC | 5270 | UAGGGGGUGUUGUGGCGGC | 5305 | UUGACGGUGGGCUCGGUGG |
| 5201 | CCAUCACCAAGUACAUCAU | 5236 | GACUUGGAGGUCAUUACCA | 5271 | AGGGGGUGUUGUGGCGGCC | 5306 | UGACGGUGGGCUCGGUGGC |
| 5202 | CAUCACCAAGUACAUCAUG | 5237 | ACUUGGAGGUCAUUACCAG | 5272 | GGGGGUGUUGUGGCGGCCU | 5307 | GACGGUGGGCUCGGUGGCC |
| 5203 | AUCACCAAGUACAUCAUGG | 5238 | CUUGGAGGUCAUUACCAGC | 5273 | GGGGUGUUGUGGCGGCCUU | 5308 | ACGGUGGGCUCGGUGGCCA |
| 5204 | UCACCAAGUACAUCAUGGC | 5239 | UUGGAGGUCAUUACCAGCA | 5274 | GGGUGUUGUGGCGGCCUUA | 5309 | CGGUGGGCUCGGUGGCCAU |
| 5205 | CACCAAGUACAUCAUGGCU | 5240 | UGGAGGUCAUUACCAGCAC | 5275 | GGUGUUGUGGCGGCCUUAG | 5310 | GGUGGGCUCGGUGGCCAUA |
| 5206 | ACCAAGUACAUCAUGGCUU | 5241 | GGAGGUCAUUACCAGCACU | 5276 | GUGUUGUGGCGGCCUUAGC | 5311 | GUGGGCUCGGUGGCCAUAG |
| 5207 | CCAAGUACAUCAUGGCUUG | 5242 | GAGGUCAUUACCAGCACUU | 5277 | UGUUGUGGCGGCCUUAGCG | 5312 | UGGGCUCGGUGGCCAUAGU |
| 5208 | CAAGUACAUCAUGGCUUGC | 5243 | AGGUCAUUACCAGCACUUG | 5278 | GUUGUGGCGGCCUUAGCGG | 5313 | GGGCUCGGUGGCCAUAGUC |
| 5209 | AAGUACAUCAUGGCUUGCA | 5244 | GGUCAUUACCAGCACUUGG | 5279 | UUGUGGCGGCCUUAGCGGC | 5314 | GGCUCGGUGGCCAUAGUCG |
| 5210 | AGUACAUCAUGGCUUGCAU | 5245 | GUCAUUACCAGCACUUGGG | 5280 | UGUGGCGGCCUUAGCGGCC | 5315 | GCUCGGUGGCCAUAGUCGG |
| 5211 | GUACAUCAUGGCUUGCAUG | 5246 | UCAUUACCAGCACUUGGGU | 5281 | GUGGCGGCCUUAGCGGCCU | 5316 | CUCGGUGGCCAUAGUCGGU |
| 5212 | UACAUCAUGGCUUGCAUGU | 5247 | CAUUACCAGCACUUGGGUC | 5282 | UGGCGGCCUUAGCGGCCUA | 5317 | UCGGUGGCCAUAGUCGGUA |
| 5213 | ACAUCAUGGCUUGCAUGUC | 5248 | AUUACCAGCACUUGGGUCU | 5283 | GGCGGCCUUAGCGGCCUAC | 5318 | CGGUGGCCAUAGUCGGUAG |
| 5214 | CAUCAUGGCUUGCAUGUCC | 5249 | UUACCAGCACUUGGGUCUU | 5284 | GCGGCCUUAGCGGCCUACU | 5319 | GGUGGCCAUAGUCGGUAGA |
| 5215 | AUCAUGGCUUGCAUGUCCG | 5250 | UACCAGCACUUGGGUCUUG | 5285 | CGGCCUUAGCGGCCUACUG | 5320 | GUGGCCAUAGUCGGUAGAA |





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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5321 | UGGCCAUAGUCGGUAGAAU | 5356 | CCUGCGAUCACCCCUGACA | 5391 | GCAAUUUGAUGAGAUGGAG | 5426 | UGCCCUAUGUGGACGAGGC |
| 5322 | GGCCAUAGUCGGUAGAAUC | 5357 | CUGCGAUCACCCCUGACAG | 5392 | CAAUUUGAUGAGAUGGAGG | 5427 | GCCCUAUGUGGACGAGGCA |
| 5323 | GCCAUAGUCGGUAGAAUCA | 5358 | UGCGAUCACCCCUGACAGG | 5393 | AAUUUGAUGAGAUGGAGGA | 5428 | CCCUAUGUGGACGAGGCAC |
| 5324 | CCAUAGUCGGUAGAAUCAU | 5359 | GCGAUCACCCCUGACAGGG | 5394 | AUUUGAUGAGAUGGAGGAG | 5429 | CCUAUGUGGACGAGGCACG |
| 5325 | CAUAGUCGGUAGAAUCAUC | 5360 | CGAUCACCCCUGACAGGGA | 5395 | UUUGAUGAGAUGGAGGAGU | 5430 | CUAUGUGGACGAGGCACGU |
| 5326 | AUAGUCGGUAGAAUCAUCC | 5361 | GAUCACCCCUGACAGGGAG | 5396 | UUGAUGAGAUGGAGGAGUG | 5431 | UAUGUGGACGAGGCACGUG |
| 5327 | UAGUCGGUAGAAUCAUCCU | 5362 | AUCACCCCUGACAGGGAGG | 5397 | UGAUGAGAUGGAGGAGUGC | 5432 | AUGUGGACGAGGCACGUGC |
| 5328 | AGUCGGUAGAAUCAUCCUA | 5363 | UCACCCCUGACAGGGAGGU | 5398 | GAUGAGAUGGAGGAGUGCU | 5433 | UGUGGACGAGGCACGUGCC |
| 5329 | GUCGGUAGAAUCAUCCUAU | 5364 | CACCCCUGACAGGGAGGUA | 5399 | AUGAGAUGGAGGAGUGCUC | 5434 | GUGGACGAGGCACGUGCCA |
| 5330 | UCGGUAGAAUCAUCCUAUC | 5365 | ACCCCUGACAGGGAGGUAC | 5400 | UGAGAUGGAGGAGUGCUCA | 5435 | UGGACGAGGCACGUGCCAU |
| 5331 | CGGUAGAAUCAUCCUAUCU | 5366 | CCCCUGACAGGGAGGUACU | 5401 | GAGAUGGAGGAGUGCUCAG | 5436 | GGACGAGGCACGUGCCAUC |
| 5332 | GGUAGAAUCAUCCUAUCUG | 5367 | CCCUGACAGGGAGGUACUA | 5402 | AGAUGGAGGAGUGCUCAGC | 5437 | GACGAGGCACGUGCCAUCG |
| 5333 | GUAGAAUCAUCCUAUCUGG | 5368 | CCUGACAGGGAGGUACUAU | 5403 | GAUGGAGGAGUGCUCAGCC | 5438 | ACGAGGCACGUGCCAUCGC |
| 5334 | UAGAAUCAUCCUAUCUGGG | 5369 | CUGACAGGGAGGUACUAUA | 5404 | AUGGAGGAGUGCUCAGCCU | 5439 | CGAGGCACGUGCCAUCGCC |
| 5335 | AGAAUCAUCCUAUCUGGGA | 5370 | UGACAGGGAGGUACUAUAC | 5405 | UGGAGGAGUGCUCAGCCUC | 5440 | GAGGCACGUGCCAUCGCCG |
| 5336 | GAAUCAUCCUAUCUGGGAG | 5371 | GACAGGGAGGUACUAUACC | 5406 | GGAGGAGUGCUCAGCCUCC | 5441 | AGGCACGUGCCAUCGCCGG |
| 5337 | AAUCAUCCUAUCUGGGAGA | 5372 | ACAGGGAGGUACUAUACCA | 5407 | GAGGAGUGCUCAGCCUCCU | 5442 | GGCACGUGCCAUCGCCGGC |
| 5338 | AUCAUCCUAUCUGGGAGAC | 5373 | CAGGGAGGUACUAUACCAG | 5408 | AGGAGUGCUCAGCCUCCUU | 5443 | GCACGUGCCAUCGCCGGGC |
| 5339 | UCAUCCUAUCUGGGAGACC | 5374 | AGGGAGGUACUAUACCAGC | 5409 | GGAGUGCUCAGCCUCCUUG | 5444 | CACGUGCCAUCGCCGGGCA |
| 5340 | CAUCCUAUCUGGGAGACCU | 5375 | GGGAGGUACUAUACCAGCA | 5410 | GAGUGCUCAGCCUCCUUGC | 5445 | ACGUGCCAUCGCCGGGCAA |
| 5341 | AUCCUAUCUGGGAGACCUG | 5376 | GGAGGUACUAUACCAGCAA | 5411 | AGUGCUCAGCCUCCUUGCC | 5446 | CGUGCCAUCGCCGGGCAAU |
| 5342 | UCCUAUCUGGGAGACCUGC | 5377 | GAGGUACUAUACCAGCAAU | 5412 | GUGCUCAGCCUCCUUGCCC | 5447 | GUGCCAUCGCCGGGCAAUU |
| 5343 | CCUAUCUGGGAGACCUGCG | 5378 | AGGUACUAUACCAGCAAUU | 5413 | UGCUCAGCCUCCUUGCCCU | 5448 | UGCCAUCGCCGGGCAAUUU |
| 5344 | CUAUCUGGGAGACCUGCGA | 5379 | GGUACUAUACCAGCAAUUU | 5414 | GCUCAGCCUCCUUGCCCUA | 5449 | GCCAUCGCCGGGCAAUUUA |
| 5345 | UAUCUGGGAGACCUGCGAU | 5380 | GUACUAUACCAGCAAUUUG | 5415 | CUCAGCCUCCUUGCCCUAU | 5450 | CCAUCGCCGGGCAAUUUAA |
| 5346 | AUCUGGGAGACCUGCGAUC | 5381 | UACUAUACCAGCAAUUUGA | 5416 | UCAGCCUCCUUGCCCUAUG | 5451 | CAUCGCCGGGCAAUUUAAG |
| 5347 | UCUGGGAGACCUGCGAUCA | 5382 | ACUAUACCAGCAAUUUGAU | 5417 | CAGCCUCCUUGCCCUAUGU | 5452 | AUCGCCGGGCAAUUUAAGG |
| 5348 | CUGGGAGACCUGCGAUCAC | 5383 | CUAUACCAGCAAUUUGAUG | 5418 | AGCCUCCUUGCCCUAUGUG | 5453 | UCGCCGGGCAAUUUAAGGA |
| 5349 | UGGGAGACCUGCGAUCACC | 5384 | UAUACCAGCAAUUUGAUGA | 5419 | GCCUCCUUGCCCUAUGUGG | 5454 | CGCCGGGCAAUUUAAGGAG |
| 5350 | GGGAGACCUGCGAUCACCC | 5385 | AUACCAGCAAUUUGAUGAG | 5420 | CCUCCUUGCCCUAUGUGGA | 5455 | GCCGGGCAAUUUAAGGAGA |
| 5351 | GGAGACCUGCGAUCACCCC | 5386 | UACCAGCAAUUUGAUGAGA | 5421 | CUCCUUGCCCUAUGUGGAC | 5456 | CCGGGCAAUUUAAGGAGAA |
| 5352 | GAGACCUGCGAUCACCCCU | 5387 | ACCAGCAAUUUGAUGAGAU | 5422 | UCCUUGCCCUAUGUGGACG | 5457 | CGGGCAAUUUAAGGAGAAA |
| 5353 | AGACCUGCGAUCACCCCUG | 5388 | CCAGCAAUUUGAUGAGAUG | 5423 | CCUUGCCCUAUGUGGACGA | 5458 | GGGCAAUUUAAGGAGAAAG |
| 5354 | GACCUGCGAUCACCCCUGA | 5389 | CAGCAAUUUGAUGAGAUGG | 5424 | CUUGCCCUAUGUGGACGAG | 5459 | GGCAAUUUAAGGAGAAAGU |
| 5355 | ACCUGCGAUCACCCCUGAC | 5390 | AGCAAUUUGAUGAGAUGGA | 5425 | UUGCCCUAUGUGGACGAGG | 5460 | GCAAUUUAAGGAGAAAGUG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5461 | CAAUUUAAGGAGAAAGUGC | 5496 | GGCUGGCCAGAAAGCUGAA | 5531 | CUACGUCCAUGUGGAGCAA | 5566 | GCAAAGCAUAUGUGGAACU |
| 5462 | AAUUUAAGGAGAAAGUGCU | 5497 | GCUGGCCAGAAAGCUGAAA | 5532 | UACGUCCAUGUGGAGCAAG | 5567 | CAAAGCAUAUGUGGAACUU |
| 5463 | AUUUAAGGAGAAAGUGCUU | 5498 | CUGGCCAGAAAGCUGAAAC | 5533 | ACGUCCAUGUGGAGCAAGG | 5568 | AAAGCAUAUGUGGAACUUU |
| 5464 | UUUAAGGAGAAAGUGCUUG | 5499 | UGGCCAGAAAGCUGAAACU | 5534 | CGUCCAUGUGGAGCAAGGC | 5569 | AAGCAUAUGUGGAACUUUG |
| 5465 | UUAAGGAGAAAGUGCUUGG | 5500 | GGCCAGAAAGCUGAAACUC | 5535 | GUCCAUGUGGAGCAAGGCC | 5570 | AGCAUAUGUGGAACUUUGU |
| 5466 | UAAGGAGAAAGUGCUUGGC | 5501 | GCCAGAAAGCUGAAACUCU | 5536 | UCCAUGUGGAGCAAGGCCG | 5571 | GCAUAUGUGGAACUUUGUC |
| 5467 | AAGGAGAAAGUGCUUGGCC | 5502 | CCAGAAAGCUGAAACUCUG | 5537 | CCAUGUGGAGCAAGGCCGA | 5572 | CAUAUGUGGAACUUUGUCA |
| 5468 | AGGAGAAAGUGCUUGGCCU | 5503 | CAGAAAGCUGAAACUCUGA | 5538 | CAUGUGGAGCAAGGCCGAG | 5573 | AUAUGUGGAACUUUGUCAG |
| 5469 | GGAGAAAGUGCUUGGCCUC | 5504 | AGAAAGCUGAAACUCUGAA | 5539 | AUGUGGAGCAAGGCCGAGC | 5574 | UAUGUGGAACUUUGUCAGU |
| 5470 | GAGAAAGUGCUUGGCCUCA | 5505 | GAAAGCUGAAACUCUGAAA | 5540 | UGUGGAGCAAGGCCGAGCA | 5575 | AUGUGGAACUUUGUCAGUG |
| 5471 | AGAAAGUGCUUGGCCUCAU | 5506 | AAAGCUGAAACUCUGAAAC | 5541 | GUGGAGCAAGGCCGAGCAG | 5576 | UGUGGAACUUUGUCAGUGG |
| 5472 | GAAAGUGCUUGGCCUCAUU | 5507 | AAGCUGAAACUCUGAAACC | 5542 | UGGAGCAAGGCCGAGCAGU | 5577 | GUGGAACUUUGUCAGUGGG |
| 5473 | AAAGUGCUUGGCCUCAUUG | 5508 | AGCUGAAACUCUGAAACCG | 5543 | GGAGCAAGGCCGAGCAGUU | 5578 | UGGAACUUUGUCAGUGGGA |
| 5474 | AAGUGCUUGGCCUCAUUGG | 5509 | GCUGAAACUCUGAAACCGG | 5544 | GAGCAAGGCCGAGCAGUUC | 5579 | GGAACUUUGUCAGUGGGAU |
| 5475 | AGUGCUUGGCCUCAUUGGC | 5510 | CUGAAACUCUGAAACCGGC | 5545 | AGCAAGGCCGAGCAGUUCU | 5580 | GAACUUUGUCAGUGGGAUC |
| 5476 | GUGCUUGGCCUCAUUGGCA | 5511 | UGAAACUCUGAAACCGGCA | 5546 | GCAAGGCCGAGCAGUUCUG | 5581 | AACUUUGUCAGUGGGAUCC |
| 5477 | UGCUUGGCCUCAUUGGCAC | 5512 | GAAACUCUGAAACCGGCAG | 5547 | CAAGGCCGAGCAGUUCUGG | 5582 | ACUUUGUCAGUGGGAUCCA |
| 5478 | GCUUGGCCUCAUUGGCACG | 5513 | AAACUCUGAAACCGGCAGC | 5548 | AAGGCCGAGCAGUUCUGGG | 5583 | CUUUGUCAGUGGGAUCCAA |
| 5479 | CUUGGCCUCAUUGGCACGG | 5514 | AACUCUGAAACCGGCAGCU | 5549 | AGGCCGAGCAGUUCUGGGC | 5584 | UUUGUCAGUGGGAUCCAAU |
| 5480 | UUGGCCUCAUUGGCACGGC | 5515 | ACUCUGAAACCGGCAGCUA | 5550 | GGCCGAGCAGUUCUGGGCA | 5585 | UUGUCAGUGGGAUCCAAUA |
| 5481 | UGGCCUCAUUGGCACGGCU | 5516 | CUCUGAAACCGGCAGCUAC | 5551 | GCCGAGCAGUUCUGGGCAA | 5586 | UGUCAGUGGGAUCCAAUAC |
| 5482 | GGCCUCAUUGGCACGGCUG | 5517 | UCUGAAACCGGCAGCUACG | 5552 | CCGAGCAGUUCUGGGCAAA | 5587 | GUCAGUGGGAUCCAAUACC |
| 5483 | GCCUCAUUGGCACGGCUGG | 5518 | CUGAAACCGGCAGCUACGU | 5553 | CGAGCAGUUCUGGGCAAAG | 5588 | UCAGUGGGAUCCAAUACCU |
| 5484 | CCUCAUUGGCACGGCUGGC | 5519 | UGAAACCGGCAGCUACGUC | 5554 | GAGCAGUUCUGGGCAAAGC | 5589 | CAGUGGGAUCCAAUACCUU |
| 5485 | CUCAUUGGCACGGCUGGCC | 5520 | GAAACCGGCAGCUACGUCC | 5555 | AGCAGUUCUGGGCAAAGCA | 5590 | AGUGGGAUCCAAUACCUUG |
| 5486 | UCAUUGGCACGGCUGGCCA | 5521 | AAACCGGCAGCUACGUCCA | 5556 | GCAGUUCUGGGCAAAGCAU | 5591 | GUGGGAUCCAAUACCUUGC |
| 5487 | CAUUGGCACGGCUGGCCAG | 5522 | AACCGGCAGCUACGUCCAU | 5557 | CAGUUCUGGGCAAAGCAUA | 5592 | UGGGAUCCAAUACCUUGCU |
| 5488 | AUUGGCACGGCUGGCCAGA | 5523 | ACCGGCAGCUACGUCCAUG | 5558 | AGUUCUGGGCAAAGCAUAU | 5593 | GGGAUCCAAUACCUUGCUG |
| 5489 | UUGGCACGGCUGGCCAGAA | 5524 | CCGGCAGCUACGUCCAUGU | 5559 | GUUCUGGGCAAAGCAUAUG | 5594 | GGAUCCAAUACCUUGCUGG |
| 5490 | UGGCACGGCUGGCCAGAAA | 5525 | CGGCAGCUACGUCCAUGUG | 5560 | UUCUGGGCAAAGCAUAUGU | 5595 | GAUCCAAUACCUUGCUGGC |
| 5491 | GGCACGGCUGGCCAGAAAG | 5526 | GGCAGCUACGUCCAUGUGG | 5561 | UCUGGGCAAAGCAUAUGUG | 5596 | AUCCAAUACCUUGCUGGCC |
| 5492 | GCACGGCUGGCCAGAAAGC | 5527 | GCAGCUACGUCCAUGUGGA | 5562 | CUGGGCAAAGCAUAUGUGG | 5597 | UCCAAUACCUUGCUGGCCU |
| 5493 | CACGGCUGGCCAGAAAGCU | 5528 | CAGCUACGUCCAUGUGGAG | 5563 | UGGGCAAAGCAUAUGUGGA | 5598 | CCAAUACCUUGCUGGCCUU |
| 5494 | ACGGCUGGCCAGAAAGCUG | 5529 | AGCUACGUCCAUGUGGAGC | 5564 | GGGCAAAGCAUAUGUGGAA | 5599 | CAAUACCUUGCUGGCCUUU |
| 5495 | CGGCUGGCCAGAAAGCUGA | 5530 | GCUACGUCCAUGUGGAGCA | 5565 | GGCAAAGCAUAUGUGGAAC | 5600 | AAUACCUUGCUGGCCUUUC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5601 | AUACCUUGCUGGCCUUUCG | 5636 | CCGCCGUGGCCACGUUGAU | 5671 | GUGACCUCCCCUCUUACAA | 5706 | UUUUAAUAUUCUAGGAGGG |
| 5602 | UACCUUGCUGGCCUUUCGA | 5637 | CGCCGUGGCCACGUUGAUG | 5672 | UGACCUCCCCUCUUACAAC | 5707 | UUUAAUAUUCUAGGAGGGU |
| 5603 | ACCUUGCUGGCCUUUCGAC | 5638 | GCCGUGGCCACGUUGAUGU | 5673 | GACCUCCCCUCUUACAACA | 5708 | UUAAUAUUCUAGGAGGGUG |
| 5604 | CCUUGCUGGCCUUUCGACC | 5639 | CCGUGGCCACGUUGAUGUC | 5674 | ACCUCCCCUCUUACAACAC | 5709 | UAAUAUUCUAGGAGGGUGG |
| 5605 | CUUGCUGGCCUUUCGACCU | 5640 | CGUGGCCACGUUGAUGUCU | 5675 | CCUCCCCUCUUACAACACA | 5710 | AAUAUUCUAGGAGGGUGGG |
| 5606 | UUGCUGGCCUUUCGACCUU | 5641 | GUGGCCACGUUGAUGUCUU | 5676 | CUCCCCUCUUACAACACAU | 5711 | AUAUUCUAGGAGGGUGGGU |
| 5607 | UGCUGGCCUUUCGACCUUG | 5642 | UGGCCACGUUGAUGUCUUU | 5677 | UCCCCUCUUACAACACAUC | 5712 | UAUUCUAGGAGGGUGGGUG |
| 5608 | GCUGGCCUUUCGACCUUGC | 5643 | GGCCACGUUGAUGUCUUUC | 5678 | CCCCUCUUACAACACAUCA | 5713 | AUUCUAGGAGGGUGGGUGG |
| 5609 | CUGGCCUUUCGACCUUGCC | 5644 | GCCACGUUGAUGUCUUUCA | 5679 | CCCUCUUACAACACAUCAG | 5714 | UUCUAGGAGGGUGGGUGGC |
| 5610 | UGGCCUUUCGACCUUGCCG | 5645 | CCACGUUGAUGUCUUUCAC | 5680 | CCUCUUACAACACAUCAGA | 5715 | UCUAGGAGGGUGGGUGGCC |
| 5611 | GGCCUUUCGACCUUGCCGG | 5646 | CACGUUGAUGUCUUUCACC | 5681 | CUCUUACAACACAUCAGAC | 5716 | CUAGGAGGGUGGGUGGCCU |
| 5612 | GCCUUUCGACCUUGCCGGG | 5647 | ACGUUGAUGUCUUUCACCG | 5682 | UCUUACAACACAUCAGACC | 5717 | UAGGAGGGUGGGUGGCCUC |
| 5613 | CCUUUCGACCUUGCCGGGU | 5648 | CGUUGAUGUCUUUCACCGC | 5683 | CUUACAACACAUCAGACCC | 5718 | AGGAGGGUGGGUGGCCUCA |
| 5614 | CUUUCGACCUUGCCGGGUA | 5649 | GUUGAUGUCUUUCACCGCC | 5684 | UUACAACACAUCAGACCCU | 5719 | GGAGGGUGGGUGGCCUCAC |
| 5615 | UUUCGACCUUGCCGGGUAA | 5650 | UUGAUGUCUUUCACCGCCG | 5685 | UACAACACAUCAGACCCUC | 5720 | GAGGGUGGGUGGCCUCACA |
| 5616 | UUCGACCUUGCCGGGUAAU | 5651 | UGAUGUCUUUCACCGCCGC | 5686 | ACAACACAUCAGACCCUCC | 5721 | AGGGUGGGUGGCCUCACAG |
| 5617 | UCGACCUUGCCGGGUAAUC | 5652 | GAUGUCUUUCACCGCCGCG | 5687 | CAACACAUCAGACCCUCCU | 5722 | GGGUGGGUGGCCUCACAGA |
| 5618 | CGACCUUGCCGGGUAAUCC | 5653 | AUGUCUUUCACCGCCGCGG | 5688 | AACACAUCAGACCCUCCUU | 5723 | GGUGGGUGGCCUCACAGAU |
| 5619 | GACCUUGCCGGGUAAUCCC | 5654 | UGUCUUUCACCGCCGCGGU | 5689 | ACACAUCAGACCCUCCUUU | 5724 | GUGGGUGGCCUCACAGAUC |
| 5620 | ACCUUGCCGGGUAAUCCCG | 5655 | GUCUUUCACCGCCGCGGUG | 5690 | CACAUCAGACCCUCCUUUU | 5725 | UGGGUGGCCUCACAGAUCG |
| 5621 | CCUUGCCGGGUAAUCCCGC | 5656 | UCUUUCACCGCCGCGGUGA | 5691 | ACAUCAGACCCUCCUUUUU | 5726 | GGGUGGCCUCACAGAUCGC |
| 5622 | CUUGCCGGGUAAUCCCGCC | 5657 | CUUUCACCGCCGCGGUGAC | 5692 | CAUCAGACCCUCCUUUUUA | 5727 | GGUGGCCUCACAGAUCGCG |
| 5623 | UUGCCGGGUAAUCCCGCCG | 5658 | UUUCACCGCCGCGGUGACC | 5693 | AUCAGACCCUCCUUUUUAA | 5728 | GUGGCCUCACAGAUCGCGC |
| 5624 | UGCCGGGUAAUCCCGCCGU | 5659 | UUCACCGCCGCGGUGACCU | 5694 | UCAGACCCUCCUUUUUAAU | 5729 | UGGCCUCACAGAUCGCGCC |
| 5625 | GCCGGGUAAUCCCGCCGUG | 5660 | UCACCGCCGCGGUGACCUC | 5695 | CAGACCCUCCUUUUUAAUA | 5730 | GGCCUCACAGAUCGCGCCA |
| 5626 | CCGGGUAAUCCCGCCGUGG | 5661 | CACCGCCGCGGUGACCUCC | 5696 | AGACCCUCCUUUUUAAUAU | 5731 | GCCUCACAGAUCGCGCCAC |
| 5627 | CGGGUAAUCCCGCCGUGGC | 5662 | ACCGCCGCGGUGACCUCCC | 5697 | GACCCUCCUUUUUAAUAUU | 5732 | CCUCACAGAUCGCGCCACC |
| 5628 | GGGUAAUCCCGCCGUGGCC | 5663 | CCGCCGCGGUGACCUCCCC | 5698 | ACCCUCCUUUUUAAUAUUC | 5733 | CUCACAGAUCGCGCCACCC |
| 5629 | GGUAAUCCCGCCGUGGCCA | 5664 | CGCCGCGGUGACCUCCCCU | 5699 | CCCUCCUUUUUAAUAUUCU | 5734 | UCACAGAUCGCGCCACCCA |
| 5630 | GUAAUCCCGCCGUGGCCAC | 5665 | GCCGCGGUGACCUCCCCUC | 5700 | CCUCCUUUUUAAUAUUCUA | 5735 | CACAGAUCGCGCCACCCAC |
| 5631 | UAAUCCCGCCGUGGCCACG | 5666 | CCGCGGUGACCUCCCCUCU | 5701 | CUCCUUUUUAAUAUUCUAG | 5736 | ACAGAUCGCGCCACCCACG |
| 5632 | AAUCCCGCCGUGGCCACGU | 5667 | CGCGGUGACCUCCCCUCUU | 5702 | UCCUUUUUAAUAUUCUAGG | 5737 | CAGAUCGCGCCACCCACGG |
| 5633 | AUCCCGCCGUGGCCACGUU | 5668 | GCGGUGACCUCCCCUCUUA | 5703 | CCUUUUUAAUAUUCUAGGA | 5738 | AGAUCGCGCCACCCACGGC |
| 5634 | UCCCGCCGUGGCCACGUUG | 5669 | CGGUGACCUCCCCUCUUAC | 5704 | CUUUUUAAUAUUCUAGGAG | 5739 | GAUCGCGCCACCCACGGCC |
| 5635 | CCCGCCGUGGCCACGUUGA | 5670 | GGUGACCUCCCCUCUUACA | 5705 | UUUUUAAUAUUCUAGGAGG | 5740 | AUCGCGCCACCCACGGCCG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5741 | UCGCGCCACCCACGGCCGC | 5776 | AGUGGAAUGGCCGGGGCCG | 5811 | GCUGGGUAGGGUCCUUAUU | 5846 | AUGGAACAGGGGUGGCUGG |
| 5742 | CGCGCCACCCACGGCCGCC | 5777 | GUGGAAUGGCCGGGGCCGC | 5812 | CUGGGUAGGGUCCUUAUUG | 5847 | UGGAACAGGGGUGGCUGGG |
| 5743 | GCGCCACCCACGGCCGCCA | 5778 | UGGAAUGGCCGGGGCCGCA | 5813 | UGGGUAGGGUCCUUAUUGA | 5848 | GGAACAGGGGUGGCUGGGG |
| 5744 | CGCCACCCACGGCCGCCAC | 5779 | GGAAUGGCCGGGGCCGCAG | 5814 | GGGUAGGGUCCUUAUUGAC | 5849 | GAACAGGGGUGGCUGGGGC |
| 5745 | GCCACCCACGGCCGCCACC | 5780 | GAAUGGCCGGGGCCGCAGU | 5815 | GGUAGGGUCCUUAUUGACA | 5850 | AACAGGGGUGGCUGGGGCG |
| 5746 | CCACCCACGGCCGCCACCG | 5781 | AAUGGCCGGGGCCGCAGUC | 5816 | GUAGGGUCCUUAUUGACAU | 5851 | ACAGGGGUGGCUGGGGCGC |
| 5747 | CACCCACGGCCGCCACCGC | 5782 | AUGGCCGGGGCCGCAGUCG | 5817 | UAGGGUCCUUAUUGACAUC | 5852 | CAGGGGUGGCUGGGGCGCU |
| 5748 | ACCCACGGCCGCCACCGCG | 5783 | UGGCCGGGGCCGCAGUCGG | 5818 | AGGGUCCUUAUUGACAUCC | 5853 | AGGGGUGGCUGGGGCGCUC |
| 5749 | CCCACGGCCGCCACCGCGU | 5784 | GGCCGGGGCCGCAGUCGGU | 5819 | GGGUCCUUAUUGACAUCCU | 5854 | GGGGUGGCUGGGGCGCUCG |
| 5750 | CCACGGCCGCCACCGCGUU | 5785 | GCCGGGGCCGCAGUCGGUA | 5820 | GGUCCUUAUUGACAUCCUA | 5855 | GGGUGGCUGGGGCGCUCGU |
| 5751 | CACGGCCGCCACCGCGUUC | 5786 | CCGGGGCCGCAGUCGGUAA | 5821 | GUCCUUAUUGACAUCCUAG | 5856 | GGUGGCUGGGGCGCUCGUC |
| 5752 | ACGGCCGCCACCGCGUUCG | 5787 | CGGGGCCGCAGUCGGUAAC | 5822 | UCCUUAUUGACAUCCUAGC | 5857 | GUGGCUGGGGCGCUCGUCG |
| 5753 | CGGCCGCCACCGCGUUCGU | 5788 | GGGGCCGCAGUCGGUAACA | 5823 | CCUUAUUGACAUCCUAGCU | 5858 | UGGCUGGGGCGCUCGUCGC |
| 5754 | GGCCGCCACCGCGUUCGUC | 5789 | GGGCCGCAGUCGGUAACAU | 5824 | CUUAUUGACAUCCUAGCUG | 5859 | GGCUGGGGCGCUCGUCGCC |
| 5755 | GCCGCCACCGCGUUCGUCG | 5790 | GGCCGCAGUCGGUAACAUC | 5825 | UUAUUGACAUCCUAGCUGG | 5860 | GCUGGGGCGCUCGUCGCCU |
| 5756 | CCGCCACCGCGUUCGUCGU | 5791 | GCCGCAGUCGGUAACAUCG | 5826 | UAUUGACAUCCUAGCUGGG | 5861 | CUGGGGCGCUCGUCGCCUU |
| 5757 | CGCCACCGCGUUCGUCGUU | 5792 | CCGCAGUCGGUAACAUCGG | 5827 | AUUGACAUCCUAGCUGGGU | 5862 | UGGGGCGCUCGUCGCCUUC |
| 5758 | GCCACCGCGUUCGUCGUUA | 5793 | CGCAGUCGGUAACAUCGGG | 5828 | UUGACAUCCUAGCUGGGUA | 5863 | GGGGCGCUCGUCGCCUUCA |
| 5759 | CCACCGCGUUCGUCGUUAG | 5794 | GCAGUCGGUAACAUCGGGC | 5829 | UGACAUCCUAGCUGGGUAU | 5864 | GGGCGCUCGUCGCCUUCAA |
| 5760 | CACCGCGUUCGUCGUUAGU | 5795 | CAGUCGGUAACAUCGGGCU | 5830 | GACAUCCUAGCUGGGUAUG | 5865 | GGCGCUCGUCGCCUUCAAG |
| 5761 | ACCGCGUUCGUCGUUAGUG | 5796 | AGUCGGUAACAUCGGGCUG | 5831 | ACAUCCUAGCUGGGUAUGG | 5866 | GCGCUCGUCGCCUUCAAGA |
| 5762 | CCGCGUUCGUCGUUAGUGG | 5797 | GUCGGUAACAUCGGGCUGG | 5832 | CAUCCUAGCUGGGUAUGGA | 5867 | CGCUCGUCGCCUUCAAGAU |
| 5763 | CGCGUUCGUCGUUAGUGGA | 5798 | UCGGUAACAUCGGGCUGGG | 5833 | AUCCUAGCUGGGUAUGGAA | 5868 | GCUCGUCGCCUUCAAGAUC |
| 5764 | GCGUUCGUCGUUAGUGGAA | 5799 | CGGUAACAUCGGGCUGGGU | 5834 | UCCUAGCUGGGUAUGGAAC | 5869 | CUCGUCGCCUUCAAGAUCA |
| 5765 | CGUUCGUCGUUAGUGGAAU | 5800 | GGUAACAUCGGGCUGGGUA | 5835 | CCUAGCUGGGUAUGGAACA | 5870 | UCGUCGCCUUCAAGAUCAU |
| 5766 | GUUCGUCGUUAGUGGAAUG | 5801 | GUAACAUCGGGCUGGGUAG | 5836 | CUAGCUGGGUAUGGAACAG | 5871 | CGUCGCCUUCAAGAUCAUG |
| 5767 | UUCGUCGUUAGUGGAAUGG | 5802 | UAACAUCGGGCUGGGUAGG | 5837 | UAGCUGGGUAUGGAACAGG | 5872 | GUCGCCUUCAAGAUCAUGU |
| 5768 | UCGUCGUUAGUGGAAUGGC | 5803 | AACAUCGGGCUGGGUAGGG | 5838 | AGCUGGGUAUGGAACAGGG | 5873 | UCGCCUUCAAGAUCAUGUG |
| 5769 | CGUCGUUAGUGGAAUGGCC | 5804 | ACAUCGGGCUGGGUAGGGU | 5839 | GCUGGGUAUGGAACAGGGG | 5874 | CGCCUUCAAGAUCAUGUGU |
| 5770 | GUCGUUAGUGGAAUGGCCG | 5805 | CAUCGGGCUGGGUAGGGUC | 5840 | CUGGGUAUGGAACAGGGGU | 5875 | GCCUUCAAGAUCAUGUGUG |
| 5771 | UCGUUAGUGGAAUGGCCGG | 5806 | AUCGGGCUGGGUAGGGUCC | 5841 | UGGGUAUGGAACAGGGGUG | 5876 | CCUUCAAGAUCAUGUGUGG |
| 5772 | CGUUAGUGGAAUGGCCGGG | 5807 | UCGGGCUGGGUAGGGUCCU | 5842 | GGGUAUGGAACAGGGGUGG | 5877 | CUUCAAGAUCAUGUGUGGG |
| 5773 | GUUAGUGGAAUGGCCGGGG | 5808 | CGGGCUGGGUAGGGUCCUU | 5843 | GGUAUGGAACAGGGGUGGC | 5878 | UUCAAGAUCAUGUGUGGGG |
| 5774 | UUAGUGGAAUGGCCGGGGC | 5809 | GGGCUGGGUAGGGUCCUUA | 5844 | GUAUGGAACAGGGGUGGCU | 5879 | UCAAGAUCAUGUGUGGGGA |
| 5775 | UAGUGGAAUGGCCGGGGCC | 5810 | GGCUGGGUAGGGUCCUUAU | 5845 | UAUGGAACAGGGGUGGCUG | 5880 | CAAGAUCAUGUGUGGGGAA |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5881 | AAGAUCAUGUGUGGGGAAA | 5916 | ACUGGUAAACCUCCUGCCU | 5951 | GAGCCCUAGUGGUUGGUGU | 5986 | CUGCGGCGCCACAUUGGCC |
| 5882 | AGAUCAUGUGUGGGGAAAG | 5917 | CUGGUAAACCUCCUGCCUU | 5952 | AGCCCUAGUGGUUGGUGUC | 5987 | UGCGGCGCCACAUUGGCCC |
| 5883 | GAUCAUGUGUGGGGAAAGG | 5918 | UGGUAAACCUCCUGCCUUC | 5953 | GCCCUAGUGGUUGGUGUCA | 5988 | GCGGCGCCACAUUGGCCCA |
| 5884 | AUCAUGUGUGGGGAAAGGC | 5919 | GGUAAACCUCCUGCCUUCA | 5954 | CCCUAGUGGUUGGUGUCAU | 5989 | CGGCGCCACAUUGGCCCAG |
| 5885 | UCAUGUGUGGGGAAAGGCC | 5920 | GUAAACCUCCUGCCUUCAA | 5955 | CCUAGUGGUUGGUGUCAUA | 5990 | GGCGCCACAUUGGCCCAGG |
| 5886 | CAUGUGUGGGGAAAGGCCG | 5921 | UAAACCUCCUGCCUUCAAU | 5956 | CUAGUGGUUGGUGUCAUAU | 5991 | GCGCCACAUUGGCCCAGGC |
| 5887 | AUGUGUGGGGAAAGGCCGA | 5922 | AAACCUCCUGCCUUCAAUA | 5957 | UAGUGGUUGGUGUCAUAUG | 5992 | CGCCACAUUGGCCCAGGCG |
| 5888 | UGUGUGGGGAAAGGCCGAC | 5923 | AACCUCCUGCCUUCAAUAC | 5958 | AGUGGUUGGUGUCAUAUGC | 5993 | GCCACAUUGGCCCAGGCGA |
| 5889 | GUGUGGGGAAAGGCCGACA | 5924 | ACCUCCUGCCUUCAAUACU | 5959 | GUGGUUGGUGUCAUAUGCG | 5994 | CCACAUUGGCCCAGGCGAG |
| 5890 | UGUGGGGAAAGGCCGACAG | 5925 | CCUCCUGCCUUCAAUACUC | 5960 | UGGUUGGUGUCAUAUGCGC | 5995 | CACAUUGGCCCAGGCGAGG |
| 5891 | GUGGGGAAAGGCCGACAGC | 5926 | CUCCUGCCUUCAAUACUCU | 5961 | GGUUGGUGUCAUAUGCGCC | 5996 | ACAUUGGCCCAGGCGAGGG |
| 5892 | UGGGGAAAGGCCGACAGCC | 5927 | UCCUGCCUUCAAUACUCUG | 5962 | GUUGGUGUCAUAUGCGCCG | 5997 | CAUUGGCCCAGGCGAGGGG |
| 5893 | GGGGAAAGGCCGACAGCCG | 5928 | CCUGCCUUCAAUACUCUGC | 5963 | UUGGUGUCAUAUGCGCCGC | 5998 | AUUGGCCCAGGCGAGGGGG |
| 5894 | GGGAAAGGCCGACAGCCGA | 5929 | CUGCCUUCAAUACUCUGCC | 5964 | UGGUGUCAUAUGCGCCGCC | 5999 | UUGGCCCAGGCGAGGGGGC |
| 5895 | GGAAAGGCCGACAGCCGAA | 5930 | UGCCUUCAAUACUCUGCCC | 5965 | GGUGUCAUAUGCGCCGCCG | 6000 | UGGCCCAGGCGAGGGGGCU |
| 5896 | GAAAGGCCGACAGCCGAAG | 5931 | GCCUUCAAUACUCUGCCCU | 5966 | GUGUCAUAUGCGCCGCCGU | 6001 | GGCCCAGGCGAGGGGGCUG |
| 5897 | AAAGGCCGACAGCCGAAGA | 5932 | CCUUCAAUACUCUGCCCUG | 5967 | UGUCAUAUGCGCCGCCGUU | 6002 | GCCCAGGCGAGGGGGCUGU |
| 5898 | AAGGCCGACAGCCGAAGAA | 5933 | CUUCAAUACUCUGCCCUGG | 5968 | GUCAUAUGCGCCGCCGUUC | 6003 | CCCAGGCGAGGGGGCUGUA |
| 5899 | AGGCCGACAGCCGAAGAAC | 5934 | UUCAAUACUCUGCCCUGGA | 5969 | UCAUAUGCGCCGCCGUUCU | 6004 | CCAGGCGAGGGGGCUGUAC |
| 5900 | GGCCGACAGCCGAAGAACU | 5935 | UCAAUACUCUGCCCUGGAG | 5970 | CAUAUGCGCCGCCGUUCUG | 6005 | CAGGCGAGGGGGCUGUACA |
| 5901 | GCCGACAGCCGAAGAACUG | 5936 | CAAUACUCUGCCCUGGAGC | 5971 | AUAUGCGCCGCCGUUCUGC | 6006 | AGGCGAGGGGGCUGUACAG |
| 5902 | CCGACAGCCGAAGAACUGG | 5937 | AAUACUCUGCCCUGGAGCC | 5972 | UAUGCGCCGCCGUUCUGCG | 6007 | GGCGAGGGGGCUGUACAGU |
| 5903 | CGACAGCCGAAGAACUGGU | 5938 | AUACUCUGCCCUGGAGCCC | 5973 | AUGCGCCGCCGUUCUGCGG | 6008 | GCGAGGGGGCUGUACAGUG |
| 5904 | GACAGCCGAAGAACUGGUA | 5939 | UACUCUGCCCUGGAGCCCU | 5974 | UGCGCCGCCGUUCUGCGGC | 6009 | CGAGGGGGCUGUACAGUGG |
| 5905 | ACAGCCGAAGAACUGGUAA | 5940 | ACUCUGCCCUGGAGCCCUA | 5975 | GCGCCGCCGUUCUGCGGCG | 6010 | GAGGGGGCUGUACAGUGGA |
| 5906 | CAGCCGAAGAACUGGUAAA | 5941 | CUCUGCCCUGGAGCCCUAG | 5976 | CGCCGCCGUUCUGCGGCGC | 6011 | AGGGGGCUGUACAGUGGAU |
| 5907 | AGCCGAAGAACUGGUAAAC | 5942 | UCUGCCCUGGAGCCCUAGU | 5977 | GCCGCCGUUCUGCGGCGCC | 6012 | GGGGGCUGUACAGUGGAUG |
| 5908 | GCCGAAGAACUGGUAAACC | 5943 | CUGCCCUGGAGCCCUAGUG | 5978 | CCGCCGUUCUGCGGCGCCA | 6013 | GGGGCUGUACAGUGGAUGA |
| 5909 | CCGAAGAACUGGUAAACCU | 5944 | UGCCCUGGAGCCCUAGUGG | 5979 | CGCCGUUCUGCGGCGCCAC | 6014 | GGGCUGUACAGUGGAUGAA |
| 5910 | CGAAGAACUGGUAAACCUC | 5945 | GCCCUGGAGCCCUAGUGGU | 5980 | GCCGUUCUGCGGCGCCACA | 6015 | GGCUGUACAGUGGAUGAAU |
| 5911 | GAAGAACUGGUAAACCUCC | 5946 | CCCUGGAGCCCUAGUGGUU | 5981 | CCGUUCUGCGGCGCCACAU | 6016 | GCUGUACAGUGGAUGAAUA |
| 5912 | AAGAACUGGUAAACCUCCU | 5947 | CCUGGAGCCCUAGUGGUUG | 5982 | CGUUCUGCGGCGCCACAUU | 6017 | CUGUACAGUGGAUGAAUAG |
| 5913 | AGAACUGGUAAACCUCCUG | 5948 | CUGGAGCCCUAGUGGUUGG | 5983 | GUUCUGCGGCGCCACAUUG | 6018 | UGUACAGUGGAUGAAUAGG |
| 5914 | GAACUGGUAAACCUCCUGC | 5949 | UGGAGCCCUAGUGGUUGGU | 5984 | UUCUGCGGCGCCACAUUGG | 6019 | GUACAGUGGAUGAAUAGGC |
| 5915 | AACUGGUAAACCUCCUGCC | 5950 | GGAGCCCUAGUGGUUGGUG | 5985 | UCUGCGGCGCCACAUUGGC | 6020 | UACAGUGGAUGAAUAGGCU |





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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6021 | ACAGUGGAUGAAUAGGCUG | 6056 | GGGGCAAUCAUGGGUCUCC | 6091 | GAGACGGACGCGUCGGCUA | 6126 | CAGCUCCCUCACAGUAACA |
| 6022 | CAGUGGAUGAAUAGGCUGA | 6057 | GGGCAAUCAUGGGUCUCCG | 6092 | AGACGGACGCGUCGGCUAA | 6127 | AGCUCCCUCACAGUAACAU |
| 6023 | AGUGGAUGAAUAGGCUGAU | 6058 | GGCAAUCAUGGGUCUCCGA | 6093 | GACGGACGCGUCGGCUAAG | 6128 | GCUCCCUCACAGUAACAUC |
| 6024 | GUGGAUGAAUAGGCUGAUU | 6059 | GCAAUCAUGGGUCUCCGAC | 6094 | ACGGACGCGUCGGCUAAGG | 6129 | CUCCCUCACAGUAACAUCU |
| 6025 | UGGAUGAAUAGGCUGAUUG | 6060 | CAAUCAUGGGUCUCCGACA | 6095 | CGGACGCGUCGGCUAAGGU | 6130 | UCCCUCACAGUAACAUCUC |
| 6026 | GGAUGAAUAGGCUGAUUGC | 6061 | AAUCAUGGGUCUCCGACAC | 6096 | GGACGCGUCGGCUAAGGUC | 6131 | CCCUCACAGUAACAUCUCU |
| 6027 | GAUGAAUAGGCUGAUUGCG | 6062 | AUCAUGGGUCUCCGACACA | 6097 | GACGCGUCGGCUAAGGUCA | 6132 | CCUCACAGUAACAUCUCUU |
| 6028 | AUGAAUAGGCUGAUUGCGU | 6063 | UCAUGGGUCUCCGACACAC | 6098 | ACGCGUCGGCUAAGGUCAC | 6133 | CUCACAGUAACAUCUCUUC |
| 6029 | UGAAUAGGCUGAUUGCGUU | 6064 | CAUGGGUCUCCGACACACU | 6099 | CGCGUCGGCUAAGGUCACG | 6134 | UCACAGUAACAUCUCUUCU |
| 6030 | GAAUAGGCUGAUUGCGUUC | 6065 | AUGGGUCUCCGACACACUA | 6100 | GCGUCGGCUAAGGUCACGC | 6135 | CACAGUAACAUCUCUUCUG |
| 6031 | AAUAGGCUGAUUGCGUUCG | 6066 | UGGGUCUCCGACACACUAC | 6101 | CGUCGGCUAAGGUCACGCA | 6136 | ACAGUAACAUCUCUUCUGA |
| 6032 | AUAGGCUGAUUGCGUUCGC | 6067 | GGGUCUCCGACACACUACG | 6102 | GUCGGCUAAGGUCACGCAA | 6137 | CAGUAACAUCUCUUCUGAA |
| 6033 | UAGGCUGAUUGCGUUCGCU | 6068 | GGUCUCCGACACACUACGU | 6103 | UCGGCUAAGGUCACGCAAC | 6138 | AGUAACAUCUCUUCUGAAG |
| 6034 | AGGCUGAUUGCGUUCGCUU | 6069 | GUCUCCGACACACUACGUG | 6104 | CGGCUAAGGUCACGCAACU | 6139 | GUAACAUCUCUUCUGAAGA |
| 6035 | GGCUGAUUGCGUUCGCUUC | 6070 | UCUCCGACACACUACGUGC | 6105 | GGCUAAGGUCACGCAACUG | 6140 | UAACAUCUCUUCUGAAGAG |
| 6036 | GCUGAUUGCGUUCGCUUCC | 6071 | CUCCGACACACUACGUGCC | 6106 | GCUAAGGUCACGCAACUGC | 6141 | AACAUCUCUUCUGAAGAGG |
| 6037 | CUGAUUGCGUUCGCUUCCC | 6072 | UCCGACACACUACGUGCCC | 6107 | CUAAGGUCACGCAACUGCU | 6142 | ACAUCUCUUCUGAAGAGGC |
| 6038 | UGAUUGCGUUCGCUUCCCG | 6073 | CCGACACACUACGUGCCCG | 6108 | UAAGGUCACGCAACUGCUC | 6143 | CAUCUCUUCUGAAGAGGCU |
| 6039 | GAUUGCGUUCGCUUCCCGG | 6074 | CGACACACUACGUGCCCGA | 6109 | AAGGUCACGCAACUGCUCA | 6144 | AUCUCUUCUGAAGAGGCUC |
| 6040 | AUUGCGUUCGCUUCCCGGG | 6075 | GACACACUACGUGCCCGAG | 6110 | AGGUCACGCAACUGCUCAG | 6145 | UCUCUUCUGAAGAGGCUCC |
| 6041 | UUGCGUUCGCUUCCCGGGG | 6076 | ACACACUACGUGCCCGAGA | 6111 | GGUCACGCAACUGCUCAGC | 6146 | CUCUUCUGAAGAGGCUCCA |
| 6042 | UGCGUUCGCUUCCCGGGGC | 6077 | CACACUACGUGCCCGAGAC | 6112 | GUCACGCAACUGCUCAGCU | 6147 | UCUUCUGAAGAGGCUCCAC |
| 6043 | GCGUUCGCUUCCCGGGGCA | 6078 | ACACUACGUGCCCGAGACG | 6113 | UCACGCAACUGCUCAGCUC | 6148 | CUUCUGAAGAGGCUCCACA |
| 6044 | CGUUCGCUUCCCGGGGCAA | 6079 | CACUACGUGCCCGAGACGG | 6114 | CACGCAACUGCUCAGCUCC | 6149 | UUCUGAAGAGGCUCCACAC |
| 6045 | GUUCGCUUCCCGGGGCAAU | 6080 | ACUACGUGCCCGAGACGGA | 6115 | ACGCAACUGCUCAGCUCCC | 6150 | UCUGAAGAGGCUCCACACG |
| 6046 | UUCGCUUCCCGGGGCAAUC | 6081 | CUACGUGCCCGAGACGGAC | 6116 | CGCAACUGCUCAGCUCCCU | 6151 | CUGAAGAGGCUCCACACGU |
| 6047 | UCGCUUCCCGGGGCAAUCA | 6082 | UACGUGCCCGAGACGGACG | 6117 | GCAACUGCUCAGCUCCCUC | 6152 | UGAAGAGGCUCCACACGUG |
| 6048 | CGCUUCCCGGGGCAAUCAU | 6083 | ACGUGCCCGAGACGGACGC | 6118 | CAACUGCUCAGCUCCCUCA | 6153 | GAAGAGGCUCCACACGUGG |
| 6049 | GCUUCCCGGGGCAAUCAUG | 6084 | CGUGCCCGAGACGGACGCG | 6119 | AACUGCUCAGCUCCCUCAC | 6154 | AAGAGGCUCCACACGUGGA |
| 6050 | CUUCCCGGGGCAAUCAUGG | 6085 | GUGCCCGAGACGGACGCGU | 6120 | ACUGCUCAGCUCCCUCACA | 6155 | AGAGGCUCCACACGUGGAU |
| 6051 | UUCCCGGGGCAAUCAUGGG | 6086 | UGCCCGAGACGGACGCGUC | 6121 | CUGCUCAGCUCCCUCACAG | 6156 | GAGGCUCCACACGUGGAUC |
| 6052 | UCCCGGGGCAAUCAUGGGU | 6087 | GCCCGAGACGGACGCGUCG | 6122 | UGCUCAGCUCCCUCACAGU | 6157 | AGGCUCCACACGUGGAUCG |
| 6053 | CCCGGGGCAAUCAUGGGUC | 6088 | CCCGAGACGGACGCGUCGG | 6123 | GCUCAGCUCCCUCACAGUA | 6158 | GGCUCCACACGUGGAUCGG |
| 6054 | CCGGGGCAAUCAUGGGUCU | 6089 | CCGAGACGGACGCGUCGGC | 6124 | CUCAGCUCCCUCACAGUAA | 6159 | GCUCCACACGUGGAUCGGU |
| 6055 | CGGGGCAAUCAUGGGUCUC | 6090 | CGAGACGGACGCGUCGGCU | 6125 | UCAGCUCCCUCACAGUAAC | 6160 | CUCCACACGUGGAUCGGUG |



**FIG. 6 (sheet 331 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6161 | UCCACACGUGGAUCGGUGA | 6196 | UGUGAUGGUACAUGGCUUA | 6231 | GGUCUGCACGGCACUGACA | 6266 | UGCAGGCAAAACUCCUCCC |
| 6162 | CCACACGUGGAUCGGUGAA | 6197 | GUGAUGGUACAUGGCUUAG | 6232 | GUCUGCACGGCACUGACAG | 6267 | GCAGGCAAAACUCCUCCCG |
| 6163 | CACACGUGGAUCGGUGAAG | 6198 | UGAUGGUACAUGGCUUAGG | 6233 | UCUGCACGGCACUGACAGA | 6268 | CAGGCAAAACUCCUCCCGC |
| 6164 | ACACGUGGAUCGGUGAAGA | 6199 | GAUGGUACAUGGCUUAGGG | 6234 | CUGCACGGCACUGACAGAC | 6269 | AGGCAAAACUCCUCCCGCA |
| 6165 | CACGUGGAUCGGUGAAGAC | 6200 | AUGGUACAUGGCUUAGGGC | 6235 | UGCACGGCACUGACAGACU | 6270 | GGCAAAACUCCUCCCGCAA |
| 6166 | ACGUGGAUCGGUGAAGACU | 6201 | UGGUACAUGGCUUAGGGCC | 6236 | GCACGGCACUGACAGACUU | 6271 | GCAAAACUCCUCCCGCAAC |
| 6167 | CGUGGAUCGGUGAAGACUA | 6202 | GGUACAUGGCUUAGGGCCA | 6237 | CACGGCACUGACAGACUUC | 6272 | CAAAACUCCUCCCGCAACU |
| 6168 | GUGGAUCGGUGAAGACUAU | 6203 | GUACAUGGCUUAGGGCCAU | 6238 | ACGGCACUGACAGACUUCA | 6273 | AAAACUCCUCCCGCAACUC |
| 6169 | UGGAUCGGUGAAGACUAUU | 6204 | UACAUGGCUUAGGGCCAUU | 6239 | CGGCACUGACAGACUUCAA | 6274 | AAACUCCUCCCGCAACUCC |
| 6170 | GGAUCGGUGAAGACUAUUC | 6205 | ACAUGGCUUAGGGCCAUUU | 6240 | GGCACUGACAGACUUCAAA | 6275 | AACUCCUCCCGCAACUCCC |
| 6171 | GAUCGGUGAAGACUAUUCC | 6206 | CAUGGCUUAGGGCCAUUUG | 6241 | GCACUGACAGACUUCAAAG | 6276 | ACUCCUCCCGCAACUCCCC |
| 6172 | AUCGGUGAAGACUAUUCCA | 6207 | AUGGCUUAGGGCCAUUUGG | 6242 | CACUGACAGACUUCAAAGC | 6277 | CUCCUCCCGCAACUCCCCG |
| 6173 | UCGGUGAAGACUAUUCCAC | 6208 | UGGCUUAGGGCCAUUUGGG | 6243 | ACUGACAGACUUCAAAGCC | 6278 | UCCUCCCGCAACUCCCCGG |
| 6174 | CGGUGAAGACUAUUCCACG | 6209 | GGCUUAGGGCCAUUUGGGA | 6244 | CUGACAGACUUCAAAGCCU | 6279 | CCUCCCGCAACUCCCCGGA |
| 6175 | GGUGAAGACUAUUCCACGC | 6210 | GCUUAGGGCCAUUUGGGAC | 6245 | UGACAGACUUCAAAGCCUG | 6280 | CUCCCGCAACUCCCCGGAG |
| 6176 | GUGAAGACUAUUCCACGCC | 6211 | CUUAGGGCCAUUUGGGACU | 6246 | GACAGACUUCAAAGCCUGG | 6281 | UCCCGCAACUCCCCGGAGU |
| 6177 | UGAAGACUAUUCCACGCCC | 6212 | UUAGGGCCAUUUGGGACUG | 6247 | ACAGACUUCAAAGCCUGGC | 6282 | CCCGCAACUCCCCGGAGUG |
| 6178 | GAAGACUAUUCCACGCCCU | 6213 | UAGGGCCAUUUGGGACUGG | 6248 | CAGACUUCAAAGCCUGGCU | 6283 | CCGCAACUCCCCGGAGUGC |
| 6179 | AAGACUAUUCCACGCCCUG | 6214 | AGGGCCAUUUGGGACUGGG | 6249 | AGACUUCAAAGCCUGGCUG | 6284 | CGCAACUCCCCGGAGUGCC |
| 6180 | AGACUAUUCCACGCCCUGU | 6215 | GGGCCAUUUGGGACUGGGU | 6250 | GACUUCAAAGCCUGGCUGC | 6285 | GCAACUCCCCGGAGUGCCC |
| 6181 | GACUAUUCCACGCCCUGUG | 6216 | GGCCAUUUGGGACUGGGUC | 6251 | ACUUCAAAGCCUGGCUGCA | 6286 | CAACUCCCCGGAGUGCCCU |
| 6182 | ACUAUUCCACGCCCUGUGA | 6217 | GCCAUUUGGGACUGGGUCU | 6252 | CUUCAAAGCCUGGCUGCAG | 6287 | AACUCCCCGGAGUGCCCUU |
| 6183 | CUAUUCCACGCCCUGUGAU | 6218 | CCAUUUGGGACUGGGUCUG | 6253 | UUCAAAGCCUGGCUGCAGG | 6288 | ACUCCCCGGAGUGCCCUUC |
| 6184 | UAUUCCACGCCCUGUGAUG | 6219 | CAUUUGGGACUGGGUCUGC | 6254 | UCAAAGCCUGGCUGCAGGC | 6289 | CUCCCCGGAGUGCCCUUCU |
| 6185 | AUUCCACGCCCUGUGAUGG | 6220 | AUUUGGGACUGGGUCUGCA | 6255 | CAAAGCCUGGCUGCAGGCA | 6290 | UCCCCGGAGUGCCCUUCUU |
| 6186 | UUCCACGCCCUGUGAUGGU | 6221 | UUUGGGACUGGGUCUGCAC | 6256 | AAAGCCUGGCUGCAGGCAA | 6291 | CCCCGGAGUGCCCUUCUUC |
| 6187 | UCCACGCCCUGUGAUGGUA | 6222 | UUGGGACUGGGUCUGCACG | 6257 | AAGCCUGGCUGCAGGCAAA | 6292 | CCCGGAGUGCCCUUCUUCU |
| 6188 | CCACGCCCUGUGAUGGUAC | 6223 | UGGGACUGGGUCUGCACGG | 6258 | AGCCUGGCUGCAGGCAAAA | 6293 | CCGGAGUGCCCUUCUUCUC |
| 6189 | CACGCCCUGUGAUGGUACA | 6224 | GGGACUGGGUCUGCACGGC | 6259 | GCCUGGCUGCAGGCAAAAC | 6294 | CGGAGUGCCCUUCUUCUCA |
| 6190 | ACGCCCUGUGAUGGUACAU | 6225 | GGACUGGGUCUGCACGGCA | 6260 | CCUGGCUGCAGGCAAAACU | 6295 | GGAGUGCCCUUCUUCUCAU |
| 6191 | CGCCCUGUGAUGGUACAUG | 6226 | GACUGGGUCUGCACGGCAC | 6261 | CUGGCUGCAGGCAAAACUC | 6296 | GAGUGCCCUUCUUCUCAUG |
| 6192 | GCCCUGUGAUGGUACAUGG | 6227 | ACUGGGUCUGCACGGCACU | 6262 | UGGCUGCAGGCAAAACUCC | 6297 | AGUGCCCUUCUUCUCAUGC |
| 6193 | CCCUGUGAUGGUACAUGGC | 6228 | CUGGGUCUGCACGGCACUG | 6263 | GGCUGCAGGCAAAACUCCU | 6298 | GUGCCCUUCUUCUCAUGCC |
| 6194 | CCUGUGAUGGUACAUGGCU | 6229 | UGGGUCUGCACGGCACUGA | 6264 | GCUGCAGGCAAAACUCCUC | 6299 | UGCCCUUCUUCUCAUGCCA |
| 6195 | CUGUGAUGGUACAUGGCUU | 6230 | GGGUCUGCACGGCACUGAC | 6265 | CUGCAGGCAAAACUCCUCC | 6300 | GCCCUUCUUCUCAUGCCAG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6301 | CCCUUCUUCUCAUGCCAGA | 6336 | AUGGCGCGGGGAUGGAGUG | 6371 | CUUGCGGAGCGACGAUAUC | 6406 | GGAACCAUGAGAAUCGUCG |
| 6302 | CCUUCUUCUCAUGCCAGAA | 6337 | UGGCGCGGGGAUGGAGUGA | 6372 | UUGCGGAGCGACGAUAUCU | 6407 | GAACCAUGAGAAUCGUCGG |
| 6303 | CUUCUUCUCAUGCCAGAAG | 6338 | GGCGCGGGGAUGGAGUGAA | 6373 | UGCGGAGCGACGAUAUCUG | 6408 | AACCAUGAGAAUCGUCGGC |
| 6304 | UUCUUCUCAUGCCAGAAGG | 6339 | GCGCGGGGAUGGAGUGAAC | 6374 | GCGGAGCGACGAUAUCUGG | 6409 | ACCAUGAGAAUCGUCGGCC |
| 6305 | UCUUCUCAUGCCAGAAGGG | 6340 | CGCGGGGAUGGAGUGAACU | 6375 | CGGAGCGACGAUAUCUGGU | 6410 | CCAUGAGAAUCGUCGGCCC |
| 6306 | CUUCUCAUGCCAGAAGGGG | 6341 | GCGGGGAUGGAGUGAACUC | 6376 | GGAGCGACGAUAUCUGGUC | 6411 | CAUGAGAAUCGUCGGCCCG |
| 6307 | UUCUCAUGCCAGAAGGGGU | 6342 | CGGGGAUGGAGUGAACUCC | 6377 | GAGCGACGAUAUCUGGUCA | 6412 | AUGAGAAUCGUCGGCCCGA |
| 6308 | UCUCAUGCCAGAAGGGGUA | 6343 | GGGGAUGGAGUGAACUCCA | 6378 | AGCGACGAUAUCUGGUCAC | 6413 | UGAGAAUCGUCGGCCCGAA |
| 6309 | CUCAUGCCAGAAGGGGUAC | 6344 | GGGAUGGAGUGAACUCCAC | 6379 | GCGACGAUAUCUGGUCACG | 6414 | GAGAAUCGUCGGCCCGAAG |
| 6310 | UCAUGCCAGAAGGGGUACA | 6345 | GGAUGGAGUGAACUCCACC | 6380 | CGACGAUAUCUGGUCACGU | 6415 | AGAAUCGUCGGCCCGAAGC |
| 6311 | CAUGCCAGAAGGGGUACAA | 6346 | GAUGGAGUGAACUCCACCA | 6381 | GACGAUAUCUGGUCACGUG | 6416 | GAAUCGUCGGCCCGAAGCU |
| 6312 | AUGCCAGAAGGGGUACAAG | 6347 | AUGGAGUGAACUCCACCAA | 6382 | ACGAUAUCUGGUCACGUGA | 6417 | AAUCGUCGGCCCGAAGCUG |
| 6313 | UGCCAGAAGGGGUACAAGG | 6348 | UGGAGUGAACUCCACCAAG | 6383 | CGAUAUCUGGUCACGUGAA | 6418 | AUCGUCGGCCCGAAGCUGU |
| 6314 | GCCAGAAGGGGUACAAGGG | 6349 | GGAGUGAACUCCACCAAGU | 6384 | GAUAUCUGGUCACGUGAAG | 6419 | UCGUCGGCCCGAAGCUGUG |
| 6315 | CCAGAAGGGGUACAAGGGU | 6350 | GAGUGAACUCCACCAAGUG | 6385 | AUAUCUGGUCACGUGAAGA | 6420 | CGUCGGCCCGAAGCUGUGC |
| 6316 | CAGAAGGGGUACAAGGGUG | 6351 | AGUGAACUCCACCAAGUGU | 6386 | UAUCUGGUCACGUGAAGAA | 6421 | GUCGGCCCGAAGCUGUGCA |
| 6317 | AGAAGGGGUACAAGGGUGU | 6352 | GUGAACUCCACCAAGUGUC | 6387 | AUCUGGUCACGUGAAGAAC | 6422 | UCGGCCCGAAGCUGUGCAG |
| 6318 | GAAGGGGUACAAGGGUGUA | 6353 | UGAACUCCACCAAGUGUCC | 6388 | UCUGGUCACGUGAAGAACG | 6423 | CGGCCCGAAGCUGUGCAGU |
| 6319 | AAGGGGUACAAGGGUGUAU | 6354 | GAACUCCACCAAGUGUCCU | 6389 | CUGGUCACGUGAAGAACGG | 6424 | GGCCCGAAGCUGUGCAGUA |
| 6320 | AGGGGUACAAGGGUGUAUG | 6355 | AACUCCACCAAGUGUCCUU | 6390 | UGGUCACGUGAAGAACGGA | 6425 | GCCCGAAGCUGUGCAGUAA |
| 6321 | GGGGUACAAGGGUGUAUGG | 6356 | ACUCCACCAAGUGUCCUUG | 6391 | GGUCACGUGAAGAACGGAA | 6426 | CCCGAAGCUGUGCAGUAAC |
| 6322 | GGGUACAAGGGUGUAUGGC | 6357 | CUCCACCAAGUGUCCUUGC | 6392 | GUCACGUGAAGAACGGAAC | 6427 | CCGAAGCUGUGCAGUAACA |
| 6323 | GGUACAAGGGUGUAUGGCG | 6358 | UCCACCAAGUGUCCUUGCG | 6393 | UCACGUGAAGAACGGAACC | 6428 | CGAAGCUGUGCAGUAACAC |
| 6324 | GUACAAGGGUGUAUGGCGC | 6359 | CCACCAAGUGUCCUUGCGG | 6394 | CACGUGAAGAACGGAACCA | 6429 | GAAGCUGUGCAGUAACACC |
| 6325 | UACAAGGGUGUAUGGCGCG | 6360 | CACCAAGUGUCCUUGCGGA | 6395 | ACGUGAAGAACGGAACCAU | 6430 | AAGCUGUGCAGUAACACCU |
| 6326 | ACAAGGGUGUAUGGCGCGG | 6361 | ACCAAGUGUCCUUGCGGAG | 6396 | CGUGAAGAACGGAACCAUG | 6431 | AGCUGUGCAGUAACACCUG |
| 6327 | CAAGGGUGUAUGGCGCGGG | 6362 | CCAAGUGUCCUUGCGGAGC | 6397 | GUGAAGAACGGAACCAUGA | 6432 | GCUGUGCAGUAACACCUGG |
| 6328 | AAGGGUGUAUGGCGCGGGG | 6363 | CAAGUGUCCUUGCGGAGCG | 6398 | UGAAGAACGGAACCAUGAG | 6433 | CUGUGCAGUAACACCUGGC |
| 6329 | AGGGUGUAUGGCGCGGGGA | 6364 | AAGUGUCCUUGCGGAGCGA | 6399 | GAAGAACGGAACCAUGAGA | 6434 | UGUGCAGUAACACCUGGCA |
| 6330 | GGGUGUAUGGCGCGGGGAU | 6365 | AGUGUCCUUGCGGAGCGAC | 6400 | AAGAACGGAACCAUGAGAA | 6435 | GUGCAGUAACACCUGGCAA |
| 6331 | GGUGUAUGGCGCGGGGAUG | 6366 | GUGUCCUUGCGGAGCGACG | 6401 | AGAACGGAACCAUGAGAAU | 6436 | UGCAGUAACACCUGGCAAG |
| 6332 | GUGUAUGGCGCGGGGAUGG | 6367 | UGUCCUUGCGGAGCGACGA | 6402 | GAACGGAACCAUGAGAAUC | 6437 | GCAGUAACACCUGGCAAGG |
| 6333 | UGUAUGGCGCGGGGAUGGA | 6368 | GUCCUUGCGGAGCGACGAU | 6403 | AACGGAACCAUGAGAAUCG | 6438 | CAGUAACACCUGGCAAGGC |
| 6334 | GUAUGGCGCGGGGAUGGAG | 6369 | UCCUUGCGGAGCGACGAUA | 6404 | ACGGAACCAUGAGAAUCGU | 6439 | AGUAACACCUGGCAAGGCA |
| 6335 | UAUGGCGCGGGGAUGGAGU | 6370 | CCUUGCGGAGCGACGAUAU | 6405 | CGGAACCAUGAGAAUCGUC | 6440 | GUAACACCUGGCAAGGCAC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6441 | UAACACCUGGCAAGGCACC | 6476 | CAACAACAGGGCCCAGCGU | 6511 | AACUACAAGUUCGCCUUGU | 6546 | GGACUACGCGGAGGUGCGC |
| 6442 | AACACCUGGCAAGGCACCU | 6477 | AACAACAGGGCCCAGCGUA | 6512 | ACUACAAGUUCGCCUUGUG | 6547 | GACUACGCGGAGGUGCGCC |
| 6443 | ACACCUGGCAAGGCACCUU | 6478 | ACAACAGGGCCCAGCGUAC | 6513 | CUACAAGUUCGCCUUGUGG | 6548 | ACUACGCGGAGGUGCGCCG |
| 6444 | CACCUGGCAAGGCACCUUC | 6479 | CAACAGGGCCCAGCGUACC | 6514 | UACAAGUUCGCCUUGUGGA | 6549 | CUACGCGGAGGUGCGCCGU |
| 6445 | ACCUGGCAAGGCACCUUCC | 6480 | AACAGGGCCCAGCGUACCU | 6515 | ACAAGUUCGCCUUGUGGAG | 6550 | UACGCGGAGGUGCGCCGUG |
| 6446 | CCUGGCAAGGCACCUUCCC | 6481 | ACAGGGCCCAGCGUACCUG | 6516 | CAAGUUCGCCUUGUGGAGG | 6551 | ACGCGGAGGUGCGCCGUGU |
| 6447 | CUGGCAAGGCACCUUCCCA | 6482 | CAGGGCCCAGCGUACCUGC | 6517 | AAGUUCGCCUUGUGGAGGG | 6552 | CGCGGAGGUGCGCCGUGUA |
| 6448 | UGGCAAGGCACCUUCCCAA | 6483 | AGGGCCCAGCGUACCUGCC | 6518 | AGUUCGCCUUGUGGAGGGU | 6553 | GCGGAGGUGCGCCGUGUAG |
| 6449 | GGCAAGGCACCUUCCCAAU | 6484 | GGGCCCAGCGUACCUGCCC | 6519 | GUUCGCCUUGUGGAGGGUG | 6554 | CGGAGGUGCGCCGUGUAGG |
| 6450 | GCAAGGCACCUUCCCAAUC | 6485 | GGCCCAGCGUACCUGCCCC | 6520 | UUCGCCUUGUGGAGGGUGG | 6555 | GGAGGUGCGCCGUGUAGGG |
| 6451 | CAAGGCACCUUCCCAAUCA | 6486 | GCCCAGCGUACCUGCCCCG | 6521 | UCGCCUUGUGGAGGGUGGG | 6556 | GAGGUGCGCCGUGUAGGGG |
| 6452 | AAGGCACCUUCCCAAUCAA | 6487 | CCCAGCGUACCUGCCCCGG | 6522 | CGCCUUGUGGAGGGUGGGC | 6557 | AGGUGCGCCGUGUAGGGGA |
| 6453 | AGGCACCUUCCCAAUCAAC | 6488 | CCAGCGUACCUGCCCCGGC | 6523 | GCCUUGUGGAGGGUGGGCG | 6558 | GGUGCGCCGUGUAGGGGAC |
| 6454 | GGCACCUUCCCAAUCAACG | 6489 | CAGCGUACCUGCCCCGGCC | 6524 | CCUUGUGGAGGGUGGGCGC | 6559 | GUGCGCCGUGUAGGGGACU |
| 6455 | GCACCUUCCCAAUCAACGC | 6490 | AGCGUACCUGCCCCGGCCC | 6525 | CUUGUGGAGGGUGGGCGCC | 6560 | UGCGCCGUGUAGGGGACUA |
| 6456 | CACCUUCCCAAUCAACGCC | 6491 | GCGUACCUGCCCCGGCCCC | 6526 | UUGUGGAGGGUGGGCGCCG | 6561 | GCGCCGUGUAGGGGACUAC |
| 6457 | ACCUUCCCAAUCAACGCCA | 6492 | CGUACCUGCCCCGGCCCCC | 6527 | UGUGGAGGGUGGGCGCCGC | 6562 | CGCCGUGUAGGGGACUACC |
| 6458 | CCUUCCCAAUCAACGCCAC | 6493 | GUACCUGCCCCGGCCCCCA | 6528 | GUGGAGGGUGGGCGCCGCG | 6563 | GCCGUGUAGGGGACUACCA |
| 6459 | CUUCCCAAUCAACGCCACA | 6494 | UACCUGCCCCGGCCCCCAA | 6529 | UGGAGGGUGGGCGCCGCGG | 6564 | CCGUGUAGGGGACUACCAC |
| 6460 | UUCCCAAUCAACGCCACAA | 6495 | ACCUGCCCCGGCCCCCAAC | 6530 | GGAGGGUGGGCGCCGCGGA | 6565 | CGUGUAGGGGACUACCACU |
| 6461 | UCCCAAUCAACGCCACAAC | 6496 | CCUGCCCCGGCCCCCAACU | 6531 | GAGGGUGGGCGCCGCGGAC | 6566 | GUGUAGGGGACUACCACUA |
| 6462 | CCCAAUCAACGCCACAACA | 6497 | CUGCCCCGGCCCCCAACUA | 6532 | AGGGUGGGCGCCGCGGACU | 6567 | UGUAGGGGACUACCACUAC |
| 6463 | CCAAUCAACGCCACAACAA | 6498 | UGCCCCGGCCCCCAACUAC | 6533 | GGGUGGGCGCCGCGGACUA | 6568 | GUAGGGGACUACCACUACA |
| 6464 | CAAUCAACGCCACAACAAC | 6499 | GCCCCGGCCCCCAACUACA | 6534 | GGUGGGCGCCGCGGACUAC | 6569 | UAGGGGACUACCACUACAU |
| 6465 | AAUCAACGCCACAACAACA | 6500 | CCCCGGCCCCCAACUACAA | 6535 | GUGGGCGCCGCGGACUACG | 6570 | AGGGGACUACCACUACAUA |
| 6466 | AUCAACGCCACAACAACAG | 6501 | CCCGGCCCCCAACUACAAG | 6536 | UGGGCGCCGCGGACUACGC | 6571 | GGGGACUACCACUACAUAA |
| 6467 | UCAACGCCACAACAACAGG | 6502 | CCGGCCCCCAACUACAAGU | 6537 | GGGCGCCGCGGACUACGCG | 6572 | GGGACUACCACUACAUAAC |
| 6468 | CAACGCCACAACAACAGGG | 6503 | CGGCCCCCAACUACAAGUU | 6538 | GGCGCCGCGGACUACGCGG | 6573 | GGACUACCACUACAUAACG |
| 6469 | AACGCCACAACAACAGGGC | 6504 | GGCCCCCAACUACAAGUUC | 6539 | GCGCCGCGGACUACGCGGA | 6574 | GACUACCACUACAUAACGG |
| 6470 | ACGCCACAACAACAGGGCC | 6505 | GCCCCCAACUACAAGUUCG | 6540 | CGCCGCGGACUACGCGGAG | 6575 | ACUACCACUACAUAACGGG |
| 6471 | CGCCACAACAACAGGGCCC | 6506 | CCCCCAACUACAAGUUCGC | 6541 | GCCGCGGACUACGCGGAGG | 6576 | CUACCACUACAUAACGGGG |
| 6472 | GCCACAACAACAGGGCCCA | 6507 | CCCCAACUACAAGUUCGCC | 6542 | CCGCGGACUACGCGGAGGU | 6577 | UACCACUACAUAACGGGGG |
| 6473 | CCACAACAACAGGGCCCAG | 6508 | CCCAACUACAAGUUCGCCU | 6543 | CGCGGACUACGCGGAGGUG | 6578 | ACCACUACAUAACGGGGGU |
| 6474 | CACAACAACAGGGCCCAGC | 6509 | CCAACUACAAGUUCGCCUU | 6544 | GCGGACUACGCGGAGGUGC | 6579 | CCACUACAUAACGGGGGUG |
| 6475 | ACAACAACAGGGCCCAGCG | 6510 | CAACUACAAGUUCGCCUUG | 6545 | CGGACUACGCGGAGGUGCG | 6580 | CACUACAUAACGGGGGUGA |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6581 | ACUACAUAACGGGGGUGAC | 6616 | UGUCCCUGCCAGGUACCAU | 6651 | GGAGCUGGAUGGCGUGAGG | 6686 | CACCCUGUAACCCCCUCCU |
| 6582 | CUACAUAACGGGGGUGACA | 6617 | GUCCCUGCCAGGUACCAUC | 6652 | GAGCUGGAUGGCGUGAGGA | 6687 | ACCCUGUAACCCCCUCCUA |
| 6583 | UACAUAACGGGGGUGACAC | 6618 | UCCCUGCCAGGUACCAUCU | 6653 | AGCUGGAUGGCGUGAGGAU | 6688 | CCCUGUAACCCCCUCCUAA |
| 6584 | ACAUAACGGGGGUGACACA | 6619 | CCCUGCCAGGUACCAUCUC | 6654 | GCUGGAUGGCGUGAGGAUU | 6689 | CCUGUAACCCCCUCCUAAG |
| 6585 | CAUAACGGGGGUGACACAA | 6620 | CCUGCCAGGUACCAUCUCC | 6655 | CUGGAUGGCGUGAGGAUUC | 6690 | CUGUAACCCCCUCCUAAGG |
| 6586 | AUAACGGGGGUGACACAAG | 6621 | CUGCCAGGUACCAUCUCCA | 6656 | UGGAUGGCGUGAGGAUUCA | 6691 | UGUAACCCCCUCCUAAGGG |
| 6587 | UAACGGGGGUGACACAAGA | 6622 | UGCCAGGUACCAUCUCCAG | 6657 | GGAUGGCGUGAGGAUUCAC | 6692 | GUAACCCCCUCCUAAGGGA |
| 6588 | AACGGGGGUGACACAAGAC | 6623 | GCCAGGUACCAUCUCCAGA | 6658 | GAUGGCGUGAGGAUUCACC | 6693 | UAACCCCCUCCUAAGGGAG |
| 6589 | ACGGGGGUGACACAAGACA | 6624 | CCAGGUACCAUCUCCAGAG | 6659 | AUGGCGUGAGGAUUCACCG | 6694 | AACCCCCUCCUAAGGGAGG |
| 6590 | CGGGGGUGACACAAGACAA | 6625 | CAGGUACCAUCUCCAGAGU | 6660 | UGGCGUGAGGAUUCACCGC | 6695 | ACCCCCUCCUAAGGGAGGA |
| 6591 | GGGGGUGACACAAGACAAU | 6626 | AGGUACCAUCUCCAGAGUU | 6661 | GGCGUGAGGAUUCACCGCU | 6696 | CCCCCUCCUAAGGGAGGAG |
| 6592 | GGGGUGACACAAGACAAUC | 6627 | GGUACCAUCUCCAGAGUUC | 6662 | GCGUGAGGAUUCACCGCUU | 6697 | CCCCUCCUAAGGGAGGAGG |
| 6593 | GGGUGACACAAGACAAUCU | 6628 | GUACCAUCUCCAGAGUUCU | 6663 | CGUGAGGAUUCACCGCUUC | 6698 | CCCUCCUAAGGGAGGAGGU |
| 6594 | GGUGACACAAGACAAUCUG | 6629 | UACCAUCUCCAGAGUUCUU | 6664 | GUGAGGAUUCACCGCUUCG | 6699 | CCUCCUAAGGGAGGAGGUU |
| 6595 | GUGACACAAGACAAUCUGA | 6630 | ACCAUCUCCAGAGUUCUUC | 6665 | UGAGGAUUCACCGCUUCGC | 6700 | CUCCUAAGGGAGGAGGUUA |
| 6596 | UGACACAAGACAAUCUGAA | 6631 | CCAUCUCCAGAGUUCUUCA | 6666 | GAGGAUUCACCGCUUCGCG | 6701 | UCCUAAGGGAGGAGGUUAC |
| 6597 | GACACAAGACAAUCUGAAG | 6632 | CAUCUCCAGAGUUCUUCAC | 6667 | AGGAUUCACCGCUUCGCGC | 6702 | CCUAAGGGAGGAGGUUACU |
| 6598 | ACACAAGACAAUCUGAAGU | 6633 | AUCUCCAGAGUUCUUCACG | 6668 | GGAUUCACCGCUUCGCGCC | 6703 | CUAAGGGAGGAGGUUACUU |
| 6599 | CACAAGACAAUCUGAAGUG | 6634 | UCUCCAGAGUUCUUCACGG | 6669 | GAUUCACCGCUUCGCGCCA | 6704 | UAAGGGAGGAGGUUACUUU |
| 6600 | ACAAGACAAUCUGAAGUGU | 6635 | CUCCAGAGUUCUUCACGGA | 6670 | AUUCACCGCUUCGCGCCAC | 6705 | AAGGGAGGAGGUUACUUUC |
| 6601 | CAAGACAAUCUGAAGUGUC | 6636 | UCCAGAGUUCUUCACGGAG | 6671 | UUCACCGCUUCGCGCCACC | 6706 | AGGGAGGAGGUUACUUUCU |
| 6602 | AAGACAAUCUGAAGUGUCC | 6637 | CCAGAGUUCUUCACGGAGC | 6672 | UCACCGCUUCGCGCCACCC | 6707 | GGGAGGAGGUUACUUUCUC |
| 6603 | AGACAAUCUGAAGUGUCCC | 6638 | CAGAGUUCUUCACGGAGCU | 6673 | CACCGCUUCGCGCCACCCU | 6708 | GGAGGAGGUUACUUUCUCC |
| 6604 | GACAAUCUGAAGUGUCCCU | 6639 | AGAGUUCUUCACGGAGCUG | 6674 | ACCGCUUCGCGCCACCCUG | 6709 | GAGGAGGUUACUUUCUCCG |
| 6605 | ACAAUCUGAAGUGUCCCUG | 6640 | GAGUUCUUCACGGAGCUGG | 6675 | CCGCUUCGCGCCACCCUGU | 6710 | AGGAGGUUACUUUCUCCGU |
| 6606 | CAAUCUGAAGUGUCCCUGC | 6641 | AGUUCUUCACGGAGCUGGA | 6676 | CGCUUCGCGCCACCCUGUA | 6711 | GGAGGUUACUUUCUCCGUG |
| 6607 | AAUCUGAAGUGUCCCUGCC | 6642 | GUUCUUCACGGAGCUGGAU | 6677 | GCUUCGCGCCACCCUGUAA | 6712 | GAGGUUACUUUCUCCGUGG |
| 6608 | AUCUGAAGUGUCCCUGCCA | 6643 | UUCUUCACGGAGCUGGAUG | 6678 | CUUCGCGCCACCCUGUAAC | 6713 | AGGUUACUUUCUCCGUGGG |
| 6609 | UCUGAAGUGUCCCUGCCAG | 6644 | UCUUCACGGAGCUGGAUGG | 6679 | UUCGCGCCACCCUGUAACC | 6714 | GGUUACUUUCUCCGUGGGG |
| 6610 | CUGAAGUGUCCCUGCCAGG | 6645 | CUUCACGGAGCUGGAUGGC | 6680 | UCGCGCCACCCUGUAACCC | 6715 | GUUACUUUCUCCGUGGGGU |
| 6611 | UGAAGUGUCCCUGCCAGGU | 6646 | UUCACGGAGCUGGAUGGCG | 6681 | CGCGCCACCCUGUAACCCC | 6716 | UUACUUUCUCCGUGGGGUU |
| 6612 | GAAGUGUCCCUGCCAGGUA | 6647 | UCACGGAGCUGGAUGGCGU | 6682 | GCGCCACCCUGUAACCCCC | 6717 | UACUUUCUCCGUGGGGUUG |
| 6613 | AAGUGUCCCUGCCAGGUAC | 6648 | CACGGAGCUGGAUGGCGUG | 6683 | CGCCACCCUGUAACCCCCU | 6718 | ACUUUCUCCGUGGGGUUGC |
| 6614 | AGUGUCCCUGCCAGGUACC | 6649 | ACGGAGCUGGAUGGCGUGA | 6684 | GCCACCCUGUAACCCCCUC | 6719 | CUUUCUCCGUGGGGUUGCA |
| 6615 | GUGUCCCUGCCAGGUACCA | 6650 | CGGAGCUGGAUGGCGUGAG | 6685 | CCACCCUGUAACCCCCUCC | 6720 | UUUCUCCGUGGGGUUGCAC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6721 | UUCUCCGUGGGGUUGCACU | 6756 | CCAACUACCCUGUGAGCCA | 6791 | UCUUAACAUCAAUGCUGUC | 6826 | ACGGCGGAAACGGCCAAGC |
| 6722 | UCUCCGUGGGGUUGCACUC | 6757 | CAACUACCCUGUGAGCCAG | 6792 | CUUAACAUCAAUGCUGUCA | 6827 | CGGCGGAAACGGCCAAGCG |
| 6723 | CUCCGUGGGGUUGCACUCC | 6758 | AACUACCCUGUGAGCCAGA | 6793 | UUAACAUCAAUGCUGUCAG | 6828 | GGCGGAAACGGCCAAGCGC |
| 6724 | UCCGUGGGGUUGCACUCCU | 6759 | ACUACCCUGUGAGCCAGAA | 6794 | UAACAUCAAUGCUGUCAGA | 6829 | GCGGAAACGGCCAAGCGCA |
| 6725 | CCGUGGGGUUGCACUCCUA | 6760 | CUACCCUGUGAGCCAGAAC | 6795 | AACAUCAAUGCUGUCAGAU | 6830 | CGGAAACGGCCAAGCGCAG |
| 6726 | CGUGGGGUUGCACUCCUAC | 6761 | UACCCUGUGAGCCAGAACC | 6796 | ACAUCAAUGCUGUCAGAUC | 6831 | GGAAACGGCCAAGCGCAGG |
| 6727 | GUGGGGUUGCACUCCUACG | 6762 | ACCCUGUGAGCCAGAACCU | 6797 | CAUCAAUGCUGUCAGAUCC | 6832 | GAAACGGCCAAGCGCAGGC |
| 6728 | UGGGGUUGCACUCCUACGU | 6763 | CCCUGUGAGCCAGAACCUG | 6798 | AUCAAUGCUGUCAGAUCCC | 6833 | AAACGGCCAAGCGCAGGCU |
| 6729 | GGGGUUGCACUCCUACGUG | 6764 | CCUGUGAGCCAGAACCUGA | 6799 | UCAAUGCUGUCAGAUCCCG | 6834 | AACGGCCAAGCGCAGGCUA |
| 6730 | GGGUUGCACUCCUACGUGG | 6765 | CUGUGAGCCAGAACCUGAU | 6800 | CAAUGCUGUCAGAUCCCGC | 6835 | ACGGCCAAGCGCAGGCUAA |
| 6731 | GGUUGCACUCCUACGUGGU | 6766 | UGUGAGCCAGAACCUGAUG | 6801 | AAUGCUGUCAGAUCCCGCC | 6836 | CGGCCAAGCGCAGGCUAAA |
| 6732 | GUUGCACUCCUACGUGGUA | 6767 | GUGAGCCAGAACCUGAUGU | 6802 | AUGCUGUCAGAUCCCGCCC | 6837 | GGCCAAGCGCAGGCUAAAU |
| 6733 | UUGCACUCCUACGUGGUAG | 6768 | UGAGCCAGAACCUGAUGUG | 6803 | UGCUGUCAGAUCCCGCCCA | 6838 | GCCAAGCGCAGGCUAAAUC |
| 6734 | UGCACUCCUACGUGGUAGG | 6769 | GAGCCAGAACCUGAUGUGA | 6804 | GCUGUCAGAUCCCGCCCAC | 6839 | CCAAGCGCAGGCUAAAUCG |
| 6735 | GCACUCCUACGUGGUAGGG | 6770 | AGCCAGAACCUGAUGUGAC | 6805 | CUGUCAGAUCCCGCCCACA | 6840 | CAAGCGCAGGCUAAAUCGA |
| 6736 | CACUCCUACGUGGUAGGGU | 6771 | GCCAGAACCUGAUGUGACC | 6806 | UGUCAGAUCCCGCCCACAU | 6841 | AAGCGCAGGCUAAAUCGAG |
| 6737 | ACUCCUACGUGGUAGGGUC | 6772 | CCAGAACCUGAUGUGACCG | 6807 | GUCAGAUCCCGCCCACAUC | 6842 | AGCGCAGGCUAAAUCGAGG |
| 6738 | CUCCUACGUGGUAGGGUCC | 6773 | CAGAACCUGAUGUGACCGU | 6808 | UCAGAUCCCGCCCACAUCA | 6843 | GCGCAGGCUAAAUCGAGGG |
| 6739 | UCCUACGUGGUAGGGUCCC | 6774 | AGAACCUGAUGUGACCGUC | 6809 | CAGAUCCCGCCCACAUCAC | 6844 | CGCAGGCUAAAUCGAGGGU |
| 6740 | CCUACGUGGUAGGGUCCCA | 6775 | GAACCUGAUGUGACCGUCU | 6810 | AGAUCCCGCCCACAUCACG | 6845 | GCAGGCUAAAUCGAGGGUC |
| 6741 | CUACGUGGUAGGGUCCCAA | 6776 | AACCUGAUGUGACCGUCUU | 6811 | GAUCCCGCCCACAUCACGG | 6846 | CAGGCUAAAUCGAGGGUCU |
| 6742 | UACGUGGUAGGGUCCCAAC | 6777 | ACCUGAUGUGACCGUCUUA | 6812 | AUCCCGCCCACAUCACGGC | 6847 | AGGCUAAAUCGAGGGUCUC |
| 6743 | ACGUGGUAGGGUCCCAACU | 6778 | CCUGAUGUGACCGUCUUAA | 6813 | UCCCGCCCACAUCACGGCG | 6848 | GGCUAAAUCGAGGGUCUCC |
| 6744 | CGUGGUAGGGUCCCAACUA | 6779 | CUGAUGUGACCGUCUUAAC | 6814 | CCCGCCCACAUCACGGCGG | 6849 | GCUAAAUCGAGGGUCUCCA |
| 6745 | GUGGUAGGGUCCCAACUAC | 6780 | UGAUGUGACCGUCUUAACA | 6815 | CCGCCCACAUCACGGCGGA | 6850 | CUAAAUCGAGGGUCUCCAC |
| 6746 | UGGUAGGGUCCCAACUACC | 6781 | GAUGUGACCGUCUUAACAU | 6816 | CGCCCACAUCACGGCGGAA | 6851 | UAAAUCGAGGGUCUCCACC |
| 6747 | GGUAGGGUCCCAACUACCC | 6782 | AUGUGACCGUCUUAACAUC | 6817 | GCCCACAUCACGGCGGAAA | 6852 | AAAUCGAGGGUCUCCACCC |
| 6748 | GUAGGGUCCCAACUACCCU | 6783 | UGUGACCGUCUUAACAUCA | 6818 | CCCACAUCACGGCGGAAAC | 6853 | AAUCGAGGGUCUCCACCCU |
| 6749 | UAGGGUCCCAACUACCCUG | 6784 | GUGACCGUCUUAACAUCAA | 6819 | CCACAUCACGGCGGAAACG | 6854 | AUCGAGGGUCUCCACCCUC |
| 6750 | AGGGUCCCAACUACCCUGU | 6785 | UGACCGUCUUAACAUCAAU | 6820 | CACAUCACGGCGGAAACGG | 6855 | UCGAGGGUCUCCACCCUCU |
| 6751 | GGGUCCCAACUACCCUGUG | 6786 | GACCGUCUUAACAUCAAUG | 6821 | ACAUCACGGCGGAAACGGC | 6856 | CGAGGGUCUCCACCCUCUC |
| 6752 | GGUCCCAACUACCCUGUGA | 6787 | ACCGUCUUAACAUCAAUGC | 6822 | CAUCACGGCGGAAACGGCC | 6857 | GAGGGUCUCCACCCUCUCU |
| 6753 | GUCCCAACUACCCUGUGAG | 6788 | CCGUCUUAACAUCAAUGCU | 6823 | AUCACGGCGGAAACGGCCA | 6858 | AGGGUCUCCACCCUCUCUG |
| 6754 | UCCCAACUACCCUGUGAGC | 6789 | CGUCUUAACAUCAAUGCUG | 6824 | UCACGGCGGAAACGGCCAA | 6859 | GGGUCUCCACCCUCUCUGG |
| 6755 | CCCAACUACCCUGUGAGCC | 6790 | GUCUUAACAUCAAUGCUGU | 6825 | CACGGCGGAAACGGCCAAG | 6860 | GGUCUCCACCCUCUCUGGC |



FIG. 6 (sheet 336 of 479)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6861 | GUCUCCACCCUCUCUGGCA | 6896 | AGCUCUCAGCCCCCUCUCU | 6931 | AUACAAGGCCACCACCCAG | 6966 | GGCUAAUCUGCUAUGGAGA |
| 6862 | UCUCCACCCUCUCUGGCAA | 6897 | GCUCUCAGCCCCCUCUCUC | 6932 | UACAAGGCCACCACCCAGA | 6967 | GCUAAUCUGCUAUGGAGAC |
| 6863 | CUCCACCCUCUCUGGCAAA | 6898 | CUCUCAGCCCCCUCUCUCA | 6933 | ACAAGGCCACCACCCAGAU | 6968 | CUAAUCUGCUAUGGAGACA |
| 6864 | UCCACCCUCUCUGGCAAAC | 6899 | UCUCAGCCCCCUCUCUCAA | 6934 | CAAGGCCACCACCCAGAUG | 6969 | UAAUCUGCUAUGGAGACAG |
| 6865 | CCACCCUCUCUGGCAAACU | 6900 | CUCAGCCCCCUCUCUCAAG | 6935 | AAGGCCACCACCCAGAUGC | 6970 | AAUCUGCUAUGGAGACAGU |
| 6866 | CACCCUCUCUGGCAAACUC | 6901 | UCAGCCCCCUCUCUCAAGG | 6936 | AGGCCACCACCCAGAUGCA | 6971 | AUCUGCUAUGGAGACAGUG |
| 6867 | ACCCUCUCUGGCAAACUCC | 6902 | CAGCCCCCUCUCUCAAGGC | 6937 | GGCCACCACCCAGAUGCAG | 6972 | UCUGCUAUGGAGACAGUGC |
| 6868 | CCCUCUCUGGCAAACUCCU | 6903 | AGCCCCCUCUCUCAAGGCC | 6938 | GCCACCACCCAGAUGCAGA | 6973 | CUGCUAUGGAGACAGUGCA |
| 6869 | CCUCUCUGGCAAACUCCUC | 6904 | GCCCCCUCUCUCAAGGCCA | 6939 | CCACCACCCAGAUGCAGAC | 6974 | UGCUAUGGAGACAGUGCAU |
| 6870 | CUCUCUGGCAAACUCCUCG | 6905 | CCCCCUCUCUCAAGGCCAC | 6940 | CACCACCCAGAUGCAGACC | 6975 | GCUAUGGAGACAGUGCAUG |
| 6871 | UCUCUGGCAAACUCCUCGG | 6906 | CCCCUCUCUCAAGGCCACC | 6941 | ACCACCCAGAUGCAGACCU | 6976 | CUAUGGAGACAGUGCAUGG |
| 6872 | CUCUGGCAAACUCCUCGGC | 6907 | CCCUCUCUCAAGGCCACCU | 6942 | CCACCCAGAUGCAGACCUC | 6977 | UAUGGAGACAGUGCAUGGG |
| 6873 | UCUGGCAAACUCCUCGGCC | 6908 | CCUCUCUCAAGGCCACCUG | 6943 | CACCCAGAUGCAGACCUCA | 6978 | AUGGAGACAGUGCAUGGGA |
| 6874 | CUGGCAAACUCCUCGGCCA | 6909 | CUCUCUCAAGGCCACCUGC | 6944 | ACCCAGAUGCAGACCUCAU | 6979 | UGGAGACAGUGCAUGGGAG |
| 6875 | UGGCAAACUCCUCGGCCAG | 6910 | UCUCUCAAGGCCACCUGCA | 6945 | CCCAGAUGCAGACCUCAUA | 6980 | GGAGACAGUGCAUGGGAGG |
| 6876 | GGCAAACUCCUCGGCCAGU | 6911 | CUCUCAAGGCCACCUGCAC | 6946 | CCAGAUGCAGACCUCAUAA | 6981 | GAGACAGUGCAUGGGAGGC |
| 6877 | GCAAACUCCUCGGCCAGUC | 6912 | UCUCAAGGCCACCUGCACU | 6947 | CAGAUGCAGACCUCAUAAA | 6982 | AGACAGUGCAUGGGAGGCA |
| 6878 | CAAACUCCUCGGCCAGUCA | 6913 | CUCAAGGCCACCUGCACUA | 6948 | AGAUGCAGACCUCAUAAAG | 6983 | GACAGUGCAUGGGAGGCAA |
| 6879 | AAACUCCUCGGCCAGUCAG | 6914 | UCAAGGCCACCUGCACUAU | 6949 | GAUGCAGACCUCAUAAAGG | 6984 | ACAGUGCAUGGGAGGCAAU |
| 6880 | AACUCCUCGGCCAGUCAGC | 6915 | CAAGGCCACCUGCACUAUA | 6950 | AUGCAGACCUCAUAAAGGC | 6985 | CAGUGCAUGGGAGGCAAUA |
| 6881 | ACUCCUCGGCCAGUCAGCU | 6916 | AAGGCCACCUGCACUAUAC | 6951 | UGCAGACCUCAUAAAGGCU | 6986 | AGUGCAUGGGAGGCAAUAU |
| 6882 | CUCCUCGGCCAGUCAGCUC | 6917 | AGGCCACCUGCACUAUACA | 6952 | GCAGACCUCAUAAAGGCUA | 6987 | GUGCAUGGGAGGCAAUAUC |
| 6883 | UCCUCGGCCAGUCAGCUCU | 6918 | GGCCACCUGCACUAUACAA | 6953 | CAGACCUCAUAAAGGCUAA | 6988 | UGCAUGGGAGGCAAUAUCA |
| 6884 | CCUCGGCCAGUCAGCUCUC | 6919 | GCCACCUGCACUAUACAAG | 6954 | AGACCUCAUAAAGGCUAAU | 6989 | GCAUGGGAGGCAAUAUCAC |
| 6885 | CUCGGCCAGUCAGCUCUCA | 6920 | CCACCUGCACUAUACAAGG | 6955 | GACCUCAUAAAGGCUAAUC | 6990 | CAUGGGAGGCAAUAUCACG |
| 6886 | UCGGCCAGUCAGCUCUCAG | 6921 | CACCUGCACUAUACAAGGC | 6956 | ACCUCAUAAAGGCUAAUCU | 6991 | AUGGGAGGCAAUAUCACGC |
| 6887 | CGGCCAGUCAGCUCUCAGC | 6922 | ACCUGCACUAUACAAGGCC | 6957 | CCUCAUAAAGGCUAAUCUG | 6992 | UGGGAGGCAAUAUCACGCG |
| 6888 | GGCCAGUCAGCUCUCAGCC | 6923 | CCUGCACUAUACAAGGCCA | 6958 | CUCAUAAAGGCUAAUCUGC | 6993 | GGGAGGCAAUAUCACGCGA |
| 6889 | GCCAGUCAGCUCUCAGCCC | 6924 | CUGCACUAUACAAGGCCAC | 6959 | UCAUAAAGGCUAAUCUGCU | 6994 | GGAGGCAAUAUCACGCGAG |
| 6890 | CCAGUCAGCUCUCAGCCCC | 6925 | UGCACUAUACAAGGCCACC | 6960 | CAUAAAGGCUAAUCUGCUA | 6995 | GAGGCAAUAUCACGCGAGU |
| 6891 | CAGUCAGCUCUCAGCCCCC | 6926 | GCACUAUACAAGGCCACCA | 6961 | AUAAAGGCUAAUCUGCUAU | 6996 | AGGCAAUAUCACGCGAGUA |
| 6892 | AGUCAGCUCUCAGCCCCCU | 6927 | CACUAUACAAGGCCACCAC | 6962 | UAAAGGCUAAUCUGCUAUG | 6997 | GGCAAUAUCACGCGAGUAG |
| 6893 | GUCAGCUCUCAGCCCCCUC | 6928 | ACUAUACAAGGCCACCACC | 6963 | AAAGGCUAAUCUGCUAUGG | 6998 | GCAAUAUCACGCGAGUAGA |
| 6894 | UCAGCUCUCAGCCCCCUCU | 6929 | CUAUACAAGGCCACCACCC | 6964 | AAGGCUAAUCUGCUAUGGA | 6999 | CAAUAUCACGCGAGUAGAG |
| 6895 | CAGCUCUCAGCCCCCUCUC | 6930 | UAUACAAGGCCACCACCCA | 6965 | AGGCUAAUCUGCUAUGGAG | 7000 | AAUAUCACGCGAGUAGAGG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7001 | AUAUCACGCGAGUAGAGGC | 7036 | AUCCUUGACUGCUUCAAGC | 7071 | AGAUGACAGAGAGAUCUCC | 7106 | UUAAGAAGGGACCGGCGUU |
| 7002 | UAUCACGCGAGUAGAGGCU | 7037 | UCCUUGACUGCUUCAAGCC | 7072 | GAUGACAGAGAGAUCUCCG | 7107 | UAAGAAGGGACCGGCGUUU |
| 7003 | AUCACGCGAGUAGAGGCUG | 7038 | CCUUGACUGCUUCAAGCCG | 7073 | AUGACAGAGAGAUCUCCGU | 7108 | AAGAAGGGACCGGCGUUUC |
| 7004 | UCACGCGAGUAGAGGCUGA | 7039 | CUUGACUGCUUCAAGCCGC | 7074 | UGACAGAGAGAUCUCCGUG | 7109 | AGAAGGGACCGGCGUUUCC |
| 7005 | CACGCGAGUAGAGGCUGAG | 7040 | UUGACUGCUUCAAGCCGCU | 7075 | GACAGAGAGAUCUCCGUGU | 7110 | GAAGGGACCGGCGUUUCCC |
| 7006 | ACGCGAGUAGAGGCUGAGA | 7041 | UGACUGCUUCAAGCCGCUC | 7076 | ACAGAGAGAUCUCCGUGUC | 7111 | AAGGGACCGGCGUUUCCCC |
| 7007 | CGCGAGUAGAGGCUGAGAA | 7042 | GACUGCUUCAAGCCGCUCA | 7077 | CAGAGAGAUCUCCGUGUCC | 7112 | AGGGACCGGCGUUUCCCCC |
| 7008 | GCGAGUAGAGGCUGAGAAC | 7043 | ACUGCUUCAAGCCGCUCAA | 7078 | AGAGAGAUCUCCGUGUCCG | 7113 | GGGACCGGCGUUUCCCCCC |
| 7009 | CGAGUAGAGGCUGAGAACA | 7044 | CUGCUUCAAGCCGCUCAAA | 7079 | GAGAGAUCUCCGUGUCCGC | 7114 | GGACCGGCGUUUCCCCCCG |
| 7010 | GAGUAGAGGCUGAGAACAA | 7045 | UGCUUCAAGCCGCUCAAAG | 7080 | AGAGAUCUCCGUGUCCGCC | 7115 | GACCGGCGUUUCCCCCCGC |
| 7011 | AGUAGAGGCUGAGAACAAG | 7046 | GCUUCAAGCCGCUCAAAGA | 7081 | GAGAUCUCCGUGUCCGCCG | 7116 | ACCGGCGUUUCCCCCCGCU |
| 7012 | GUAGAGGCUGAGAACAAGG | 7047 | CUUCAAGCCGCUCAAAGAG | 7082 | AGAUCUCCGUGUCCGCCGA | 7117 | CCGGCGUUUCCCCCCGCUC |
| 7013 | UAGAGGCUGAGAACAAGGU | 7048 | UUCAAGCCGCUCAAAGAGG | 7083 | GAUCUCCGUGUCCGCCGAC | 7118 | CGGCGUUUCCCCCCGCUCU |
| 7014 | AGAGGCUGAGAACAAGGUC | 7049 | UCAAGCCGCUCAAAGAGGA | 7084 | AUCUCCGUGUCCGCCGACU | 7119 | GGCGUUUCCCCCCGCUCUG |
| 7015 | GAGGCUGAGAACAAGGUCG | 7050 | CAAGCCGCUCAAAGAGGAA | 7085 | UCUCCGUGUCCGCCGACUG | 7120 | GCGUUUCCCCCCGCUCUGC |
| 7016 | AGGCUGAGAACAAGGUCGA | 7051 | AAGCCGCUCAAAGAGGAAG | 7086 | CUCCGUGUCCGCCGACUGC | 7121 | CGUUUCCCCCCGCUCUGCC |
| 7017 | GGCUGAGAACAAGGUCGAG | 7052 | AGCCGCUCAAAGAGGAAGA | 7087 | UCCGUGUCCGCCGACUGCU | 7122 | GUUUCCCCCCGCUCUGCCA |
| 7018 | GCUGAGAACAAGGUCGAGA | 7053 | GCCGCUCAAAGAGGAAGAA | 7088 | CCGUGUCCGCCGACUGCUU | 7123 | UUUCCCCCCGCUCUGCCAG |
| 7019 | CUGAGAACAAGGUCGAGAU | 7054 | CCGCUCAAAGAGGAAGAAG | 7089 | CGUGUCCGCCGACUGCUUU | 7124 | UUCCCCCCGCUCUGCCAGU |
| 7020 | UGAGAACAAGGUCGAGAUC | 7055 | CGCUCAAAGAGGAAGAAGA | 7090 | GUGUCCGCCGACUGCUUUA | 7125 | UCCCCCCGCUCUGCCAGUG |
| 7021 | GAGAACAAGGUCGAGAUCC | 7056 | GCUCAAAGAGGAAGAAGAU | 7091 | UGUCCGCCGACUGCUUUAA | 7126 | CCCCCCGCUCUGCCAGUGU |
| 7022 | AGAACAAGGUCGAGAUCCU | 7057 | CUCAAAGAGGAAGAAGAUG | 7092 | GUCCGCCGACUGCUUUAAG | 7127 | CCCCCGCUCUGCCAGUGUG |
| 7023 | GAACAAGGUCGAGAUCCUU | 7058 | UCAAAGAGGAAGAAGAUGA | 7093 | UCCGCCGACUGCUUUAAGA | 7128 | CCCCGCUCUGCCAGUGUGG |
| 7024 | AACAAGGUCGAGAUCCUUG | 7059 | CAAAGAGGAAGAAGAUGAC | 7094 | CCGCCGACUGCUUUAAGAA | 7129 | CCCGCUCUGCCAGUGUGGG |
| 7025 | ACAAGGUCGAGAUCCUUGA | 7060 | AAAGAGGAAGAAGAUGACA | 7095 | CGCCGACUGCUUUAAGAAG | 7130 | CCGCUCUGCCAGUGUGGGC |
| 7026 | CAAGGUCGAGAUCCUUGAC | 7061 | AAGAGGAAGAAGAUGACAG | 7096 | GCCGACUGCUUUAAGAAGG | 7131 | CGCUCUGCCAGUGUGGGCA |
| 7027 | AAGGUCGAGAUCCUUGACU | 7062 | AGAGGAAGAAGAUGACAGA | 7097 | CCGACUGCUUUAAGAAGGG | 7132 | GCUCUGCCAGUGUGGGCAA |
| 7028 | AGGUCGAGAUCCUUGACUG | 7063 | GAGGAAGAAGAUGACAGAG | 7098 | CGACUGCUUUAAGAAGGGA | 7133 | CUCUGCCAGUGUGGGCAAG |
| 7029 | GGUCGAGAUCCUUGACUGC | 7064 | AGGAAGAAGAUGACAGAGA | 7099 | GACUGCUUUAAGAAGGGAC | 7134 | UCUGCCAGUGUGGGCAAGG |
| 7030 | GUCGAGAUCCUUGACUGCU | 7065 | GGAAGAAGAUGACAGAGAG | 7100 | ACUGCUUUAAGAAGGGACC | 7135 | CUGCCAGUGUGGGCAAGGC |
| 7031 | UCGAGAUCCUUGACUGCUU | 7066 | GAAGAAGAUGACAGAGAGA | 7101 | CUGCUUUAAGAAGGGACCG | 7136 | UGCCAGUGUGGGCAAGGCC |
| 7032 | CGAGAUCCUUGACUGCUUC | 7067 | AAGAAGAUGACAGAGAGAU | 7102 | UGCUUUAAGAAGGGACCGG | 7137 | GCCAGUGUGGGCAAGGCCG |
| 7033 | GAGAUCCUUGACUGCUUCA | 7068 | AGAAGAUGACAGAGAGAUC | 7103 | GCUUUAAGAAGGGACCGGC | 7138 | CCAGUGUGGGCAAGGCCGG |
| 7034 | AGAUCCUUGACUGCUUCAA | 7069 | GAAGAUGACAGAGAGAUCU | 7104 | CUUUAAGAAGGGACCGGCG | 7139 | CAGUGUGGGCAAGGCCGGG |
| 7035 | GAUCCUUGACUGCUUCAAG | 7070 | AAGAUGACAGAGAGAUCUC | 7105 | UUUAAGAAGGGACCGGCGU | 7140 | AGUGUGGGCAAGGCCGGGG |



**FIG. 6 (sheet 338 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7141 | GUGUGGGCAAGGCCGGGGU | 7176 | GGAGACUUGGAAGCGACCG | 7211 | AGGUGUGGGGCUGCCCGAU | 7246 | CCGCCUGUCCCGCUUCCGC |
| 7142 | UGUGGGCAAGGCCGGGGUA | 7177 | GAGACUUGGAAGCGACCGG | 7212 | GGUGUGGGGCUGCCCGAUA | 7247 | CGCCUGUCCCGCUUCCGCG |
| 7143 | GUGGGCAAGGCCGGGGUAU | 7178 | AGACUUGGAAGCGACCGGA | 7213 | GUGUGGGGCUGCCCGAUAC | 7248 | GCCUGUCCCGCUUCCGCGG |
| 7144 | UGGGCAAGGCCGGGGUAUG | 7179 | GACUUGGAAGCGACCGGAU | 7214 | UGUGGGGCUGCCCGAUACC | 7249 | CCUGUCCCGCUUCCGCGGA |
| 7145 | GGGCAAGGCCGGGGUAUGA | 7180 | ACUUGGAAGCGACCGGAUU | 7215 | GUGGGGCUGCCCGAUACCA | 7250 | CUGUCCCGCUUCCGCGGAG |
| 7146 | GGCAAGGCCGGGGUAUGAC | 7181 | CUUGGAAGCGACCGGAUUA | 7216 | UGGGGCUGCCCGAUACCAC | 7251 | UGUCCCGCUUCCGCGGAGG |
| 7147 | GCAAGGCCGGGGUAUGACC | 7182 | UUGGAAGCGACCGGAUUAU | 7217 | GGGGCUGCCCGAUACCACC | 7252 | GUCCCGCUUCCGCGGAGGA |
| 7148 | CAAGGCCGGGGUAUGACCC | 7183 | UGGAAGCGACCGGAUUAUG | 7218 | GGGCUGCCCGAUACCACCU | 7253 | UCCCGCUUCCGCGGAGGAA |
| 7149 | AAGGCCGGGGUAUGACCCG | 7184 | GGAAGCGACCGGAUUAUGA | 7219 | GGCUGCCCGAUACCACCUG | 7254 | CCCGCUUCCGCGGAGGAAA |
| 7150 | AGGCCGGGGUAUGACCCGC | 7185 | GAAGCGACCGGAUUAUGAC | 7220 | GCUGCCCGAUACCACCUGC | 7255 | CCGCUUCCGCGGAGGAAAA |
| 7151 | GGCCGGGGUAUGACCCGCC | 7186 | AAGCGACCGGAUUAUGACC | 7221 | CUGCCCGAUACCACCUGCG | 7256 | CGCUUCCGCGGAGGAAAAG |
| 7152 | GCCGGGGUAUGACCCGCCC | 7187 | AGCGACCGGAUUAUGACCC | 7222 | UGCCCGAUACCACCUGCGG | 7257 | GCUUCCGCGGAGGAAAAGG |
| 7153 | CCGGGGUAUGACCCGCCCC | 7188 | GCGACCGGAUUAUGACCCC | 7223 | GCCCGAUACCACCUGCGGG | 7258 | CUUCCGCGGAGGAAAAGGA |
| 7154 | CGGGGUAUGACCCGCCCCU | 7189 | CGACCGGAUUAUGACCCCC | 7224 | CCCGAUACCACCUGCGGGC | 7259 | UUCCGCGGAGGAAAAGGAA |
| 7155 | GGGGUAUGACCCGCCCCUC | 7190 | GACCGGAUUAUGACCCCCC | 7225 | CCGAUACCACCUGCGGGCC | 7260 | UCCGCGGAGGAAAAGGAAG |
| 7156 | GGGUAUGACCCGCCCCUCU | 7191 | ACCGGAUUAUGACCCCCCU | 7226 | CGAUACCACCUGCGGGCCC | 7261 | CCGCGGAGGAAAAGGAAGC |
| 7157 | GGUAUGACCCGCCCCUCUU | 7192 | CCGGAUUAUGACCCCCUC | 7227 | GAUACCACCUGCGGGCCCC | 7262 | CGCGGAGGAAAAGGAAGCC |
| 7158 | GUAUGACCCGCCCCUCUUG | 7193 | CGGAUUAUGACCCCCUCA | 7228 | AUACCACCUGCGGGCCCCC | 7263 | GCGGAGGAAAAGGAAGCCA |
| 7159 | UAUGACCCGCCCCUCUUGG | 7194 | GGAUUAUGACCCCCCUCAG | 7229 | UACCACCUGCGGGCCCCCC | 7264 | CGGAGGAAAAGGAAGCCAA |
| 7160 | AUGACCCGCCCCUCUUGGA | 7195 | GAUUAUGACCCCCCUCAGG | 7230 | ACCACCUGCGGGCCCCCCG | 7265 | GGAGGAAAAGGAAGCCAAU |
| 7161 | UGACCCGCCCCUCUUGGAG | 7196 | AUUAUGACCCCCCUCAGGU | 7231 | CCACCUGCGGGCCCCCCGC | 7266 | GAGGAAAAGGAAGCCAAUG |
| 7162 | GACCCGCCCCUCUUGGAGA | 7197 | UUAUGACCCCCCUCAGGUG | 7232 | CACCUGCGGGCCCCCCGCC | 7267 | AGGAAAAGGAAGCCAAUGG |
| 7163 | ACCCGCCCCUCUUGGAGAC | 7198 | UAUGACCCCCCUCAGGUGU | 7233 | ACCUGCGGGCCCCCCGCCU | 7268 | GGAAAAGGAAGCCAAUGGA |
| 7164 | CCCGCCCCUCUUGGAGACU | 7199 | AUGACCCCCCUCAGGUGUG | 7234 | CCUGCGGGCCCCCCGCCUG | 7269 | GAAAAGGAAGCCAAUGGAA |
| 7165 | CCGCCCCUCUUGGAGACUU | 7200 | UGACCCCCCUCAGGUGUGG | 7235 | CUGCGGGCCCCCCGCCUGU | 7270 | AAAAGGAAGCCAAUGGAAC |
| 7166 | CGCCCCUCUUGGAGACUUG | 7201 | GACCCCCCUCAGGUGUGGG | 7236 | UGCGGGCCCCCCGCCUGUC | 7271 | AAAGGAAGCCAAUGGAACU |
| 7167 | GCCCCUCUUGGAGACUUGG | 7202 | ACCCCCCUCAGGUGUGGGG | 7237 | GCGGGCCCCCCGCCUGUCC | 7272 | AAGGAAGCCAAUGGAACUA |
| 7168 | CCCCUCUUGGAGACUUGGA | 7203 | CCCCCCUCAGGUGUGGGGC | 7238 | CGGGCCCCCCGCCUGUCCC | 7273 | AGGAAGCCAAUGGAACUAU |
| 7169 | CCCUCUUGGAGACUUGGAA | 7204 | CCCCCUCAGGUGUGGGGCU | 7239 | GGGCCCCCCGCCUGUCCCG | 7274 | GGAAGCCAAUGGAACUAUC |
| 7170 | CCUCUUGGAGACUUGGAAG | 7205 | CCCCUCAGGUGUGGGGCUG | 7240 | GGCCCCCCGCCUGUCCCGC | 7275 | GAAGCCAAUGGAACUAUCU |
| 7171 | CUCUUGGAGACUUGGAAGC | 7206 | CCCUCAGGUGUGGGGCUGC | 7241 | GCCCCCCGCCUGUCCCGCU | 7276 | AAGCCAAUGGAACUAUCUG |
| 7172 | UCUUGGAGACUUGGAAGCG | 7207 | CCUCAGGUGUGGGGCUGCC | 7242 | CCCCCCGCCUGUCCCGCUU | 7277 | AGCCAAUGGAACUAUCUGA |
| 7173 | CUUGGAGACUUGGAAGCGA | 7208 | CUCAGGUGUGGGGCUGCCC | 7243 | CCCCCGCCUGUCCCGCUUC | 7278 | GCCAAUGGAACUAUCUGAU |
| 7174 | UUGGAGACUUGGAAGCGAC | 7209 | UCAGGUGUGGGGCUGCCCG | 7244 | CCCCGCCUGUCCCGCUUCC | 7279 | CCAAUGGAACUAUCUGAUU |
| 7175 | UGGAGACUUGGAAGCGACC | 7210 | CAGGUGUGGGGCUGCCCGA | 7245 | CCCGCCUGUCCCGCUUCCG | 7280 | CAAUGGAACUAUCUGAUUC |

**FIG. 6 (sheet 339 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7281 | AAUGGAACUAUCUGAUUCU | 7316 | UGGCCGACUUGGCGGACGC | 7351 | ACACCAUCCAUUGAAGGCC | 7386 | UACUAGCAGCCAACACGAU |
| 7282 | AUGGAACUAUCUGAUUCUA | 7317 | GGCCGACUUGGCGGACGCC | 7352 | CACCAUCCAUUGAAGGCCA | 7387 | ACUAGCAGCCAACACGAUU |
| 7283 | UGGAACUAUCUGAUUCUAC | 7318 | GCCGACUUGGCGGACGCCA | 7353 | ACCAUCCAUUGAAGGCCAG | 7388 | CUAGCAGCCAACACGAUUC |
| 7284 | GGAACUAUCUGAUUCUACC | 7319 | CCGACUUGGCGGACGCCAG | 7354 | CCAUCCAUUGAAGGCCAGG | 7389 | UAGCAGCCAACACGAUUCG |
| 7285 | GAACUAUCUGAUUCUACCG | 7320 | CGACUUGGCGGACGCCAGG | 7355 | CAUCCAUUGAAGGCCAGGA | 7390 | AGCAGCCAACACGAUUCGG |
| 7286 | AACUAUCUGAUUCUACCGU | 7321 | GACUUGGCGGACGCCAGGU | 7356 | AUCCAUUGAAGGCCAGGAU | 7391 | GCAGCCAACACGAUUCGGG |
| 7287 | ACUAUCUGAUUCUACCGUG | 7322 | ACUUGGCGGACGCCAGGUU | 7357 | UCCAUUGAAGGCCAGGAUU | 7392 | CAGCCAACACGAUUCGGGG |
| 7288 | CUAUCUGAUUCUACCGUGU | 7323 | CUUGGCGGACGCCAGGUUC | 7358 | CCAUUGAAGGCCAGGAUUC | 7393 | AGCCAACACGAUUCGGGGC |
| 7289 | UAUCUGAUUCUACCGUGUC | 7324 | UUGGCGGACGCCAGGUUCA | 7359 | CAUUGAAGGCCAGGAUUCU | 7394 | GCCAACACGAUUCGGGGCC |
| 7290 | AUCUGAUUCUACCGUGUCC | 7325 | UGGCGGACGCCAGGUUCAA | 7360 | AUUGAAGGCCAGGAUUCUG | 7395 | CCAACACGAUUCGGGGCCU |
| 7291 | UCUGAUUCUACCGUGUCCC | 7326 | GGCGGACGCCAGGUUCAAG | 7361 | UUGAAGGCCAGGAUUCUGC | 7396 | CAACACGAUUCGGGGCCUG |
| 7292 | CUGAUUCUACCGUGUCCCA | 7327 | GCGGACGCCAGGUUCAAGG | 7362 | UGAAGGCCAGGAUUCUGCG | 7397 | AACACGAUUCGGGGCCUGA |
| 7293 | UGAUUCUACCGUGUCCCAA | 7328 | CGGACGCCAGGUUCAAGGU | 7363 | GAAGGCCAGGAUUCUGCGU | 7398 | ACACGAUUCGGGGCCUGAG |
| 7294 | GAUUCUACCGUGUCCCAAG | 7329 | GGACGCCAGGUUCAAGGUC | 7364 | AAGGCCAGGAUUCUGCGUU | 7399 | CACGAUUCGGGGCCUGAGG |
| 7295 | AUUCUACCGUGUCCCAAGU | 7330 | GACGCCAGGUUCAAGGUCG | 7365 | AGGCCAGGAUUCUGCGUUG | 7400 | ACGAUUCGGGGCCUGAGGA |
| 7296 | UUCUACCGUGUCCCAAGUC | 7331 | ACGCCAGGUUCAAGGUCGA | 7366 | GGCCAGGAUUCUGCGUUGG | 7401 | CGAUUCGGGGCCUGAGGAG |
| 7297 | UCUACCGUGUCCCAAGUCA | 7332 | CGCCAGGUUCAAGGUCGAC | 7367 | GCCAGGAUUCUGCGUUGGG | 7402 | GAUUCGGGGCCUGAGGAGA |
| 7298 | CUACCGUGUCCCAAGUCAU | 7333 | GCCAGGUUCAAGGUCGACA | 7368 | CCAGGAUUCUGCGUUGGGU | 7403 | AUUCGGGGCCUGAGGAGAA |
| 7299 | UACCGUGUCCCAAGUCAUG | 7334 | CCAGGUUCAAGGUCGACAC | 7369 | CAGGAUUCUGCGUUGGGUA | 7404 | UUCGGGGCCUGAGGAGAAG |
| 7300 | ACCGUGUCCCAAGUCAUGG | 7335 | CAGGUUCAAGGUCGACACA | 7370 | AGGAUUCUGCGUUGGGUAC | 7405 | UCGGGGCCUGAGGAGAAGC |
| 7301 | CCGUGUCCCAAGUCAUGGC | 7336 | AGGUUCAAGGUCGACACAC | 7371 | GGAUUCUGCGUUGGGUACU | 7406 | CGGGGCCUGAGGAGAAGCG |
| 7302 | CGUGUCCCAAGUCAUGGCC | 7337 | GGUUCAAGGUCGACACACC | 7372 | GAUUCUGCGUUGGGUACUA | 7407 | GGGGCCUGAGGAGAAGCGU |
| 7303 | GUGUCCCAAGUCAUGGCCG | 7338 | GUUCAAGGUCGACACACCA | 7373 | AUUCUGCGUUGGGUACUAG | 7408 | GGGCCUGAGGAGAAGCGUG |
| 7304 | UGUCCCAAGUCAUGGCCGA | 7339 | UUCAAGGUCGACACACCAU | 7374 | UUCUGCGUUGGGUACUAGC | 7409 | GGCCUGAGGAGAAGCGUGA |
| 7305 | GUCCCAAGUCAUGGCCGAC | 7340 | UCAAGGUCGACACACCAUC | 7375 | UCUGCGUUGGGUACUAGCA | 7410 | GCCUGAGGAGAAGCGUGAU |
| 7306 | UCCCAAGUCAUGGCCGACU | 7341 | CAAGGUCGACACACCAUCC | 7376 | CUGCGUUGGGUACUAGCAG | 7411 | CCUGAGGAGAAGCGUGAUG |
| 7307 | CCCAAGUCAUGGCCGACUU | 7342 | AAGGUCGACACACCAUCCA | 7377 | UGCGUUGGGUACUAGCAGC | 7412 | CUGAGGAGAAGCGUGAUGA |
| 7308 | CCAAGUCAUGGCCGACUUG | 7343 | AGGUCGACACACCAUCCAU | 7378 | GCGUUGGGUACUAGCAGCC | 7413 | UGAGGAGAAGCGUGAUGAC |
| 7309 | CAAGUCAUGGCCGACUUGG | 7344 | GGUCGACACACCAUCCAUU | 7379 | CGUUGGGUACUAGCAGCCA | 7414 | GAGGAGAAGCGUGAUGACA |
| 7310 | AAGUCAUGGCCGACUUGGC | 7345 | GUCGACACACCAUCCAUUG | 7380 | GUUGGGUACUAGCAGCCAA | 7415 | AGGAGAAGCGUGAUGACAA |
| 7311 | AGUCAUGGCCGACUUGGCG | 7346 | UCGACACACCAUCCAUUGA | 7381 | UUGGGUACUAGCAGCCAAC | 7416 | GGAGAAGCGUGAUGACAAC |
| 7312 | GUCAUGGCCGACUUGGCGG | 7347 | CGACACACCAUCCAUUGAA | 7382 | UGGGUACUAGCAGCCAACA | 7417 | GAGAAGCGUGAUGACAACU |
| 7313 | UCAUGGCCGACUUGGCGGA | 7348 | GACACACCAUCCAUUGAAG | 7383 | GGGUACUAGCAGCCAACAC | 7418 | AGAAGCGUGAUGACAACUC |
| 7314 | CAUGGCCGACUUGGCGGAC | 7349 | ACACACCAUCCAUUGAAGG | 7384 | GGUACUAGCAGCCAACACG | 7419 | GAAGCGUGAUGACAACUCG |
| 7315 | AUGGCCGACUUGGCGGACG | 7350 | CACACCAUCCAUUGAAGGC | 7385 | GUACUAGCAGCCAACACGA | 7420 | AAGCGUGAUGACAACUCGG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7421 | AGCGUGAUGACAACUCGGA | 7456 | UCCAUGCCUCCGCUAGAGG | 7491 | UGACCUUUCGUCAGGGUCA | 7526 | GUGAGGACAACGUGGUGUG |
| 7422 | GCGUGAUGACAACUCGGAC | 7457 | CCAUGCCUCCGCUAGAGGG | 7492 | GACCUUUCGUCAGGGUCAU | 7527 | UGAGGACAACGUGGUGUGU |
| 7423 | CGUGAUGACAACUCGGACG | 7458 | CAUGCCUCCGCUAGAGGGC | 7493 | ACCUUUCGUCAGGGUCAUG | 7528 | GAGGACAACGUGGUGUGUU |
| 7424 | GUGAUGACAACUCGGACGC | 7459 | AUGCCUCCGCUAGAGGGCG | 7494 | CCUUUCGUCAGGGUCAUGG | 7529 | AGGACAACGUGGUGUGUUG |
| 7425 | UGAUGACAACUCGGACGCG | 7460 | UGCCUCCGCUAGAGGGCGA | 7495 | CUUUCGUCAGGGUCAUGGU | 7530 | GGACAACGUGGUGUGUUGC |
| 7426 | GAUGACAACUCGGACGCGG | 7461 | GCCUCCGCUAGAGGGCGAA | 7496 | UUUCGUCAGGGUCAUGGUC | 7531 | GACAACGUGGUGUGUUGCU |
| 7427 | AUGACAACUCGGACGCGGC | 7462 | CCUCCGCUAGAGGGCGAAC | 7497 | UUCGUCAGGGUCAUGGUCA | 7532 | ACAACGUGGUGUGUUGCUC |
| 7428 | UGACAACUCGGACGCGGCU | 7463 | CUCCGCUAGAGGGCGAACC | 7498 | UCGUCAGGGUCAUGGUCAA | 7533 | CAACGUGGUGUGUUGCUCC |
| 7429 | GACAACUCGGACGCGGCUU | 7464 | UCCGCUAGAGGGCGAACCU | 7499 | CGUCAGGGUCAUGGUCAAC | 7534 | AACGUGGUGUGUUGCUCCA |
| 7430 | ACAACUCGGACGCGGCUUC | 7465 | CCGCUAGAGGGCGAACCUG | 7500 | GUCAGGGUCAUGGUCAACC | 7535 | ACGUGGUGUGUUGCUCCAU |
| 7431 | CAACUCGGACGCGGCUUCA | 7466 | CGCUAGAGGGCGAACCUGG | 7501 | UCAGGGUCAUGGUCAACCG | 7536 | CGUGGUGUGUUGCUCCAUG |
| 7432 | AACUCGGACGCGGCUUCAU | 7467 | GCUAGAGGGCGAACCUGGG | 7502 | CAGGGUCAUGGUCAACCGU | 7537 | GUGGUGUGUUGCUCCAUGU |
| 7433 | ACUCGGACGCGGCUUCAUA | 7468 | CUAGAGGGCGAACCUGGGG | 7503 | AGGGUCAUGGUCAACCGUC | 7538 | UGGUGUGUUGCUCCAUGUC |
| 7434 | CUCGGACGCGGCUUCAUAU | 7469 | UAGAGGGCGAACCUGGGGA | 7504 | GGGUCAUGGUCAACCGUCA | 7539 | GGUGUGUUGCUCCAUGUCA |
| 7435 | UCGGACGCGGCUUCAUAUU | 7470 | AGAGGGCGAACCUGGGGAC | 7505 | GGUCAUGGUCAACCGUCAG | 7540 | GUGUGUUGCUCCAUGUCAU |
| 7436 | CGGACGCGGCUUCAUAUUC | 7471 | GAGGGCGAACCUGGGGACC | 7506 | GUCAUGGUCAACCGUCAGC | 7541 | UGUGUUGCUCCAUGUCAUA |
| 7437 | GGACGCGGCUUCAUAUUCU | 7472 | AGGGCGAACCUGGGGACCC | 7507 | UCAUGGUCAACCGUCAGCG | 7542 | GUGUUGCUCCAUGUCAUAC |
| 7438 | GACGCGGCUUCAUAUUCUU | 7473 | GGGCGAACCUGGGGACCCU | 7508 | CAUGGUCAACCGUCAGCGG | 7543 | UGUUGCUCCAUGUCAUACA |
| 7439 | ACGCGGCUUCAUAUUCUUC | 7474 | GGCGAACCUGGGGACCCUG | 7509 | AUGGUCAACCGUCAGCGGU | 7544 | GUUGCUCCAUGUCAUACAC |
| 7440 | CGCGGCUUCAUAUUCUUCC | 7475 | GCGAACCUGGGGACCCUGA | 7510 | UGGUCAACCGUCAGCGGUG | 7545 | UUGCUCCAUGUCAUACACC |
| 7441 | GCGGCUUCAUAUUCUUCCA | 7476 | CGAACCUGGGGACCCUGAC | 7511 | GGUCAACCGUCAGCGGUGA | 7546 | UGCUCCAUGUCAUACACCU |
| 7442 | CGGCUUCAUAUUCUUCCAU | 7477 | GAACCUGGGGACCCUGACC | 7512 | GUCAACCGUCAGCGGUGAG | 7547 | GCUCCAUGUCAUACACCUG |
| 7443 | GGCUUCAUAUUCUUCCAUG | 7478 | AACCUGGGGACCCUGACCU | 7513 | UCAACCGUCAGCGGUGAGG | 7548 | CUCCAUGUCAUACACCUGG |
| 7444 | GCUUCAUAUUCUUCCAUGC | 7479 | ACCUGGGGACCCUGACCUU | 7514 | CAACCGUCAGCGGUGAGGA | 7549 | UCCAUGUCAUACACCUGGA |
| 7445 | CUUCAUAUUCUUCCAUGCC | 7480 | CCUGGGGACCCUGACCUUU | 7515 | AACCGUCAGCGGUGAGGAC | 7550 | CCAUGUCAUACACCUGGAC |
| 7446 | UUCAUAUUCUUCCAUGCCU | 7481 | CUGGGGACCCUGACCUUUC | 7516 | ACCGUCAGCGGUGAGGACA | 7551 | CAUGUCAUACACCUGGACU |
| 7447 | UCAUAUUCUUCCAUGCCUC | 7482 | UGGGGACCCUGACCUUUCG | 7517 | CCGUCAGCGGUGAGGACAA | 7552 | AUGUCAUACACCUGGACUG |
| 7448 | CAUAUUCUUCCAUGCCUCC | 7483 | GGGGACCCUGACCUUUCGU | 7518 | CGUCAGCGGUGAGGACAAC | 7553 | UGUCAUACACCUGGACUGG |
| 7449 | AUAUUCUUCCAUGCCUCCG | 7484 | GGGACCCUGACCUUUCGUC | 7519 | GUCAGCGGUGAGGACAACG | 7554 | GUCAUACACCUGGACUGGG |
| 7450 | UAUUCUUCCAUGCCUCCGC | 7485 | GGACCCUGACCUUUCGUCA | 7520 | UCAGCGGUGAGGACAACGU | 7555 | UCAUACACCUGGACUGGGG |
| 7451 | AUUCUUCCAUGCCUCCGCU | 7486 | GACCCUGACCUUUCGUCAG | 7521 | CAGCGGUGAGGACAACGUG | 7556 | CAUACACCUGGACUGGGGC |
| 7452 | UUCUUCCAUGCCUCCGCUA | 7487 | ACCCUGACCUUUCGUCAGG | 7522 | AGCGGUGAGGACAACGUGG | 7557 | AUACACCUGGACUGGGGCG |
| 7453 | UCUUCCAUGCCUCCGCUAG | 7488 | CCCUGACCUUUCGUCAGGG | 7523 | GCGGUGAGGACAACGUGGU | 7558 | UACACCUGGACUGGGGCGC |
| 7454 | CUUCCAUGCCUCCGCUAGA | 7489 | CCUGACCUUUCGUCAGGGU | 7524 | CGGUGAGGACAACGUGGUG | 7559 | ACACCUGGACUGGGGCGCU |
| 7455 | UUCCAUGCCUCCGCUAGAG | 7490 | CUGACCUUUCGUCAGGGUC | 7525 | GGUGAGGACAACGUGGUGU | 7560 | CACCUGGACUGGGGCGCUC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7561 | ACCUGGACUGGGGCGCUCA | 7596 | UGAAGAGGAAAAAUUACCC | 7631 | ACACCUUAUUACGCCACCA | 7666 | ACCUCCUCUCGGAGUGCGG |
| 7562 | CCUGGACUGGGGCGCUCAU | 7597 | GAAGAGGAAAAAUUACCCA | 7632 | CACCUUAUUACGCCACCAC | 7667 | CCUCCUCUCGGAGUGCGGG |
| 7563 | CUGGACUGGGGCGCUCAUC | 7598 | AAGAGGAAAAAUUACCCAU | 7633 | ACCUUAUUACGCCACCACA | 7668 | CUCCUCUCGGAGUGCGGGU |
| 7564 | UGGACUGGGGCGCUCAUCA | 7599 | AGAGGAAAAAUUACCCAUC | 7634 | CCUUAUUACGCCACCACAA | 7669 | UCCUCUCGGAGUGCGGGUC |
| 7565 | GGACUGGGGCGCUCAUCAC | 7600 | GAGGAAAAAUUACCCAUCA | 7635 | CUUAUUACGCCACCACAAU | 7670 | CCUCUCGGAGUGCGGGUCU |
| 7566 | GACUGGGGCGCUCAUCACC | 7601 | AGGAAAAAUUACCCAUCAA | 7636 | UUAUUACGCCACCACAAUC | 7671 | CUCUCGGAGUGCGGGUCUG |
| 7567 | ACUGGGGCGCUCAUCACCC | 7602 | GGAAAAAUUACCCAUCAAU | 7637 | UAUUACGCCACCACAAUCU | 7672 | UCUCGGAGUGCGGGUCUGA |
| 7568 | CUGGGGCGCUCAUCACCCC | 7603 | GAAAAAUUACCCAUCAAUC | 7638 | AUUACGCCACCACAAUCUU | 7673 | CUCGGAGUGCGGGUCUGAG |
| 7569 | UGGGGCGCUCAUCACCCCU | 7604 | AAAAAUUACCCAUCAAUCC | 7639 | UUACGCCACCACAAUCUUG | 7674 | UCGGAGUGCGGGUCUGAGG |
| 7570 | GGGGCGCUCAUCACCCCUU | 7605 | AAAAUUACCCAUCAAUCCC | 7640 | UACGCCACCACAAUCUUGU | 7675 | CGGAGUGCGGGUCUGAGGC |
| 7571 | GGGCGCUCAUCACCCCUUG | 7606 | AAAUUACCCAUCAAUCCCU | 7641 | ACGCCACCACAAUCUUGUG | 7676 | GGAGUGCGGGUCUGAGGCA |
| 7572 | GGCGCUCAUCACCCCUUGC | 7607 | AAUUACCCAUCAAUCCCUU | 7642 | CGCCACCACAAUCUUGUGU | 7677 | GAGUGCGGGUCUGAGGCAG |
| 7573 | GCGCUCAUCACCCCUUGCU | 7608 | AUUACCCAUCAAUCCCUUA | 7643 | GCCACCACAAUCUUGUGUA | 7678 | AGUGCGGGUCUGAGGCAGA |
| 7574 | CGCUCAUCACCCCUUGCUC | 7609 | UUACCCAUCAAUCCCUUAA | 7644 | CCACCACAAUCUUGUGUAC | 7679 | GUGCGGGUCUGAGGCAGAA |
| 7575 | GCUCAUCACCCCUUGCUCU | 7610 | UACCCAUCAAUCCCUUAAG | 7645 | CACCACAAUCUUGUGUACU | 7680 | UGCGGGUCUGAGGCAGAAA |
| 7576 | CUCAUCACCCCUUGCUCUG | 7611 | ACCCAUCAAUCCCUUAAGC | 7646 | ACCACAAUCUUGUGUACUC | 7681 | GCGGGUCUGAGGCAGAAAA |
| 7577 | UCAUCACCCCUUGCUCUGC | 7612 | CCCAUCAAUCCCUUAAGCA | 7647 | CCACAAUCUUGUGUACUCC | 7682 | CGGGUCUGAGGCAGAAAAA |
| 7578 | CAUCACCCCUUGCUCUGCU | 7613 | CCAUCAAUCCCUUAAGCAA | 7648 | CACAAUCUUGUGUACUCCA | 7683 | GGGUCUGAGGCAGAAAAAG |
| 7579 | AUCACCCCUUGCUCUGCUG | 7614 | CAUCAAUCCCUUAAGCAAC | 7649 | ACAAUCUUGUGUACUCCAC | 7684 | GGUCUGAGGCAGAAAAAGG |
| 7580 | UCACCCCUUGCUCUGCUGA | 7615 | AUCAAUCCCUUAAGCAACA | 7650 | CAAUCUUGUGUACUCCACC | 7685 | GUCUGAGGCAGAAAAAGGU |
| 7581 | CACCCCUUGCUCUGCUGAA | 7616 | UCAAUCCCUUAAGCAACAC | 7651 | AAUCUUGUGUACUCCACCU | 7686 | UCUGAGGCAGAAAAAGGUC |
| 7582 | ACCCCUUGCUCUGCUGAAG | 7617 | CAAUCCCUUAAGCAACACC | 7652 | AUCUUGUGUACUCCACCUC | 7687 | CUGAGGCAGAAAAAGGUCA |
| 7583 | CCCCUUGCUCUGCUGAAGA | 7618 | AAUCCCUUAAGCAACACCU | 7653 | UCUUGUGUACUCCACCUCC | 7688 | UGAGGCAGAAAAAGGUCAC |
| 7584 | CCCUUGCUCUGCUGAAGAG | 7619 | AUCCCUUAAGCAACACCUU | 7654 | CUUGUGUACUCCACCUCCU | 7689 | GAGGCAGAAAAAGGUCACU |
| 7585 | CCUUGCUCUGCUGAAGAGG | 7620 | UCCCUUAAGCAACACCUUA | 7655 | UUGUGUACUCCACCUCCUC | 7690 | AGGCAGAAAAAGGUCACUU |
| 7586 | CUUGCUCUGCUGAAGAGGA | 7621 | CCCUUAAGCAACACCUUAU | 7656 | UGUGUACUCCACCUCCUCU | 7691 | GGCAGAAAAAGGUCACUUU |
| 7587 | UUGCUCUGCUGAAGAGGAA | 7622 | CCUUAAGCAACACCUUAUU | 7657 | GUGUACUCCACCUCCUCUC | 7692 | GCAGAAAAAGGUCACUUUU |
| 7588 | UGCUCUGCUGAAGAGGAAA | 7623 | CUUAAGCAACACCUUAUUA | 7658 | UGUACUCCACCUCCUCUCG | 7693 | CAGAAAAAGGUCACUUUUG |
| 7589 | GCUCUGCUGAAGAGGAAAA | 7624 | UUAAGCAACACCUUAUUAC | 7659 | GUACUCCACCUCCUCUCGG | 7694 | AGAAAAAGGUCACUUUUGA |
| 7590 | CUCUGCUGAAGAGGAAAAA | 7625 | UAAGCAACACCUUAUUACG | 7660 | UACUCCACCUCCUCUCGGA | 7695 | GAAAAAGGUCACUUUUGAC |
| 7591 | UCUGCUGAAGAGGAAAAAU | 7626 | AAGCAACACCUUAUUACGC | 7661 | ACUCCACCUCCUCUCGGAG | 7696 | AAAAAGGUCACUUUUGACA |
| 7592 | CUGCUGAAGAGGAAAAAUU | 7627 | AGCAACACCUUAUUACGCC | 7662 | CUCCACCUCCUCUCGGAGU | 7697 | AAAAGGUCACUUUUGACAG |
| 7593 | UGCUGAAGAGGAAAAAUUA | 7628 | GCAACACCUUAUUACGCCA | 7663 | UCCACCUCCUCUCGGAGUG | 7698 | AAAGGUCACUUUUGACAGG |
| 7594 | GCUGAAGAGGAAAAAUUAC | 7629 | CAACACCUUAUUACGCCAC | 7664 | CCACCUCCUCUCGGAGUGC | 7699 | AAGGUCACUUUUGACAGGC |
| 7595 | CUGAAGAGGAAAAAUUACC | 7630 | AACACCUUAUUACGCCACC | 7665 | CACCUCCUCUCGGAGUGCG | 7700 | AGGUCACUUUUGACAGGCU |





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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7701 | GGUCACUUUUGACAGGCUA | 7736 | ACUACAGAGAGGUUGUGGA | 7771 | GCCUCCAAGGUUAAGGCCA | 7806 | GGAAGCCUGUGGGUUAACA |
| 7702 | GUCACUUUUGACAGGCUAC | 7737 | CUACAGAGAGGUUGUGGAC | 7772 | CCUCCAAGGUUAAGGCCAG | 7807 | GAAGCCUGUGGGUUAACAC |
| 7703 | UCACUUUUGACAGGCUACA | 7738 | UACAGAGAGGUUGUGGACG | 7773 | CUCCAAGGUUAAGGCCAGA | 7808 | AAGCCUGUGGGUUAACACC |
| 7704 | CACUUUUGACAGGCUACAA | 7739 | ACAGAGAGGUUGUGGACGA | 7774 | UCCAAGGUUAAGGCCAGAC | 7809 | AGCCUGUGGGUUAACACCA |
| 7705 | ACUUUUGACAGGCUACAAG | 7740 | CAGAGAGGUUGUGGACGAG | 7775 | CCAAGGUUAAGGCCAGACU | 7810 | GCCUGUGGGUUAACACCAC |
| 7706 | CUUUUGACAGGCUACAAGU | 7741 | AGAGAGGUUGUGGACGAGA | 7776 | CAAGGUUAAGGCCAGACUA | 7811 | CCUGUGGGUUAACACCACC |
| 7707 | UUUUGACAGGCUACAAGUC | 7742 | GAGAGGUUGUGGACGAGAU | 7777 | AAGGUUAAGGCCAGACUAC | 7812 | CUGUGGGUUAACACCACCC |
| 7708 | UUUGACAGGCUACAAGUCC | 7743 | AGAGGUUGUGGACGAGAUG | 7778 | AGGUUAAGGCCAGACUACU | 7813 | UGUGGGUUAACACCACCCC |
| 7709 | UUGACAGGCUACAAGUCCU | 7744 | GAGGUUGUGGACGAGAUGA | 7779 | GGUUAAGGCCAGACUACUG | 7814 | GUGGGUUAACACCACCCCA |
| 7710 | UGACAGGCUACAAGUCCUC | 7745 | AGGUUGUGGACGAGAUGAA | 7780 | GUUAAGGCCAGACUACUGC | 7815 | UGGGUUAACACCACCCCAC |
| 7711 | GACAGGCUACAAGUCCUCG | 7746 | GGUUGUGGACGAGAUGAAG | 7781 | UUAAGGCCAGACUACUGCC | 7816 | GGGUUAACACCACCCCACU |
| 7712 | ACAGGCUACAAGUCCUCGA | 7747 | GUUGUGGACGAGAUGAAGC | 7782 | UAAGGCCAGACUACUGCCC | 7817 | GGUUAACACCACCCCACUC |
| 7713 | CAGGCUACAAGUCCUCGAC | 7748 | UUGUGGACGAGAUGAAGCG | 7783 | AAGGCCAGACUACUGCCCC | 7818 | GUUAACACCACCCCACUCC |
| 7714 | AGGCUACAAGUCCUCGACG | 7749 | UGUGGACGAGAUGAAGCGA | 7784 | AGGCCAGACUACUGCCCCU | 7819 | UUAACACCACCCCACUCCG |
| 7715 | GGCUACAAGUCCUCGACGA | 7750 | GUGGACGAGAUGAAGCGAU | 7785 | GGCCAGACUACUGCCCCUA | 7820 | UAACACCACCCCACUCCGC |
| 7716 | GCUACAAGUCCUCGACGAC | 7751 | UGGACGAGAUGAAGCGAUU | 7786 | GCCAGACUACUGCCCCUAG | 7821 | AACACCACCCCACUCCGCC |
| 7717 | CUACAAGUCCUCGACGACC | 7752 | GGACGAGAUGAAGCGAUUA | 7787 | CCAGACUACUGCCCCUAGA | 7822 | ACACCACCCCACUCCGCCC |
| 7718 | UACAAGUCCUCGACGACCA | 7753 | GACGAGAUGAAGCGAUUAG | 7788 | CAGACUACUGCCCCUAGAG | 7823 | CACCACCCCACUCCGCCCG |
| 7719 | ACAAGUCCUCGACGACCAC | 7754 | ACGAGAUGAAGCGAUUAGC | 7789 | AGACUACUGCCCCUAGAGG | 7824 | ACCACCCCACUCCGCCCGU |
| 7720 | CAAGUCCUCGACGACCACU | 7755 | CGAGAUGAAGCGAUUAGCC | 7790 | GACUACUGCCCCUAGAGGA | 7825 | CCACCCCACUCCGCCCGUU |
| 7721 | AAGUCCUCGACGACCACUA | 7756 | GAGAUGAAGCGAUUAGCCU | 7791 | ACUACUGCCCCUAGAGGAA | 7826 | CACCCCACUCCGCCCGUUC |
| 7722 | AGUCCUCGACGACCACUAC | 7757 | AGAUGAAGCGAUUAGCCUC | 7792 | CUACUGCCCCUAGAGGAAG | 7827 | ACCCCACUCCGCCCGUUCC |
| 7723 | GUCCUCGACGACCACUACA | 7758 | GAUGAAGCGAUUAGCCUCC | 7793 | UACUGCCCCUAGAGGAAGC | 7828 | CCCCACUCCGCCCGUUCCA |
| 7724 | UCCUCGACGACCACUACAG | 7759 | AUGAAGCGAUUAGCCUCCA | 7794 | ACUGCCCCUAGAGGAAGCC | 7829 | CCCACUCCGCCCGUUCCAA |
| 7725 | CCUCGACGACCACUACAGA | 7760 | UGAAGCGAUUAGCCUCCAA | 7795 | CUGCCCCUAGAGGAAGCCU | 7830 | CCACUCCGCCCGUUCCAAG |
| 7726 | CUCGACGACCACUACAGAG | 7761 | GAAGCGAUUAGCCUCCAAG | 7796 | UGCCCCUAGAGGAAGCCUG | 7831 | CACUCCGCCCGUUCCAAGU |
| 7727 | UCGACGACCACUACAGAGA | 7762 | AAGCGAUUAGCCUCCAAGG | 7797 | GCCCCUAGAGGAAGCCUGU | 7832 | ACUCCGCCCGUUCCAAGUA |
| 7728 | CGACGACCACUACAGAGAG | 7763 | AGCGAUUAGCCUCCAAGGU | 7798 | CCCCUAGAGGAAGCCUGUG | 7833 | CUCCGCCCGUUCCAAGUAC |
| 7729 | GACGACCACUACAGAGAGG | 7764 | GCGAUUAGCCUCCAAGGUU | 7799 | CCCUAGAGGAAGCCUGUGG | 7834 | UCCGCCCGUUCCAAGUACG |
| 7730 | ACGACCACUACAGAGAGGU | 7765 | CGAUUAGCCUCCAAGGUUA | 7800 | CCUAGAGGAAGCCUGUGGG | 7835 | CCGCCCGUUCCAAGUACGG |
| 7731 | CGACCACUACAGAGAGGUU | 7766 | GAUUAGCCUCCAAGGUUAA | 7801 | CUAGAGGAAGCCUGUGGGU | 7836 | CGCCCGUUCCAAGUACGGA |
| 7732 | GACCACUACAGAGAGGUUG | 7767 | AUUAGCCUCCAAGGUUAAG | 7802 | UAGAGGAAGCCUGUGGGUU | 7837 | GCCCGUUCCAAGUACGGAU |
| 7733 | ACCACUACAGAGAGGUUGU | 7768 | UUAGCCUCCAAGGUUAAGG | 7803 | AGAGGAAGCCUGUGGGUUA | 7838 | CCCGUUCCAAGUACGGAUA |
| 7734 | CCACUACAGAGAGGUUGUG | 7769 | UAGCCUCCAAGGUUAAGGC | 7804 | GAGGAAGCCUGUGGGUUAA | 7839 | CCGUUCCAAGUACGGAUAC |
| 7735 | CACUACAGAGAGGUUGUGG | 7770 | AGCCUCCAAGGUUAAGGCC | 7805 | AGGAAGCCUGUGGGUUAAC | 7840 | CGUUCCAAGUACGGAUACG |



FIG. 6 (sheet 343 of 479)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7841 | GUUCCAAGUACGGAUACGG | 7876 | UCUCUCGACAAGAAAGCCC | 7911 | UGUGUGGCAAGACUUAUUG | 7946 | CAUUGCCGACAACCAUCAU |
| 7842 | UUCCAAGUACGGAUACGGC | 7877 | CUCUCGACAAGAAAGCCCU | 7912 | GUGUGGCAAGACUUAUUGG | 7947 | AUUGCCGACAACCAUCAUG |
| 7843 | UCCAAGUACGGAUACGGCG | 7878 | UCUCGACAAGAAAGCCCUU | 7913 | UGUGGCAAGACUUAUUGGA | 7948 | UUGCCGACAACCAUCAUGG |
| 7844 | CCAAGUACGGAUACGGCGC | 7879 | CUCGACAAGAAAGCCCUUA | 7914 | GUGGCAAGACUUAUUGGAU | 7949 | UGCCGACAACCAUCAUGGC |
| 7845 | CAAGUACGGAUACGGCGCG | 7880 | UCGACAAGAAAGCCCUUAA | 7915 | UGGCAAGACUUAUUGGAUG | 7950 | GCCGACAACCAUCAUGGCA |
| 7846 | AAGUACGGAUACGGCGCGA | 7881 | CGACAAGAAAGCCCUUAAG | 7916 | GGCAAGACUUAUUGGAUGA | 7951 | CCGACAACCAUCAUGGCAA |
| 7847 | AGUACGGAUACGGCGCGAA | 7882 | GACAAGAAAGCCCUUAAGC | 7917 | GCAAGACUUAUUGGAUGAC | 7952 | CGACAACCAUCAUGGCAAA |
| 7848 | GUACGGAUACGGCGCGAAG | 7883 | ACAAGAAAGCCCUUAAGCA | 7918 | CAAGACUUAUUGGAUGACU | 7953 | GACAACCAUCAUGGCAAAA |
| 7849 | UACGGAUACGGCGCGAAGG | 7884 | CAAGAAAGCCCUUAAGCAC | 7919 | AAGACUUAUUGGAUGACUC | 7954 | ACAACCAUCAUGGCAAAAA |
| 7850 | ACGGAUACGGCGCGAAGGA | 7885 | AAGAAAGCCCUUAAGCACA | 7920 | AGACUUAUUGGAUGACUCU | 7955 | CAACCAUCAUGGCAAAAAA |
| 7851 | CGGAUACGGCGCGAAGGAA | 7886 | AGAAAGCCCUUAAGCACAU | 7921 | GACUUAUUGGAUGACUCUG | 7956 | AACCAUCAUGGCAAAAAAC |
| 7852 | GGAUACGGCGCGAAGGAAG | 7887 | GAAAGCCCUUAAGCACAUA | 7922 | ACUUAUUGGAUGACUCUGA | 7957 | ACCAUCAUGGCAAAAAACG |
| 7853 | GAUACGGCGCGAAGGAAGU | 7888 | AAAGCCCUUAAGCACAUAG | 7923 | CUUAUUGGAUGACUCUGAU | 7958 | CCAUCAUGGCAAAAAACGA |
| 7854 | AUACGGCGCGAAGGAAGUU | 7889 | AAGCCCUUAAGCACAUAGA | 7924 | UUAUUGGAUGACUCUGAUA | 7959 | CAUCAUGGCAAAAAACGAA |
| 7855 | UACGGCGCGAAGGAAGUUC | 7890 | AGCCCUUAAGCACAUAGAG | 7925 | UAUUGGAUGACUCUGAUAC | 7960 | AUCAUGGCAAAAAACGAAG |
| 7856 | ACGGCGCGAAGGAAGUUCG | 7891 | GCCCUUAAGCACAUAGAGG | 7926 | AUUGGAUGACUCUGAUACC | 7961 | UCAUGGCAAAAAACGAAGU |
| 7857 | CGGCGCGAAGGAAGUUCGC | 7892 | CCCUUAAGCACAUAGAGGG | 7927 | UUGGAUGACUCUGAUACCC | 7962 | CAUGGCAAAAAACGAAGUG |
| 7858 | GGCGCGAAGGAAGUUCGCU | 7893 | CCUUAAGCACAUAGAGGGU | 7928 | UGGAUGACUCUGAUACCCC | 7963 | AUGGCAAAAAACGAAGUGU |
| 7859 | GCGCGAAGGAAGUUCGCUC | 7894 | CUUAAGCACAUAGAGGGUG | 7929 | GGAUGACUCUGAUACCCCA | 7964 | UGGCAAAAAACGAAGUGUU |
| 7860 | CGCGAAGGAAGUUCGCUCU | 7895 | UUAAGCACAUAGAGGGUGU | 7930 | GAUGACUCUGAUACCCCAU | 7965 | GGCAAAAAACGAAGUGUUC |
| 7861 | GCGAAGGAAGUUCGCUCUC | 7896 | UAAGCACAUAGAGGGUGUG | 7931 | AUGACUCUGAUACCCCAUU | 7966 | GCAAAAAACGAAGUGUUCG |
| 7862 | CGAAGGAAGUUCGCUCUCU | 7897 | AAGCACAUAGAGGGUGUGU | 7932 | UGACUCUGAUACCCCAUUG | 7967 | CAAAAAACGAAGUGUUCGC |
| 7863 | GAAGGAAGUUCGCUCUCUC | 7898 | AGCACAUAGAGGGUGUGUG | 7933 | GACUCUGAUACCCCAUUGC | 7968 | AAAAAACGAAGUGUUCGCA |
| 7864 | AAGGAAGUUCGCUCUCUCG | 7899 | GCACAUAGAGGGUGUGUGG | 7934 | ACUCUGAUACCCCAUUGCC | 7969 | AAAAACGAAGUGUUCGCAG |
| 7865 | AGGAAGUUCGCUCUCUCGA | 7900 | CACAUAGAGGGUGUGUGGC | 7935 | CUCUGAUACCCCAUUGCCG | 7970 | AAAACGAAGUGUUCGCAGU |
| 7866 | GGAAGUUCGCUCUCUCGAC | 7901 | ACAUAGAGGGUGUGUGGCA | 7936 | UCUGAUACCCCAUUGCCGA | 7971 | AAACGAAGUGUUCGCAGUG |
| 7867 | GAAGUUCGCUCUCUCGACA | 7902 | CAUAGAGGGUGUGUGGCAA | 7937 | CUGAUACCCCAUUGCCGAC | 7972 | AACGAAGUGUUCGCAGUGG |
| 7868 | AAGUUCGCUCUCUCGACAA | 7903 | AUAGAGGGUGUGUGGCAAG | 7938 | UGAUACCCCAUUGCCGACA | 7973 | ACGAAGUGUUCGCAGUGGA |
| 7869 | AGUUCGCUCUCUCGACAAG | 7904 | UAGAGGGUGUGUGGCAAGA | 7939 | GAUACCCCAUUGCCGACAA | 7974 | CGAAGUGUUCGCAGUGGAG |
| 7870 | GUUCGCUCUCUCGACAAGA | 7905 | AGAGGGUGUGUGGCAAGAC | 7940 | AUACCCCAUUGCCGACAAC | 7975 | GAAGUGUUCGCAGUGGAGC |
| 7871 | UUCGCUCUCUCGACAAGAA | 7906 | GAGGGUGUGUGGCAAGACU | 7941 | UACCCCAUUGCCGACAACC | 7976 | AAGUGUUCGCAGUGGAGCC |
| 7872 | UCGCUCUCUCGACAAGAAA | 7907 | AGGGUGUGUGGCAAGACUU | 7942 | ACCCCAUUGCCGACAACCA | 7977 | AGUGUUCGCAGUGGAGCCG |
| 7873 | CGCUCUCUCGACAAGAAAG | 7908 | GGGUGUGUGGCAAGACUUA | 7943 | CCCCAUUGCCGACAACCAU | 7978 | GUGUUCGCAGUGGAGCCGU |
| 7874 | GCUCUCUCGACAAGAAAGC | 7909 | GGUGUGUGGCAAGACUUAU | 7944 | CCCAUUGCCGACAACCAUC | 7979 | UGUUCGCAGUGGAGCCGUC |
| 7875 | CUCUCUCGACAAGAAAGCC | 7910 | GUGUGUGGCAAGACUUAUU | 7945 | CCAUUGCCGACAACCAUCA | 7980 | GUUCGCAGUGGAGCCGUCU |

**FIG. 6 (sheet 344 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7981 | UUCGCAGUGGAGCCGUCUA | 8016 | UGCACGGCUGAUAGUCUAC | 8051 | GCGUCUGCGAGAAGCGGGC | 8086 | CAAAAACUGCCGACAGCCC |
| 7982 | UCGCAGUGGAGCCGUCUAA | 8017 | GCACGGCUGAUAGUCUACC | 8052 | CGUCUGCGAGAAGCGGGCU | 8087 | AAAAACUGCCGACAGCCCU |
| 7983 | CGCAGUGGAGCCGUCUAAG | 8018 | CACGGCUGAUAGUCUACCC | 8053 | GUCUGCGAGAAGCGGGCUU | 8088 | AAAACUGCCGACAGCCCUU |
| 7984 | GCAGUGGAGCCGUCUAAGG | 8019 | ACGGCUGAUAGUCUACCCC | 8054 | UCUGCGAGAAGCGGGCUUU | 8089 | AAACUGCCGACAGCCCUUA |
| 7985 | CAGUGGAGCCGUCUAAGGG | 8020 | CGGCUGAUAGUCUACCCCG | 8055 | CUGCGAGAAGCGGGCUUUG | 8090 | AACUGCCGACAGCCCUUAU |
| 7986 | AGUGGAGCCGUCUAAGGGG | 8021 | GGCUGAUAGUCUACCCCGA | 8056 | UGCGAGAAGCGGGCUUUGU | 8091 | ACUGCCGACAGCCCUUAUG |
| 7987 | GUGGAGCCGUCUAAGGGGG | 8022 | GCUGAUAGUCUACCCCGAC | 8057 | GCGAGAAGCGGGCUUUGUA | 8092 | CUGCCGACAGCCCUUAUGG |
| 7988 | UGGAGCCGUCUAAGGGGGG | 8023 | CUGAUAGUCUACCCCGACC | 8058 | CGAGAAGCGGGCUUUGUAC | 8093 | UGCCGACAGCCCUUAUGGG |
| 7989 | GGAGCCGUCUAAGGGGGGG | 8024 | UGAUAGUCUACCCCGACCU | 8059 | GAGAAGCGGGCUUUGUACG | 8094 | GCCGACAGCCCUUAUGGGG |
| 7990 | GAGCCGUCUAAGGGGGGGA | 8025 | GAUAGUCUACCCCGACCUU | 8060 | AGAAGCGGGCUUUGUACGA | 8095 | CCGACAGCCCUUAUGGGGC |
| 7991 | AGCCGUCUAAGGGGGGGAA | 8026 | AUAGUCUACCCCGACCUUG | 8061 | GAAGCGGGCUUUGUACGAC | 8096 | CGACAGCCCUUAUGGGGCC |
| 7992 | GCCGUCUAAGGGGGGGAAG | 8027 | UAGUCUACCCCGACCUUGG | 8062 | AAGCGGGCUUUGUACGACG | 8097 | GACAGCCCUUAUGGGGCCC |
| 7993 | CCGUCUAAGGGGGGGAAGA | 8028 | AGUCUACCCCGACCUUGGA | 8063 | AGCGGGCUUUGUACGACGU | 8098 | ACAGCCCUUAUGGGGCCCU |
| 7994 | CGUCUAAGGGGGGGAAGAA | 8029 | GUCUACCCCGACCUUGGAG | 8064 | GCGGGCUUUGUACGACGUA | 8099 | CAGCCCUUAUGGGGCCCUC |
| 7995 | GUCUAAGGGGGGGAAGAAG | 8030 | UCUACCCCGACCUUGGAGU | 8065 | CGGGCUUUGUACGACGUAG | 8100 | AGCCCUUAUGGGGCCCUCG |
| 7996 | UCUAAGGGGGGGAAGAAGC | 8031 | CUACCCCGACCUUGGAGUC | 8066 | GGGCUUUGUACGACGUAGC | 8101 | GCCCUUAUGGGGCCCUCGU |
| 7997 | CUAAGGGGGGGAAGAAGCC | 8032 | UACCCCGACCUUGGAGUCC | 8067 | GGCUUUGUACGACGUAGCU | 8102 | CCCUUAUGGGGCCCUCGUA |
| 7998 | UAAGGGGGGGAAGAAGCCU | 8033 | ACCCCGACCUUGGAGUCCG | 8068 | GCUUUGUACGACGUAGCUC | 8103 | CCUUAUGGGGCCCUCGUAU |
| 7999 | AAGGGGGGGAAGAAGCCUG | 8034 | CCCCGACCUUGGAGUCCGC | 8069 | CUUUGUACGACGUAGCUCA | 8104 | CUUAUGGGGCCCUCGUAUG |
| 8000 | AGGGGGGGAAGAAGCCUGC | 8035 | CCCGACCUUGGAGUCCGCG | 8070 | UUUGUACGACGUAGCUCAA | 8105 | UUAUGGGGCCCUCGUAUGG |
| 8001 | GGGGGGGAAGAAGCCUGCA | 8036 | CCGACCUUGGAGUCCGCGU | 8071 | UUGUACGACGUAGCUCAAA | 8106 | UAUGGGGCCCUCGUAUGGG |
| 8002 | GGGGGGAAGAAGCCUGCAC | 8037 | CGACCUUGGAGUCCGCGUC | 8072 | UGUACGACGUAGCUCAAAA | 8107 | AUGGGGCCCUCGUAUGGGU |
| 8003 | GGGGGAAGAAGCCUGCACG | 8038 | GACCUUGGAGUCCGCGUCU | 8073 | GUACGACGUAGCUCAAAAA | 8108 | UGGGGCCCUCGUAUGGGUU |
| 8004 | GGGGAAGAAGCCUGCACGG | 8039 | ACCUUGGAGUCCGCGUCUG | 8074 | UACGACGUAGCUCAAAAAC | 8109 | GGGGCCCUCGUAUGGGUUU |
| 8005 | GGGAAGAAGCCUGCACGGC | 8040 | CCUUGGAGUCCGCGUCUGC | 8075 | ACGACGUAGCUCAAAAACU | 8110 | GGGCCCUCGUAUGGGUUUC |
| 8006 | GGAAGAAGCCUGCACGGCU | 8041 | CUUGGAGUCCGCGUCUGCG | 8076 | CGACGUAGCUCAAAAACUG | 8111 | GGCCCUCGUAUGGGUUUCA |
| 8007 | GAAGAAGCCUGCACGGCUG | 8042 | UUGGAGUCCGCGUCUGCGA | 8077 | GACGUAGCUCAAAAACUGC | 8112 | GCCCUCGUAUGGGUUUCAG |
| 8008 | AAGAAGCCUGCACGGCUGA | 8043 | UGGAGUCCGCGUCUGCGAG | 8078 | ACGUAGCUCAAAAACUGCC | 8113 | CCCUCGUAUGGGUUUCAGU |
| 8009 | AGAAGCCUGCACGGCUGAU | 8044 | GGAGUCCGCGUCUGCGAGA | 8079 | CGUAGCUCAAAAACUGCCG | 8114 | CCUCGUAUGGGUUUCAGUA |
| 8010 | GAAGCCUGCACGGCUGAUA | 8045 | GAGUCCGCGUCUGCGAGAA | 8080 | GUAGCUCAAAAACUGCCGA | 8115 | CUCGUAUGGGUUUCAGUAC |
| 8011 | AAGCCUGCACGGCUGAUAG | 8046 | AGUCCGCGUCUGCGAGAAG | 8081 | UAGCUCAAAAACUGCCGAC | 8116 | UCGUAUGGGUUUCAGUACU |
| 8012 | AGCCUGCACGGCUGAUAGU | 8047 | GUCCGCGUCUGCGAGAAGC | 8082 | AGCUCAAAAACUGCCGACA | 8117 | CGUAUGGGUUUCAGUACUC |
| 8013 | GCCUGCACGGCUGAUAGUC | 8048 | UCCGCGUCUGCGAGAAGCG | 8083 | GCUCAAAAACUGCCGACAG | 8118 | GUAUGGGUUUCAGUACUCC |
| 8014 | CCUGCACGGCUGAUAGUCU | 8049 | CCGCGUCUGCGAGAAGCGG | 8084 | CUCAAAAACUGCCGACAGC | 8119 | UAUGGGUUUCAGUACUCCC |
| 8015 | CUGCACGGCUGAUAGUCUA | 8050 | CGCGUCUGCGAGAAGCGGG | 8085 | UCAAAAACUGCCGACAGCC | 8120 | AUGGGUUUCAGUACUCCCC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8121 | UGGGUUUCAGUACUCCCCA | 8156 | UCUUACUGAAGGCGUGGAA | 8191 | AUGGCUUUCUCCUAUGACA | 8226 | GACCAUUACCGAACAUGAC |
| 8122 | GGGUUUCAGUACUCCCCAG | 8157 | CUUACUGAAGGCGUGGAAA | 8192 | UGGCUUUCUCCUAUGACAC | 8227 | ACCAUUACCGAACAUGACA |
| 8123 | GGUUUCAGUACUCCCCAGC | 8158 | UUACUGAAGGCGUGGAAAU | 8193 | GGCUUUCUCCUAUGACACC | 8228 | CCAUUACCGAACAUGACAU |
| 8124 | GUUUCAGUACUCCCCAGCG | 8159 | UACUGAAGGCGUGGAAAUC | 8194 | GCUUUCUCCUAUGACACCC | 8229 | CAUUACCGAACAUGACAUA |
| 8125 | UUUCAGUACUCCCCAGCGC | 8160 | ACUGAAGGCGUGGAAAUCU | 8195 | CUUUCUCCUAUGACACCCG | 8230 | AUUACCGAACAUGACAUAA |
| 8126 | UUCAGUACUCCCCAGCGCA | 8161 | CUGAAGGCGUGGAAAUCUA | 8196 | UUUCUCCUAUGACACCCGC | 8231 | UUACCGAACAUGACAUAAU |
| 8127 | UCAGUACUCCCCAGCGCAG | 8162 | UGAAGGCGUGGAAAUCUAA | 8197 | UUCUCCUAUGACACCCGCU | 8232 | UACCGAACAUGACAUAAUG |
| 8128 | CAGUACUCCCCAGCGCAGC | 8163 | GAAGGCGUGGAAAUCUAAG | 8198 | UCUCCUAUGACACCCGCUG | 8233 | ACCGAACAUGACAUAAUGA |
| 8129 | AGUACUCCCCAGCGCAGCG | 8164 | AAGGCGUGGAAAUCUAAGA | 8199 | CUCCUAUGACACCCGCUGC | 8234 | CCGAACAUGACAUAAUGAC |
| 8130 | GUACUCCCCAGCGCAGCGG | 8165 | AGGCGUGGAAAUCUAAGAA | 8200 | UCCUAUGACACCCGCUGCU | 8235 | CGAACAUGACAUAAUGACU |
| 8131 | UACUCCCCAGCGCAGCGGG | 8166 | GGCGUGGAAAUCUAAGAAG | 8201 | CCUAUGACACCCGCUGCUU | 8236 | GAACAUGACAUAAUGACUG |
| 8132 | ACUCCCCAGCGCAGCGGGU | 8167 | GCGUGGAAAUCUAAGAAGA | 8202 | CUAUGACACCCGCUGCUUU | 8237 | AACAUGACAUAAUGACUGA |
| 8133 | CUCCCCAGCGCAGCGGGUU | 8168 | CGUGGAAAUCUAAGAAGAU | 8203 | UAUGACACCCGCUGCUUUG | 8238 | ACAUGACAUAAUGACUGAA |
| 8134 | UCCCCAGCGCAGCGGGUUG | 8169 | GUGGAAAUCUAAGAAGAUC | 8204 | AUGACACCCGCUGCUUUGA | 8239 | CAUGACAUAAUGACUGAAG |
| 8135 | CCCCAGCGCAGCGGGUUGA | 8170 | UGGAAAUCUAAGAAGAUCC | 8205 | UGACACCCGCUGCUUUGAC | 8240 | AUGACAUAAUGACUGAAGA |
| 8136 | CCCAGCGCAGCGGGUUGAC | 8171 | GGAAAUCUAAGAAGAUCCC | 8206 | GACACCCGCUGCUUUGACU | 8241 | UGACAUAAUGACUGAAGAG |
| 8137 | CCAGCGCAGCGGGUUGACU | 8172 | GAAAUCUAAGAAGAUCCCC | 8207 | ACACCCGCUGCUUUGACUC | 8242 | GACAUAAUGACUGAAGAGU |
| 8138 | CAGCGCAGCGGGUUGACUU | 8173 | AAAUCUAAGAAGAUCCCCA | 8208 | CACCCGCUGCUUUGACUCG | 8243 | ACAUAAUGACUGAAGAGUC |
| 8139 | AGCGCAGCGGGUUGACUUC | 8174 | AAUCUAAGAAGAUCCCCAU | 8209 | ACCCGCUGCUUUGACUCGA | 8244 | CAUAAUGACUGAAGAGUCC |
| 8140 | GCGCAGCGGGUUGACUUCU | 8175 | AUCUAAGAAGAUCCCCAUG | 8210 | CCCGCUGCUUUGACUCGAC | 8245 | AUAAUGACUGAAGAGUCCA |
| 8141 | CGCAGCGGGUUGACUUCUU | 8176 | UCUAAGAAGAUCCCCAUGG | 8211 | CCGCUGCUUUGACUCGACC | 8246 | UAAUGACUGAAGAGUCCAU |
| 8142 | GCAGCGGGUUGACUUCUUA | 8177 | CUAAGAAGAUCCCCAUGGC | 8212 | CGCUGCUUUGACUCGACCA | 8247 | AAUGACUGAAGAGUCCAUU |
| 8143 | CAGCGGGUUGACUUCUUAC | 8178 | UAAGAAGAUCCCCAUGGCU | 8213 | GCUGCUUUGACUCGACCAU | 8248 | AUGACUGAAGAGUCCAUUU |
| 8144 | AGCGGGUUGACUUCUUACU | 8179 | AAGAAGAUCCCCAUGGCUU | 8214 | CUGCUUUGACUCGACCAUU | 8249 | UGACUGAAGAGUCCAUUUA |
| 8145 | GCGGGUUGACUUCUUACUG | 8180 | AGAAGAUCCCCAUGGCUUU | 8215 | UGCUUUGACUCGACCAUUA | 8250 | GACUGAAGAGUCCAUUUAC |
| 8146 | CGGGUUGACUUCUUACUGA | 8181 | GAAGAUCCCCAUGGCUUUC | 8216 | GCUUUGACUCGACCAUUAC | 8251 | ACUGAAGAGUCCAUUUACC |
| 8147 | GGGUUGACUUCUUACUGAA | 8182 | AAGAUCCCCAUGGCUUUCU | 8217 | CUUUGACUCGACCAUUACC | 8252 | CUGAAGAGUCCAUUUACCA |
| 8148 | GGUUGACUUCUUACUGAAG | 8183 | AGAUCCCCAUGGCUUUCUC | 8218 | UUUGACUCGACCAUUACCG | 8253 | UGAAGAGUCCAUUUACCAA |
| 8149 | GUUGACUUCUUACUGAAGG | 8184 | GAUCCCCAUGGCUUUCUCC | 8219 | UUGACUCGACCAUUACCGA | 8254 | GAAGAGUCCAUUUACCAAU |
| 8150 | UUGACUUCUUACUGAAGGC | 8185 | AUCCCCAUGGCUUUCUCCU | 8220 | UGACUCGACCAUUACCGAA | 8255 | AAGAGUCCAUUUACCAAUC |
| 8151 | UGACUUCUUACUGAAGGCG | 8186 | UCCCCAUGGCUUUCUCCUA | 8221 | GACUCGACCAUUACCGAAC | 8256 | AGAGUCCAUUUACCAAUCA |
| 8152 | GACUUCUUACUGAAGGCGU | 8187 | CCCCAUGGCUUUCUCCUAU | 8222 | ACUCGACCAUUACCGAACA | 8257 | GAGUCCAUUUACCAAUCAU |
| 8153 | ACUUCUUACUGAAGGCGUG | 8188 | CCCAUGGCUUUCUCCUAUG | 8223 | CUCGACCAUUACCGAACAU | 8258 | AGUCCAUUUACCAAUCAUG |
| 8154 | CUUCUUACUGAAGGCGUGG | 8189 | CCAUGGCUUUCUCCUAUGA | 8224 | UCGACCAUUACCGAACAUG | 8259 | GUCCAUUUACCAAUCAUGU |
| 8155 | UUCUUACUGAAGGCGUGGA | 8190 | CAUGGCUUUCUCCUAUGAC | 8225 | CGACCAUUACCGAACAUGA | 8260 | UCCAUUUACCAAUCAUGUG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8261 | CCAUUUACCAAUCAUGUGA | 8296 | CGCGUGGCAAUACGGUCAC | 8331 | CUGUGGAGGCCCAAUGUAU | 8366 | AAUGUGGUUAUCGUAGAUG |
| 8262 | CAUUUACCAAUCAUGUGAC | 8297 | GCGUGGCAAUACGGUCACU | 8332 | UGUGGAGGCCCAAUGUAUA | 8367 | AUGUGGUUAUCGUAGAUGC |
| 8263 | AUUUACCAAUCAUGUGACU | 8298 | CGUGGCAAUACGGUCACUC | 8333 | GUGGAGGCCCAAUGUAUAA | 8368 | UGUGGUUAUCGUAGAUGCC |
| 8264 | UUUACCAAUCAUGUGACUU | 8299 | GUGGCAAUACGGUCACUCA | 8334 | UGGAGGCCCAAUGUAUAAC | 8369 | GUGGUUAUCGUAGAUGCCG |
| 8265 | UUACCAAUCAUGUGACUUG | 8300 | UGGCAAUACGGUCACUCAC | 8335 | GGAGGCCCAAUGUAUAACA | 8370 | UGGUUAUCGUAGAUGCCGC |
| 8266 | UACCAAUCAUGUGACUUGC | 8301 | GGCAAUACGGUCACUCACC | 8336 | GAGGCCCAAUGUAUAACAG | 8371 | GGUUAUCGUAGAUGCCGCG |
| 8267 | ACCAAUCAUGUGACUUGCA | 8302 | GCAAUACGGUCACUCACCC | 8337 | AGGCCCAAUGUAUAACAGC | 8372 | GUUAUCGUAGAUGCCGCGC |
| 8268 | CCAAUCAUGUGACUUGCAG | 8303 | CAAUACGGUCACUCACCCA | 8338 | GGCCCAAUGUAUAACAGCA | 8373 | UUAUCGUAGAUGCCGCGCC |
| 8269 | CAAUCAUGUGACUUGCAGC | 8304 | AAUACGGUCACUCACCCAA | 8339 | GCCCAAUGUAUAACAGCAA | 8374 | UAUCGUAGAUGCCGCGCCA |
| 8270 | AAUCAUGUGACUUGCAGCC | 8305 | AUACGGUCACUCACCCAAC | 8340 | CCCAAUGUAUAACAGCAAG | 8375 | AUCGUAGAUGCCGCGCCAG |
| 8271 | AUCAUGUGACUUGCAGCCU | 8306 | UACGGUCACUCACCCAACG | 8341 | CCAAUGUAUAACAGCAAGG | 8376 | UCGUAGAUGCCGCGCCAGC |
| 8272 | UCAUGUGACUUGCAGCCUG | 8307 | ACGGUCACUCACCCAACGC | 8342 | CAAUGUAUAACAGCAAGGG | 8377 | CGUAGAUGCCGCGCCAGCG |
| 8273 | CAUGUGACUUGCAGCCUGA | 8308 | CGGUCACUCACCCAACGCC | 8343 | AAUGUAUAACAGCAAGGGC | 8378 | GUAGAUGCCGCGCCAGCGG |
| 8274 | AUGUGACUUGCAGCCUGAG | 8309 | GGUCACUCACCCAACGCCU | 8344 | AUGUAUAACAGCAAGGGCC | 8379 | UAGAUGCCGCGCCAGCGGC |
| 8275 | UGUGACUUGCAGCCUGAGG | 8310 | GUCACUCACCCAACGCCUG | 8345 | UGUAUAACAGCAAGGGCCA | 8380 | AGAUGCCGCGCCAGCGGCG |
| 8276 | GUGACUUGCAGCCUGAGGC | 8311 | UCACUCACCCAACGCCUGU | 8346 | GUAUAACAGCAAGGGCCAG | 8381 | GAUGCCGCGCCAGCGGCGU |
| 8277 | UGACUUGCAGCCUGAGGCG | 8312 | CACUCACCCAACGCCUGUA | 8347 | UAUAACAGCAAGGGCCAGC | 8382 | AUGCCGCGCCAGCGGCGUC |
| 8278 | GACUUGCAGCCUGAGGCGC | 8313 | ACUCACCCAACGCCUGUAC | 8348 | AUAACAGCAAGGGCCAGCA | 8383 | UGCCGCGCCAGCGGCGUCU |
| 8279 | ACUUGCAGCCUGAGGCGCG | 8314 | CUCACCCAACGCCUGUACU | 8349 | UAACAGCAAGGGCCAGCAA | 8384 | GCCGCGCCAGCGGCGUCUU |
| 8280 | CUUGCAGCCUGAGGCGCGC | 8315 | UCACCCAACGCCUGUACUG | 8350 | AACAGCAAGGGCCAGCAAU | 8385 | CCGCGCCAGCGGCGUCUUC |
| 8281 | UUGCAGCCUGAGGCGCGCG | 8316 | CACCCAACGCCUGUACUGU | 8351 | ACAGCAAGGGCCAGCAAUG | 8386 | CGCGCCAGCGGCGUCUUCA |
| 8282 | UGCAGCCUGAGGCGCGCGU | 8317 | ACCCAACGCCUGUACUGUG | 8352 | CAGCAAGGGCCAGCAAUGU | 8387 | GCGCCAGCGGCGUCUUCAC |
| 8283 | GCAGCCUGAGGCGCGCGUG | 8318 | CCCAACGCCUGUACUGUGG | 8353 | AGCAAGGGCCAGCAAUGUG | 8388 | CGCCAGCGGCGUCUUCACC |
| 8284 | CAGCCUGAGGCGCGCGUGG | 8319 | CCAACGCCUGUACUGUGGA | 8354 | GCAAGGGCCAGCAAUGUGG | 8389 | GCCAGCGGCGUCUUCACCA |
| 8285 | AGCCUGAGGCGCGCGUGGC | 8320 | CAACGCCUGUACUGUGGAG | 8355 | CAAGGGCCAGCAAUGUGGU | 8390 | CCAGCGGCGUCUUCACCAC |
| 8286 | GCCUGAGGCGCGCGUGGCA | 8321 | AACGCCUGUACUGUGGAGG | 8356 | AAGGGCCAGCAAUGUGGUU | 8391 | CAGCGGCGUCUUCACCACU |
| 8287 | CCUGAGGCGCGCGUGGCAA | 8322 | ACGCCUGUACUGUGGAGGC | 8357 | AGGGCCAGCAAUGUGGUUA | 8392 | AGCGGCGUCUUCACCACUA |
| 8288 | CUGAGGCGCGCGUGGCAAU | 8323 | CGCCUGUACUGUGGAGGCC | 8358 | GGGCCAGCAAUGUGGUUAU | 8393 | GCGGCGUCUUCACCACUAG |
| 8289 | UGAGGCGCGCGUGGCAAUA | 8324 | GCCUGUACUGUGGAGGCCC | 8359 | GGCCAGCAAUGUGGUUAUC | 8394 | CGGCGUCUUCACCACUAGU |
| 8290 | GAGGCGCGCGUGGCAAUAC | 8325 | CCUGUACUGUGGAGGCCCA | 8360 | GCCAGCAAUGUGGUUAUCG | 8395 | GGCGUCUUCACCACUAGUA |
| 8291 | AGGCGCGCGUGGCAAUACG | 8326 | CUGUACUGUGGAGGCCCAA | 8361 | CCAGCAAUGUGGUUAUCGU | 8396 | GCGUCUUCACCACUAGUAU |
| 8292 | GGCGCGCGUGGCAAUACGG | 8327 | UGUACUGUGGAGGCCCAAU | 8362 | CAGCAAUGUGGUUAUCGUA | 8397 | CGUCUUCACCACUAGUAUG |
| 8293 | GCGCGCGUGGCAAUACGGU | 8328 | GUACUGUGGAGGCCCAAUG | 8363 | AGCAAUGUGGUUAUCGUAG | 8398 | GUCUUCACCACUAGUAUGG |
| 8294 | CGCGCGUGGCAAUACGGUC | 8329 | UACUGUGGAGGCCCAAUGU | 8364 | GCAAUGUGGUUAUCGUAGA | 8399 | UCUUCACCACUAGUAUGGG |
| 8295 | GCGCGUGGCAAUACGGUCA | 8330 | ACUGUGGAGGCCCAAUGUA | 8365 | CAAUGUGGUUAUCGUAGAU | 8400 | CUUCACCACUAGUAUGGGC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8401 | UUCACCACUAGUAUGGGCA | 8436 | CAUUAAGGCUUUAGCCUCC | 8471 | UCCGGGACUGCACGCUCCU | 8506 | CUUGUGGCCAUCUGCGAGA |
| 8402 | UCACCACUAGUAUGGGCAA | 8437 | AUUAAGGCUUUAGCCUCCU | 8472 | CCGGGACUGCACGCUCCUG | 8507 | UUGUGGCCAUCUGCGAGAG |
| 8403 | CACCACUAGUAUGGGCAAC | 8438 | UUAAGGCUUUAGCCUCCUG | 8473 | CGGGACUGCACGCUCCUGG | 8508 | UGUGGCCAUCUGCGAGAGC |
| 8404 | ACCACUAGUAUGGGCAACA | 8439 | UAAGGCUUUAGCCUCCUGU | 8474 | GGGACUGCACGCUCCUGGU | 8509 | GUGGCCAUCUGCGAGAGCC |
| 8405 | CCACUAGUAUGGGCAACAC | 8440 | AAGGCUUUAGCCUCCUGUA | 8475 | GGACUGCACGCUCCUGGUA | 8510 | UGGCCAUCUGCGAGAGCCA |
| 8406 | CACUAGUAUGGGCAACACC | 8441 | AGGCUUUAGCCUCCUGUAG | 8476 | GACUGCACGCUCCUGGUAU | 8511 | GGCCAUCUGCGAGAGCCAG |
| 8407 | ACUAGUAUGGGCAACACCA | 8442 | GGCUUUAGCCUCCUGUAGA | 8477 | ACUGCACGCUCCUGGUAUG | 8512 | GCCAUCUGCGAGAGCCAGG |
| 8408 | CUAGUAUGGGCAACACCAU | 8443 | GCUUUAGCCUCCUGUAGAG | 8478 | CUGCACGCUCCUGGUAUGU | 8513 | CCAUCUGCGAGAGCCAGGG |
| 8409 | UAGUAUGGGCAACACCAUG | 8444 | CUUUAGCCUCCUGUAGAGC | 8479 | UGCACGCUCCUGGUAUGUG | 8514 | CAUCUGCGAGAGCCAGGGG |
| 8410 | AGUAUGGGCAACACCAUGA | 8445 | UUUAGCCUCCUGUAGAGCU | 8480 | GCACGCUCCUGGUAUGUGG | 8515 | AUCUGCGAGAGCCAGGGGA |
| 8411 | GUAUGGGCAACACCAUGAC | 8446 | UUAGCCUCCUGUAGAGCUG | 8481 | CACGCUCCUGGUAUGUGGU | 8516 | UCUGCGAGAGCCAGGGGAC |
| 8412 | UAUGGGCAACACCAUGACG | 8447 | UAGCCUCCUGUAGAGCUGC | 8482 | ACGCUCCUGGUAUGUGGUG | 8517 | CUGCGAGAGCCAGGGGACA |
| 8413 | AUGGGCAACACCAUGACGU | 8448 | AGCCUCCUGUAGAGCUGCA | 8483 | CGCUCCUGGUAUGUGGUGA | 8518 | UGCGAGAGCCAGGGGACAC |
| 8414 | UGGGCAACACCAUGACGUG | 8449 | GCCUCCUGUAGAGCUGCAA | 8484 | GCUCCUGGUAUGUGGUGAC | 8519 | GCGAGAGCCAGGGGACACA |
| 8415 | GGGCAACACCAUGACGUGC | 8450 | CCUCCUGUAGAGCUGCAAA | 8485 | CUCCUGGUAUGUGGUGACG | 8520 | CGAGAGCCAGGGGACACAC |
| 8416 | GGCAACACCAUGACGUGCU | 8451 | CUCCUGUAGAGCUGCAAAG | 8486 | UCCUGGUAUGUGGUGACGA | 8521 | GAGAGCCAGGGGACACACG |
| 8417 | GCAACACCAUGACGUGCUA | 8452 | UCCUGUAGAGCUGCAAAGC | 8487 | CCUGGUAUGUGGUGACGAC | 8522 | AGAGCCAGGGGACACACGA |
| 8418 | CAACACCAUGACGUGCUAC | 8453 | CCUGUAGAGCUGCAAAGCU | 8488 | CUGGUAUGUGGUGACGACC | 8523 | GAGCCAGGGGACACACGAA |
| 8419 | AACACCAUGACGUGCUACA | 8454 | CUGUAGAGCUGCAAAGCUC | 8489 | UGGUAUGUGGUGACGACCU | 8524 | AGCCAGGGGACACACGAAG |
| 8420 | ACACCAUGACGUGCUACAU | 8455 | UGUAGAGCUGCAAAGCUCC | 8490 | GGUAUGUGGUGACGACCUU | 8525 | GCCAGGGGACACACGAAGA |
| 8421 | CACCAUGACGUGCUACAUU | 8456 | GUAGAGCUGCAAAGCUCCG | 8491 | GUAUGUGGUGACGACCUUG | 8526 | CCAGGGGACACACGAAGAU |
| 8422 | ACCAUGACGUGCUACAUUA | 8457 | UAGAGCUGCAAAGCUCCGG | 8492 | UAUGUGGUGACGACCUUGU | 8527 | CAGGGGACACACGAAGAUG |
| 8423 | CCAUGACGUGCUACAUUAA | 8458 | AGAGCUGCAAAGCUCCGGG | 8493 | AUGUGGUGACGACCUUGUG | 8528 | AGGGGACACACGAAGAUGA |
| 8424 | CAUGACGUGCUACAUUAAG | 8459 | GAGCUGCAAAGCUCCGGGA | 8494 | UGUGGUGACGACCUUGUGG | 8529 | GGGGACACACGAAGAUGAA |
| 8425 | AUGACGUGCUACAUUAAGG | 8460 | AGCUGCAAAGCUCCGGGAC | 8495 | GUGGUGACGACCUUGUGGC | 8530 | GGGACACACGAAGAUGAAG |
| 8426 | UGACGUGCUACAUUAAGGC | 8461 | GCUGCAAAGCUCCGGGACU | 8496 | UGGUGACGACCUUGUGGCC | 8531 | GGACACACGAAGAUGAAGC |
| 8427 | GACGUGCUACAUUAAGGCU | 8462 | CUGCAAAGCUCCGGGACUG | 8497 | GGUGACGACCUUGUGGCCA | 8532 | GACACACGAAGAUGAAGCG |
| 8428 | ACGUGCUACAUUAAGGCUU | 8463 | UGCAAAGCUCCGGGACUGC | 8498 | GUGACGACCUUGUGGCCAU | 8533 | ACACACGAAGAUGAAGCGA |
| 8429 | CGUGCUACAUUAAGGCUUU | 8464 | GCAAAGCUCCGGGACUGCA | 8499 | UGACGACCUUGUGGCCAUC | 8534 | CACACGAAGAUGAAGCGAG |
| 8430 | GUGCUACAUUAAGGCUUUA | 8465 | CAAAGCUCCGGGACUGCAC | 8500 | GACGACCUUGUGGCCAUCU | 8535 | ACACGAAGAUGAAGCGAGC |
| 8431 | UGCUACAUUAAGGCUUUAG | 8466 | AAAGCUCCGGGACUGCACG | 8501 | ACGACCUUGUGGCCAUCUG | 8536 | CACGAAGAUGAAGCGAGCC |
| 8432 | GCUACAUUAAGGCUUUAGC | 8467 | AAGCUCCGGGACUGCACGC | 8502 | CGACCUUGUGGCCAUCUGC | 8537 | ACGAAGAUGAAGCGAGCCU |
| 8433 | CUACAUUAAGGCUUUAGCC | 8468 | AGCUCCGGGACUGCACGCU | 8503 | GACCUUGUGGCCAUCUGCG | 8538 | CGAAGAUGAAGCGAGCCUG |
| 8434 | UACAUUAAGGCUUUAGCCU | 8469 | GCUCCGGGACUGCACGCUC | 8504 | ACCUUGUGGCCAUCUGCGA | 8539 | GAAGAUGAAGCGAGCCUGA |
| 8435 | ACAUUAAGGCUUUAGCCUC | 8470 | CUCCGGGACUGCACGCUCC | 8505 | CCUUGUGGCCAUCUGCGAG | 8540 | AAGAUGAAGCGAGCCUGAG |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8541 | AGAUGAAGCGAGCCUGAGA | 8576 | UGACCAGGUACUCCGCUCC | 8611 | GUUCCAGCUUAUGACCUGG | 8646 | CUCCUCGAACGUGUCCGUC |
| 8542 | GAUGAAGCGAGCCUGAGAG | 8577 | GACCAGGUACUCCGCUCCC | 8612 | UUCCAGCUUAUGACCUGGA | 8647 | UCCUCGAACGUGUCCGUCG |
| 8543 | AUGAAGCGAGCCUGAGAGC | 8578 | ACCAGGUACUCCGCUCCCC | 8613 | UCCAGCUUAUGACCUGGAG | 8648 | CCUCGAACGUGUCCGUCGC |
| 8544 | UGAAGCGAGCCUGAGAGCC | 8579 | CCAGGUACUCCGCUCCCCC | 8614 | CCAGCUUAUGACCUGGAGC | 8649 | CUCGAACGUGUCCGUCGCC |
| 8545 | GAAGCGAGCCUGAGAGCCU | 8580 | CAGGUACUCCGCUCCCCCG | 8615 | CAGCUUAUGACCUGGAGCU | 8650 | UCGAACGUGUCCGUCGCCC |
| 8546 | AAGCGAGCCUGAGAGCCUU | 8581 | AGGUACUCCGCUCCCCCGG | 8616 | AGCUUAUGACCUGGAGCUC | 8651 | CGAACGUGUCCGUCGCCCG |
| 8547 | AGCGAGCCUGAGAGCCUUC | 8582 | GGUACUCCGCUCCCCCGGG | 8617 | GCUUAUGACCUGGAGCUCG | 8652 | GAACGUGUCCGUCGCCCGC |
| 8548 | GCGAGCCUGAGAGCCUUCA | 8583 | GUACUCCGCUCCCCCGGGU | 8618 | CUUAUGACCUGGAGCUCGU | 8653 | AACGUGUCCGUCGCCCGCG |
| 8549 | CGAGCCUGAGAGCCUUCAC | 8584 | UACUCCGCUCCCCCGGGUG | 8619 | UUAUGACCUGGAGCUCGUA | 8654 | ACGUGUCCGUCGCCCGCGA |
| 8550 | GAGCCUGAGAGCCUUCACU | 8585 | ACUCCGCUCCCCCGGGUGA | 8620 | UAUGACCUGGAGCUCGUAA | 8655 | CGUGUCCGUCGCCCGCGAU |
| 8551 | AGCCUGAGAGCCUUCACUG | 8586 | CUCCGCUCCCCCGGGUGAU | 8621 | AUGACCUGGAGCUCGUAAC | 8656 | GUGUCCGUCGCCCGCGAUG |
| 8552 | GCCUGAGAGCCUUCACUGA | 8587 | UCCGCUCCCCCGGGUGAUC | 8622 | UGACCUGGAGCUCGUAACA | 8657 | UGUCCGUCGCCCGCGAUGC |
| 8553 | CCUGAGAGCCUUCACUGAG | 8588 | CCGCUCCCCCGGGUGAUCC | 8623 | GACCUGGAGCUCGUAACAU | 8658 | GUCCGUCGCCCGCGAUGCU |
| 8554 | CUGAGAGCCUUCACUGAGG | 8589 | CGCUCCCCCGGGUGAUCCC | 8624 | ACCUGGAGCUCGUAACAUC | 8659 | UCCGUCGCCCGCGAUGCUU |
| 8555 | UGAGAGCCUUCACUGAGGC | 8590 | GCUCCCCCGGGUGAUCCCC | 8625 | CCUGGAGCUCGUAACAUCU | 8660 | CCGUCGCCCGCGAUGCUUC |
| 8556 | GAGAGCCUUCACUGAGGCU | 8591 | CUCCCCCGGGUGAUCCCCC | 8626 | CUGGAGCUCGUAACAUCUU | 8661 | CGUCGCCCGCGAUGCUUCA |
| 8557 | AGAGCCUUCACUGAGGCUA | 8592 | UCCCCCGGGUGAUCCCCCG | 8627 | UGGAGCUCGUAACAUCUUG | 8662 | GUCGCCCGCGAUGCUUCAG |
| 8558 | GAGCCUUCACUGAGGCUAU | 8593 | CCCCCGGGUGAUCCCCCGG | 8628 | GGAGCUCGUAACAUCUUGC | 8663 | UCGCCCGCGAUGCUUCAGG |
| 8559 | AGCCUUCACUGAGGCUAUG | 8594 | CCCCGGGUGAUCCCCCGGU | 8629 | GAGCUCGUAACAUCUUGCU | 8664 | CGCCCGCGAUGCUUCAGGC |
| 8560 | GCCUUCACUGAGGCUAUGA | 8595 | CCCGGGUGAUCCCCCGGUU | 8630 | AGCUCGUAACAUCUUGCUC | 8665 | GCCCGCGAUGCUUCAGGCA |
| 8561 | CCUUCACUGAGGCUAUGAC | 8596 | CCGGGUGAUCCCCCGGUUC | 8631 | GCUCGUAACAUCUUGCUCC | 8666 | CCCGCGAUGCUUCAGGCAA |
| 8562 | CUUCACUGAGGCUAUGACC | 8597 | CGGGUGAUCCCCCGGUUCC | 8632 | CUCGUAACAUCUUGCUCCU | 8667 | CCGCGAUGCUUCAGGCAAC |
| 8563 | UUCACUGAGGCUAUGACCA | 8598 | GGGUGAUCCCCCGGUUCCA | 8633 | UCGUAACAUCUUGCUCCUC | 8668 | CGCGAUGCUUCAGGCAACA |
| 8564 | UCACUGAGGCUAUGACCAG | 8599 | GGUGAUCCCCCGGUUCCAG | 8634 | CGUAACAUCUUGCUCCUCG | 8669 | GCGAUGCUUCAGGCAACAG |
| 8565 | CACUGAGGCUAUGACCAGG | 8600 | GUGAUCCCCCGGUUCCAGC | 8635 | GUAACAUCUUGCUCCUCGA | 8670 | CGAUGCUUCAGGCAACAGA |
| 8566 | ACUGAGGCUAUGACCAGGU | 8601 | UGAUCCCCCGGUUCCAGCU | 8636 | UAACAUCUUGCUCCUCGAA | 8671 | GAUGCUUCAGGCAACAGAA |
| 8567 | CUGAGGCUAUGACCAGGUA | 8602 | GAUCCCCCGGUUCCAGCUU | 8637 | AACAUCUUGCUCCUCGAAC | 8672 | AUGCUUCAGGCAACAGAAU |
| 8568 | UGAGGCUAUGACCAGGUAC | 8603 | AUCCCCCGGUUCCAGCUUA | 8638 | ACAUCUUGCUCCUCGAACG | 8673 | UGCUUCAGGCAACAGAAUU |
| 8569 | GAGGCUAUGACCAGGUACU | 8604 | UCCCCCGGUUCCAGCUUAU | 8639 | CAUCUUGCUCCUCGAACGU | 8674 | GCUUCAGGCAACAGAAUUU |
| 8570 | AGGCUAUGACCAGGUACUC | 8605 | CCCCCGGUUCCAGCUUAUG | 8640 | AUCUUGCUCCUCGAACGUG | 8675 | CUUCAGGCAACAGAAUUUA |
| 8571 | GGCUAUGACCAGGUACUCC | 8606 | CCCCGGUUCCAGCUUAUGA | 8641 | UCUUGCUCCUCGAACGUGU | 8676 | UUCAGGCAACAGAAUUUAC |
| 8572 | GCUAUGACCAGGUACUCCG | 8607 | CCCGGUUCCAGCUUAUGAC | 8642 | CUUGCUCCUCGAACGUGUC | 8677 | UCAGGCAACAGAAUUUACU |
| 8573 | CUAUGACCAGGUACUCCGC | 8608 | CCGGUUCCAGCUUAUGACC | 8643 | UUGCUCCUCGAACGUGUCC | 8678 | CAGGCAACAGAAUUUACUA |
| 8574 | UAUGACCAGGUACUCCGCU | 8609 | CGGUUCCAGCUUAUGACCU | 8644 | UGCUCCUCGAACGUGUCCG | 8679 | AGGCAACAGAAUUUACUAU |
| 8575 | AUGACCAGGUACUCCGCUC | 8610 | GGUUCCAGCUUAUGACCUG | 8645 | GCUCCUCGAACGUGUCCGU | 8680 | GGCAACAGAAUUUACUAUC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8681 | GCAACAGAAUUUACUAUCU | 8716 | GUACCACUUGCGAAGGCUG | 8751 | ACACUCCCCGGUUAAUUCC | 8786 | UCAUGUACGCGCCGACCUU |
| 8682 | CAACAGAAUUUACUAUCUC | 8717 | UACCACUUGCGAAGGCUGC | 8752 | CACUCCCCGGUUAAUUCCU | 8787 | CAUGUACGCGCCGACCUUG |
| 8683 | AACAGAAUUUACUAUCUCA | 8718 | ACCACUUGCGAAGGCUGCG | 8753 | ACUCCCCGGUUAAUUCCUG | 8788 | AUGUACGCGCCGACCUUGU |
| 8684 | ACAGAAUUUACUAUCUCAC | 8719 | CCACUUGCGAAGGCUGCGU | 8754 | CUCCCCGGUUAAUUCCUGG | 8789 | UGUACGCGCCGACCUUGUG |
| 8685 | CAGAAUUUACUAUCUCACG | 8720 | CACUUGCGAAGGCUGCGUG | 8755 | UCCCCGGUUAAUUCCUGGC | 8790 | GUACGCGCCGACCUUGUGG |
| 8686 | AGAAUUUACUAUCUCACGC | 8721 | ACUUGCGAAGGCUGCGUGG | 8756 | CCCCGGUUAAUUCCUGGCU | 8791 | UACGCGCCGACCUUGUGGG |
| 8687 | GAAUUUACUAUCUCACGCG | 8722 | CUUGCGAAGGCUGCGUGGG | 8757 | CCCGGUUAAUUCCUGGCUA | 8792 | ACGCGCCGACCUUGUGGGC |
| 8688 | AAUUUACUAUCUCACGCGU | 8723 | UUGCGAAGGCUGCGUGGGA | 8758 | CCGGUUAAUUCCUGGCUAG | 8793 | CGCGCCGACCUUGUGGGCU |
| 8689 | AUUUACUAUCUCACGCGUG | 8724 | UGCGAAGGCUGCGUGGGAA | 8759 | CGGUUAAUUCCUGGCUAGG | 8794 | GCGCCGACCUUGUGGGCUC |
| 8690 | UUUACUAUCUCACGCGUGA | 8725 | GCGAAGGCUGCGUGGGAAA | 8760 | GGUUAAUUCCUGGCUAGGG | 8795 | CGCCGACCUUGUGGGCUCG |
| 8691 | UUACUAUCUCACGCGUGAC | 8726 | CGAAGGCUGCGUGGGAAAC | 8761 | GUUAAUUCCUGGCUAGGGA | 8796 | GCCGACCUUGUGGGCUCGG |
| 8692 | UACUAUCUCACGCGUGACC | 8727 | GAAGGCUGCGUGGGAAACU | 8762 | UUAAUUCCUGGCUAGGGAA | 8797 | CCGACCUUGUGGGCUCGGA |
| 8693 | ACUAUCUCACGCGUGACCC | 8728 | AAGGCUGCGUGGGAAACUG | 8763 | UAAUUCCUGGCUAGGGAAC | 8798 | CGACCUUGUGGGCUCGGAU |
| 8694 | CUAUCUCACGCGUGACCCG | 8729 | AGGCUGCGUGGGAAACUGC | 8764 | AAUUCCUGGCUAGGGAACA | 8799 | GACCUUGUGGGCUCGGAUA |
| 8695 | UAUCUCACGCGUGACCCGC | 8730 | GGCUGCGUGGGAAACUGCC | 8765 | AUUCCUGGCUAGGGAACAU | 8800 | ACCUUGUGGGCUCGGAUAG |
| 8696 | AUCUCACGCGUGACCCGCA | 8731 | GCUGCGUGGGAAACUGCCA | 8766 | UUCCUGGCUAGGGAACAUC | 8801 | CCUUGUGGGCUCGGAUAGU |
| 8697 | UCUCACGCGUGACCCGCAG | 8732 | CUGCGUGGGAAACUGCCAA | 8767 | UCCUGGCUAGGGAACAUCA | 8802 | CUUGUGGGCUCGGAUAGUG |
| 8698 | CUCACGCGUGACCCGCAGG | 8733 | UGCGUGGGAAACUGCCAAA | 8768 | CCUGGCUAGGGAACAUCAU | 8803 | UUGUGGGCUCGGAUAGUGC |
| 8699 | UCACGCGUGACCCGCAGGU | 8734 | GCGUGGGAAACUGCCAAAC | 8769 | CUGGCUAGGGAACAUCAUC | 8804 | UGUGGGCUCGGAUAGUGCU |
| 8700 | CACGCGUGACCCGCAGGUA | 8735 | CGUGGGAAACUGCCAAACA | 8770 | UGGCUAGGGAACAUCAUCA | 8805 | GUGGGCUCGGAUAGUGCUG |
| 8701 | ACGCGUGACCCGCAGGUAC | 8736 | GUGGGAAACUGCCAAACAC | 8771 | GGCUAGGGAACAUCAUCAU | 8806 | UGGGCUCGGAUAGUGCUGA |
| 8702 | CGCGUGACCCGCAGGUACC | 8737 | UGGGAAACUGCCAAACACU | 8772 | GCUAGGGAACAUCAUCAUG | 8807 | GGGCUCGGAUAGUGCUGAU |
| 8703 | GCGUGACCCGCAGGUACCA | 8738 | GGGAAACUGCCAAACACUC | 8773 | CUAGGGAACAUCAUCAUGU | 8808 | GGCUCGGAUAGUGCUGAUG |
| 8704 | CGUGACCCGCAGGUACCAC | 8739 | GGAAACUGCCAAACACUCC | 8774 | UAGGGAACAUCAUCAUGUA | 8809 | GCUCGGAUAGUGCUGAUGA |
| 8705 | GUGACCCGCAGGUACCACU | 8740 | GAAACUGCCAAACACUCCC | 8775 | AGGGAACAUCAUCAUGUAC | 8810 | CUCGGAUAGUGCUGAUGAC |
| 8706 | UGACCCGCAGGUACCACUU | 8741 | AAACUGCCAAACACUCCCC | 8776 | GGGAACAUCAUCAUGUACG | 8811 | UCGGAUAGUGCUGAUGACG |
| 8707 | GACCCGCAGGUACCACUUG | 8742 | AACUGCCAAACACUCCCCG | 8777 | GGAACAUCAUCAUGUACGC | 8812 | CGGAUAGUGCUGAUGACGC |
| 8708 | ACCCGCAGGUACCACUUGC | 8743 | ACUGCCAAACACUCCCCGG | 8778 | GAACAUCAUCAUGUACGCG | 8813 | GGAUAGUGCUGAUGACGCA |
| 8709 | CCCGCAGGUACCACUUGCG | 8744 | CUGCCAAACACUCCCCGGU | 8779 | AACAUCAUCAUGUACGCGC | 8814 | GAUAGUGCUGAUGACGCAC |
| 8710 | CCGCAGGUACCACUUGCGA | 8745 | UGCCAAACACUCCCCGGUU | 8780 | ACAUCAUCAUGUACGCGCC | 8815 | AUAGUGCUGAUGACGCACU |
| 8711 | CGCAGGUACCACUUGCGAA | 8746 | GCCAAACACUCCCCGGUUA | 8781 | CAUCAUCAUGUACGCGCCG | 8816 | UAGUGCUGAUGACGCACUU |
| 8712 | GCAGGUACCACUUGCGAAG | 8747 | CCAAACACUCCCCGGUUAA | 8782 | AUCAUCAUGUACGCGCCGA | 8817 | AGUGCUGAUGACGCACUUU |
| 8713 | CAGGUACCACUUGCGAAGG | 8748 | CAAACACUCCCCGGUUAAU | 8783 | UCAUCAUGUACGCGCCGAC | 8818 | GUGCUGAUGACGCACUUUU |
| 8714 | AGGUACCACUUGCGAAGGC | 8749 | AAACACUCCCCGGUUAAUU | 8784 | CAUCAUGUACGCGCCGACC | 8819 | UGCUGAUGACGCACUUUUU |
| 8715 | GGUACCACUUGCGAAGGCU | 8750 | AACACUCCCCGGUUAAUUC | 8785 | AUCAUGUACGCGCCGACCU | 8820 | GCUGAUGACGCACUUUUUC |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8821 | CUGAUGACGCACUUUUUCA | 8856 | GGAACAGCUGGAAAAAACC | 8891 | AUGGGUCAGUUUAUUCUGU | 8926 | CCAGCUAUCAUUCAAAGAC |
| 8822 | UGAUGACGCACUUUUUCAG | 8857 | GAACAGCUGGAAAAAACCC | 8892 | UGGGUCAGUUUAUUCUGUU | 8927 | CAGCUAUCAUUCAAAGACU |
| 8823 | GAUGACGCACUUUUUCAGC | 8858 | AACAGCUGGAAAAAACCCU | 8893 | GGGUCAGUUUAUUCUGUUA | 8928 | AGCUAUCAUUCAAAGACUC |
| 8824 | AUGACGCACUUUUUCAGCG | 8859 | ACAGCUGGAAAAAACCCUA | 8894 | GGUCAGUUUAUUCUGUUAC | 8929 | GCUAUCAUUCAAAGACUCC |
| 8825 | UGACGCACUUUUUCAGCGU | 8860 | CAGCUGGAAAAAACCCUAG | 8895 | GUCAGUUUAUUCUGUUACU | 8930 | CUAUCAUUCAAAGACUCCA |
| 8826 | GACGCACUUUUUCAGCGUU | 8861 | AGCUGGAAAAAACCCUAGC | 8896 | UCAGUUUAUUCUGUUACUC | 8931 | UAUCAUUCAAAGACUCCAU |
| 8827 | ACGCACUUUUUCAGCGUUC | 8862 | GCUGGAAAAAACCCUAGCA | 8897 | CAGUUUAUUCUGUUACUCC | 8932 | AUCAUUCAAAGACUCCAUG |
| 8828 | CGCACUUUUUCAGCGUUCU | 8863 | CUGGAAAAAACCCUAGCAU | 8898 | AGUUUAUUCUGUUACUCCG | 8933 | UCAUUCAAAGACUCCAUGG |
| 8829 | GCACUUUUUCAGCGUUCUA | 8864 | UGGAAAAAACCCUAGCAUU | 8899 | GUUUAUUCUGUUACUCCGC | 8934 | CAUUCAAAGACUCCAUGGA |
| 8830 | CACUUUUUCAGCGUUCUAC | 8865 | GGAAAAAACCCUAGCAUUU | 8900 | UUUAUUCUGUUACUCCGCU | 8935 | AUUCAAAGACUCCAUGGAC |
| 8831 | ACUUUUUCAGCGUUCUACA | 8866 | GAAAAAACCCUAGCAUUUG | 8901 | UUAUUCUGUUACUCCGCUG | 8936 | UUCAAAGACUCCAUGGACU |
| 8832 | CUUUUUCAGCGUUCUACAG | 8867 | AAAAAACCCUAGCAUUUGA | 8902 | UAUUCUGUUACUCCGCUGG | 8937 | UCAAAGACUCCAUGGACUU |
| 8833 | UUUUUCAGCGUUCUACAGA | 8868 | AAAAACCCUAGCAUUUGAA | 8903 | AUUCUGUUACUCCGCUGGA | 8938 | CAAAGACUCCAUGGACUUA |
| 8834 | UUUUCAGCGUUCUACAGAG | 8869 | AAAACCCUAGCAUUUGAAA | 8904 | UUCUGUUACUCCGCUGGAU | 8939 | AAAGACUCCAUGGACUUAG |
| 8835 | UUUCAGCGUUCUACAGAGC | 8870 | AAACCCUAGCAUUUGAAAU | 8905 | UCUGUUACUCCGCUGGAUC | 8940 | AAGACUCCAUGGACUUAGC |
| 8836 | UUCAGCGUUCUACAGAGCC | 8871 | AACCCUAGCAUUUGAAAUG | 8906 | CUGUUACUCCGCUGGAUCU | 8941 | AGACUCCAUGGACUUAGCG |
| 8837 | UCAGCGUUCUACAGAGCCA | 8872 | ACCCUAGCAUUUGAAAUGU | 8907 | UGUUACUCCGCUGGAUCUU | 8942 | GACUCCAUGGACUUAGCGC |
| 8838 | CAGCGUUCUACAGAGCCAG | 8873 | CCCUAGCAUUUGAAAUGUA | 8908 | GUUACUCCGCUGGAUCUUC | 8943 | ACUCCAUGGACUUAGCGCG |
| 8839 | AGCGUUCUACAGAGCCAGG | 8874 | CCUAGCAUUUGAAAUGUAU | 8909 | UUACUCCGCUGGAUCUUCC | 8944 | CUCCAUGGACUUAGCGCGU |
| 8840 | GCGUUCUACAGAGCCAGGA | 8875 | CUAGCAUUUGAAAUGUAUG | 8910 | UACUCCGCUGGAUCUUCCA | 8945 | UCCAUGGACUUAGCGCGUU |
| 8841 | CGUUCUACAGAGCCAGGAA | 8876 | UAGCAUUUGAAAUGUAUGG | 8911 | ACUCCGCUGGAUCUUCCAG | 8946 | CCAUGGACUUAGCGCGUUU |
| 8842 | GUUCUACAGAGCCAGGAAC | 8877 | AGCAUUUGAAAUGUAUGGG | 8912 | CUCCGCUGGAUCUUCCAGC | 8947 | CAUGGACUUAGCGCGUUUU |
| 8843 | UUCUACAGAGCCAGGAACA | 8878 | GCAUUUGAAAUGUAUGGGU | 8913 | UCCGCUGGAUCUUCCAGCU | 8948 | AUGGACUUAGCGCGUUUUC |
| 8844 | UCUACAGAGCCAGGAACAG | 8879 | CAUUUGAAAUGUAUGGGUC | 8914 | CCGCUGGAUCUUCCAGCUA | 8949 | UGGACUUAGCGCGUUUUCA |
| 8845 | CUACAGAGCCAGGAACAGC | 8880 | AUUUGAAAUGUAUGGGUCA | 8915 | CGCUGGAUCUUCCAGCUAU | 8950 | GGACUUAGCGCGUUUUCAC |
| 8846 | UACAGAGCCAGGAACAGCU | 8881 | UUUGAAAUGUAUGGGUCAG | 8916 | GCUGGAUCUUCCAGCUAUC | 8951 | GACUUAGCGCGUUUUCACU |
| 8847 | ACAGAGCCAGGAACAGCUG | 8882 | UUGAAAUGUAUGGGUCAGU | 8917 | CUGGAUCUUCCAGCUAUCA | 8952 | ACUUAGCGCGUUUUCACUC |
| 8848 | CAGAGCCAGGAACAGCUGG | 8883 | UGAAAUGUAUGGGUCAGUU | 8918 | UGGAUCUUCCAGCUAUCAU | 8953 | CUUAGCGCGUUUUCACUCC |
| 8849 | AGAGCCAGGAACAGCUGGA | 8884 | GAAAUGUAUGGGUCAGUUU | 8919 | GGAUCUUCCAGCUAUCAUU | 8954 | UUAGCGCGUUUUCACUCCA |
| 8850 | GAGCCAGGAACAGCUGGAA | 8885 | AAAUGUAUGGGUCAGUUUA | 8920 | GAUCUUCCAGCUAUCAUUC | 8955 | UAGCGCGUUUUCACUCCAU |
| 8851 | AGCCAGGAACAGCUGGAAA | 8886 | AAUGUAUGGGUCAGUUUAU | 8921 | AUCUUCCAGCUAUCAUUCA | 8956 | AGCGCGUUUUCACUCCAUU |
| 8852 | GCCAGGAACAGCUGGAAAA | 8887 | AUGUAUGGGUCAGUUUAUU | 8922 | UCUUCCAGCUAUCAUUCAA | 8957 | GCGCGUUUUCACUCCAUUC |
| 8853 | CCAGGAACAGCUGGAAAAA | 8888 | UGUAUGGGUCAGUUUAUUC | 8923 | CUUCCAGCUAUCAUUCAAA | 8958 | CGCGUUUUCACUCCAUUCA |
| 8854 | CAGGAACAGCUGGAAAAAA | 8889 | GUAUGGGUCAGUUUAUUCU | 8924 | UUCCAGCUAUCAUUCAAAG | 8959 | GCGUUUUCACUCCAUUCAU |
| 8855 | AGGAACAGCUGGAAAAAAC | 8890 | UAUGGGUCAGUUUAUUCUG | 8925 | UCCAGCUAUCAUUCAAAGA | 8960 | CGUUUUCACUCCAUUCAUA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8961 | GUUUUCACUCCAUUCAUAC | 8996 | AUAGGGUGGCUAGUUGCCU | 9031 | CCCCCUUUGAGAGCUUGGA | 9066 | UGUACGCGCUAAGCUCAUC |
| 8962 | UUUUCACUCCAUUCAUACU | 8997 | UAGGGUGGCUAGUUGCCUC | 9032 | CCCCUUUGAGAGCUUGGAG | 9067 | GUACGCGCUAAGCUCAUCG |
| 8963 | UUUCACUCCAUUCAUACUC | 8998 | AGGGUGGCUAGUUGCCUCA | 9033 | CCCUUUGAGAGCUUGGAGA | 9068 | UACGCGCUAAGCUCAUCGC |
| 8964 | UUCACUCCAUUCAUACUCU | 8999 | GGGUGGCUAGUUGCCUCAG | 9034 | CCUUUGAGAGCUUGGAGAC | 9069 | ACGCGCUAAGCUCAUCGCC |
| 8965 | UCACUCCAUUCAUACUCUC | 9000 | GGUGGCUAGUUGCCUCAGG | 9035 | CUUUGAGAGCUUGGAGACA | 9070 | CGCGCUAAGCUCAUCGCCC |
| 8966 | CACUCCAUUCAUACUCUCC | 9001 | GUGGCUAGUUGCCUCAGGA | 9036 | UUUGAGAGCUUGGAGACAU | 9071 | GCGCUAAGCUCAUCGCCCA |
| 8967 | ACUCCAUUCAUACUCUCCG | 9002 | UGGCUAGUUGCCUCAGGAA | 9037 | UUGAGAGCUUGGAGACAUC | 9072 | CGCUAAGCUCAUCGCCCAG |
| 8968 | CUCCAUUCAUACUCUCCGA | 9003 | GGCUAGUUGCCUCAGGAAG | 9038 | UGAGAGCUUGGAGACAUCG | 9073 | GCUAAGCUCAUCGCCCAGG |
| 8969 | UCCAUUCAUACUCUCCGAG | 9004 | GCUAGUUGCCUCAGGAAGC | 9039 | GAGAGCUUGGAGACAUCGG | 9074 | CUAAGCUCAUCGCCCAGGG |
| 8970 | CCAUUCAUACUCUCCGAGC | 9005 | CUAGUUGCCUCAGGAAGCU | 9040 | AGAGCUUGGAGACAUCGGG | 9075 | UAAGCUCAUCGCCCAGGGA |
| 8971 | CAUUCAUACUCUCCGAGCG | 9006 | UAGUUGCCUCAGGAAGCUU | 9041 | GAGCUUGGAGACAUCGGGC | 9076 | AAGCUCAUCGCCCAGGGAG |
| 8972 | AUUCAUACUCUCCGAGCGA | 9007 | AGUUGCCUCAGGAAGCUUG | 9042 | AGCUUGGAGACAUCGGGCU | 9077 | AGCUCAUCGCCCAGGGAGG |
| 8973 | UUCAUACUCUCCGAGCGAG | 9008 | GUUGCCUCAGGAAGCUUGG | 9043 | GCUUGGAGACAUCGGGCUC | 9078 | GCUCAUCGCCCAGGGAGGU |
| 8974 | UCAUACUCUCCGAGCGAGA | 9009 | UUGCCUCAGGAAGCUUGGG | 9044 | CUUGGAGACAUCGGGCUCG | 9079 | CUCAUCGCCCAGGGAGGUA |
| 8975 | CAUACUCUCCGAGCGAGAU | 9010 | UGCCUCAGGAAGCUUGGGG | 9045 | UUGGAGACAUCGGGCUCGA | 9080 | UCAUCGCCCAGGGAGGUAG |
| 8976 | AUACUCUCCGAGCGAGAUC | 9011 | GCCUCAGGAAGCUUGGGGU | 9046 | UGGAGACAUCGGGCUCGAG | 9081 | CAUCGCCCAGGGAGGUAGG |
| 8977 | UACUCUCCGAGCGAGAUCA | 9012 | CCUCAGGAAGCUUGGGGUA | 9047 | GGAGACAUCGGGCUCGAGC | 9082 | AUCGCCCAGGGAGGUAGGC |
| 8978 | ACUCUCCGAGCGAGAUCAA | 9013 | CUCAGGAAGCUUGGGGUAC | 9048 | GAGACAUCGGGCUCGAGCU | 9083 | UCGCCCAGGGAGGUAGGGC |
| 8979 | CUCUCCGAGCGAGAUCAAU | 9014 | UCAGGAAGCUUGGGGUACC | 9049 | AGACAUCGGGCUCGAGCUG | 9084 | CGCCCAGGGAGGUAGGGCC |
| 8980 | UCUCCGAGCGAGAUCAAUA | 9015 | CAGGAAGCUUGGGGUACCC | 9050 | GACAUCGGGCUCGAGCUGU | 9085 | GCCCAGGGAGGUAGGGCCG |
| 8981 | CUCCGAGCGAGAUCAAUAG | 9016 | AGGAAGCUUGGGGUACCCC | 9051 | ACAUCGGGCUCGAGCUGUA | 9086 | CCCAGGGAGGUAGGGCCGC |
| 8982 | UCCGAGCGAGAUCAAUAGG | 9017 | GGAAGCUUGGGGUACCCCC | 9052 | CAUCGGGCUCGAGCUGUAC | 9087 | CCAGGGAGGUAGGGCCGCC |
| 8983 | CCGAGCGAGAUCAAUAGGG | 9018 | GAAGCUUGGGGUACCCCCU | 9053 | AUCGGGCUCGAGCUGUACG | 9088 | CAGGGAGGUAGGGCCGCCA |
| 8984 | CGAGCGAGAUCAAUAGGGU | 9019 | AAGCUUGGGGUACCCCCUU | 9054 | UCGGGCUCGAGCUGUACGC | 9089 | AGGGAGGUAGGGCCGCCAU |
| 8985 | GAGCGAGAUCAAUAGGGUG | 9020 | AGCUUGGGGUACCCCCUUU | 9055 | CGGGCUCGAGCUGUACGCG | 9090 | GGGAGGUAGGGCCGCCAUC |
| 8986 | AGCGAGAUCAAUAGGGUGG | 9021 | GCUUGGGGUACCCCCUUUG | 9056 | GGGCUCGAGCUGUACGCGC | 9091 | GGAGGUAGGGCCGCCAUCU |
| 8987 | GCGAGAUCAAUAGGGUGGC | 9022 | CUUGGGGUACCCCCUUUGA | 9057 | GGCUCGAGCUGUACGCGCU | 9092 | GAGGUAGGGCCGCCAUCUG |
| 8988 | CGAGAUCAAUAGGGUGGCU | 9023 | UUGGGGUACCCCCUUUGAG | 9058 | GCUCGAGCUGUACGCGCUA | 9093 | AGGUAGGGCCGCCAUCUGC |
| 8989 | GAGAUCAAUAGGGUGGCUA | 9024 | UGGGGUACCCCCUUUGAGA | 9059 | CUCGAGCUGUACGCGCUAA | 9094 | GGUAGGGCCGCCAUCUGCG |
| 8990 | AGAUCAAUAGGGUGGCUAG | 9025 | GGGGUACCCCCUUUGAGAG | 9060 | UCGAGCUGUACGCGCUAAG | 9095 | GUAGGGCCGCCAUCUGCGG |
| 8991 | GAUCAAUAGGGUGGCUAGU | 9026 | GGGUACCCCCUUUGAGAGC | 9061 | CGAGCUGUACGCGCUAAGC | 9096 | UAGGGCCGCCAUCUGCGGC |
| 8992 | AUCAAUAGGGUGGCUAGUU | 9027 | GGUACCCCCUUUGAGAGCU | 9062 | GAGCUGUACGCGCUAAGCU | 9097 | AGGGCCGCCAUCUGCGGCA |
| 8993 | UCAAUAGGGUGGCUAGUUG | 9028 | GUACCCCCUUUGAGAGCUU | 9063 | AGCUGUACGCGCUAAGCUC | 9098 | GGGCCGCCAUCUGCGGCAU |
| 8994 | CAAUAGGGUGGCUAGUUGC | 9029 | UACCCCCUUUGAGAGCUUG | 9064 | GCUGUACGCGCUAAGCUCA | 9099 | GGCCGCCAUCUGCGGCAUC |
| 8995 | AAUAGGGUGGCUAGUUGCC | 9030 | ACCCCCUUUGAGAGCUUGG | 9065 | CUGUACGCGCUAAGCUCAU | 9100 | GCCGCCAUCUGCGGCAUCU |





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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9101 | CCGCCAUCUGCGGCAUCUA | 9136 | GUGAAGACAAAACGCAAAC | 9171 | CGCUGACCGGCUGGACUUG | 9206 | UUGGCGCUGGCGGGGGGGA |
| 9102 | CGCCAUCUGCGGCAUCUAU | 9137 | UGAAGACAAAACGCAAACU | 9172 | GCUGACCGGCUGGACUUGU | 9207 | UGGCGCUGGCGGGGGGGAC |
| 9103 | GCCAUCUGCGGCAUCUAUC | 9138 | GAAGACAAAACGCAAACUC | 9173 | CUGACCGGCUGGACUUGUC | 9208 | GGCGCUGGCGGGGGGGACA |
| 9104 | CCAUCUGCGGCAUCUAUCU | 9139 | AAGACAAAACGCAAACUCA | 9174 | UGACCGGCUGGACUUGUCC | 9209 | GCGCUGGCGGGGGGGACAU |
| 9105 | CAUCUGCGGCAUCUAUCUC | 9140 | AGACAAAACGCAAACUCAC | 9175 | GACCGGCUGGACUUGUCCA | 9210 | CGCUGGCGGGGGGGACAUU |
| 9106 | AUCUGCGGCAUCUAUCUCU | 9141 | GACAAAACGCAAACUCACU | 9176 | ACCGGCUGGACUUGUCCAG | 9211 | GCUGGCGGGGGGGACAUUU |
| 9107 | UCUGCGGCAUCUAUCUCUU | 9142 | ACAAAACGCAAACUCACUC | 9177 | CCGGCUGGACUUGUCCAGC | 9212 | CUGGCGGGGGGGACAUUUA |
| 9108 | CUGCGGCAUCUAUCUCUUC | 9143 | CAAAACGCAAACUCACUCC | 9178 | CGGCUGGACUUGUCCAGCU | 9213 | UGGCGGGGGGGACAUUUAU |
| 9109 | UGCGGCAUCUAUCUCUUCA | 9144 | AAAACGCAAACUCACUCCA | 9179 | GGCUGGACUUGUCCAGCUG | 9214 | GGCGGGGGGGACAUUUAUC |
| 9110 | GCGGCAUCUAUCUCUUCAA | 9145 | AAACGCAAACUCACUCCAU | 9180 | GCUGGACUUGUCCAGCUGG | 9215 | GCGGGGGGGACAUUUAUCA |
| 9111 | CGGCAUCUAUCUCUUCAAC | 9146 | AACGCAAACUCACUCCAUU | 9181 | CUGGACUUGUCCAGCUGGU | 9216 | CGGGGGGGACAUUUAUCAC |
| 9112 | GGCAUCUAUCUCUUCAACU | 9147 | ACGCAAACUCACUCCAUUA | 9182 | UGGACUUGUCCAGCUGGUU | 9217 | GGGGGGGACAUUUAUCACA |
| 9113 | GCAUCUAUCUCUUCAACUG | 9148 | CGCAAACUCACUCCAUUAG | 9183 | GGACUUGUCCAGCUGGUUC | 9218 | GGGGGGACAUUUAUCACAG |
| 9114 | CAUCUAUCUCUUCAACUGG | 9149 | GCAAACUCACUCCAUUAGC | 9184 | GACUUGUCCAGCUGGUUCA | 9219 | GGGGGACAUUUAUCACAGC |
| 9115 | AUCUAUCUCUUCAACUGGG | 9150 | CAAACUCACUCCAUUAGCU | 9185 | ACUUGUCCAGCUGGUUCAC | 9220 | GGGGACAUUUAUCACAGCA |
| 9116 | UCUAUCUCUUCAACUGGGC | 9151 | AAACUCACUCCAUUAGCUG | 9186 | CUUGUCCAGCUGGUUCACC | 9221 | GGGACAUUUAUCACAGCAU |
| 9117 | CUAUCUCUUCAACUGGGCG | 9152 | AACUCACUCCAUUAGCUGA | 9187 | UUGUCCAGCUGGUUCACCG | 9222 | GGACAUUUAUCACAGCAUG |
| 9118 | UAUCUCUUCAACUGGGCGG | 9153 | ACUCACUCCAUUAGCUGAC | 9188 | UGUCCAGCUGGUUCACCGU | 9223 | GACAUUUAUCACAGCAUGU |
| 9119 | AUCUCUUCAACUGGGCGGU | 9154 | CUCACUCCAUUAGCUGACG | 9189 | GUCCAGCUGGUUCACCGUU | 9224 | ACAUUUAUCACAGCAUGUC |
| 9120 | UCUCUUCAACUGGGCGGUG | 9155 | UCACUCCAUUAGCUGACGC | 9190 | UCCAGCUGGUUCACCGUUG | 9225 | CAUUUAUCACAGCAUGUCC |
| 9121 | CUCUUCAACUGGGCGGUGA | 9156 | CACUCCAUUAGCUGACGCU | 9191 | CCAGCUGGUUCACCGUUGG | 9226 | AUUUAUCACAGCAUGUCCC |
| 9122 | UCUUCAACUGGGCGGUGAA | 9157 | ACUCCAUUAGCUGACGCUG | 9192 | CAGCUGGUUCACCGUUGGC | 9227 | UUUAUCACAGCAUGUCCCG |
| 9123 | CUUCAACUGGGCGGUGAAG | 9158 | CUCCAUUAGCUGACGCUGA | 9193 | AGCUGGUUCACCGUUGGCG | 9228 | UUAUCACAGCAUGUCCCGU |
| 9124 | UUCAACUGGGCGGUGAAGA | 9159 | UCCAUUAGCUGACGCUGAC | 9194 | GCUGGUUCACCGUUGGCGC | 9229 | UAUCACAGCAUGUCCCGUG |
| 9125 | UCAACUGGGCGGUGAAGAC | 9160 | CCAUUAGCUGACGCUGACC | 9195 | CUGGUUCACCGUUGGCGCU | 9230 | AUCACAGCAUGUCCCGUGC |
| 9126 | CAACUGGGCGGUGAAGACA | 9161 | CAUUAGCUGACGCUGACCG | 9196 | UGGUUCACCGUUGGCGCUG | 9231 | UCACAGCAUGUCCCGUGCC |
| 9127 | AACUGGGCGGUGAAGACAA | 9162 | AUUAGCUGACGCUGACCGG | 9197 | GGUUCACCGUUGGCGCUGG | 9232 | CACAGCAUGUCCCGUGCCC |
| 9128 | ACUGGGCGGUGAAGACAAA | 9163 | UUAGCUGACGCUGACCGGC | 9198 | GUUCACCGUUGGCGCUGGC | 9233 | ACAGCAUGUCCCGUGCCCG |
| 9129 | CUGGGCGGUGAAGACAAAA | 9164 | UAGCUGACGCUGACCGGCU | 9199 | UUCACCGUUGGCGCUGGCG | 9234 | CAGCAUGUCCCGUGCCCGA |
| 9130 | UGGGCGGUGAAGACAAAAC | 9165 | AGCUGACGCUGACCGGCUG | 9200 | UCACCGUUGGCGCUGGCGG | 9235 | AGCAUGUCCCGUGCCCGAC |
| 9131 | GGGCGGUGAAGACAAAACG | 9166 | GCUGACGCUGACCGGCUGG | 9201 | CACCGUUGGCGCUGGCGGG | 9236 | GCAUGUCCCGUGCCCGACC |
| 9132 | GGCGGUGAAGACAAAACGC | 9167 | CUGACGCUGACCGGCUGGA | 9202 | ACCGUUGGCGCUGGCGGGG | 9237 | CAUGUCCCGUGCCCGACCC |
| 9133 | GCGGUGAAGACAAAACGCA | 9168 | UGACGCUGACCGGCUGGAC | 9203 | CCGUUGGCGCUGGCGGGGG | 9238 | AUGUCCCGUGCCCGACCCC |
| 9134 | CGGUGAAGACAAAACGCAA | 9169 | GACGCUGACCGGCUGGACU | 9204 | CGUUGGCGCUGGCGGGGGG | 9239 | UGUCCCGUGCCCGACCCCG |
| 9135 | GGUGAAGACAAAACGCAAA | 9170 | ACGCUGACCGGCUGGACUU | 9205 | GUUGGCGCUGGCGGGGGGG | 9240 | GUCCCGUGCCCGACCCCGC |



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| | |
|---|---|
| 9241 | UCCCGUGCCCGACCCCGCA |
| 9242 | CCCGUGCCCGACCCCGCAA |
| 9243 | CCGUGCCCGACCCCGCAAC |
| 9244 | CGUGCCCGACCCCGCAACU |
| 9245 | GUGCCCGACCCCGCAACUU |
| 9246 | UGCCCGACCCCGCAACUUA |
| 9247 | GCCCGACCCCGCAACUUAC |
| 9248 | CCCGACCCCGCAACUUACU |
| 9249 | CCGACCCCGCAACUUACUC |
| 9250 | CGACCCCGCAACUUACUCC |
| 9251 | GACCCCGCAACUUACUCCU |
| 9252 | ACCCCGCAACUUACUCCUG |
| 9253 | CCCCGCAACUUACUCCUGU |
| 9254 | CCCGCAACUUACUCCUGUG |
| 9255 | CCGCAACUUACUCCUGUGC |
| 9256 | CGCAACUUACUCCUGUGCC |
| 9257 | GCAACUUACUCCUGUGCCU |
| 9258 | CAACUUACUCCUGUGCCUA |
| 9259 | AACUUACUCCUGUGCCUAC |
| 9260 | ACUUACUCCUGUGCCUACU |
| 9261 | CUUACUCCUGUGCCUACUC |
| 9262 | UUACUCCUGUGCCUACUCC |
| 9263 | UACUCCUGUGCCUACUCCU |
| 9264 | ACUCCUGUGCCUACUCCUA |
| 9265 | CUCCUGUGCCUACUCCUAC |
| 9266 | UCCUGUGCCUACUCCUACU |
| 9267 | CCUGUGCCUACUCCUACUU |
| 9268 | CUGUGCCUACUCCUACUUA |
| 9269 | UGUGCCUACUCCUACUUAG |
| 9270 | GUGCCUACUCCUACUUAGC |
| 9271 | UGCCUACUCCUACUUAGCG |
| 9272 | GCCUACUCCUACUUAGCGU |
| 9273 | CCUACUCCUACUUAGCGUA |
| 9274 | CUACUCCUACUUAGCGUAG |
| 9275 | UACUCCUACUUAGCGUAGG |
| 9276 | ACUCCUACUUAGCGUAGGG |
| 9277 | CUCCUACUUAGCGUAGGGG |
| 9278 | UCCUACUUAGCGUAGGGGU |
| 9279 | CCUACUUAGCGUAGGGGUA |
| 9280 | CUACUUAGCGUAGGGGUAG |
| 9281 | UACUUAGCGUAGGGGUAGG |
| 9282 | ACUUAGCGUAGGGGUAGGC |
| 9283 | CUUAGCGUAGGGGUAGGCA |
| 9284 | UUAGCGUAGGGGUAGGCAU |
| 9285 | UAGCGUAGGGGUAGGCAUC |
| 9286 | AGCGUAGGGGUAGGCAUCU |
| 9287 | GCGUAGGGGUAGGCAUCUU |
| 9288 | CGUAGGGGUAGGCAUCUUU |
| 9289 | GUAGGGGUAGGCAUCUUUU |
| 9290 | UAGGGGUAGGCAUCUUUUU |
| 9291 | AGGGGUAGGCAUCUUUUUA |
| 9292 | GGGGUAGGCAUCUUUUUAC |
| 9293 | GGGUAGGCAUCUUUUUACU |
| 9294 | GGUAGGCAUCUUUUUACUC |
| 9295 | GUAGGCAUCUUUUUACUCC |
| 9296 | UAGGCAUCUUUUUACUCCC |
| 9297 | AGGCAUCUUUUUACUCCCC |
| 9298 | GGCAUCUUUUUACUCCCCG |
| 9299 | GCAUCUUUUUACUCCCCGC |
| 9300 | CAUCUUUUUACUCCCCGCU |
| 9301 | AUCUUUUUACUCCCCGCUC |
| 9302 | UCUUUUUACUCCCCGCUCG |
| 9303 | CUUUUUACUCCCCGCUCGG |
| 9304 | UUUUUACUCCCCGCUCGGU |
| 9305 | UUUUACUCCCCGCUCGGUG |
| 9306 | UUUACUCCCCGCUCGGUGA |
| 9307 | UUACUCCCCGCUCGGUGAG |
| 9308 | UACUCCCCGCUCGGUGAGC |
| 9309 | ACUCCCCGCUCGGUGAGCU |
| 9310 | CUCCCCGCUCGGUGAGCUG |
| 9311 | UCCCCGCUCGGUGAGCUGG |
| 9312 | CCCCGCUCGGUGAGCUGGG |
| 9313 | CCCGCUCGGUGAGCUGGGA |
| 9314 | CCGCUCGGUGAGCUGGGAG |
| 9315 | CGCUCGGUGAGCUGGGAGC |
| 9316 | GCUCGGUGAGCUGGGAGCU |
| 9317 | CUCGGUGAGCUGGGAGCUA |
| 9318 | UCGGUGAGCUGGGAGCUAA |
| 9319 | CGGUGAGCUGGGAGCUAAA |
| 9320 | GGUGAGCUGGGAGCUAAAC |
| 9321 | GUGAGCUGGGAGCUAAACA |
| 9322 | UGAGCUGGGAGCUAAACAC |
| 9323 | GAGCUGGGAGCUAAACACU |
| 9324 | AGCUGGGAGCUAAACACUC |
| 9325 | GCUGGGAGCUAAACACUCC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | GCCAGCCCCUUAACGGGGC | 46 | UGAGGAACUACUGUCUUCA | 91 | AGUAUGAGUGUCGUGCAGC | 136 | CCAUAGUAGUCUGCGGAAC |
| 2 | CCAGCCCCUUAACGGGGCG | 47 | GAGGAACUACUGUCUUCAC | 92 | GUAUGAGUGUCGUGCAGCC | 137 | CAUAGUAGUCUGCGGAACC |
| 3 | CAGCCCCUUAACGGGGCGA | 48 | AGGAACUACUGUCUUCACG | 93 | UAUGAGUGUCGUGCAGCCU | 138 | AUAGUAGUCUGCGGAACCG |
| 4 | AGCCCCUUAACGGGGCGAC | 49 | GGAACUACUGUCUUCACGC | 94 | AUGAGUGUCGUGCAGCCUC | 139 | UAGUAGUCUGCGGAACCGG |
| 5 | GCCCCUUAACGGGGCGACA | 50 | GAACUACUGUCUUCACGCA | 95 | UGAGUGUCGUGCAGCCUCC | 140 | AGUAGUCUGCGGAACCGGU |
| 6 | CCCCUUAACGGGGCGACAC | 51 | AACUACUGUCUUCACGCAG | 96 | GAGUGUCGUGCAGCCUCCA | 141 | GUAGUCUGCGGAACCGGUG |
| 7 | CCCUUAACGGGGCGACACU | 52 | ACUACUGUCUUCACGCAGA | 97 | AGUGUCGUGCAGCCUCCAG | 142 | UAGUCUGCGGAACCGGUGA |
| 8 | CCUUAACGGGGCGACACUC | 53 | CUACUGUCUUCACGCAGAA | 98 | GUGUCGUGCAGCCUCCAGG | 143 | AGUCUGCGGAACCGGUGAG |
| 9 | CUUAACGGGGCGACACUCC | 54 | UACUGUCUUCACGCAGAAA | 99 | UGUCGUGCAGCCUCCAGGC | 144 | GUCUGCGGAACCGGUGAGU |
| 10 | UUAACGGGGCGACACUCCA | 55 | ACUGUCUUCACGCAGAAAG | 100 | GUCGUGCAGCCUCCAGGCC | 145 | UCUGCGGAACCGGUGAGUA |
| 11 | UAACGGGGCGACACUCCAC | 56 | CUGUCUUCACGCAGAAAGC | 101 | UCGUGCAGCCUCCAGGCCC | 146 | CUGCGGAACCGGUGAGUAC |
| 12 | AACGGGGCGACACUCCACC | 57 | UGUCUUCACGCAGAAAGCG | 102 | CGUGCAGCCUCCAGGCCCC | 147 | UGCGGAACCGGUGAGUACA |
| 13 | ACGGGGCGACACUCCACCA | 58 | GUCUUCACGCAGAAAGCGU | 103 | GUGCAGCCUCCAGGCCCCC | 148 | GCGGAACCGGUGAGUACAC |
| 14 | CGGGGCGACACUCCACCAU | 59 | UCUUCACGCAGAAAGCGUC | 104 | UGCAGCCUCCAGGCCCCCC | 149 | CGGAACCGGUGAGUACACC |
| 15 | GGGGCGACACUCCACCAUG | 60 | CUUCACGCAGAAAGCGUCU | 105 | GCAGCCUCCAGGCCCCCCC | 150 | GGAACCGGUGAGUACACCG |
| 16 | GGGCGACACUCCACCAUGA | 61 | UUCACGCAGAAAGCGUCUA | 106 | CAGCCUCCAGGCCCCCCCC | 151 | GAACCGGUGAGUACACCGG |
| 17 | GGCGACACUCCACCAUGAU | 62 | UCACGCAGAAAGCGUCUAG | 107 | AGCCUCCAGGCCCCCCCCU | 152 | AACCGGUGAGUACACCGGA |
| 18 | GCGACACUCCACCAUGAUC | 63 | CACGCAGAAAGCGUCUAGC | 108 | GCCUCCAGGCCCCCCCCUC | 153 | ACCGGUGAGUACACCGGAA |
| 19 | CGACACUCCACCAUGAUCA | 64 | ACGCAGAAAGCGUCUAGCC | 109 | CCUCCAGGCCCCCCCCUCC | 154 | CCGGUGAGUACACCGGAAU |
| 20 | GACACUCCACCAUGAUCAC | 65 | CGCAGAAAGCGUCUAGCCA | 110 | CUCCAGGCCCCCCCCUCCC | 155 | CGGUGAGUACACCGGAAUU |
| 21 | ACACUCCACCAUGAUCACU | 66 | GCAGAAAGCGUCUAGCCAU | 111 | UCCAGGCCCCCCCCUCCCG | 156 | GGUGAGUACACCGGAAUUG |
| 22 | CACUCCACCAUGAUCACUC | 67 | CAGAAAGCGUCUAGCCAUG | 112 | CCAGGCCCCCCCCUCCCGG | 157 | GUGAGUACACCGGAAUUGC |
| 23 | ACUCCACCAUGAUCACUCC | 68 | AGAAAGCGUCUAGCCAUGG | 113 | CAGGCCCCCCCCUCCCGGG | 158 | UGAGUACACCGGAAUUGCC |
| 24 | CUCCACCAUGAUCACUCCC | 69 | GAAAGCGUCUAGCCAUGGC | 114 | AGGCCCCCCCCUCCCGGGA | 159 | GAGUACACCGGAAUUGCCA |
| 25 | UCCACCAUGAUCACUCCCC | 70 | AAAGCGUCUAGCCAUGGCG | 115 | GGCCCCCCCCUCCCGGGAG | 160 | AGUACACCGGAAUUGCCAG |
| 26 | CCACCAUGAUCACUCCCCU | 71 | AAGCGUCUAGCCAUGGCGU | 116 | GCCCCCCCCUCCCGGGAGA | 161 | GUACACCGGAAUUGCCAGG |
| 27 | CACCAUGAUCACUCCCCUG | 72 | AGCGUCUAGCCAUGGCGUU | 117 | CCCCCCCCUCCCGGGAGAG | 162 | UACACCGGAAUUGCCAGGA |
| 28 | ACCAUGAUCACUCCCCUGU | 73 | GCGUCUAGCCAUGGCGUUA | 118 | CCCCCCCUCCCGGGAGAGC | 163 | ACACCGGAAUUGCCAGGAC |
| 29 | CCAUGAUCACUCCCCUGUG | 74 | CGUCUAGCCAUGGCGUUAG | 119 | CCCCCCUCCCGGGAGAGCC | 164 | CACCGGAAUUGCCAGGACG |
| 30 | CAUGAUCACUCCCCUGUGA | 75 | GUCUAGCCAUGGCGUUAGU | 120 | CCCCCUCCCGGGAGAGCCA | 165 | ACCGGAAUUGCCAGGACGA |
| 31 | AUGAUCACUCCCCUGUGAG | 76 | UCUAGCCAUGGCGUUAGUA | 121 | CCCCUCCCGGGAGAGCCAU | 166 | CCGGAAUUGCCAGGACGAC |
| 32 | UGAUCACUCCCCUGUGAGG | 77 | CUAGCCAUGGCGUUAGUAU | 122 | CCCUCCCGGGAGAGCCAUA | 167 | CGGAAUUGCCAGGACGACC |
| 33 | GAUCACUCCCCUGUGAGGA | 78 | UAGCCAUGGCGUUAGUAUG | 123 | CCUCCCGGGAGAGCCAUAG | 168 | GGAAUUGCCAGGACGACCG |
| 34 | AUCACUCCCCUGUGAGGAA | 79 | AGCCAUGGCGUUAGUAUGA | 124 | CUCCCGGGAGAGCCAUAGU | 169 | GAAUUGCCAGGACGACCGG |
| 35 | UCACUCCCCUGUGAGGAAC | 80 | GCCAUGGCGUUAGUAUGAG | 125 | UCCCGGGAGAGCCAUAGUA | 170 | AAUUGCCAGGACGACCGGG |
| 36 | CACUCCCCUGUGAGGAACU | 81 | CCAUGGCGUUAGUAUGAGU | 126 | CCCGGGAGAGCCAUAGUAG | 171 | AUUGCCAGGACGACCGGGU |
| 37 | ACUCCCCUGUGAGGAACUA | 82 | CAUGGCGUUAGUAUGAGUG | 127 | CCGGGAGAGCCAUAGUAGU | 172 | UUGCCAGGACGACCGGGUC |
| 38 | CUCCCCUGUGAGGAACUAC | 83 | AUGGCGUUAGUAUGAGUGU | 128 | CGGGAGAGCCAUAGUAGUC | 173 | UGCCAGGACGACCGGGUCC |
| 39 | UCCCCUGUGAGGAACUACU | 84 | UGGCGUUAGUAUGAGUGUC | 129 | GGGAGAGCCAUAGUAGUCU | 174 | GCCAGGACGACCGGGUCCU |
| 40 | CCCCUGUGAGGAACUACUG | 85 | GGCGUUAGUAUGAGUGUCG | 130 | GGAGAGCCAUAGUAGUCUG | 175 | CCAGGACGACCGGGUCCUU |
| 41 | CCCUGUGAGGAACUACUGU | 86 | GCGUUAGUAUGAGUGUCGU | 131 | GAGAGCCAUAGUAGUCUGC | 176 | CAGGACGACCGGGUCCUUU |
| 42 | CCUGUGAGGAACUACUGUC | 87 | CGUUAGUAUGAGUGUCGUG | 132 | AGAGCCAUAGUAGUCUGCG | 177 | AGGACGACCGGGUCCUUUC |
| 43 | CUGUGAGGAACUACUGUCU | 88 | GUUAGUAUGAGUGUCGUGC | 133 | GAGCCAUAGUAGUCUGCGG | 178 | GGACGACCGGGUCCUUUCC |
| 44 | UGUGAGGAACUACUGUCUU | 89 | UUAGUAUGAGUGUCGUGCA | 134 | AGCCAUAGUAGUCUGCGGA | 179 | GACGACCGGGUCCUUUCCA |
| 45 | GUGAGGAACUACUGUCUUC | 90 | UAGUAUGAGUGUCGUGCAG | 135 | GCCAUAGUAGUCUGCGGAA | 180 | ACGACCGGGUCCUUUCCAU |

**FIG. 7 (page 355 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 181 | CGACCGGGUCCUUUCCAUU | 226 | AUUUGGGCGUGCCCCCGCA | 271 | UGCGAAAGGCCUUGUGGUA | 316 | CCCGGGAGGUCUCGUAGAC |
| 182 | GACCGGGUCCUUUCCAUUG | 227 | UUUGGGCGUGCCCCCGCAA | 272 | GCGAAAGGCCUUGUGGUAC | 317 | CCGGGAGGUCUCGUAGACC |
| 183 | ACCGGGUCCUUUCCAUUGG | 228 | UUGGGCGUGCCCCCGCAAG | 273 | CGAAAGGCCUUGUGGUACU | 318 | CGGGAGGUCUCGUAGACCG |
| 184 | CCGGGUCCUUUCCAUUGGA | 229 | UGGGCGUGCCCCCGCAAGA | 274 | GAAAGGCCUUGUGGUACUG | 319 | GGGAGGUCUCGUAGACCGU |
| 185 | CGGGUCCUUUCCAUUGGAU | 230 | GGGCGUGCCCCCGCAAGAC | 275 | AAAGGCCUUGUGGUACUGC | 320 | GGAGGUCUCGUAGACCGUG |
| 186 | GGGUCCUUUCCAUUGGAUC | 231 | GGCGUGCCCCCGCAAGACU | 276 | AAGGCCUUGUGGUACUGCC | 321 | GAGGUCUCGUAGACCGUGC |
| 187 | GGUCCUUUCCAUUGGAUCA | 232 | GCGUGCCCCCGCAAGACUG | 277 | AGGCCUUGUGGUACUGCCU | 322 | AGGUCUCGUAGACCGUGCA |
| 188 | GUCCUUUCCAUUGGAUCAA | 233 | CGUGCCCCCGCAAGACUGC | 278 | GGCCUUGUGGUACUGCCUG | 323 | GGUCUCGUAGACCGUGCAA |
| 189 | UCCUUUCCAUUGGAUCAAA | 234 | GUGCCCCCGCAAGACUGCU | 279 | GCCUUGUGGUACUGCCUGA | 324 | GUCUCGUAGACCGUGCAAC |
| 190 | CCUUUCCAUUGGAUCAAAC | 235 | UGCCCCCGCAAGACUGCUA | 280 | CCUUGUGGUACUGCCUGAU | 325 | UCUCGUAGACCGUGCAACA |
| 191 | CUUUCCAUUGGAUCAAACC | 236 | GCCCCCGCAAGACUGCUAG | 281 | CUUGUGGUACUGCCUGAUA | 326 | CUCGUAGACCGUGCAACAU |
| 192 | UUUCCAUUGGAUCAAACCC | 237 | CCCCCGCAAGACUGCUAGC | 282 | UUGUGGUACUGCCUGAUAG | 327 | UCGUAGACCGUGCAACAUG |
| 193 | UUCCAUUGGAUCAAACCCG | 238 | CCCCGCAAGACUGCUAGCC | 283 | UGUGGUACUGCCUGAUAGG | 328 | CGUAGACCGUGCAACAUGA |
| 194 | UCCAUUGGAUCAAACCCGC | 239 | CCCGCAAGACUGCUAGCCG | 284 | GUGGUACUGCCUGAUAGGG | 329 | GUAGACCGUGCAACAUGAG |
| 195 | CCAUUGGAUCAAACCCGCU | 240 | CCGCAAGACUGCUAGCCGA | 285 | UGGUACUGCCUGAUAGGGU | 330 | UAGACCGUGCAACAUGAGC |
| 196 | CAUUGGAUCAAACCCGCUC | 241 | CGCAAGACUGCUAGCCGAG | 286 | GGUACUGCCUGAUAGGGUG | 331 | AGACCGUGCAACAUGAGCA |
| 197 | AUUGGAUCAAACCCGCUCA | 242 | GCAAGACUGCUAGCCGAGU | 287 | GUACUGCCUGAUAGGGUGC | 332 | GACCGUGCAACAUGAGCAC |
| 198 | UUGGAUCAAACCCGCUCAA | 243 | CAAGACUGCUAGCCGAGUA | 288 | UACUGCCUGAUAGGGUGCU | 333 | ACCGUGCAACAUGAGCACA |
| 199 | UGGAUCAAACCCGCUCAAU | 244 | AAGACUGCUAGCCGAGUAG | 289 | ACUGCCUGAUAGGGUGCUU | 334 | CCGUGCAACAUGAGCACAC |
| 200 | GGAUCAAACCCGCUCAAUG | 245 | AGACUGCUAGCCGAGUAGC | 290 | CUGCCUGAUAGGGUGCUUG | 335 | CGUGCAACAUGAGCACACU |
| 201 | GAUCAAACCCGCUCAAUGC | 246 | GACUGCUAGCCGAGUAGCG | 291 | UGCCUGAUAGGGUGCUUGC | 336 | GUGCAACAUGAGCACACUU |
| 202 | AUCAAACCCGCUCAAUGCC | 247 | ACUGCUAGCCGAGUAGCGU | 292 | GCCUGAUAGGGUGCUUGCG | 337 | UGCAACAUGAGCACACUUC |
| 203 | UCAAACCCGCUCAAUGCCU | 248 | CUGCUAGCCGAGUAGCGUU | 293 | CCUGAUAGGGUGCUUGCGA | 338 | GCAACAUGAGCACACUUCC |
| 204 | CAAACCCGCUCAAUGCCUG | 249 | UGCUAGCCGAGUAGCGUUG | 294 | CUGAUAGGGUGCUUGCGAG | 339 | CAACAUGAGCACACUUCCU |
| 205 | AAACCCGCUCAAUGCCUGG | 250 | GCUAGCCGAGUAGCGUUGG | 295 | UGAUAGGGUGCUUGCGAGU | 340 | AACAUGAGCACACUUCCUA |
| 206 | AACCCGCUCAAUGCCUGGA | 251 | CUAGCCGAGUAGCGUUGGG | 296 | GAUAGGGUGCUUGCGAGUG | 341 | ACAUGAGCACACUUCCUAA |
| 207 | ACCCGCUCAAUGCCUGGAG | 252 | UAGCCGAGUAGCGUUGGGU | 297 | AUAGGGUGCUUGCGAGUGC | 342 | CAUGAGCACACUUCCUAAA |
| 208 | CCCGCUCAAUGCCUGGAGA | 253 | AGCCGAGUAGCGUUGGGUU | 298 | UAGGGUGCUUGCGAGUGCC | 343 | AUGAGCACACUUCCUAAAC |
| 209 | CCGCUCAAUGCCUGGAGAU | 254 | GCCGAGUAGCGUUGGGUUG | 299 | AGGGUGCUUGCGAGUGCCC | 344 | UGAGCACACUUCCUAAACC |
| 210 | CGCUCAAUGCCUGGAGAUU | 255 | CCGAGUAGCGUUGGGUUGC | 300 | GGGUGCUUGCGAGUGCCCC | 345 | GAGCACACUUCCUAAACCU |
| 211 | GCUCAAUGCCUGGAGAUUU | 256 | CGAGUAGCGUUGGGUUGCG | 301 | GGUGCUUGCGAGUGCCCCG | 346 | AGCACACUUCCUAAACCUC |
| 212 | CUCAAUGCCUGGAGAUUUG | 257 | GAGUAGCGUUGGGUUGCGA | 302 | GUGCUUGCGAGUGCCCCGG | 347 | GCACACUUCCUAAACCUCA |
| 213 | UCAAUGCCUGGAGAUUUGG | 258 | AGUAGCGUUGGGUUGCGAA | 303 | UGCUUGCGAGUGCCCCGGG | 348 | CACACUUCCUAAACCUCAA |
| 214 | CAAUGCCUGGAGAUUUGGG | 259 | GUAGCGUUGGGUUGCGAAA | 304 | GCUUGCGAGUGCCCCGGGA | 349 | ACACUUCCUAAACCUCAAA |
| 215 | AAUGCCUGGAGAUUUGGGC | 260 | UAGCGUUGGGUUGCGAAAG | 305 | CUUGCGAGUGCCCCGGGAG | 350 | CACUUCCUAAACCUCAAAG |
| 216 | AUGCCUGGAGAUUUGGGCG | 261 | AGCGUUGGGUUGCGAAAGG | 306 | UUGCGAGUGCCCCGGGAGG | 351 | ACUUCCUAAACCUCAAAGA |
| 217 | UGCCUGGAGAUUUGGGCGU | 262 | GCGUUGGGUUGCGAAAGGC | 307 | UGCGAGUGCCCCGGGAGGU | 352 | CUUCCUAAACCUCAAAGAA |
| 218 | GCCUGGAGAUUUGGGCGUG | 263 | CGUUGGGUUGCGAAAGGCC | 308 | GCGAGUGCCCCGGGAGGUC | 353 | UUCCUAAACCUCAAAGAAA |
| 219 | CCUGGAGAUUUGGGCGUGC | 264 | GUUGGGUUGCGAAAGGCCU | 309 | CGAGUGCCCCGGGAGGUCU | 354 | UCCUAAACCUCAAAGAAAA |
| 220 | CUGGAGAUUUGGGCGUGCC | 265 | UUGGGUUGCGAAAGGCCUU | 310 | GAGUGCCCCGGGAGGUCUC | 355 | CCUAAACCUCAAAGAAAAA |
| 221 | UGGAGAUUUGGGCGUGCCC | 266 | UGGGUUGCGAAAGGCCUUG | 311 | AGUGCCCCGGGAGGUCUCG | 356 | CUAAACCUCAAAGAAAAAC |
| 222 | GGAGAUUUGGGCGUGCCCC | 267 | GGGUUGCGAAAGGCCUUGU | 312 | GUGCCCCGGGAGGUCUCGU | 357 | UAAACCUCAAAGAAAAACC |
| 223 | GAGAUUUGGGCGUGCCCCC | 268 | GGUUGCGAAAGGCCUUGUG | 313 | UGCCCCGGGAGGUCUCGUA | 358 | AAACCUCAAAGAAAAACCA |
| 224 | AGAUUUGGGCGUGCCCCCG | 269 | GUUGCGAAAGGCCUUGUGG | 314 | GCCCCGGGAGGUCUCGUAG | 359 | AACCUCAAAGAAAAACCAA |
| 225 | GAUUUGGGCGUGCCCCCGC | 270 | UUGCGAAAGGCCUUGUGGU | 315 | CCCCGGGAGGUCUCGUAGA | 360 | ACCUCAAAGAAAAACCAAA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 361 | CCUCAAAGAAAAACCAAAA | 406 | GUCAAGUUCCCGGGCGGCG | 451 | CUGCCGCGCAGGGGCCCAC | 496 | ACAUCCGAGCGAUCCCAGC |
| 362 | CUCAAAGAAAAACCAAAAG | 407 | UCAAGUUCCCGGGCGGCGG | 452 | UGCCGCGCAGGGGCCCACG | 497 | CAUCCGAGCGAUCCCAGCC |
| 363 | UCAAAGAAAAACCAAAAGA | 408 | CAAGUUCCCGGGCGGCGGC | 453 | GCCGCGCAGGGGCCCACGA | 498 | AUCCGAGCGAUCCCAGCCC |
| 364 | CAAAGAAAAACCAAAAGAA | 409 | AAGUUCCCGGGCGGCGGCC | 454 | CCGCGCAGGGGCCCACGAU | 499 | UCCGAGCGAUCCCAGCCCA |
| 365 | AAAGAAAAACCAAAAGAAA | 410 | AGUUCCCGGGCGGCGGCCA | 455 | CGCGCAGGGGCCCACGAUU | 500 | CCGAGCGAUCCCAGCCCAG |
| 366 | AAGAAAAACCAAAAGAAAC | 411 | GUUCCCGGGCGGCGGCCAG | 456 | GCGCAGGGGCCCACGAUUG | 501 | CGAGCGAUCCCAGCCCAGA |
| 367 | AGAAAAACCAAAAGAAACA | 412 | UUCCCGGGCGGCGGCCAGA | 457 | CGCAGGGGCCCACGAUUGG | 502 | GAGCGAUCCCAGCCCAGAG |
| 368 | GAAAAACCAAAAGAAACAC | 413 | UCCCGGGCGGCGGCCAGAU | 458 | GCAGGGGCCCACGAUUGGG | 503 | AGCGAUCCCAGCCCAGAGG |
| 369 | AAAAACCAAAAGAAACACC | 414 | CCCGGGCGGCGGCCAGAUC | 459 | CAGGGGCCCACGAUUGGGU | 504 | GCGAUCCCAGCCCAGAGGU |
| 370 | AAAACCAAAAGAAACACCA | 415 | CCGGGCGGCGGCCAGAUCG | 460 | AGGGGCCCACGAUUGGGUG | 505 | CGAUCCCAGCCCAGAGGUA |
| 371 | AAACCAAAAGAAACACCAA | 416 | CGGGCGGCGGCCAGAUCGU | 461 | GGGGCCCACGAUUGGGUGU | 506 | GAUCCCAGCCCAGAGGUAG |
| 372 | AACCAAAAGAAACACCAAC | 417 | GGGCGGCGGCCAGAUCGUU | 462 | GGGCCCACGAUUGGGUGUG | 507 | AUCCCAGCCCAGAGGUAGG |
| 373 | ACCAAAAGAAACACCAACC | 418 | GGCGGCGGCCAGAUCGUUG | 463 | GGCCCACGAUUGGGUGUGC | 508 | UCCCAGCCCAGAGGUAGGC |
| 374 | CCAAAAGAAACACCAACCG | 419 | GCGGCGGCCAGAUCGUUGG | 464 | GCCCACGAUUGGGUGUGCG | 509 | CCCAGCCCAGAGGUAGGCG |
| 375 | CAAAAGAAACACCAACCGU | 420 | CGGCGGCCAGAUCGUUGGU | 465 | CCCACGAUUGGGUGUGCGC | 510 | CCAGCCCAGAGGUAGGCGC |
| 376 | AAAAGAAACACCAACCGUC | 421 | GGCGGCCAGAUCGUUGGUG | 466 | CCACGAUUGGGUGUGCGCG | 511 | CAGCCCAGAGGUAGGCGCC |
| 377 | AAAGAAACACCAACCGUCG | 422 | GCGGCCAGAUCGUUGGUGG | 467 | CACGAUUGGGUGUGCGCGC | 512 | AGCCCAGAGGUAGGCGCCA |
| 378 | AAGAAACACCAACCGUCGC | 423 | CGGCCAGAUCGUUGGUGGA | 468 | ACGAUUGGGUGUGCGCGCC | 513 | GCCCAGAGGUAGGCGCCAA |
| 379 | AGAAACACCAACCGUCGCC | 424 | GGCCAGAUCGUUGGUGGAG | 469 | CGAUUGGGUGUGCGCGCCA | 514 | CCCAGAGGUAGGCGCCAAC |
| 380 | GAAACACCAACCGUCGCCC | 425 | GCCAGAUCGUUGGUGGAGU | 470 | GAUUGGGUGUGCGCGCCAC | 515 | CCAGAGGUAGGCGCCAACC |
| 381 | AAACACCAACCGUCGCCCA | 426 | CCAGAUCGUUGGUGGAGUU | 471 | AUUGGGUGUGCGCGCCACA | 516 | CAGAGGUAGGCGCCAACCU |
| 382 | AACACCAACCGUCGCCCAA | 427 | CAGAUCGUUGGUGGAGUUU | 472 | UUGGGUGUGCGCGCCACAA | 517 | AGAGGUAGGCGCCAACCUA |
| 383 | ACACCAACCGUCGCCCAAU | 428 | AGAUCGUUGGUGGAGUUUA | 473 | UGGGUGUGCGCGCCACAAG | 518 | GAGGUAGGCGCCAACCUAU |
| 384 | CACCAACCGUCGCCCAAUG | 429 | GAUCGUUGGUGGAGUUUAC | 474 | GGGUGUGCGCGCCACAAGA | 519 | AGGUAGGCGCCAACCUAUA |
| 385 | ACCAACCGUCGCCCAAUGG | 430 | AUCGUUGGUGGAGUUUACU | 475 | GGUGUGCGCGCCACAAGAA | 520 | GGUAGGCGCCAACCUAUAC |
| 386 | CCAACCGUCGCCCAAUGGA | 431 | UCGUUGGUGGAGUUUACUU | 476 | GUGUGCGCGCCACAAGAAA | 521 | GUAGGCGCCAACCUAUACC |
| 387 | CAACCGUCGCCCAAUGGAC | 432 | CGUUGGUGGAGUUUACUUG | 477 | UGUGCGCGCCACAAGAAAG | 522 | UAGGCGCCAACCUAUACCC |
| 388 | AACCGUCGCCCAAUGGACG | 433 | GUUGGUGGAGUUUACUUGC | 478 | GUGCGCGCCACAAGAAAGA | 523 | AGGCGCCAACCUAUACCCA |
| 389 | ACCGUCGCCCAAUGGACGU | 434 | UUGGUGGAGUUUACUUGCU | 479 | UGCGCGCCACAAGAAAGAC | 524 | GGCGCCAACCUAUACCCAA |
| 390 | CCGUCGCCCAAUGGACGUC | 435 | UGGUGGAGUUUACUUGCUG | 480 | GCGCGCCACAAGAAAGACA | 525 | GCGCCAACCUAUACCCAAG |
| 391 | CGUCGCCCAAUGGACGUCA | 436 | GGUGGAGUUUACUUGCUGC | 481 | CGCGCCACAAGAAAGACAU | 526 | CGCCAACCUAUACCCAAGG |
| 392 | GUCGCCCAAUGGACGUCAA | 437 | GUGGAGUUUACUUGCUGCC | 482 | GCGCCACAAGAAAGACAUC | 527 | GCCAACCUAUACCCAAGGC |
| 393 | UCGCCCAAUGGACGUCAAG | 438 | UGGAGUUUACUUGCUGCCG | 483 | CGCCACAAGAAAGACAUCC | 528 | CCAACCUAUACCCAAGGCG |
| 394 | CGCCCAAUGGACGUCAAGU | 439 | GGAGUUUACUUGCUGCCGC | 484 | GCCACAAGAAAGACAUCCG | 529 | CAACCUAUACCCAAGGCGC |
| 395 | GCCCAAUGGACGUCAAGUU | 440 | GAGUUUACUUGCUGCCGCG | 485 | CCACAAGAAAGACAUCCGA | 530 | AACCUAUACCCAAGGCGCG |
| 396 | CCCAAUGGACGUCAAGUUC | 441 | AGUUUACUUGCUGCCGCGC | 486 | CACAAGAAAGACAUCCGAG | 531 | ACCUAUACCCAAGGCGCGC |
| 397 | CCAAUGGACGUCAAGUUCC | 442 | GUUUACUUGCUGCCGCGCA | 487 | ACAAGAAAGACAUCCGAGC | 532 | CCUAUACCCAAGGCGCGCC |
| 398 | CAAUGGACGUCAAGUUCCC | 443 | UUUACUUGCUGCCGCGCAG | 488 | CAAGAAAGACAUCCGAGCG | 533 | CUAUACCCAAGGCGCGCCC |
| 399 | AAUGGACGUCAAGUUCCCG | 444 | UUACUUGCUGCCGCGCAGG | 489 | AAGAAAGACAUCCGAGCGA | 534 | UAUACCCAAGGCGCGCCCA |
| 400 | AUGGACGUCAAGUUCCCGG | 445 | UACUUGCUGCCGCGCAGGG | 490 | AGAAAGACAUCCGAGCGAU | 535 | AUACCCAAGGCGCGCCCAU |
| 401 | UGGACGUCAAGUUCCCGGG | 446 | ACUUGCUGCCGCGCAGGGG | 491 | GAAAGACAUCCGAGCGAUC | 536 | UACCCAAGGCGCGCCCAUC |
| 402 | GGACGUCAAGUUCCCGGGC | 447 | CUUGCUGCCGCGCAGGGGC | 492 | AAAGACAUCCGAGCGAUCC | 537 | ACCCAAGGCGCGCCCAUCU |
| 403 | GACGUCAAGUUCCCGGGCG | 448 | UUGCUGCCGCGCAGGGGCC | 493 | AAGACAUCCGAGCGAUCCC | 538 | CCCAAGGCGCGCCCAUCUC |
| 404 | ACGUCAAGUUCCCGGGCGG | 449 | UGCUGCCGCGCAGGGGCCC | 494 | AGACAUCCGAGCGAUCCCA | 539 | CCAAGGCGCGCCCAUCUCA |
| 405 | CGUCAAGUUCCCGGGCGGC | 450 | GCUGCCGCGCAGGGGCCCA | 495 | GACAUCCGAGCGAUCCCAG | 540 | CAAGGCGCGCCCAUCUCAG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 541 | AAGGCGCGCCCAUCUCAGG | 586 | CCCUGGCCCCUGUAUGGGA | 631 | CUUAUGUCUCCCCGCGGCU | 676 | CCCCGGCGUCGGUCCCGUA |
| 542 | AGGCGCGCCCAUCUCAGGG | 587 | CCUGGCCCCUGUAUGGGAA | 632 | UUAUGUCUCCCCGCGGCUC | 677 | CCCGGCGUCGGUCCCGUAA |
| 543 | GGCGCGCCCAUCUCAGGGC | 588 | CUGGCCCCUGUAUGGGAAU | 633 | UAUGUCUCCCCGCGGCUCU | 678 | CCGGCGUCGGUCCCGUAAU |
| 544 | GCGCGCCCAUCUCAGGGCC | 589 | UGGCCCCUGUAUGGGAAUG | 634 | AUGUCUCCCCGCGGCUCUC | 679 | CGGCGUCGGUCCCGUAAUU |
| 545 | CGCGCCCAUCUCAGGGCCG | 590 | GGCCCCUGUAUGGGAAUGA | 635 | UGUCUCCCCGCGGCUCUCG | 680 | GGCGUCGGUCCCGUAAUUU |
| 546 | GCGCCCAUCUCAGGGCCGG | 591 | GCCCCUGUAUGGGAAUGAG | 636 | GUCUCCCCGCGGCUCUCGC | 681 | GCGUCGGUCCCGUAAUUUG |
| 547 | CGCCCAUCUCAGGGCCGGA | 592 | CCCCUGUAUGGGAAUGAGG | 637 | UCUCCCCGCGGCUCUCGCC | 682 | CGUCGGUCCCGUAAUUUGG |
| 548 | GCCCAUCUCAGGGCCGGAC | 593 | CCCUGUAUGGGAAUGAGGG | 638 | CUCCCCGCGGCUCUCGCCC | 683 | GUCGGUCCCGUAAUUUGGG |
| 549 | CCCAUCUCAGGGCCGGACC | 594 | CCUGUAUGGGAAUGAGGGC | 639 | UCCCCGCGGCUCUCGCCCU | 684 | UCGGUCCCGUAAUUUGGGU |
| 550 | CCAUCUCAGGGCCGGACCU | 595 | CUGUAUGGGAAUGAGGGCU | 640 | CCCCGCGGCUCUCGCCCUU | 685 | CGGUCCCGUAAUUUGGGUA |
| 551 | CAUCUCAGGGCCGGACCUG | 596 | UGUAUGGGAAUGAGGGCUG | 641 | CCCGCGGCUCUCGCCCUUC | 686 | GGUCCCGUAAUUUGGGUAA |
| 552 | AUCUCAGGGCCGGACCUGG | 597 | GUAUGGGAAUGAGGGCUGC | 642 | CCGCGGCUCUCGCCCUUCU | 687 | GUCCCGUAAUUUGGGUAAG |
| 553 | UCUCAGGGCCGGACCUGGG | 598 | UAUGGGAAUGAGGGCUGCG | 643 | CGCGGCUCUCGCCCUUCUU | 688 | UCCCGUAAUUUGGGUAAGG |
| 554 | CUCAGGGCCGGACCUGGGG | 599 | AUGGGAAUGAGGGCUGCGG | 644 | GCGGCUCUCGCCCUUCUUG | 689 | CCCGUAAUUUGGGUAAGGU |
| 555 | UCAGGGCCGGACCUGGGGU | 600 | UGGGAAUGAGGGCUGCGGG | 645 | CGGCUCUCGCCCUUCUUGG | 690 | CCGUAAUUUGGGUAAGGUC |
| 556 | CAGGGCCGGACCUGGGGUC | 601 | GGGAAUGAGGGCUGCGGGU | 646 | GGCUCUCGCCCUUCUUGGG | 691 | CGUAAUUUGGGUAAGGUCA |
| 557 | AGGGCCGGACCUGGGGUCA | 602 | GGAAUGAGGGCUGCGGGUG | 647 | GCUCUCGCCCUUCUUGGGG | 692 | GUAAUUUGGGUAAGGUCAU |
| 558 | GGGCCGGACCUGGGGUCAG | 603 | GAAUGAGGGCUGCGGGUGG | 648 | CUCUCGCCCUUCUUGGGGC | 693 | UAAUUUGGGUAAGGUCAUC |
| 559 | GGCCGGACCUGGGGUCAGC | 604 | AAUGAGGGCUGCGGGUGGG | 649 | UCUCGCCCUUCUUGGGGCC | 694 | AAUUUGGGUAAGGUCAUCG |
| 560 | GCCGGACCUGGGGUCAGCC | 605 | AUGAGGGCUGCGGGUGGGC | 650 | CUCGCCCUUCUUGGGGCCC | 695 | AUUUGGGUAAGGUCAUCGA |
| 561 | CCGGACCUGGGGUCAGCCU | 606 | UGAGGGCUGCGGGUGGGCA | 651 | UCGCCCUUCUUGGGGCCCA | 696 | UUUGGGUAAGGUCAUCGAU |
| 562 | CGGACCUGGGGUCAGCCUG | 607 | GAGGGCUGCGGGUGGGCAG | 652 | CGCCCUUCUUGGGGCCCAA | 697 | UUGGGUAAGGUCAUCGAUA |
| 563 | GGACCUGGGGUCAGCCUGG | 608 | AGGGCUGCGGGUGGGCAGG | 653 | GCCCUUCUUGGGGCCCAAA | 698 | UGGGUAAGGUCAUCGAUAC |
| 564 | GACCUGGGGUCAGCCUGGC | 609 | GGGCUGCGGGUGGGCAGGC | 654 | CCCUUCUUGGGGCCCAAAC | 699 | GGGUAAGGUCAUCGAUACC |
| 565 | ACCUGGGGUCAGCCUGGCU | 610 | GGCUGCGGGUGGGCAGGCU | 655 | CCUUCUUGGGGCCCAAACG | 700 | GGUAAGGUCAUCGAUACCC |
| 566 | CCUGGGGUCAGCCUGGCUA | 611 | GCUGCGGGUGGGCAGGCUG | 656 | CUUCUUGGGGCCCAAACGA | 701 | GUAAGGUCAUCGAUACCCU |
| 567 | CUGGGGUCAGCCUGGCUAC | 612 | CUGCGGGUGGGCAGGCUGG | 657 | UUCUUGGGGCCCAAACGAC | 702 | UAAGGUCAUCGAUACCCUG |
| 568 | UGGGGUCAGCCUGGCUACC | 613 | UGCGGGUGGGCAGGCUGGC | 658 | UCUUGGGGCCCAAACGACC | 703 | AAGGUCAUCGAUACCCUGA |
| 569 | GGGGUCAGCCUGGCUACCC | 614 | GCGGGUGGGCAGGCUGGCU | 659 | CUUGGGGCCCAAACGACCC | 704 | AGGUCAUCGAUACCCUGAC |
| 570 | GGGUCAGCCUGGCUACCCC | 615 | CGGGUGGGCAGGCUGGCUU | 660 | UUGGGGCCCAAACGACCCC | 705 | GGUCAUCGAUACCCUGACA |
| 571 | GGUCAGCCUGGCUACCCCU | 616 | GGGUGGGCAGGCUGGCUUA | 661 | UGGGGCCCAAACGACCCCC | 706 | GUCAUCGAUACCCUGACAU |
| 572 | GUCAGCCUGGCUACCCCUG | 617 | GGUGGGCAGGCUGGCUUAU | 662 | GGGGCCCAAACGACCCCCG | 707 | UCAUCGAUACCCUGACAUG |
| 573 | UCAGCCUGGCUACCCCUGG | 618 | GUGGGCAGGCUGGCUUAUG | 663 | GGGCCCAAACGACCCCCGG | 708 | CAUCGAUACCCUGACAUGC |
| 574 | CAGCCUGGCUACCCCUGGC | 619 | UGGGCAGGCUGGCUUAUGU | 664 | GGCCCAAACGACCCCCGGC | 709 | AUCGAUACCCUGACAUGCG |
| 575 | AGCCUGGCUACCCCUGGCC | 620 | GGGCAGGCUGGCUUAUGUC | 665 | GCCCAAACGACCCCCGGCG | 710 | UCGAUACCCUGACAUGCGG |
| 576 | GCCUGGCUACCCCUGGCCC | 621 | GGCAGGCUGGCUUAUGUCU | 666 | CCCAAACGACCCCCGGCGU | 711 | CGAUACCCUGACAUGCGGA |
| 577 | CCUGGCUACCCCUGGCCCC | 622 | GCAGGCUGGCUUAUGUCUC | 667 | CCAAACGACCCCCGGCGUC | 712 | GAUACCCUGACAUGCGGAC |
| 578 | CUGGCUACCCCUGGCCCCU | 623 | CAGGCUGGCUUAUGUCUCC | 668 | CAAACGACCCCCGGCGUCG | 713 | AUACCCUGACAUGCGGACU |
| 579 | UGGCUACCCCUGGCCCCUG | 624 | AGGCUGGCUUAUGUCUCCC | 669 | AAACGACCCCCGGCGUCGG | 714 | UACCCUGACAUGCGGACUC |
| 580 | GGCUACCCCUGGCCCCUGU | 625 | GGCUGGCUUAUGUCUCCCC | 670 | AACGACCCCCGGCGUCGGU | 715 | ACCCUGACAUGCGGACUCG |
| 581 | GCUACCCCUGGCCCCUGUA | 626 | GCUGGCUUAUGUCUCCCCG | 671 | ACGACCCCCGGCGUCGGUC | 716 | CCCUGACAUGCGGACUCGC |
| 582 | CUACCCCUGGCCCCUGUAU | 627 | CUGGCUUAUGUCUCCCCGC | 672 | CGACCCCCGGCGUCGGUCC | 717 | CCUGACAUGCGGACUCGCC |
| 583 | UACCCCUGGCCCCUGUAUG | 628 | UGGCUUAUGUCUCCCCGCG | 673 | GACCCCCGGCGUCGGUCCC | 718 | CUGACAUGCGGACUCGCCG |
| 584 | ACCCCUGGCCCCUGUAUGG | 629 | GGCUUAUGUCUCCCCGCGG | 674 | ACCCCCGGCGUCGGUCCCG | 719 | UGACAUGCGGACUCGCCGA |
| 585 | CCCCUGGCCCCUGUAUGGG | 630 | GCUUAUGUCUCCCCGCGGC | 675 | CCCCCGGCGUCGGUCCCGU | 720 | GACAUGCGGACUCGCCGAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 721 | ACAUGCGGACUCGCCGACC | 766 | GGACCCUUGGGUGGCGUCG | 811 | GCAAUCGAGGACGGGAUUA | 856 | UGCUCUUUUUCUAUCUUCA |
| 722 | CAUGCGGACUCGCCGACCU | 767 | GACCCUUGGGUGGCGUCGC | 812 | CAAUCGAGGACGGGAUUAA | 857 | GCUCUUUUUCUAUCUUCAU |
| 723 | AUGCGGACUCGCCGACCUC | 768 | ACCCUUGGGUGGCGUCGCG | 813 | AAUCGAGGACGGGAUUAAC | 858 | CUCUUUUUCUAUCUUCAUC |
| 724 | UGCGGACUCGCCGACCUCA | 769 | CCCUUGGGUGGCGUCGCGG | 814 | AUCGAGGACGGGAUUAACU | 859 | UCUUUUUCUAUCUUCAUCC |
| 725 | GCGGACUCGCCGACCUCAU | 770 | CCUUGGGUGGCGUCGCGGC | 815 | UCGAGGACGGGAUUAACUA | 860 | CUUUUUCUAUCUUCAUCCU |
| 726 | CGGACUCGCCGACCUCAUG | 771 | CUUGGGUGGCGUCGCGGCU | 816 | CGAGGACGGGAUUAACUAU | 861 | UUUUUCUAUCUUCAUCCUG |
| 727 | GGACUCGCCGACCUCAUGG | 772 | UUGGGUGGCGUCGCGGCUG | 817 | GAGGACGGGAUUAACUAUG | 862 | UUUUCUAUCUUCAUCCUGG |
| 728 | GACUCGCCGACCUCAUGGG | 773 | UGGGUGGCGUCGCGGCUGC | 818 | AGGACGGGAUUAACUAUGC | 863 | UUUCUAUCUUCAUCCUGGC |
| 729 | ACUCGCCGACCUCAUGGGG | 774 | GGGUGGCGUCGCGGCUGCG | 819 | GGACGGGAUUAACUAUGCA | 864 | UUCUAUCUUCAUCCUGGCA |
| 730 | CUCGCCGACCUCAUGGGGU | 775 | GGUGGCGUCGCGGCUGCGC | 820 | GACGGGAUUAACUAUGCAA | 865 | UCUAUCUUCAUCCUGGCAC |
| 731 | UCGCCGACCUCAUGGGGUA | 776 | GUGGCGUCGCGGCUGCGCU | 821 | ACGGGAUUAACUAUGCAAC | 866 | CUAUCUUCAUCCUGGCACU |
| 732 | CGCCGACCUCAUGGGGUAC | 777 | UGGCGUCGCGGCUGCGCUC | 822 | CGGGAUUAACUAUGCAACA | 867 | UAUCUUCAUCCUGGCACUG |
| 733 | GCCGACCUCAUGGGGUACA | 778 | GGCGUCGCGGCUGCGCUCG | 823 | GGGAUUAACUAUGCAACAG | 868 | AUCUUCAUCCUGGCACUGC |
| 734 | CCGACCUCAUGGGGUACAU | 779 | GCGUCGCGGCUGCGCUCGC | 824 | GGAUUAACUAUGCAACAGG | 869 | UCUUCAUCCUGGCACUGCU |
| 735 | CGACCUCAUGGGGUACAUU | 780 | CGUCGCGGCUGCGCUCGCA | 825 | GAUUAACUAUGCAACAGGG | 870 | CUUCAUCCUGGCACUGCUC |
| 736 | GACCUCAUGGGGUACAUUC | 781 | GUCGCGGCUGCGCUCGCAC | 826 | AUUAACUAUGCAACAGGGA | 871 | UUCAUCCUGGCACUGCUCU |
| 737 | ACCUCAUGGGGUACAUUCC | 782 | UCGCGGCUGCGCUCGCACA | 827 | UUAACUAUGCAACAGGGAA | 872 | UCAUCCUGGCACUGCUCUC |
| 738 | CCUCAUGGGGUACAUUCCC | 783 | CGCGGCUGCGCUCGCACAU | 828 | UAACUAUGCAACAGGGAAU | 873 | CAUCCUGGCACUGCUCUCG |
| 739 | CUCAUGGGGUACAUUCCCG | 784 | GCGGCUGCGCUCGCACAUG | 829 | AACUAUGCAACAGGGAAUC | 874 | AUCCUGGCACUGCUCUCGU |
| 740 | UCAUGGGGUACAUUCCCGU | 785 | CGGCUGCGCUCGCACAUGG | 830 | ACUAUGCAACAGGGAAUCU | 875 | UCCUGGCACUGCUCUCGUG |
| 741 | CAUGGGGUACAUUCCCGUC | 786 | GGCUGCGCUCGCACAUGGU | 831 | CUAUGCAACAGGGAAUCUU | 876 | CCUGGCACUGCUCUCGUGC |
| 742 | AUGGGGUACAUUCCCGUCG | 787 | GCUGCGCUCGCACAUGGUG | 832 | UAUGCAACAGGGAAUCUUC | 877 | CUGGCACUGCUCUCGUGCC |
| 743 | UGGGGUACAUUCCCGUCGU | 788 | CUGCGCUCGCACAUGGUGU | 833 | AUGCAACAGGGAAUCUUCC | 878 | UGGCACUGCUCUCGUGCCU |
| 744 | GGGGUACAUUCCCGUCGUA | 789 | UGCGCUCGCACAUGGUGUG | 834 | UGCAACAGGGAAUCUUCCU | 879 | GGCACUGCUCUCGUGCCUC |
| 745 | GGGUACAUUCCCGUCGUAG | 790 | GCGCUCGCACAUGGUGUGA | 835 | GCAACAGGGAAUCUUCCUG | 880 | GCACUGCUCUCGUGCCUCA |
| 746 | GGUACAUUCCCGUCGUAGG | 791 | CGCUCGCACAUGGUGUGAG | 836 | CAACAGGGAAUCUUCCUGG | 881 | CACUGCUCUCGUGCCUCAC |
| 747 | GUACAUUCCCGUCGUAGGC | 792 | GCUCGCACAUGGUGUGAGG | 837 | AACAGGGAAUCUUCCUGGU | 882 | ACUGCUCUCGUGCCUCACC |
| 748 | UACAUUCCCGUCGUAGGCG | 793 | CUCGCACAUGGUGUGAGGG | 838 | ACAGGGAAUCUUCCUGGUU | 883 | CUGCUCUCGUGCCUCACCA |
| 749 | ACAUUCCCGUCGUAGGCGG | 794 | UCGCACAUGGUGUGAGGGC | 839 | CAGGGAAUCUUCCUGGUUG | 884 | UGCUCUCGUGCCUCACCAC |
| 750 | CAUUCCCGUCGUAGGCGGA | 795 | CGCACAUGGUGUGAGGGCA | 840 | AGGGAAUCUUCCUGGUUGC | 885 | GCUCUCGUGCCUCACCACA |
| 751 | AUUCCCGUCGUAGGCGGAC | 796 | GCACAUGGUGUGAGGGCAA | 841 | GGGAAUCUUCCUGGUUGCU | 886 | CUCUCGUGCCUCACCACAC |
| 752 | UUCCCGUCGUAGGCGGACC | 797 | CACAUGGUGUGAGGGCAAU | 842 | GGAAUCUUCCUGGUUGCUC | 887 | UCUCGUGCCUCACCACACC |
| 753 | UCCCGUCGUAGGCGGACCC | 798 | ACAUGGUGUGAGGGCAAUC | 843 | GAAUCUUCCUGGUUGCUCU | 888 | CUCGUGCCUCACCACACCA |
| 754 | CCCGUCGUAGGCGGACCCU | 799 | CAUGGUGUGAGGGCAAUCG | 844 | AAUCUUCCUGGUUGCUCUU | 889 | UCGUGCCUCACCACACCAG |
| 755 | CCGUCGUAGGCGGACCCUU | 800 | AUGGUGUGAGGGCAAUCGA | 845 | AUCUUCCUGGUUGCUCUUU | 890 | CGUGCCUCACCACACCAGC |
| 756 | CGUCGUAGGCGGACCCUUG | 801 | UGGUGUGAGGGCAAUCGAG | 846 | UCUUCCUGGUUGCUCUUUU | 891 | GUGCCUCACCACACCAGCC |
| 757 | GUCGUAGGCGGACCCUUGG | 802 | GGUGUGAGGGCAAUCGAGG | 847 | CUUCCUGGUUGCUCUUUUU | 892 | UGCCUCACCACACCAGCCU |
| 758 | UCGUAGGCGGACCCUUGGG | 803 | GUGUGAGGGCAAUCGAGGA | 848 | UUCCUGGUUGCUCUUUUUC | 893 | GCCUCACCACACCAGCCUC |
| 759 | CGUAGGCGGACCCUUGGGU | 804 | UGUGAGGGCAAUCGAGGAC | 849 | UCCUGGUUGCUCUUUUUCU | 894 | CCUCACCACACCAGCCUCG |
| 760 | GUAGGCGGACCCUUGGGUG | 805 | GUGAGGGCAAUCGAGGACG | 850 | CCUGGUUGCUCUUUUUCUA | 895 | CUCACCACACCAGCCUCGG |
| 761 | UAGGCGGACCCUUGGGUGG | 806 | UGAGGGCAAUCGAGGACGG | 851 | CUGGUUGCUCUUUUUCUAU | 896 | UCACCACACCAGCCUCGGC |
| 762 | AGGCGGACCCUUGGGUGGC | 807 | GAGGGCAAUCGAGGACGGG | 852 | UGGUUGCUCUUUUUCUAUC | 897 | CACCACACCAGCCUCGGCG |
| 763 | GGCGGACCCUUGGGUGGCG | 808 | AGGGCAAUCGAGGACGGGA | 853 | GGUUGCUCUUUUUCUAUCU | 898 | ACCACACCAGCCUCGGCGC |
| 764 | GCGGACCCUUGGGUGGCGU | 809 | GGGCAAUCGAGGACGGGAU | 854 | GUUGCUCUUUUUCUAUCUU | 899 | CCACACCAGCCUCGGCGCU |
| 765 | CGGACCCUUGGGUGGCGUC | 810 | GGCAAUCGAGGACGGGAUU | 855 | UUGCUCUUUUUCUAUCUUC | 900 | CACACCAGCCUCGGCGCUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 901 | ACACCAGCCUCGGCGCUCA | 946 | CAUCUAACCAAUGAUUGUC | 991 | GAGGCCAUGAUCCUACACC | 1036 | GCCGGAAACAUUUCACGCU |
| 902 | CACCAGCCUCGGCGCUCAC | 947 | AUCUAACCAAUGAUUGUCC | 992 | AGGCCAUGAUCCUACACCU | 1037 | CCGGAAACAUUUCACGCUG |
| 903 | ACCAGCCUCGGCGCUCACA | 948 | UCUAACCAAUGAUUGUCCA | 993 | GGCCAUGAUCCUACACCUA | 1038 | CGGAAACAUUUCACGCUGC |
| 904 | CCAGCCUCGGCGCUCACAU | 949 | CUAACCAAUGAUUGUCCAC | 994 | GCCAUGAUCCUACACCUAG | 1039 | GGAAACAUUUCACGCUGCU |
| 905 | CAGCCUCGGCGCUCACAUA | 950 | UAACCAAUGAUUGUCCACG | 995 | CCAUGAUCCUACACCUAGC | 1040 | GAAACAUUUCACGCUGCUG |
| 906 | AGCCUCGGCGCUCACAUAC | 951 | AACCAAUGAUUGUCCACGC | 996 | CAUGAUCCUACACCUAGCU | 1041 | AAACAUUUCACGCUGCUGG |
| 907 | GCCUCGGCGCUCACAUACG | 952 | ACCAAUGAUUGUCCACGCU | 997 | AUGAUCCUACACCUAGCUG | 1042 | AACAUUUCACGCUGCUGGC |
| 908 | CCUCGGCGCUCACAUACGG | 953 | CCAAUGAUUGUCCACGCUC | 998 | UGAUCCUACACCUAGCUGG | 1043 | ACAUUUCACGCUGCUGGCA |
| 909 | CUCGGCGCUCACAUACGGC | 954 | CAAUGAUUGUCCACGCUCC | 999 | GAUCCUACACCUAGCUGGU | 1044 | CAUUUCACGCUGCUGGCAU |
| 910 | UCGGCGCUCACAUACGGCA | 955 | AAUGAUUGUCCACGCUCCA | 1000 | AUCCUACACCUAGCUGGUU | 1045 | AUUUCACGCUGCUGGCAUC |
| 911 | CGGCGCUCACAUACGGCAA | 956 | AUGAUUGUCCACGCUCCAG | 1001 | UCCUACACCUAGCUGGUUG | 1046 | UUUCACGCUGCUGGCAUCC |
| 912 | GGCGCUCACAUACGGCAAC | 957 | UGAUUGUCCACGCUCCAGC | 1002 | CCUACACCUAGCUGGUUGU | 1047 | UUCACGCUGCUGGCAUCCU |
| 913 | GCGCUCACAUACGGCAACU | 958 | GAUUGUCCACGCUCCAGCA | 1003 | CUACACCUAGCUGGUUGUG | 1048 | UCACGCUGCUGGCAUCCUG |
| 914 | CGCUCACAUACGGCAACUC | 959 | AUUGUCCACGCUCCAGCAU | 1004 | UACACCUAGCUGGUUGUGU | 1049 | CACGCUGCUGGCAUCCUGU |
| 915 | GCUCACAUACGGCAACUCC | 960 | UUGUCCACGCUCCAGCAUA | 1005 | ACACCUAGCUGGUUGUGUG | 1050 | ACGCUGCUGGCAUCCUGUU |
| 916 | CUCACAUACGGCAACUCCA | 961 | UGUCCACGCUCCAGCAUAG | 1006 | CACCUAGCUGGUUGUGUGC | 1051 | CGCUGCUGGCAUCCUGUUU |
| 917 | UCACAUACGGCAACUCCAG | 962 | GUCCACGCUCCAGCAUAGU | 1007 | ACCUAGCUGGUUGUGUGCC | 1052 | GCUGCUGGCAUCCUGUUUC |
| 918 | CACAUACGGCAACUCCAGC | 963 | UCCACGCUCCAGCAUAGUG | 1008 | CCUAGCUGGUUGUGUGCCU | 1053 | CUGCUGGCAUCCUGUUUCA |
| 919 | ACAUACGGCAACUCCAGCG | 964 | CCACGCUCCAGCAUAGUGC | 1009 | CUAGCUGGUUGUGUGCCUU | 1054 | UGCUGGCAUCCUGUUUCAC |
| 920 | CAUACGGCAACUCCAGCGG | 965 | CACGCUCCAGCAUAGUGCU | 1010 | UAGCUGGUUGUGUGCCUUG | 1055 | GCUGGCAUCCUGUUUCACC |
| 921 | AUACGGCAACUCCAGCGGG | 966 | ACGCUCCAGCAUAGUGCUG | 1011 | AGCUGGUUGUGUGCCUUGC | 1056 | CUGGCAUCCUGUUUCACCC |
| 922 | UACGGCAACUCCAGCGGGU | 967 | CGCUCCAGCAUAGUGCUGG | 1012 | GCUGGUUGUGUGCCUUGCG | 1057 | UGGCAUCCUGUUUCACCCA |
| 923 | ACGGCAACUCCAGCGGGUU | 968 | GCUCCAGCAUAGUGCUGGA | 1013 | CUGGUUGUGUGCCUUGCGU | 1058 | GGCAUCCUGUUUCACCCAC |
| 924 | CGGCAACUCCAGCGGGUUG | 969 | CUCCAGCAUAGUGCUGGAA | 1014 | UGGUUGUGUGCCUUGCGUG | 1059 | GCAUCCUGUUUCACCCACC |
| 925 | GGCAACUCCAGCGGGUUGU | 970 | UCCAGCAUAGUGCUGGAAG | 1015 | GGUUGUGUGCCUUGCGUGA | 1060 | CAUCCUGUUUCACCCACCC |
| 926 | GCAACUCCAGCGGGUUGUA | 971 | CCAGCAUAGUGCUGGAAGC | 1016 | GUUGUGUGCCUUGCGUGAG | 1061 | AUCCUGUUUCACCCACCCU |
| 927 | CAACUCCAGCGGGUUGUAC | 972 | CAGCAUAGUGCUGGAAGCG | 1017 | UUGUGUGCCUUGCGUGAGA | 1062 | UCCUGUUUCACCCACCCUG |
| 928 | AACUCCAGCGGGUUGUACC | 973 | AGCAUAGUGCUGGAAGCGG | 1018 | UGUGUGCCUUGCGUGAGAG | 1063 | CCUGUUUCACCCACCCUGG |
| 929 | ACUCCAGCGGGUUGUACCA | 974 | GCAUAGUGCUGGAAGCGGA | 1019 | GUGUGCCUUGCGUGAGAGC | 1064 | CUGUUUCACCCACCCUGGC |
| 930 | CUCCAGCGGGUUGUACCAU | 975 | CAUAGUGCUGGAAGCGGAG | 1020 | UGUGCCUUGCGUGAGAGCC | 1065 | UGUUUCACCCACCCUGGCU |
| 931 | UCCAGCGGGUUGUACCAUC | 976 | AUAGUGCUGGAAGCGGAGG | 1021 | GUGCCUUGCGUGAGAGCCG | 1066 | GUUUCACCCACCCUGGCUG |
| 932 | CCAGCGGGUUGUACCAUCU | 977 | UAGUGCUGGAAGCGGAGGC | 1022 | UGCCUUGCGUGAGAGCCGG | 1067 | UUUCACCCACCCUGGCUGU |
| 933 | CAGCGGGUUGUACCAUCUA | 978 | AGUGCUGGAAGCGGAGGCC | 1023 | GCCUUGCGUGAGAGCCGGA | 1068 | UUCACCCACCCUGGCUGUA |
| 934 | AGCGGGUUGUACCAUCUAA | 979 | GUGCUGGAAGCGGAGGCCA | 1024 | CCUUGCGUGAGAGCCGGAA | 1069 | UCACCCACCCUGGCUGUAC |
| 935 | GCGGGUUGUACCAUCUAAC | 980 | UGCUGGAAGCGGAGGCCAU | 1025 | CUUGCGUGAGAGCCGGAAA | 1070 | CACCCACCCUGGCUGUACC |
| 936 | CGGGUUGUACCAUCUAACC | 981 | GCUGGAAGCGGAGGCCAUG | 1026 | UUGCGUGAGAGCCGGAAAC | 1071 | ACCCACCCUGGCUGUACCG |
| 937 | GGGUUGUACCAUCUAACCA | 982 | CUGGAAGCGGAGGCCAUGA | 1027 | UGCGUGAGAGCCGGAAACA | 1072 | CCCACCCUGGCUGUACCGA |
| 938 | GGUUGUACCAUCUAACCAA | 983 | UGGAAGCGGAGGCCAUGAU | 1028 | GCGUGAGAGCCGGAAACAU | 1073 | CCACCCUGGCUGUACCGAA |
| 939 | GUUGUACCAUCUAACCAAU | 984 | GGAAGCGGAGGCCAUGAUC | 1029 | CGUGAGAGCCGGAAACAUU | 1074 | CACCCUGGCUGUACCGAAU |
| 940 | UUGUACCAUCUAACCAAUG | 985 | GAAGCGGAGGCCAUGAUCC | 1030 | GUGAGAGCCGGAAACAUUU | 1075 | ACCCUGGCUGUACCGAAUG |
| 941 | UGUACCAUCUAACCAAUGA | 986 | AAGCGGAGGCCAUGAUCCU | 1031 | UGAGAGCCGGAAACAUUUC | 1076 | CCCUGGCUGUACCGAAUGC |
| 942 | GUACCAUCUAACCAAUGAU | 987 | AGCGGAGGCCAUGAUCCUA | 1032 | GAGAGCCGGAAACAUUUCA | 1077 | CCUGGCUGUACCGAAUGCC |
| 943 | UACCAUCUAACCAAUGAUU | 988 | GCGGAGGCCAUGAUCCUAC | 1033 | AGAGCCGGAAACAUUUCAC | 1078 | CUGGCUGUACCGAAUGCCU |
| 944 | ACCAUCUAACCAAUGAUUG | 989 | CGGAGGCCAUGAUCCUACA | 1034 | GAGCCGGAAACAUUUCACG | 1079 | UGGCUGUACCGAAUGCCUC |
| 945 | CCAUCUAACCAAUGAUUGU | 990 | GGAGGCCAUGAUCCUACAC | 1035 | AGCCGGAAACAUUUCACGC | 1080 | GGCUGUACCGAAUGCCUCG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1081 | GCUGUACCGAAUGCCUCGG | 1126 | GUGGAUCUCCUCGCAGGCG | 1171 | AUCGGAGACCUCUGCGGUG | 1216 | ACCUUCAGUCCUCGCAUCC |
| 1082 | CUGUACCGAAUGCCUCGGU | 1127 | UGGAUCUCCUCGCAGGCGC | 1172 | UCGGAGACCUCUGCGGUGC | 1217 | CCUUCAGUCCUCGCAUCCA |
| 1083 | UGUACCGAAUGCCUCGGUG | 1128 | GGAUCUCCUCGCAGGCGCU | 1173 | CGGAGACCUCUGCGGUGCC | 1218 | CUUCAGUCCUCGCAUCCAC |
| 1084 | GUACCGAAUGCCUCGGUGC | 1129 | GAUCUCCUCGCAGGCGCUG | 1174 | GGAGACCUCUGCGGUGCCG | 1219 | UUCAGUCCUCGCAUCCACG |
| 1085 | UACCGAAUGCCUCGGUGCC | 1130 | AUCUCCUCGCAGGCGCUGC | 1175 | GAGACCUCUGCGGUGCCGU | 1220 | UCAGUCCUCGCAUCCACGA |
| 1086 | ACCGAAUGCCUCGGUGCCU | 1131 | UCUCCUCGCAGGCGCUGCA | 1176 | AGACCUCUGCGGUGCCGUA | 1221 | CAGUCCUCGCAUCCACGAC |
| 1087 | CCGAAUGCCUCGGUGCCUG | 1132 | CUCCUCGCAGGCGCUGCAG | 1177 | GACCUCUGCGGUGCCGUAU | 1222 | AGUCCUCGCAUCCACGACA |
| 1088 | CGAAUGCCUCGGUGCCUGC | 1133 | UCCUCGCAGGCGCUGCAGU | 1178 | ACCUCUGCGGUGCCGUAUU | 1223 | GUCCUCGCAUCCACGACAU |
| 1089 | GAAUGCCUCGGUGCCUGCG | 1134 | CCUCGCAGGCGCUGCAGUC | 1179 | CCUCUGCGGUGCCGUAUUU | 1224 | UCCUCGCAUCCACGACAUA |
| 1090 | AAUGCCUCGGUGCCUGCGA | 1135 | CUCGCAGGCGCUGCAGUCG | 1180 | CUCUGCGGUGCCGUAUUUU | 1225 | CCUCGCAUCCACGACAUAA |
| 1091 | AUGCCUCGGUGCCUGCGAG | 1136 | UCGCAGGCGCUGCAGUCGU | 1181 | UCUGCGGUGCCGUAUUUUU | 1226 | CUCGCAUCCACGACAUAAC |
| 1092 | UGCCUCGGUGCCUGCGAGC | 1137 | CGCAGGCGCUGCAGUCGUU | 1182 | CUGCGGUGCCGUAUUUUUG | 1227 | UCGCAUCCACGACAUAACG |
| 1093 | GCCUCGGUGCCUGCGAGCG | 1138 | GCAGGCGCUGCAGUCGUUU | 1183 | UGCGGUGCCGUAUUUUUGG | 1228 | CGCAUCCACGACAUAACGC |
| 1094 | CCUCGGUGCCUGCGAGCGG | 1139 | CAGGCGCUGCAGUCGUUUG | 1184 | GCGGUGCCGUAUUUUUGGC | 1229 | GCAUCCACGACAUAACGCA |
| 1095 | CUCGGUGCCUGCGAGCGGG | 1140 | AGGCGCUGCAGUCGUUUGC | 1185 | CGGUGCCGUAUUUUUGGCA | 1230 | CAUCCACGACAUAACGCAG |
| 1096 | UCGGUGCCUGCGAGCGGGU | 1141 | GGCGCUGCAGUCGUUUGCU | 1186 | GGUGCCGUAUUUUUGGCAG | 1231 | AUCCACGACAUAACGCAGG |
| 1097 | CGGUGCCUGCGAGCGGGUU | 1142 | GCGCUGCAGUCGUUUGCUC | 1187 | GUGCCGUAUUUUUGGCAGG | 1232 | UCCACGACAUAACGCAGGA |
| 1098 | GGUGCCUGCGAGCGGGUUC | 1143 | CGCUGCAGUCGUUUGCUCU | 1188 | UGCCGUAUUUUUGGCAGGA | 1233 | CCACGACAUAACGCAGGAC |
| 1099 | GUGCCUGCGAGCGGGUUCC | 1144 | GCUGCAGUCGUUUGCUCUU | 1189 | GCCGUAUUUUUGGCAGGAC | 1234 | CACGACAUAACGCAGGACU |
| 1100 | UGCCUGCGAGCGGGUUCCG | 1145 | CUGCAGUCGUUUGCUCUUC | 1190 | CCGUAUUUUUGGCAGGACA | 1235 | ACGACAUAACGCAGGACUG |
| 1101 | GCCUGCGAGCGGGUUCCGC | 1146 | UGCAGUCGUUUGCUCUUCG | 1191 | CGUAUUUUUGGCAGGACAG | 1236 | CGACAUAACGCAGGACUGC |
| 1102 | CCUGCGAGCGGGUUCCGCA | 1147 | GCAGUCGUUUGCUCUUCGA | 1192 | GUAUUUUUGGCAGGACAGU | 1237 | GACAUAACGCAGGACUGCA |
| 1103 | CUGCGAGCGGGUUCCGCAA | 1148 | CAGUCGUUUGCUCUUCGAU | 1193 | UAUUUUUGGCAGGACAGUU | 1238 | ACAUAACGCAGGACUGCAA |
| 1104 | UGCGAGCGGGUUCCGCAAA | 1149 | AGUCGUUUGCUCUUCGAUG | 1194 | AUUUUUGGCAGGACAGUUG | 1239 | CAUAACGCAGGACUGCAAU |
| 1105 | GCGAGCGGGUUCCGCAAAC | 1150 | GUCGUUUGCUCUUCGAUGU | 1195 | UUUUUGGCAGGACAGUUGG | 1240 | AUAACGCAGGACUGCAAUU |
| 1106 | CGAGCGGGUUCCGCAAACA | 1151 | UCGUUUGCUCUUCGAUGUA | 1196 | UUUUGGCAGGACAGUUGGC | 1241 | UAACGCAGGACUGCAAUUG |
| 1107 | GAGCGGGUUCCGCAAACAU | 1152 | CGUUUGCUCUUCGAUGUAU | 1197 | UUUGGCAGGACAGUUGGCU | 1242 | AACGCAGGACUGCAAUUGU |
| 1108 | AGCGGGUUCCGCAAACAUG | 1153 | GUUUGCUCUUCGAUGUAUA | 1198 | UUGGCAGGACAGUUGGCUA | 1243 | ACGCAGGACUGCAAUUGUU |
| 1109 | GCGGGUUCCGCAAACAUGU | 1154 | UUUGCUCUUCGAUGUAUAU | 1199 | UGGCAGGACAGUUGGCUAC | 1244 | CGCAGGACUGCAAUUGUUC |
| 1110 | CGGGUUCCGCAAACAUGUG | 1155 | UUGCUCUUCGAUGUAUAUC | 1200 | GGCAGGACAGUUGGCUACC | 1245 | GCAGGACUGCAAUUGUUCG |
| 1111 | GGGUUCCGCAAACAUGUGG | 1156 | UGCUCUUCGAUGUAUAUCG | 1201 | GCAGGACAGUUGGCUACCU | 1246 | CAGGACUGCAAUUGUUCGG |
| 1112 | GGUUCCGCAAACAUGUGGA | 1157 | GCUCUUCGAUGUAUAUCGG | 1202 | CAGGACAGUUGGCUACCUU | 1247 | AGGACUGCAAUUGUUCGGU |
| 1113 | GUUCCGCAAACAUGUGGAU | 1158 | CUCUUCGAUGUAUAUCGGA | 1203 | AGGACAGUUGGCUACCUUC | 1248 | GGACUGCAAUUGUUCGGUU |
| 1114 | UUCCGCAAACAUGUGGAUC | 1159 | UCUUCGAUGUAUAUCGGAG | 1204 | GGACAGUUGGCUACCUUCA | 1249 | GACUGCAAUUGUUCGGUUU |
| 1115 | UCCGCAAACAUGUGGAUCU | 1160 | CUUCGAUGUAUAUCGGAGA | 1205 | GACAGUUGGCUACCUUCAG | 1250 | ACUGCAAUUGUUCGGUUUA |
| 1116 | CCGCAAACAUGUGGAUCUC | 1161 | UUCGAUGUAUAUCGGAGAC | 1206 | ACAGUUGGCUACCUUCAGU | 1251 | CUGCAAUUGUUCGGUUUAU |
| 1117 | CGCAAACAUGUGGAUCUCC | 1162 | UCGAUGUAUAUCGGAGACC | 1207 | CAGUUGGCUACCUUCAGUC | 1252 | UGCAAUUGUUCGGUUUAUA |
| 1118 | GCAAACAUGUGGAUCUCCU | 1163 | CGAUGUAUAUCGGAGACCU | 1208 | AGUUGGCUACCUUCAGUCC | 1253 | GCAAUUGUUCGGUUUAUAC |
| 1119 | CAAACAUGUGGAUCUCCUC | 1164 | GAUGUAUAUCGGAGACCUC | 1209 | GUUGGCUACCUUCAGUCCU | 1254 | CAAUUGUUCGGUUUAUACA |
| 1120 | AAACAUGUGGAUCUCCUCG | 1165 | AUGUAUAUCGGAGACCUCU | 1210 | UUGGCUACCUUCAGUCCUC | 1255 | AAUUGUUCGGUUUAUACAG |
| 1121 | AACAUGUGGAUCUCCUCGC | 1166 | UGUAUAUCGGAGACCUCUG | 1211 | UGGCUACCUUCAGUCCUCG | 1256 | AUUGUUCGGUUUAUACAGG |
| 1122 | ACAUGUGGAUCUCCUCGCA | 1167 | GUAUAUCGGAGACCUCUGC | 1212 | GGCUACCUUCAGUCCUCGC | 1257 | UUGUUCGGUUUAUACAGGC |
| 1123 | CAUGUGGAUCUCCUCGCAG | 1168 | UAUAUCGGAGACCUCUGCG | 1213 | GCUACCUUCAGUCCUCGCA | 1258 | UGUUCGGUUUAUACAGGCC |
| 1124 | AUGUGGAUCUCCUCGCAGG | 1169 | AUAUCGGAGACCUCUGCGG | 1214 | CUACCUUCAGUCCUCGCAU | 1259 | GUUCGGUUUAUACAGGCCA |
| 1125 | UGUGGAUCUCCUCGCAGGC | 1170 | UAUCGGAGACCUCUGCGGU | 1215 | UACCUUCAGUCCUCGCAUC | 1260 | UUCGGUUUAUACAGGCCAU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1261 | UCGGUUUAUACAGGCCAUG | 1306 | AUGAUGAUGAACUGGUCGC | 1351 | AUUCUGAGAGUGCCCGAAA | 1396 | CACUGGGGUGUCCUGAUCG |
| 1262 | CGGUUUAUACAGGCCAUGU | 1307 | UGAUGAUGAACUGGUCGCC | 1352 | UUCUGAGAGUGCCCGAAAU | 1397 | ACUGGGGUGUCCUGAUCGC |
| 1263 | GGUUUAUACAGGCCAUGUU | 1308 | GAUGAUGAACUGGUCGCCU | 1353 | UCUGAGAGUGCCCGAAAUA | 1398 | CUGGGGUGUCCUGAUCGCC |
| 1264 | GUUUAUACAGGCCAUGUUA | 1309 | AUGAUGAACUGGUCGCCUA | 1354 | CUGAGAGUGCCCGAAAUAG | 1399 | UGGGGUGUCCUGAUCGCCA |
| 1265 | UUUAUACAGGCCAUGUUAC | 1310 | UGAUGAACUGGUCGCCUAC | 1355 | UGAGAGUGCCCGAAAUAGU | 1400 | GGGGUGUCCUGAUCGCCAU |
| 1266 | UUAUACAGGCCAUGUUACC | 1311 | GAUGAACUGGUCGCCUACC | 1356 | GAGAGUGCCCGAAAUAGUG | 1401 | GGGUGUCCUGAUCGCCAUC |
| 1267 | UAUACAGGCCAUGUUACCG | 1312 | AUGAACUGGUCGCCUACCA | 1357 | AGAGUGCCCGAAAUAGUGC | 1402 | GGUGUCCUGAUCGCCAUCG |
| 1268 | AUACAGGCCAUGUUACCGG | 1313 | UGAACUGGUCGCCUACCAC | 1358 | GAGUGCCCGAAAUAGUGCU | 1403 | GUGUCCUGAUCGCCAUCGC |
| 1269 | UACAGGCCAUGUUACCGGC | 1314 | GAACUGGUCGCCUACCACU | 1359 | AGUGCCCGAAAUAGUGCUC | 1404 | UGUCCUGAUCGCCAUCGCC |
| 1270 | ACAGGCCAUGUUACCGGCC | 1315 | AACUGGUCGCCUACCACUA | 1360 | GUGCCCGAAAUAGUGCUCG | 1405 | GUCCUGAUCGCCAUCGCCU |
| 1271 | CAGGCCAUGUUACCGGCCA | 1316 | ACUGGUCGCCUACCACUAC | 1361 | UGCCCGAAAUAGUGCUCGA | 1406 | UCCUGAUCGCCAUCGCCUA |
| 1272 | AGGCCAUGUUACCGGCCAC | 1317 | CUGGUCGCCUACCACUACC | 1362 | GCCCGAAAUAGUGCUCGAG | 1407 | CCUGAUCGCCAUCGCCUAC |
| 1273 | GGCCAUGUUACCGGCCACA | 1318 | UGGUCGCCUACCACUACCC | 1363 | CCCGAAAUAGUGCUCGAGG | 1408 | CUGAUCGCCAUCGCCUACU |
| 1274 | GCCAUGUUACCGGCCACAG | 1319 | GGUCGCCUACCACUACCCU | 1364 | CCGAAAUAGUGCUCGAGGU | 1409 | UGAUCGCCAUCGCCUACUU |
| 1275 | CCAUGUUACCGGCCACAGA | 1320 | GUCGCCUACCACUACCCUG | 1365 | CGAAAUAGUGCUCGAGGUG | 1410 | GAUCGCCAUCGCCUACUUC |
| 1276 | CAUGUUACCGGCCACAGAA | 1321 | UCGCCUACCACUACCCUGG | 1366 | GAAAUAGUGCUCGAGGUGU | 1411 | AUCGCCAUCGCCUACUUCG |
| 1277 | AUGUUACCGGCCACAGAAU | 1322 | CGCCUACCACUACCCUGGU | 1367 | AAAUAGUGCUCGAGGUGUU | 1412 | UCGCCAUCGCCUACUUCGG |
| 1278 | UGUUACCGGCCACAGAAUG | 1323 | GCCUACCACUACCCUGGUC | 1368 | AAUAGUGCUCGAGGUGUUC | 1413 | CGCCAUCGCCUACUUCGGC |
| 1279 | GUUACCGGCCACAGAAUGG | 1324 | CCUACCACUACCCUGGUCC | 1369 | AUAGUGCUCGAGGUGUUCG | 1414 | GCCAUCGCCUACUUCGGCA |
| 1280 | UUACCGGCCACAGAAUGGC | 1325 | CUACCACUACCCUGGUCCU | 1370 | UAGUGCUCGAGGUGUUCGC | 1415 | CCAUCGCCUACUUCGGCAU |
| 1281 | UACCGGCCACAGAAUGGCG | 1326 | UACCACUACCCUGGUCCUG | 1371 | AGUGCUCGAGGUGUUCGCC | 1416 | CAUCGCCUACUUCGGCAUG |
| 1282 | ACCGGCCACAGAAUGGCGU | 1327 | ACCACUACCCUGGUCCUGU | 1372 | GUGCUCGAGGUGUUCGCCG | 1417 | AUCGCCUACUUCGGCAUGU |
| 1283 | CCGGCCACAGAAUGGCGUG | 1328 | CCACUACCCUGGUCCUGUC | 1373 | UGCUCGAGGUGUUCGCCGG | 1418 | UCGCCUACUUCGGCAUGUC |
| 1284 | CGGCCACAGAAUGGCGUGG | 1329 | CACUACCCUGGUCCUGUCG | 1374 | GCUCGAGGUGUUCGCCGGC | 1419 | CGCCUACUUCGGCAUGUCA |
| 1285 | GGCCACAGAAUGGCGUGGG | 1330 | ACUACCCUGGUCCUGUCGA | 1375 | CUCGAGGUGUUCGCCGGCG | 1420 | GCCUACUUCGGCAUGUCAG |
| 1286 | GCCACAGAAUGGCGUGGGA | 1331 | CUACCCUGGUCCUGUCGAG | 1376 | UCGAGGUGUUCGCCGGCGG | 1421 | CCUACUUCGGCAUGUCAGG |
| 1287 | CCACAGAAUGGCGUGGGAC | 1332 | UACCCUGGUCCUGUCGAGC | 1377 | CGAGGUGUUCGCCGGCGGU | 1422 | CUACUUCGGCAUGUCAGGC |
| 1288 | CACAGAAUGGCGUGGGACA | 1333 | ACCCUGGUCCUGUCGAGCA | 1378 | GAGGUGUUCGCCGGCGGUC | 1423 | UACUUCGGCAUGUCAGGCA |
| 1289 | ACAGAAUGGCGUGGGACAU | 1334 | CCCUGGUCCUGUCGAGCAU | 1379 | AGGUGUUCGCCGGCGGUCA | 1424 | ACUUCGGCAUGUCAGGCAA |
| 1290 | CAGAAUGGCGUGGGACAUG | 1335 | CCUGGUCCUGUCGAGCAUU | 1380 | GGUGUUCGCCGGCGGUCAC | 1425 | CUUCGGCAUGUCAGGCAAU |
| 1291 | AGAAUGGCGUGGGACAUGA | 1336 | CUGGUCCUGUCGAGCAUUC | 1381 | GUGUUCGCCGGCGGUCACU | 1426 | UUCGGCAUGUCAGGCAAUU |
| 1292 | GAAUGGCGUGGGACAUGAU | 1337 | UGGUCCUGUCGAGCAUUCU | 1382 | UGUUCGCCGGCGGUCACUG | 1427 | UCGGCAUGUCAGGCAAUUG |
| 1293 | AAUGGCGUGGGACAUGAUG | 1338 | GGUCCUGUCGAGCAUUCUG | 1383 | GUUCGCCGGCGGUCACUGG | 1428 | CGGCAUGUCAGGCAAUUGG |
| 1294 | AUGGCGUGGGACAUGAUGA | 1339 | GUCCUGUCGAGCAUUCUGA | 1384 | UUCGCCGGCGGUCACUGGG | 1429 | GGCAUGUCAGGCAAUUGGU |
| 1295 | UGGCGUGGGACAUGAUGAU | 1340 | UCCUGUCGAGCAUUCUGAG | 1385 | UCGCCGGCGGUCACUGGGG | 1430 | GCAUGUCAGGCAAUUGGUU |
| 1296 | GGCGUGGGACAUGAUGAUG | 1341 | CCUGUCGAGCAUUCUGAGA | 1386 | CGCCGGCGGUCACUGGGGU | 1431 | CAUGUCAGGCAAUUGGUUG |
| 1297 | GCGUGGGACAUGAUGAUGA | 1342 | CUGUCGAGCAUUCUGAGAG | 1387 | GCCGGCGGUCACUGGGGUG | 1432 | AUGUCAGGCAAUUGGUUGA |
| 1298 | CGUGGGACAUGAUGAUGAA | 1343 | UGUCGAGCAUUCUGAGAGU | 1388 | CCGGCGGUCACUGGGGUGU | 1433 | UGUCAGGCAAUUGGUUGAA |
| 1299 | GUGGGACAUGAUGAUGAAC | 1344 | GUCGAGCAUUCUGAGAGUG | 1389 | CGGCGGUCACUGGGGUGUC | 1434 | GUCAGGCAAUUGGUUGAAG |
| 1300 | UGGGACAUGAUGAUGAACU | 1345 | UCGAGCAUUCUGAGAGUGC | 1390 | GGCGGUCACUGGGGUGUCC | 1435 | UCAGGCAAUUGGUUGAAGG |
| 1301 | GGGACAUGAUGAUGAACUG | 1346 | CGAGCAUUCUGAGAGUGCC | 1391 | GCGGUCACUGGGGUGUCCU | 1436 | CAGGCAAUUGGUUGAAGGU |
| 1302 | GGACAUGAUGAUGAACUGG | 1347 | GAGCAUUCUGAGAGUGCCC | 1392 | CGGUCACUGGGGUGUCCUG | 1437 | AGGCAAUUGGUUGAAGGUA |
| 1303 | GACAUGAUGAUGAACUGGU | 1348 | AGCAUUCUGAGAGUGCCCG | 1393 | GGUCACUGGGGUGUCCUGA | 1438 | GGCAAUUGGUUGAAGGUAA |
| 1304 | ACAUGAUGAUGAACUGGUC | 1349 | GCAUUCUGAGAGUGCCCGA | 1394 | GUCACUGGGGUGUCCUGAU | 1439 | GCAAUUGGUUGAAGGUAAU |
| 1305 | CAUGAUGAUGAACUGGUCG | 1350 | CAUUCUGAGAGUGCCCGAA | 1395 | UCACUGGGGUGUCCUGAUC | 1440 | CAAUUGGUUGAAGGUAAUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1441 | AAUUGGUUGAAGGUAAUCG | 1486 | GAGGCAACCACCACCGUCG | 1531 | CUCUUCACCUCCAUUUUCU | 1576 | CUUAUUAACACCAAUGGUA |
| 1442 | AUUGGUUGAAGGUAAUCGC | 1487 | AGGCAACCACCACCGUCGG | 1532 | UCUUCACCUCCAUUUUCUC | 1577 | UUAUUAACACCAAUGGUAG |
| 1443 | UUGGUUGAAGGUAAUCGCU | 1488 | GGCAACCACCACCGUCGGC | 1533 | CUUCACCUCCAUUUUCUCG | 1578 | UAUUAACACCAAUGGUAGC |
| 1444 | UGGUUGAAGGUAAUCGCUG | 1489 | GCAACCACCACCGUCGGCA | 1534 | UUCACCUCCAUUUUCUCGU | 1579 | AUUAACACCAAUGGUAGCU |
| 1445 | GGUUGAAGGUAAUCGCUGU | 1490 | CAACCACCACCGUCGGCAG | 1535 | UCACCUCCAUUUUCUCGUC | 1580 | UUAACACCAAUGGUAGCUG |
| 1446 | GUUGAAGGUAAUCGCUGUG | 1491 | AACCACCACCGUCGGCAGA | 1536 | CACCUCCAUUUUCUCGUCU | 1581 | UAACACCAAUGGUAGCUGG |
| 1447 | UUGAAGGUAAUCGCUGUGU | 1492 | ACCACCACCGUCGGCAGAG | 1537 | ACCUCCAUUUUCUCGUCUG | 1582 | AACACCAAUGGUAGCUGGC |
| 1448 | UGAAGGUAAUCGCUGUGUU | 1493 | CCACCACCGUCGGCAGAGC | 1538 | CCUCCAUUUUCUCGUCUGG | 1583 | ACACCAAUGGUAGCUGGCA |
| 1449 | GAAGGUAAUCGCUGUGUUA | 1494 | CACCACCGUCGGCAGAGCG | 1539 | CUCCAUUUUCUCGUCUGGU | 1584 | CACCAAUGGUAGCUGGCAC |
| 1450 | AAGGUAAUCGCUGUGUUAU | 1495 | ACCACCGUCGGCAGAGCGG | 1540 | UCCAUUUUCUCGUCUGGUC | 1585 | ACCAAUGGUAGCUGGCACA |
| 1451 | AGGUAAUCGCUGUGUUAUU | 1496 | CCACCGUCGGCAGAGCGGC | 1541 | CCAUUUUCUCGUCUGGUCC | 1586 | CCAAUGGUAGCUGGCACAU |
| 1452 | GGUAAUCGCUGUGUUAUUC | 1497 | CACCGUCGGCAGAGCGGCC | 1542 | CAUUUUCUCGUCUGGUCCA | 1587 | CAAUGGUAGCUGGCACAUA |
| 1453 | GUAAUCGCUGUGUUAUUCC | 1498 | ACCGUCGGCAGAGCGGCCG | 1543 | AUUUUCUCGUCUGGUCCAA | 1588 | AAUGGUAGCUGGCACAUAA |
| 1454 | UAAUCGCUGUGUUAUUCCU | 1499 | CCGUCGGCAGAGCGGCCGG | 1544 | UUUUCUCGUCUGGUCCAAA | 1589 | AUGGUAGCUGGCACAUAAA |
| 1455 | AAUCGCUGUGUUAUUCCUG | 1500 | CGUCGGCAGAGCGGCCGGC | 1545 | UUUCUCGUCUGGUCCAAAU | 1590 | UGGUAGCUGGCACAUAAAU |
| 1456 | AUCGCUGUGUUAUUCCUGU | 1501 | GUCGGCAGAGCGGCCGGCC | 1546 | UUCUCGUCUGGUCCAAAUC | 1591 | GGUAGCUGGCACAUAAAUA |
| 1457 | UCGCUGUGUUAUUCCUGUU | 1502 | UCGGCAGAGCGGCCGGCCG | 1547 | UCUCGUCUGGUCCAAAUCA | 1592 | GUAGCUGGCACAUAAAUAG |
| 1458 | CGCUGUGUUAUUCCUGUUU | 1503 | CGGCAGAGCGGCCGGCCGU | 1548 | CUCGUCUGGUCCAAAUCAG | 1593 | UAGCUGGCACAUAAAUAGG |
| 1459 | GCUGUGUUAUUCCUGUUUG | 1504 | GGCAGAGCGGCCGGCCGUU | 1549 | UCGUCUGGUCCAAAUCAGA | 1594 | AGCUGGCACAUAAAUAGGA |
| 1460 | CUGUGUUAUUCCUGUUUGC | 1505 | GCAGAGCGGCCGGCCGUUC | 1550 | CGUCUGGUCCAAAUCAGAA | 1595 | GCUGGCACAUAAAUAGGAC |
| 1461 | UGUGUUAUUCCUGUUUGCA | 1506 | CAGAGCGGCCGGCCGUUCU | 1551 | GUCUGGUCCAAAUCAGAAG | 1596 | CUGGCACAUAAAUAGGACC |
| 1462 | GUGUUAUUCCUGUUUGCAG | 1507 | AGAGCGGCCGGCCGUUCUG | 1552 | UCUGGUCCAAAUCAGAAGA | 1597 | UGGCACAUAAAUAGGACCG |
| 1463 | UGUUAUUCCUGUUUGCAGG | 1508 | GAGCGGCCGGCCGUUCUGC | 1553 | CUGGUCCAAAUCAGAAGAU | 1598 | GGCACAUAAAUAGGACCGC |
| 1464 | GUUAUUCCUGUUUGCAGGG | 1509 | AGCGGCCGGCCGUUCUGCU | 1554 | UGGUCCAAAUCAGAAGAUA | 1599 | GCACAUAAAUAGGACCGCU |
| 1465 | UUAUUCCUGUUUGCAGGGG | 1510 | GCGGCCGGCCGUUCUGCUU | 1555 | GGUCCAAAUCAGAAGAUAC | 1600 | CACAUAAAUAGGACCGCUC |
| 1466 | UAUUCCUGUUUGCAGGGGU | 1511 | CGGCCGGCCGUUCUGCUUA | 1556 | GUCCAAAUCAGAAGAUACA | 1601 | ACAUAAAUAGGACCGCUCU |
| 1467 | AUUCCUGUUUGCAGGGGUA | 1512 | GGCCGGCCGUUCUGCUUAU | 1557 | UCCAAAUCAGAAGAUACAG | 1602 | CAUAAAUAGGACCGCUCUA |
| 1468 | UUCCUGUUUGCAGGGGUAG | 1513 | GCCGGCCGUUCUGCUUAUC | 1558 | CCAAAUCAGAAGAUACAGC | 1603 | AUAAAUAGGACCGCUCUAA |
| 1469 | UCCUGUUUGCAGGGGUAGA | 1514 | CCGGCCGUUCUGCUUAUCU | 1559 | CAAAUCAGAAGAUACAGCU | 1604 | UAAAUAGGACCGCUCUAAA |
| 1470 | CCUGUUUGCAGGGGUAGAG | 1515 | CGGCCGUUCUGCUUAUCUC | 1560 | AAAUCAGAAGAUACAGCUU | 1605 | AAAUAGGACCGCUCUAAAC |
| 1471 | CUGUUUGCAGGGGUAGAGG | 1516 | GGCCGUUCUGCUUAUCUCU | 1561 | AAUCAGAAGAUACAGCUUA | 1606 | AAUAGGACCGCUCUAAACU |
| 1472 | UGUUUGCAGGGGUAGAGGC | 1517 | GCCGUUCUGCUUAUCUCUU | 1562 | AUCAGAAGAUACAGCUUAU | 1607 | AUAGGACCGCUCUAAACUG |
| 1473 | GUUUGCAGGGGUAGAGGCA | 1518 | CCGUUCUGCUUAUCUCUUC | 1563 | UCAGAAGAUACAGCUUAUU | 1608 | UAGGACCGCUCUAAACUGU |
| 1474 | UUUGCAGGGGUAGAGGCAA | 1519 | CGUUCUGCUUAUCUCUUCA | 1564 | CAGAAGAUACAGCUUAUUA | 1609 | AGGACCGCUCUAAACUGUA |
| 1475 | UUGCAGGGGUAGAGGCAAC | 1520 | GUUCUGCUUAUCUCUUCAC | 1565 | AGAAGAUACAGCUUAUUAA | 1610 | GGACCGCUCUAAACUGUAU |
| 1476 | UGCAGGGGUAGAGGCAACC | 1521 | UUCUGCUUAUCUCUUCACC | 1566 | GAAGAUACAGCUUAUUAAC | 1611 | GACCGCUCUAAACUGUAUC |
| 1477 | GCAGGGGUAGAGGCAACCA | 1522 | UCUGCUUAUCUCUUCACCU | 1567 | AAGAUACAGCUUAUUAACA | 1612 | ACCGCUCUAAACUGUAUCG |
| 1478 | CAGGGGUAGAGGCAACCAC | 1523 | CUGCUUAUCUCUUCACCUC | 1568 | AGAUACAGCUUAUUAACAC | 1613 | CCGCUCUAAACUGUAUCGA |
| 1479 | AGGGGUAGAGGCAACCACC | 1524 | UGCUUAUCUCUUCACCUCC | 1569 | GAUACAGCUUAUUAACACC | 1614 | CGCUCUAAACUGUAUCGAC |
| 1480 | GGGGUAGAGGCAACCACCA | 1525 | GCUUAUCUCUUCACCUCCA | 1570 | AUACAGCUUAUUAACACCA | 1615 | GCUCUAAACUGUAUCGACA |
| 1481 | GGGUAGAGGCAACCACCAC | 1526 | CUUAUCUCUUCACCUCCAU | 1571 | UACAGCUUAUUAACACCAA | 1616 | CUCUAAACUGUAUCGACAG |
| 1482 | GGUAGAGGCAACCACCACC | 1527 | UUAUCUCUUCACCUCCAUU | 1572 | ACAGCUUAUUAACACCAAU | 1617 | UCUAAACUGUAUCGACAGU |
| 1483 | GUAGAGGCAACCACCACCG | 1528 | UAUCUCUUCACCUCCAUUU | 1573 | CAGCUUAUUAACACCAAUG | 1618 | CUAAACUGUAUCGACAGUC |
| 1484 | UAGAGGCAACCACCACCGU | 1529 | AUCUCUUCACCUCCAUUUU | 1574 | AGCUUAUUAACACCAAUGG | 1619 | UAAACUGUAUCGACAGUCU |
| 1485 | AGAGGCAACCACCACCGUC | 1530 | UCUCUUCACCUCCAUUUUC | 1575 | GCUUAUUAACACCAAUGGU | 1620 | AAACUGUAUCGACAGUCUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1621 | AACUGUAUCGACAGUCUCC | 1666 | UACCGCAGCAAUUUCAACU | 1711 | GCAUGCAAGCCCUUGGAAC | 1756 | ACCCACAAGUCCAACAUCA |
| 1622 | ACUGUAUCGACAGUCUCCA | 1667 | ACCGCAGCAAUUUCAACUC | 1712 | CAUGCAAGCCCUUGGAACA | 1757 | CCCACAAGUCCAACAUCAC |
| 1623 | CUGUAUCGACAGUCUCCAA | 1668 | CCGCAGCAAUUUCAACUCC | 1713 | AUGCAAGCCCUUGGAACAC | 1758 | CCACAAGUCCAACAUCACA |
| 1624 | UGUAUCGACAGUCUCCAAA | 1669 | CGCAGCAAUUUCAACUCCA | 1714 | UGCAAGCCCUUGGAACACU | 1759 | CACAAGUCCAACAUCACAG |
| 1625 | GUAUCGACAGUCUCCAAAC | 1670 | GCAGCAAUUUCAACUCCAC | 1715 | GCAAGCCCUUGGAACACUU | 1760 | ACAAGUCCAACAUCACAGG |
| 1626 | UAUCGACAGUCUCCAAACU | 1671 | CAGCAAUUUCAACUCCACG | 1716 | CAAGCCCUUGGAACACUUC | 1761 | CAAGUCCAACAUCACAGGG |
| 1627 | AUCGACAGUCUCCAAACUG | 1672 | AGCAAUUUCAACUCCACGG | 1717 | AAGCCCUUGGAACACUUCC | 1762 | AAGUCCAACAUCACAGGGC |
| 1628 | UCGACAGUCUCCAAACUGG | 1673 | GCAAUUUCAACUCCACGGG | 1718 | AGCCCUUGGAACACUUCCA | 1763 | AGUCCAACAUCACAGGGCC |
| 1629 | CGACAGUCUCCAAACUGGG | 1674 | CAAUUUCAACUCCACGGGU | 1719 | GCCCUUGGAACACUUCCAG | 1764 | GUCCAACAUCACAGGGCCG |
| 1630 | GACAGUCUCCAAACUGGGU | 1675 | AAUUUCAACUCCACGGGUU | 1720 | CCCUUGGAACACUUCCAGC | 1765 | UCCAACAUCACAGGGCCGU |
| 1631 | ACAGUCUCCAAACUGGGUU | 1676 | AUUUCAACUCCACGGGUUG | 1721 | CCUUGGAACACUUCCAGCA | 1766 | CCAACAUCACAGGGCCGUC |
| 1632 | CAGUCUCCAAACUGGGUUU | 1677 | UUUCAACUCCACGGGUUGC | 1722 | CUUGGAACACUUCCAGCAG | 1767 | CAACAUCACAGGGCCGUCU |
| 1633 | AGUCUCCAAACUGGGUUUC | 1678 | UUCAACUCCACGGGUUGCU | 1723 | UUGGAACACUUCCAGCAGG | 1768 | AACAUCACAGGGCCGUCUG |
| 1634 | GUCUCCAAACUGGGUUUCU | 1679 | UCAACUCCACGGGUUGCUC | 1724 | UGGAACACUUCCAGCAGGG | 1769 | ACAUCACAGGGCCGUCUGA |
| 1635 | UCUCCAAACUGGGUUUCUU | 1680 | CAACUCCACGGGUUGCUCA | 1725 | GGAACACUUCCAGCAGGGA | 1770 | CAUCACAGGGCCGUCUGAG |
| 1636 | CUCCAAACUGGGUUUCUUA | 1681 | AACUCCACGGGUUGCUCAG | 1726 | GAACACUUCCAGCAGGGAU | 1771 | AUCACAGGGCCGUCUGAGG |
| 1637 | UCCAAACUGGGUUUCUUAG | 1682 | ACUCCACGGGUUGCUCAGA | 1727 | AACACUUCCAGCAGGGAUG | 1772 | UCACAGGGCCGUCUGAGGA |
| 1638 | CCAAACUGGGUUUCUUAGC | 1683 | CUCCACGGGUUGCUCAGAA | 1728 | ACACUUCCAGCAGGGAUGG | 1773 | CACAGGGCCGUCUGAGGAC |
| 1639 | CAAACUGGGUUUCUUAGCG | 1684 | UCCACGGGUUGCUCAGAAC | 1729 | CACUUCCAGCAGGGAUGGG | 1774 | ACAGGGCCGUCUGAGGACC |
| 1640 | AAACUGGGUUUCUUAGCGC | 1685 | CCACGGGUUGCUCAGAACG | 1730 | ACUUCCAGCAGGGAUGGGG | 1775 | CAGGGCCGUCUGAGGACCG |
| 1641 | AACUGGGUUUCUUAGCGCG | 1686 | CACGGGUUGCUCAGAACGG | 1731 | CUUCCAGCAGGGAUGGGGC | 1776 | AGGGCCGUCUGAGGACCGG |
| 1642 | ACUGGGUUUCUUAGCGCGU | 1687 | ACGGGUUGCUCAGAACGGC | 1732 | UUCCAGCAGGGAUGGGGCC | 1777 | GGGCCGUCUGAGGACCGGC |
| 1643 | CUGGGUUUCUUAGCGCGUU | 1688 | CGGGUUGCUCAGAACGGCU | 1733 | UCCAGCAGGGAUGGGGCCC | 1778 | GGCCGUCUGAGGACCGGCC |
| 1644 | UGGGUUUCUUAGCGCGUUG | 1689 | GGGUUGCUCAGAACGGCUU | 1734 | CCAGCAGGGAUGGGGCCCU | 1779 | GCCGUCUGAGGACCGGCCC |
| 1645 | GGGUUUCUUAGCGCGUUGU | 1690 | GGUUGCUCAGAACGGCUUG | 1735 | CAGCAGGGAUGGGGCCCUA | 1780 | CCGUCUGAGGACCGGCCCU |
| 1646 | GGUUUCUUAGCGCGUUGUU | 1691 | GUUGCUCAGAACGGCUUGG | 1736 | AGCAGGGAUGGGGCCCUAU | 1781 | CGUCUGAGGACCGGCCCUA |
| 1647 | GUUUCUUAGCGCGUUGUUC | 1692 | UUGCUCAGAACGGCUUGGC | 1737 | GCAGGGAUGGGGCCCUAUA | 1782 | GUCUGAGGACCGGCCCUAC |
| 1648 | UUUCUUAGCGCGUUGUUCU | 1693 | UGCUCAGAACGGCUUGGCG | 1738 | CAGGGAUGGGGCCCUAUAA | 1783 | UCUGAGGACCGGCCCUACU |
| 1649 | UUCUUAGCGCGUUGUUCUA | 1694 | GCUCAGAACGGCUUGGCGC | 1739 | AGGGAUGGGGCCCUAUAAC | 1784 | CUGAGGACCGGCCCUACUG |
| 1650 | UCUUAGCGCGUUGUUCUAC | 1695 | CUCAGAACGGCUUGGCGCA | 1740 | GGGAUGGGGCCCUAUAACC | 1785 | UGAGGACCGGCCCUACUGC |
| 1651 | CUUAGCGCGUUGUUCUACC | 1696 | UCAGAACGGCUUGGCGCAU | 1741 | GGAUGGGGCCCUAUAACCC | 1786 | GAGGACCGGCCCUACUGCU |
| 1652 | UUAGCGCGUUGUUCUACCG | 1697 | CAGAACGGCUUGGCGCAUG | 1742 | GAUGGGGCCCUAUAACCCA | 1787 | AGGACCGGCCCUACUGCUG |
| 1653 | UAGCGCGUUGUUCUACCGC | 1698 | AGAACGGCUUGGCGCAUGC | 1743 | AUGGGGCCCUAUAACCCAC | 1788 | GGACCGGCCCUACUGCUGG |
| 1654 | AGCGCGUUGUUCUACCGCA | 1699 | GAACGGCUUGGCGCAUGCA | 1744 | UGGGGCCCUAUAACCCACA | 1789 | GACCGGCCCUACUGCUGGC |
| 1655 | GCGCGUUGUUCUACCGCAG | 1700 | AACGGCUUGGCGCAUGCAA | 1745 | GGGGCCCUAUAACCCACAA | 1790 | ACCGGCCCUACUGCUGGCA |
| 1656 | CGCGUUGUUCUACCGCAGC | 1701 | ACGGCUUGGCGCAUGCAAG | 1746 | GGGCCCUAUAACCCACAAG | 1791 | CCGGCCCUACUGCUGGCAC |
| 1657 | GCGUUGUUCUACCGCAGCA | 1702 | CGGCUUGGCGCAUGCAAGC | 1747 | GGCCCUAUAACCCACAAGU | 1792 | CGGCCCUACUGCUGGCACU |
| 1658 | CGUUGUUCUACCGCAGCAA | 1703 | GGCUUGGCGCAUGCAAGCC | 1748 | GCCCUAUAACCCACAAGUC | 1793 | GGCCCUACUGCUGGCACUA |
| 1659 | GUUGUUCUACCGCAGCAAU | 1704 | GCUUGGCGCAUGCAAGCCC | 1749 | CCCUAUAACCCACAAGUCC | 1794 | GCCCUACUGCUGGCACUAU |
| 1660 | UUGUUCUACCGCAGCAAUU | 1705 | CUUGGCGCAUGCAAGCCCU | 1750 | CCUAUAACCCACAAGUCCA | 1795 | CCCUACUGCUGGCACUAUG |
| 1661 | UGUUCUACCGCAGCAAUUU | 1706 | UUGGCGCAUGCAAGCCCUU | 1751 | CUAUAACCCACAAGUCCAA | 1796 | CCUACUGCUGGCACUAUGC |
| 1662 | GUUCUACCGCAGCAAUUUC | 1707 | UGGCGCAUGCAAGCCCUUG | 1752 | UAUAACCCACAAGUCCAAC | 1797 | CUACUGCUGGCACUAUGCU |
| 1663 | UUCUACCGCAGCAAUUUCA | 1708 | GGCGCAUGCAAGCCCUUGG | 1753 | AUAACCCACAAGUCCAACA | 1798 | UACUGCUGGCACUAUGCUC |
| 1664 | UCUACCGCAGCAAUUUCAA | 1709 | GCGCAUGCAAGCCCUUGGA | 1754 | UAACCCACAAGUCCAACAU | 1799 | ACUGCUGGCACUAUGCUCC |
| 1665 | CUACCGCAGCAAUUUCAAC | 1710 | CGCAUGCAAGCCCUUGGAA | 1755 | AACCCACAAGUCCAACAUC | 1800 | CUGCUGGCACUAUGCUCCU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1801 | UGCUGGCACUAUGCUCCUA | 1846 | UCAGUGUGUGGUCCUGUUU | 1891 | GUGGGCACCACCGACAGGC | 1936 | GAAAACGAGACGGAUGUGU |
| 1802 | GCUGGCACUAUGCUCCUAG | 1847 | CAGUGUGUGGUCCUGUUUA | 1892 | UGGGCACCACCGACAGGCU | 1937 | AAAACGAGACGGAUGUGUU |
| 1803 | CUGGCACUAUGCUCCUAGG | 1848 | AGUGUGUGGUCCUGUUUAC | 1893 | GGGCACCACCGACAGGCUG | 1938 | AAACGAGACGGAUGUGUUC |
| 1804 | UGGCACUAUGCUCCUAGGG | 1849 | GUGUGUGGUCCUGUUUACU | 1894 | GGCACCACCGACAGGCUGG | 1939 | AACGAGACGGAUGUGUUCA |
| 1805 | GGCACUAUGCUCCUAGGGA | 1850 | UGUGUGGUCCUGUUUACUG | 1895 | GCACCACCGACAGGCUGGG | 1940 | ACGAGACGGAUGUGUUCAU |
| 1806 | GCACUAUGCUCCUAGGGAG | 1851 | GUGUGGUCCUGUUUACUGC | 1896 | CACCACCGACAGGCUGGGC | 1941 | CGAGACGGAUGUGUUCAUG |
| 1807 | CACUAUGCUCCUAGGGAGU | 1852 | UGUGGUCCUGUUUACUGCU | 1897 | ACCACCGACAGGCUGGGCA | 1942 | GAGACGGAUGUGUUCAUGC |
| 1808 | ACUAUGCUCCUAGGGAGUG | 1853 | GUGGUCCUGUUUACUGCUU | 1898 | CCACCGACAGGCUGGGCAA | 1943 | AGACGGAUGUGUUCAUGCU |
| 1809 | CUAUGCUCCUAGGGAGUGU | 1854 | UGGUCCUGUUUACUGCUUC | 1899 | CACCGACAGGCUGGGCAAC | 1944 | GACGGAUGUGUUCAUGCUA |
| 1810 | UAUGCUCCUAGGGAGUGUA | 1855 | GGUCCUGUUUACUGCUUCA | 1900 | ACCGACAGGCUGGGCAACC | 1945 | ACGGAUGUGUUCAUGCUAG |
| 1811 | AUGCUCCUAGGGAGUGUAG | 1856 | GUCCUGUUUACUGCUUCAC | 1901 | CCGACAGGCUGGGCAACCC | 1946 | CGGAUGUGUUCAUGCUAGA |
| 1812 | UGCUCCUAGGGAGUGUAGU | 1857 | UCCUGUUUACUGCUUCACA | 1902 | CGACAGGCUGGGCAACCCU | 1947 | GGAUGUGUUCAUGCUAGAG |
| 1813 | GCUCCUAGGGAGUGUAGUG | 1858 | CCUGUUUACUGCUUCACAC | 1903 | GACAGGCUGGGCAACCCUA | 1948 | GAUGUGUUCAUGCUAGAGA |
| 1814 | CUCCUAGGGAGUGUAGUGU | 1859 | CUGUUUACUGCUUCACACC | 1904 | ACAGGCUGGGCAACCCUAC | 1949 | AUGUGUUCAUGCUAGAGAG |
| 1815 | UCCUAGGGAGUGUAGUGUA | 1860 | UGUUUACUGCUUCACACCU | 1905 | CAGGCUGGGCAACCCUACU | 1950 | UGUGUUCAUGCUAGAGAGC |
| 1816 | CCUAGGGAGUGUAGUGUAG | 1861 | GUUUACUGCUUCACACCUA | 1906 | AGGCUGGGCAACCCUACUU | 1951 | GUGUUCAUGCUAGAGAGCC |
| 1817 | CUAGGGAGUGUAGUGUAGU | 1862 | UUUACUGCUUCACACCUAG | 1907 | GGCUGGGCAACCCUACUUA | 1952 | UGUUCAUGCUAGAGAGCCU |
| 1818 | UAGGGAGUGUAGUGUAGUG | 1863 | UUACUGCUUCACACCUAGC | 1908 | GCUGGGCAACCCUACUUAC | 1953 | GUUCAUGCUAGAGAGCCUG |
| 1819 | AGGGAGUGUAGUGUAGUGC | 1864 | UACUGCUUCACACCUAGCC | 1909 | CUGGGCAACCCUACUUACA | 1954 | UUCAUGCUAGAGAGCCUGC |
| 1820 | GGGAGUGUAGUGUAGUGCC | 1865 | ACUGCUUCACACCUAGCCC | 1910 | UGGGCAACCCUACUUACAA | 1955 | UCAUGCUAGAGAGCCUGCG |
| 1821 | GGAGUGUAGUGUAGUGCCG | 1866 | CUGCUUCACACCUAGCCCU | 1911 | GGGCAACCCUACUUACAAC | 1956 | CAUGCUAGAGAGCCUGCGG |
| 1822 | GAGUGUAGUGUAGUGCCGG | 1867 | UGCUUCACACCUAGCCCUG | 1912 | GGCAACCCUACUUACAACU | 1957 | AUGCUAGAGAGCCUGCGGC |
| 1823 | AGUGUAGUGUAGUGCCGGC | 1868 | GCUUCACACCUAGCCCUGU | 1913 | GCAACCCUACUUACAACUG | 1958 | UGCUAGAGAGCCUGCGGCC |
| 1824 | GUGUAGUGUAGUGCCGGCG | 1869 | CUUCACACCUAGCCCUGUC | 1914 | CAACCCUACUUACAACUGG | 1959 | GCUAGAGAGCCUGCGGCCU |
| 1825 | UGUAGUGUAGUGCCGGCGU | 1870 | UUCACACCUAGCCCUGUCG | 1915 | AACCCUACUUACAACUGGG | 1960 | CUAGAGAGCCUGCGGCCUC |
| 1826 | GUAGUGUAGUGCCGGCGUC | 1871 | UCACACCUAGCCCUGUCGU | 1916 | ACCCUACUUACAACUGGGG | 1961 | UAGAGAGCCUGCGGCCUCC |
| 1827 | UAGUGUAGUGCCGGCGUCA | 1872 | CACACCUAGCCCUGUCGUG | 1917 | CCCUACUUACAACUGGGGA | 1962 | AGAGAGCCUGCGGCCUCCG |
| 1828 | AGUGUAGUGCCGGCGUCAU | 1873 | ACACCUAGCCCUGUCGUGG | 1918 | CCUACUUACAACUGGGGAG | 1963 | GAGAGCCUGCGGCCUCCGC |
| 1829 | GUGUAGUGCCGGCGUCAUC | 1874 | CACCUAGCCCUGUCGUGGU | 1919 | CUACUUACAACUGGGGAGA | 1964 | AGAGCCUGCGGCCUCCGCA |
| 1830 | UGUAGUGCCGGCGUCAUCA | 1875 | ACCUAGCCCUGUCGUGGUG | 1920 | UACUUACAACUGGGGAGAA | 1965 | GAGCCUGCGGCCUCCGCAA |
| 1831 | GUAGUGCCGGCGUCAUCAG | 1876 | CCUAGCCCUGUCGUGGUGG | 1921 | ACUUACAACUGGGGAGAAA | 1966 | AGCCUGCGGCCUCCGCAAG |
| 1832 | UAGUGCCGGCGUCAUCAGU | 1877 | CUAGCCCUGUCGUGGUGGG | 1922 | CUUACAACUGGGGAGAAAA | 1967 | GCCUGCGGCCUCCGCAAGG |
| 1833 | AGUGCCGGCGUCAUCAGUG | 1878 | UAGCCCUGUCGUGGUGGGC | 1923 | UUACAACUGGGGAGAAAAC | 1968 | CCUGCGGCCUCCGCAAGGA |
| 1834 | GUGCCGGCGUCAUCAGUGU | 1879 | AGCCCUGUCGUGGUGGGCA | 1924 | UACAACUGGGGAGAAAACG | 1969 | CUGCGGCCUCCGCAAGGAG |
| 1835 | UGCCGGCGUCAUCAGUGUG | 1880 | GCCCUGUCGUGGUGGGCAC | 1925 | ACAACUGGGGAGAAAACGA | 1970 | UGCGGCCUCCGCAAGGAGG |
| 1836 | GCCGGCGUCAUCAGUGUGU | 1881 | CCCUGUCGUGGUGGGCACC | 1926 | CAACUGGGGAGAAAACGAG | 1971 | GCGGCCUCCGCAAGGAGGU |
| 1837 | CCGGCGUCAUCAGUGUGUG | 1882 | CCUGUCGUGGUGGGCACCA | 1927 | AACUGGGGAGAAAACGAGA | 1972 | CGGCCUCCGCAAGGAGGUU |
| 1838 | CGGCGUCAUCAGUGUGUGG | 1883 | CUGUCGUGGUGGGCACCAC | 1928 | ACUGGGGAGAAAACGAGAC | 1973 | GGCCUCCGCAAGGAGGUUG |
| 1839 | GGCGUCAUCAGUGUGUGGU | 1884 | UGUCGUGGUGGGCACCACC | 1929 | CUGGGGAGAAAACGAGACG | 1974 | GCCUCCGCAAGGAGGUUGG |
| 1840 | GCGUCAUCAGUGUGUGGUC | 1885 | GUCGUGGUGGGCACCACCG | 1930 | UGGGGAGAAAACGAGACGG | 1975 | CCUCCGCAAGGAGGUUGGU |
| 1841 | CGUCAUCAGUGUGUGGUCC | 1886 | UCGUGGUGGGCACCACCGA | 1931 | GGGGAGAAAACGAGACGGA | 1976 | CUCCGCAAGGAGGUUGGUU |
| 1842 | GUCAUCAGUGUGUGGUCCU | 1887 | CGUGGUGGGCACCACCGAC | 1932 | GGGAGAAAACGAGACGGAU | 1977 | UCCGCAAGGAGGUUGGUUC |
| 1843 | UCAUCAGUGUGUGGUCCUG | 1888 | GUGGUGGGCACCACCGACA | 1933 | GGAGAAAACGAGACGGAUG | 1978 | CCGCAAGGAGGUUGGUUCG |
| 1844 | CAUCAGUGUGUGGUCCUGU | 1889 | UGGUGGGCACCACCGACAG | 1934 | GAGAAAACGAGACGGAUGU | 1979 | CGCAAGGAGGUUGGUUCGG |
| 1845 | AUCAGUGUGUGGUCCUGUU | 1890 | GGUGGGCACCACCGACAGG | 1935 | AGAAAACGAGACGGAUGUG | 1980 | GCAAGGAGGUUGGUUCGGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1981 | CAAGGAGGUUGGUUCGGGU | 2026 | ACCAAGACCUGCGGAGCCC | 2071 | UAUAAUAGUUCUUCUAACC | 2116 | CGGAAACAUCCGGAGGCCA |
| 1982 | AAGGAGGUUGGUUCGGGUG | 2027 | CCAAGACCUGCGGAGCCCC | 2072 | AUAAUAGUUCUUCUAACCA | 2117 | GGAAACAUCCGGAGGCCAC |
| 1983 | AGGAGGUUGGUUCGGGUGC | 2028 | CAAGACCUGCGGAGCCCCG | 2073 | UAAUAGUUCUUCUAACCAG | 2118 | GAAACAUCCGGAGGCCACA |
| 1984 | GGAGGUUGGUUCGGGUGCA | 2029 | AAGACCUGCGGAGCCCCGC | 2074 | AAUAGUUCUUCUAACCAGC | 2119 | AAACAUCCGGAGGCCACAU |
| 1985 | GAGGUUGGUUCGGGUGCAC | 2030 | AGACCUGCGGAGCCCCGCC | 2075 | AUAGUUCUUCUAACCAGCU | 2120 | AACAUCCGGAGGCCACAUA |
| 1986 | AGGUUGGUUCGGGUGCACG | 2031 | GACCUGCGGAGCCCCGCCU | 2076 | UAGUUCUUCUAACCAGCUC | 2121 | ACAUCCGGAGGCCACAUAU |
| 1987 | GGUUGGUUCGGGUGCACGU | 2032 | ACCUGCGGAGCCCCGCCUU | 2077 | AGUUCUUCUAACCAGCUCC | 2122 | CAUCCGGAGGCCACAUAUC |
| 1988 | GUUGGUUCGGGUGCACGUG | 2033 | CCUGCGGAGCCCCGCCUUG | 2078 | GUUCUUCUAACCAGCUCCU | 2123 | AUCCGGAGGCCACAUAUCA |
| 1989 | UUGGUUCGGGUGCACGUGG | 2034 | CUGCGGAGCCCCGCCUUGC | 2079 | UUCUUCUAACCAGCUCCUG | 2124 | UCCGGAGGCCACAUAUCAG |
| 1990 | UGGUUCGGGUGCACGUGGA | 2035 | UGCGGAGCCCCGCCUUGCC | 2080 | UCUUCUAACCAGCUCCUGU | 2125 | CCGGAGGCCACAUAUCAGA |
| 1991 | GGUUCGGGUGCACGUGGAU | 2036 | GCGGAGCCCCGCCUUGCCA | 2081 | CUUCUAACCAGCUCCUGUG | 2126 | CGGAGGCCACAUAUCAGAA |
| 1992 | GUUCGGGUGCACGUGGAUG | 2037 | CGGAGCCCCGCCUUGCCAG | 2082 | UUCUAACCAGCUCCUGUGC | 2127 | GGAGGCCACAUAUCAGAAG |
| 1993 | UUCGGGUGCACGUGGAUGA | 2038 | GGAGCCCCGCCUUGCCAGU | 2083 | UCUAACCAGCUCCUGUGCC | 2128 | GAGGCCACAUAUCAGAAGU |
| 1994 | UCGGGUGCACGUGGAUGAA | 2039 | GAGCCCCGCCUUGCCAGUU | 2084 | CUAACCAGCUCCUGUGCCC | 2129 | AGGCCACAUAUCAGAAGUG |
| 1995 | CGGGUGCACGUGGAUGAAC | 2040 | AGCCCCGCCUUGCCAGUUA | 2085 | UAACCAGCUCCUGUGCCCU | 2130 | GGCCACAUAUCAGAAGUGU |
| 1996 | GGGUGCACGUGGAUGAACU | 2041 | GCCCCGCCUUGCCAGUUAA | 2086 | AACCAGCUCCUGUGCCCUA | 2131 | GCCACAUAUCAGAAGUGUG |
| 1997 | GGUGCACGUGGAUGAACUC | 2042 | CCCCGCCUUGCCAGUUAAU | 2087 | ACCAGCUCCUGUGCCCUAC | 2132 | CCACAUAUCAGAAGUGUGG |
| 1998 | GUGCACGUGGAUGAACUCU | 2043 | CCCGCCUUGCCAGUUAAUC | 2088 | CCAGCUCCUGUGCCCUACU | 2133 | CACAUAUCAGAAGUGUGGG |
| 1999 | UGCACGUGGAUGAACUCUA | 2044 | CCGCCUUGCCAGUUAAUCC | 2089 | CAGCUCCUGUGCCCUACUG | 2134 | ACAUAUCAGAAGUGUGGGU |
| 2000 | GCACGUGGAUGAACUCUAC | 2045 | CGCCUUGCCAGUUAAUCCC | 2090 | AGCUCCUGUGCCCUACUGA | 2135 | CAUAUCAGAAGUGUGGGUC |
| 2001 | CACGUGGAUGAACUCUACG | 2046 | GCCUUGCCAGUUAAUCCCA | 2091 | GCUCCUGUGCCCUACUGAC | 2136 | AUAUCAGAAGUGUGGGUCG |
| 2002 | ACGUGGAUGAACUCUACGG | 2047 | CCUUGCCAGUUAAUCCCAG | 2092 | CUCCUGUGCCCUACUGACU | 2137 | UAUCAGAAGUGUGGGUCGG |
| 2003 | CGUGGAUGAACUCUACGGG | 2048 | CUUGCCAGUUAAUCCCAGG | 2093 | UCCUGUGCCCUACUGACUG | 2138 | AUCAGAAGUGUGGGUCGGG |
| 2004 | GUGGAUGAACUCUACGGGC | 2049 | UUGCCAGUUAAUCCCAGGA | 2094 | CCUGUGCCCUACUGACUGC | 2139 | UCAGAAGUGUGGGUCGGGG |
| 2005 | UGGAUGAACUCUACGGGCU | 2050 | UGCCAGUUAAUCCCAGGAG | 2095 | CUGUGCCCUACUGACUGCU | 2140 | CAGAAGUGUGGGUCGGGGC |
| 2006 | GGAUGAACUCUACGGGCUU | 2051 | GCCAGUUAAUCCCAGGAGA | 2096 | UGUGCCCUACUGACUGCUU | 2141 | AGAAGUGUGGGUCGGGGCC |
| 2007 | GAUGAACUCUACGGGCUUC | 2052 | CCAGUUAAUCCCAGGAGAC | 2097 | GUGCCCUACUGACUGCUUC | 2142 | GAAGUGUGGGUCGGGGCCC |
| 2008 | AUGAACUCUACGGGCUUCA | 2053 | CAGUUAAUCCCAGGAGACU | 2098 | UGCCCUACUGACUGCUUCC | 2143 | AAGUGUGGGUCGGGGCCCU |
| 2009 | UGAACUCUACGGGCUUCAC | 2054 | AGUUAAUCCCAGGAGACUA | 2099 | GCCCUACUGACUGCUUCCG | 2144 | AGUGUGGGUCGGGGCCCUG |
| 2010 | GAACUCUACGGGCUUCACC | 2055 | GUUAAUCCCAGGAGACUAU | 2100 | CCCUACUGACUGCUUCCGG | 2145 | GUGUGGGUCGGGGCCCUGG |
| 2011 | AACUCUACGGGCUUCACCA | 2056 | UUAAUCCCAGGAGACUAUA | 2101 | CCUACUGACUGCUUCCGGA | 2146 | UGUGGGUCGGGGCCCUGGC |
| 2012 | ACUCUACGGGCUUCACCAA | 2057 | UAAUCCCAGGAGACUAUAA | 2102 | CUACUGACUGCUUCCGGAA | 2147 | GUGGGUCGGGGCCCUGGCU |
| 2013 | CUCUACGGGCUUCACCAAG | 2058 | AAUCCCAGGAGACUAUAAU | 2103 | UACUGACUGCUUCCGGAAA | 2148 | UGGGUCGGGGCCCUGGCUG |
| 2014 | UCUACGGGCUUCACCAAGA | 2059 | AUCCCAGGAGACUAUAAUA | 2104 | ACUGACUGCUUCCGGAAAC | 2149 | GGGUCGGGGCCCUGGCUGA |
| 2015 | CUACGGGCUUCACCAAGAC | 2060 | UCCCAGGAGACUAUAAUAG | 2105 | CUGACUGCUUCCGGAAACA | 2150 | GGUCGGGGCCCUGGCUGAC |
| 2016 | UACGGGCUUCACCAAGACC | 2061 | CCCAGGAGACUAUAAUAGU | 2106 | UGACUGCUUCCGGAAACAU | 2151 | GUCGGGGCCCUGGCUGACC |
| 2017 | ACGGGCUUCACCAAGACCU | 2062 | CCAGGAGACUAUAAUAGUU | 2107 | GACUGCUUCCGGAAACAUC | 2152 | UCGGGGCCCUGGCUGACCC |
| 2018 | CGGGCUUCACCAAGACCUG | 2063 | CAGGAGACUAUAAUAGUUC | 2108 | ACUGCUUCCGGAAACAUCC | 2153 | CGGGGCCCUGGCUGACCCC |
| 2019 | GGGCUUCACCAAGACCUGC | 2064 | AGGAGACUAUAAUAGUUCU | 2109 | CUGCUUCCGGAAACAUCCG | 2154 | GGGGCCCUGGCUGACCCCC |
| 2020 | GGCUUCACCAAGACCUGCG | 2065 | GGAGACUAUAAUAGUUCUU | 2110 | UGCUUCCGGAAACAUCCGG | 2155 | GGGCCCUGGCUGACCCCCA |
| 2021 | GCUUCACCAAGACCUGCGG | 2066 | GAGACUAUAAUAGUUCUUC | 2111 | GCUUCCGGAAACAUCCGGA | 2156 | GGCCCUGGCUGACCCCCAG |
| 2022 | CUUCACCAAGACCUGCGGA | 2067 | AGACUAUAAUAGUUCUUCU | 2112 | CUUCCGGAAACAUCCGGAG | 2157 | GCCCUGGCUGACCCCCAGG |
| 2023 | UUCACCAAGACCUGCGGAG | 2068 | GACUAUAAUAGUUCUUCUA | 2113 | UUCCGGAAACAUCCGGAGG | 2158 | CCCUGGCUGACCCCCAGGU |
| 2024 | UCACCAAGACCUGCGGAGC | 2069 | ACUAUAAUAGUUCUUCUAA | 2114 | UCCGGAAACAUCCGGAGGC | 2159 | CCUGGCUGACCCCCAGGUG |
| 2025 | CACCAAGACCUGCGGAGCC | 2070 | CUAUAAUAGUUCUUCUAAC | 2115 | CCGGAAACAUCCGGAGGCC | 2160 | CUGGCUGACCCCCAGGUGU |

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|---|---|---|---|---|---|---|---|
| 2161 | UGGCUGACCCCCAGGUGUC | 2206 | CACUAUCCAUGCACUGUCA | 2251 | UUCAUUGGGGGCGUUGAGC | 2296 | ACGCGUGGCGACCGUUGCG |
| 2162 | GGCUGACCCCCAGGUGUCU | 2207 | ACUAUCCAUGCACUGUCAA | 2252 | UCAUUGGGGGCGUUGAGCA | 2297 | CGCGUGGCGACCGUUGCGA |
| 2163 | GCUGACCCCCAGGUGUCUG | 2208 | CUAUCCAUGCACUGUCAAC | 2253 | CAUUGGGGGCGUUGAGCAC | 2298 | GCGUGGCGACCGUUGCGAC |
| 2164 | CUGACCCCCAGGUGUCUGG | 2209 | UAUCCAUGCACUGUCAACU | 2254 | AUUGGGGGCGUUGAGCACA | 2299 | CGUGGCGACCGUUGCGACU |
| 2165 | UGACCCCCAGGUGUCUGGU | 2210 | AUCCAUGCACUGUCAACUA | 2255 | UUGGGGGCGUUGAGCACAG | 2300 | GUGGCGACCGUUGCGACUU |
| 2166 | GACCCCCAGGUGUCUGGUG | 2211 | UCCAUGCACUGUCAACUAC | 2256 | UGGGGGCGUUGAGCACAGG | 2301 | UGGCGACCGUUGCGACUUG |
| 2167 | ACCCCCAGGUGUCUGGUGG | 2212 | CCAUGCACUGUCAACUACA | 2257 | GGGGGCGUUGAGCACAGGU | 2302 | GGCGACCGUUGCGACUUGU |
| 2168 | CCCCCAGGUGUCUGGUGGA | 2213 | CAUGCACUGUCAACUACAC | 2258 | GGGGCGUUGAGCACAGGUU | 2303 | GCGACCGUUGCGACUUGUA |
| 2169 | CCCCAGGUGUCUGGUGGAC | 2214 | AUGCACUGUCAACUACACA | 2259 | GGGCGUUGAGCACAGGUUC | 2304 | CGACCGUUGCGACUUGUAU |
| 2170 | CCCAGGUGUCUGGUGGACU | 2215 | UGCACUGUCAACUACACAA | 2260 | GGCGUUGAGCACAGGUUCG | 2305 | GACCGUUGCGACUUGUAUG |
| 2171 | CCAGGUGUCUGGUGGACUA | 2216 | GCACUGUCAACUACACAAU | 2261 | GCGUUGAGCACAGGUUCGA | 2306 | ACCGUUGCGACUUGUAUGA |
| 2172 | CAGGUGUCUGGUGGACUAU | 2217 | CACUGUCAACUACACAAUA | 2262 | CGUUGAGCACAGGUUCGAU | 2307 | CCGUUGCGACUUGUAUGAC |
| 2173 | AGGUGUCUGGUGGACUAUC | 2218 | ACUGUCAACUACACAAUAC | 2263 | GUUGAGCACAGGUUCGAUG | 2308 | CGUUGCGACUUGUAUGACA |
| 2174 | GGUGUCUGGUGGACUAUCC | 2219 | CUGUCAACUACACAAUACA | 2264 | UUGAGCACAGGUUCGAUGC | 2309 | GUUGCGACUUGUAUGACAG |
| 2175 | GUGUCUGGUGGACUAUCCC | 2220 | UGUCAACUACACAAUACAC | 2265 | UGAGCACAGGUUCGAUGCC | 2310 | UUGCGACUUGUAUGACAGA |
| 2176 | UGUCUGGUGGACUAUCCCU | 2221 | GUCAACUACACAAUACACA | 2266 | GAGCACAGGUUCGAUGCCG | 2311 | UGCGACUUGUAUGACAGAG |
| 2177 | GUCUGGUGGACUAUCCCUA | 2222 | UCAACUACACAAUACACAA | 2267 | AGCACAGGUUCGAUGCCGC | 2312 | GCGACUUGUAUGACAGAGA |
| 2178 | UCUGGUGGACUAUCCCUAC | 2223 | CAACUACACAAUACACAAG | 2268 | GCACAGGUUCGAUGCCGCC | 2313 | CGACUUGUAUGACAGAGAU |
| 2179 | CUGGUGGACUAUCCCUACA | 2224 | AACUACACAAUACACAAGG | 2269 | CACAGGUUCGAUGCCGCCU | 2314 | GACUUGUAUGACAGAGAUA |
| 2180 | UGGUGGACUAUCCCUACAG | 2225 | ACUACACAAUACACAAGGU | 2270 | ACAGGUUCGAUGCCGCCUG | 2315 | ACUUGUAUGACAGAGAUAG |
| 2181 | GGUGGACUAUCCCUACAGA | 2226 | CUACACAAUACACAAGGUU | 2271 | CAGGUUCGAUGCCGCCUGU | 2316 | CUUGUAUGACAGAGAUAGG |
| 2182 | GUGGACUAUCCCUACAGAU | 2227 | UACACAAUACACAAGGUUC | 2272 | AGGUUCGAUGCCGCCUGUA | 2317 | UUGUAUGACAGAGAUAGGA |
| 2183 | UGGACUAUCCCUACAGAUU | 2228 | ACACAAUACACAAGGUUCG | 2273 | GGUUCGAUGCCGCCUGUAA | 2318 | UGUAUGACAGAGAUAGGAU |
| 2184 | GGACUAUCCCUACAGAUUG | 2229 | CACAAUACACAAGGUUCGC | 2274 | GUUCGAUGCCGCCUGUAAU | 2319 | GUAUGACAGAGAUAGGAUU |
| 2185 | GACUAUCCCUACAGAUUGU | 2230 | ACAAUACACAAGGUUCGCA | 2275 | UUCGAUGCCGCCUGUAAUU | 2320 | UAUGACAGAGAUAGGAUUG |
| 2186 | ACUAUCCCUACAGAUUGUG | 2231 | CAAUACACAAGGUUCGCAU | 2276 | UCGAUGCCGCCUGUAAUUG | 2321 | AUGACAGAGAUAGGAUUGA |
| 2187 | CUAUCCCUACAGAUUGUGG | 2232 | AAUACACAAGGUUCGCAUG | 2277 | CGAUGCCGCCUGUAAUUGG | 2322 | UGACAGAGAUAGGAUUGAG |
| 2188 | UAUCCCUACAGAUUGUGGC | 2233 | AUACACAAGGUUCGCAUGU | 2278 | GAUGCCGCCUGUAAUUGGA | 2323 | GACAGAGAUAGGAUUGAGA |
| 2189 | AUCCCUACAGAUUGUGGCA | 2234 | UACACAAGGUUCGCAUGUU | 2279 | AUGCCGCCUGUAAUUGGAC | 2324 | ACAGAGAUAGGAUUGAGAU |
| 2190 | UCCCUACAGAUUGUGGCAC | 2235 | ACACAAGGUUCGCAUGUUC | 2280 | UGCCGCCUGUAAUUGGACG | 2325 | CAGAGAUAGGAUUGAGAUG |
| 2191 | CCCUACAGAUUGUGGCACU | 2236 | CACAAGGUUCGCAUGUUCA | 2281 | GCCGCCUGUAAUUGGACGC | 2326 | AGAGAUAGGAUUGAGAUGA |
| 2192 | CCUACAGAUUGUGGCACUA | 2237 | ACAAGGUUCGCAUGUUCAU | 2282 | CCGCCUGUAAUUGGACGCG | 2327 | GAGAUAGGAUUGAGAUGAG |
| 2193 | CUACAGAUUGUGGCACUAU | 2238 | CAAGGUUCGCAUGUUCAUU | 2283 | CGCCUGUAAUUGGACGCGU | 2328 | AGAUAGGAUUGAGAUGAGU |
| 2194 | UACAGAUUGUGGCACUAUC | 2239 | AAGGUUCGCAUGUUCAUUG | 2284 | GCCUGUAAUUGGACGCGUG | 2329 | GAUAGGAUUGAGAUGAGUC |
| 2195 | ACAGAUUGUGGCACUAUCC | 2240 | AGGUUCGCAUGUUCAUUGG | 2285 | CCUGUAAUUGGACGCGUGG | 2330 | AUAGGAUUGAGAUGAGUCC |
| 2196 | CAGAUUGUGGCACUAUCCA | 2241 | GGUUCGCAUGUUCAUUGGG | 2286 | CUGUAAUUGGACGCGUGGC | 2331 | UAGGAUUGAGAUGAGUCCC |
| 2197 | AGAUUGUGGCACUAUCCAU | 2242 | GUUCGCAUGUUCAUUGGGG | 2287 | UGUAAUUGGACGCGUGGCG | 2332 | AGGAUUGAGAUGAGUCCCC |
| 2198 | GAUUGUGGCACUAUCCAUG | 2243 | UUCGCAUGUUCAUUGGGGG | 2288 | GUAAUUGGACGCGUGGCGA | 2333 | GGAUUGAGAUGAGUCCCCU |
| 2199 | AUUGUGGCACUAUCCAUGC | 2244 | UCGCAUGUUCAUUGGGGGC | 2289 | UAAUUGGACGCGUGGCGAC | 2334 | GAUUGAGAUGAGUCCCCUC |
| 2200 | UUGUGGCACUAUCCAUGCA | 2245 | CGCAUGUUCAUUGGGGGCG | 2290 | AAUUGGACGCGUGGCGACC | 2335 | AUUGAGAUGAGUCCCCUCC |
| 2201 | UGUGGCACUAUCCAUGCAC | 2246 | GCAUGUUCAUUGGGGGCGU | 2291 | AUUGGACGCGUGGCGACCG | 2336 | UUGAGAUGAGUCCCCUCCU |
| 2202 | GUGGCACUAUCCAUGCACU | 2247 | CAUGUUCAUUGGGGGCGUU | 2292 | UUGGACGCGUGGCGACCGU | 2337 | UGAGAUGAGUCCCCUCCUC |
| 2203 | UGGCACUAUCCAUGCACUG | 2248 | AUGUUCAUUGGGGGCGUUG | 2293 | UGGACGCGUGGCGACCGUU | 2338 | GAGAUGAGUCCCCUCCUCU |
| 2204 | GGCACUAUCCAUGCACUGU | 2249 | UGUUCAUUGGGGGCGUUGA | 2294 | GGACGCGUGGCGACCGUUG | 2339 | AGAUGAGUCCCCUCCUCUU |
| 2205 | GCACUAUCCAUGCACUGUC | 2250 | GUUCAUUGGGGGCGUUGAG | 2295 | GACGCGUGGCGACCGUUGC | 2340 | GAUGAGUCCCCUCCUCUUU |

**FIG. 7 (page 367 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2341 | AUGAGUCCCCUCCUCUUUU | 2386 | UGCAGCUUUACCACCAUGC | 2431 | CUCCAUCAAAACAUUGUAG | 2476 | UCGAGCAUAGUAUCGUGGG |
| 2342 | UGAGUCCCCUCCUCUUUUC | 2387 | GCAGCUUUACCACCAUGCC | 2432 | UCCAUCAAAACAUUGUAGA | 2477 | CGAGCAUAGUAUCGUGGGC |
| 2343 | GAGUCCCCUCCUCUUUUCA | 2388 | CAGCUUUACCACCAUGCCC | 2433 | CCAUCAAAACAUUGUAGAU | 2478 | GAGCAUAGUAUCGUGGGCC |
| 2344 | AGUCCCCUCCUCUUUUCAA | 2389 | AGCUUUACCACCAUGCCCG | 2434 | CAUCAAAACAUUGUAGAUG | 2479 | AGCAUAGUAUCGUGGGCCG |
| 2345 | GUCCCCUCCUCUUUUCAAC | 2390 | GCUUUACCACCAUGCCCGC | 2435 | AUCAAAACAUUGUAGAUGU | 2480 | GCAUAGUAUCGUGGGCCGU |
| 2346 | UCCCCUCCUCUUUUCAACC | 2391 | CUUUACCACCAUGCCCGCC | 2436 | UCAAAACAUUGUAGAUGUG | 2481 | CAUAGUAUCGUGGGCCGUG |
| 2347 | CCCCUCCUCUUUUCAACCA | 2392 | UUUACCACCAUGCCCGCCU | 2437 | CAAAACAUUGUAGAUGUGC | 2482 | AUAGUAUCGUGGGCCGUGA |
| 2348 | CCCUCCUCUUUUCAACCAC | 2393 | UUACCACCAUGCCCGCCUU | 2438 | AAAACAUUGUAGAUGUGCA | 2483 | UAGUAUCGUGGGCCGUGAA |
| 2349 | CCUCCUCUUUUCAACCACG | 2394 | UACCACCAUGCCCGCCUUG | 2439 | AAACAUUGUAGAUGUGCAA | 2484 | AGUAUCGUGGGCCGUGAAG |
| 2350 | CUCCUCUUUUCAACCACGC | 2395 | ACCACCAUGCCCGCCUUGU | 2440 | AACAUUGUAGAUGUGCAAU | 2485 | GUAUCGUGGGCCGUGAAGU |
| 2351 | UCCUCUUUUCAACCACGCA | 2396 | CCACCAUGCCCGCCUUGUC | 2441 | ACAUUGUAGAUGUGCAAUA | 2486 | UAUCGUGGGCCGUGAAGUG |
| 2352 | CCUCUUUUCAACCACGCAG | 2397 | CACCAUGCCCGCCUUGUCA | 2442 | CAUUGUAGAUGUGCAAUAC | 2487 | AUCGUGGGCCGUGAAGUGG |
| 2353 | CUCUUUUCAACCACGCAGC | 2398 | ACCAUGCCCGCCUUGUCAA | 2443 | AUUGUAGAUGUGCAAUACC | 2488 | UCGUGGGCCGUGAAGUGGG |
| 2354 | UCUUUUCAACCACGCAGCU | 2399 | CCAUGCCCGCCUUGUCAAC | 2444 | UUGUAGAUGUGCAAUACCU | 2489 | CGUGGGCCGUGAAGUGGGA |
| 2355 | CUUUUCAACCACGCAGCUU | 2400 | CAUGCCCGCCUUGUCAACA | 2445 | UGUAGAUGUGCAAUACCUC | 2490 | GUGGGCCGUGAAGUGGGAG |
| 2356 | UUUUCAACCACGCAGCUUG | 2401 | AUGCCCGCCUUGUCAACAG | 2446 | GUAGAUGUGCAAUACCUCU | 2491 | UGGGCCGUGAAGUGGGAGU |
| 2357 | UUUCAACCACGCAGCUUGC | 2402 | UGCCCGCCUUGUCAACAGG | 2447 | UAGAUGUGCAAUACCUCUA | 2492 | GGGCCGUGAAGUGGGAGUA |
| 2358 | UUCAACCACGCAGCUUGCU | 2403 | GCCCGCCUUGUCAACAGGA | 2448 | AGAUGUGCAAUACCUCUAC | 2493 | GGCCGUGAAGUGGGAGUAU |
| 2359 | UCAACCACGCAGCUUGCUA | 2404 | CCCGCCUUGUCAACAGGAC | 2449 | GAUGUGCAAUACCUCUACG | 2494 | GCCGUGAAGUGGGAGUAUG |
| 2360 | CAACCACGCAGCUUGCUAU | 2405 | CCGCCUUGUCAACAGGACU | 2450 | AUGUGCAAUACCUCUACGG | 2495 | CCGUGAAGUGGGAGUAUGU |
| 2361 | AACCACGCAGCUUGCUAUC | 2406 | CGCCUUGUCAACAGGACUU | 2451 | UGUGCAAUACCUCUACGGA | 2496 | CGUGAAGUGGGAGUAUGUC |
| 2362 | ACCACGCAGCUUGCUAUCU | 2407 | GCCUUGUCAACAGGACUUA | 2452 | GUGCAAUACCUCUACGGAG | 2497 | GUGAAGUGGGAGUAUGUCG |
| 2363 | CCACGCAGCUUGCUAUCUU | 2408 | CCUUGUCAACAGGACUUAU | 2453 | UGCAAUACCUCUACGGAGU | 2498 | UGAAGUGGGAGUAUGUCGU |
| 2364 | CACGCAGCUUGCUAUCUUG | 2409 | CUUGUCAACAGGACUUAUA | 2454 | GCAAUACCUCUACGGAGUC | 2499 | GAAGUGGGAGUAUGUCGUC |
| 2365 | ACGCAGCUUGCUAUCUUGC | 2410 | UUGUCAACAGGACUUAUAC | 2455 | CAAUACCUCUACGGAGUCU | 2500 | AAGUGGGAGUAUGUCGUCC |
| 2366 | CGCAGCUUGCUAUCUUGCC | 2411 | UGUCAACAGGACUUAUACA | 2456 | AAUACCUCUACGGAGUCUC | 2501 | AGUGGGAGUAUGUCGUCCU |
| 2367 | GCAGCUUGCUAUCUUGCCU | 2412 | GUCAACAGGACUUAUACAU | 2457 | AUACCUCUACGGAGUCUCC | 2502 | GUGGGAGUAUGUCGUCCUC |
| 2368 | CAGCUUGCUAUCUUGCCUU | 2413 | UCAACAGGACUUAUACAUC | 2458 | UACCUCUACGGAGUCUCCU | 2503 | UGGGAGUAUGUCGUCCUCA |
| 2369 | AGCUUGCUAUCUUGCCUUG | 2414 | CAACAGGACUUAUACAUCU | 2459 | ACCUCUACGGAGUCUCCUC | 2504 | GGGAGUAUGUCGUCCUCAU |
| 2370 | GCUUGCUAUCUUGCCUUGC | 2415 | AACAGGACUUAUACAUCUC | 2460 | CCUCUACGGAGUCUCCUCG | 2505 | GGAGUAUGUCGUCCUCAUG |
| 2371 | CUUGCUAUCUUGCCUUGCA | 2416 | ACAGGACUUAUACAUCUCC | 2461 | CUCUACGGAGUCUCCUCGA | 2506 | GAGUAUGUCGUCCUCAUGU |
| 2372 | UUGCUAUCUUGCCUUGCAG | 2417 | CAGGACUUAUACAUCUCCA | 2462 | UCUACGGAGUCUCCUCGAG | 2507 | AGUAUGUCGUCCUCAUGUU |
| 2373 | UGCUAUCUUGCCUUGCAGC | 2418 | AGGACUUAUACAUCUCCAU | 2463 | CUACGGAGUCUCCUCGAGC | 2508 | GUAUGUCGUCCUCAUGUUU |
| 2374 | GCUAUCUUGCCUUGCAGCU | 2419 | GGACUUAUACAUCUCCAUC | 2464 | UACGGAGUCUCCUCGAGCA | 2509 | UAUGUCGUCCUCAUGUUUU |
| 2375 | CUAUCUUGCCUUGCAGCUU | 2420 | GACUUAUACAUCUCCAUCA | 2465 | ACGGAGUCUCCUCGAGCAU | 2510 | AUGUCGUCCUCAUGUUUUU |
| 2376 | UAUCUUGCCUUGCAGCUUU | 2421 | ACUUAUACAUCUCCAUCAA | 2466 | CGGAGUCUCCUCGAGCAUA | 2511 | UGUCGUCCUCAUGUUUUUG |
| 2377 | AUCUUGCCUUGCAGCUUUA | 2422 | CUUAUACAUCUCCAUCAAA | 2467 | GGAGUCUCCUCGAGCAUAG | 2512 | GUCGUCCUCAUGUUUUUGG |
| 2378 | UCUUGCCUUGCAGCUUUAC | 2423 | UUAUACAUCUCCAUCAAAA | 2468 | GAGUCUCCUCGAGCAUAGU | 2513 | UCGUCCUCAUGUUUUUGGU |
| 2379 | CUUGCCUUGCAGCUUUACC | 2424 | UAUACAUCUCCAUCAAAAC | 2469 | AGUCUCCUCGAGCAUAGUA | 2514 | CGUCCUCAUGUUUUUGGUC |
| 2380 | UUGCCUUGCAGCUUUACCA | 2425 | AUACAUCUCCAUCAAAACA | 2470 | GUCUCCUCGAGCAUAGUAU | 2515 | GUCCUCAUGUUUUUGGUCC |
| 2381 | UGCCUUGCAGCUUUACCAC | 2426 | UACAUCUCCAUCAAAACAU | 2471 | UCUCCUCGAGCAUAGUAUC | 2516 | UCCUCAUGUUUUUGGUCCU |
| 2382 | GCCUUGCAGCUUUACCACC | 2427 | ACAUCUCCAUCAAAACAUU | 2472 | CUCCUCGAGCAUAGUAUCG | 2517 | CCUCAUGUUUUUGGUCCUG |
| 2383 | CCUUGCAGCUUUACCACCA | 2428 | CAUCUCCAUCAAAACAUUG | 2473 | UCCUCGAGCAUAGUAUCGU | 2518 | CUCAUGUUUUUGGUCCUGG |
| 2384 | CUUGCAGCUUUACCACCAU | 2429 | AUCUCCAUCAAAACAUUGU | 2474 | CCUCGAGCAUAGUAUCGUG | 2519 | UCAUGUUUUUGGUCCUGGC |
| 2385 | UUGCAGCUUUACCACCAUG | 2430 | UCUCCAUCAAAACAUUGUA | 2475 | CUCGAGCAUAGUAUCGUGG | 2520 | CAUGUUUUUGGUCCUGGCG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2521 | AUGUUUUUGGUCCUGGCGG | 2566 | UUGAUGCUGCUCGUCGGCA | 2611 | GUCGUCCUCAAUGCAGCCA | 2656 | UGGACCCUCAUCUUCCUGU |
| 2522 | UGUUUUUGGUCCUGGCGGA | 2567 | UGAUGCUGCUCGUCGGCAA | 2612 | UCGUCCUCAAUGCAGCCAG | 2657 | GGACCCUCAUCUUCCUGUG |
| 2523 | GUUUUUGGUCCUGGCGGAU | 2568 | GAUGCUGCUCGUCGGCAAG | 2613 | CGUCCUCAAUGCAGCCAGC | 2658 | GACCCUCAUCUUCCUGUGC |
| 2524 | UUUUUGGUCCUGGCGGAUG | 2569 | AUGCUGCUCGUCGGCAAGG | 2614 | GUCCUCAAUGCAGCCAGCG | 2659 | ACCCUCAUCUUCCUGUGCU |
| 2525 | UUUUGGUCCUGGCGGAUGC | 2570 | UGCUGCUCGUCGGCAAGGU | 2615 | UCCUCAAUGCAGCCAGCGC | 2660 | CCCUCAUCUUCCUGUGCUG |
| 2526 | UUUGGUCCUGGCGGAUGCU | 2571 | GCUGCUCGUCGGCAAGGUC | 2616 | CCUCAAUGCAGCCAGCGCC | 2661 | CCUCAUCUUCCUGUGCUGC |
| 2527 | UUGGUCCUGGCGGAUGCUC | 2572 | CUGCUCGUCGGCAAGGUCG | 2617 | CUCAAUGCAGCCAGCGCCG | 2662 | CUCAUCUUCCUGUGCUGCG |
| 2528 | UGGUCCUGGCGGAUGCUCG | 2573 | UGCUCGUCGGCAAGGUCGA | 2618 | UCAAUGCAGCCAGCGCCGC | 2663 | UCAUCUUCCUGUGCUGCGU |
| 2529 | GGUCCUGGCGGAUGCUCGA | 2574 | GCUCGUCGGCAAGGUCGAA | 2619 | CAAUGCAGCCAGCGCCGCG | 2664 | CAUCUUCCUGUGCUGCGUG |
| 2530 | GUCCUGGCGGAUGCUCGAA | 2575 | CUCGUCGGCAAGGUCGAAG | 2620 | AAUGCAGCCAGCGCCGCGG | 2665 | AUCUUCCUGUGCUGCGUGU |
| 2531 | UCCUGGCGGAUGCUCGAAU | 2576 | UCGUCGGCAAGGUCGAAGC | 2621 | AUGCAGCCAGCGCCGCGGG | 2666 | UCUUCCUGUGCUGCGUGUG |
| 2532 | CCUGGCGGAUGCUCGAAUA | 2577 | CGUCGGCAAGGUCGAAGCA | 2622 | UGCAGCCAGCGCCGCGGGU | 2667 | CUUCCUGUGCUGCGUGUGG |
| 2533 | CUGGCGGAUGCUCGAAUAU | 2578 | GUCGGCAAGGUCGAAGCAG | 2623 | GCAGCCAGCGCCGCGGGUA | 2668 | UUCCUGUGCUGCGUGUGGC |
| 2534 | UGGCGGAUGCUCGAAUAUG | 2579 | UCGGCAAGGUCGAAGCAGC | 2624 | CAGCCAGCGCCGCGGGUAC | 2669 | UCCUGUGCUGCGUGUGGCA |
| 2535 | GGCGGAUGCUCGAAUAUGC | 2580 | CGGCAAGGUCGAAGCAGCA | 2625 | AGCCAGCGCCGCGGGUACC | 2670 | CCUGUGCUGCGUGUGGCAC |
| 2536 | GCGGAUGCUCGAAUAUGCA | 2581 | GGCAAGGUCGAAGCAGCAU | 2626 | GCCAGCGCCGCGGGUACCG | 2671 | CUGUGCUGCGUGUGGCACG |
| 2537 | CGGAUGCUCGAAUAUGCAC | 2582 | GCAAGGUCGAAGCAGCAUU | 2627 | CCAGCGCCGCGGGUACCGC | 2672 | UGUGCUGCGUGUGGCACGU |
| 2538 | GGAUGCUCGAAUAUGCACU | 2583 | CAAGGUCGAAGCAGCAUUG | 2628 | CAGCGCCGCGGGUACCGCC | 2673 | GUGCUGCGUGUGGCACGUG |
| 2539 | GAUGCUCGAAUAUGCACUU | 2584 | AAGGUCGAAGCAGCAUUGG | 2629 | AGCGCCGCGGGUACCGCCG | 2674 | UGCUGCGUGUGGCACGUGA |
| 2540 | AUGCUCGAAUAUGCACUUG | 2585 | AGGUCGAAGCAGCAUUGGA | 2630 | GCGCCGCGGGUACCGCCGG | 2675 | GCUGCGUGUGGCACGUGAA |
| 2541 | UGCUCGAAUAUGCACUUGC | 2586 | GGUCGAAGCAGCAUUGGAG | 2631 | CGCCGCGGGUACCGCCGGU | 2676 | CUGCGUGUGGCACGUGAAG |
| 2542 | GCUCGAAUAUGCACUUGCC | 2587 | GUCGAAGCAGCAUUGGAGC | 2632 | GCCGCGGGUACCGCCGGUU | 2677 | UGCGUGUGGCACGUGAAGG |
| 2543 | CUCGAAUAUGCACUUGCCU | 2588 | UCGAAGCAGCAUUGGAGCG | 2633 | CCGCGGGUACCGCCGGUUG | 2678 | GCGUGUGGCACGUGAAGGG |
| 2544 | UCGAAUAUGCACUUGCCUU | 2589 | CGAAGCAGCAUUGGAGCGG | 2634 | CGCGGGUACCGCCGGUUGG | 2679 | CGUGUGGCACGUGAAGGGG |
| 2545 | CGAAUAUGCACUUGCCUUU | 2590 | GAAGCAGCAUUGGAGCGGC | 2635 | GCGGGUACCGCCGGUUGGU | 2680 | GUGUGGCACGUGAAGGGGC |
| 2546 | GAAUAUGCACUUGCCUUUG | 2591 | AAGCAGCAUUGGAGCGGCU | 2636 | CGGGUACCGCCGGUUGGUG | 2681 | UGUGGCACGUGAAGGGGCG |
| 2547 | AAUAUGCACUUGCCUUUGG | 2592 | AGCAGCAUUGGAGCGGCUC | 2637 | GGGUACCGCCGGUUGGUGU | 2682 | GUGGCACGUGAAGGGGCGC |
| 2548 | AUAUGCACUUGCCUUUGGU | 2593 | GCAGCAUUGGAGCGGCUCG | 2638 | GGUACCGCCGGUUGGUGUU | 2683 | UGGCACGUGAAGGGGCGCC |
| 2549 | UAUGCACUUGCCUUUGGUU | 2594 | CAGCAUUGGAGCGGCUCGU | 2639 | GUACCGCCGGUUGGUGUUG | 2684 | GGCACGUGAAGGGGCGCCU |
| 2550 | AUGCACUUGCCUUUGGUUG | 2595 | AGCAUUGGAGCGGCUCGUC | 2640 | UACCGCCGGUUGGUGUUGG | 2685 | GCACGUGAAGGGGCGCCUU |
| 2551 | UGCACUUGCCUUUGGUUGA | 2596 | GCAUUGGAGCGGCUCGUCG | 2641 | ACCGCCGGUUGGUGUUGGA | 2686 | CACGUGAAGGGGCGCCUUG |
| 2552 | GCACUUGCCUUUGGUUGAU | 2597 | CAUUGGAGCGGCUCGUCGU | 2642 | CCGCCGGUUGGUGUUGGAC | 2687 | ACGUGAAGGGGCGCCUUGU |
| 2553 | CACUUGCCUUUGGUUGAUG | 2598 | AUUGGAGCGGCUCGUCGUC | 2643 | CGCCGGUUGGUGUUGGACC | 2688 | CGUGAAGGGGCGCCUUGUG |
| 2554 | ACUUGCCUUUGGUUGAUGC | 2599 | UUGGAGCGGCUCGUCGUCC | 2644 | GCCGGUUGGUGUUGGACCC | 2689 | GUGAAGGGGCGCCUUGUGC |
| 2555 | CUUGCCUUUGGUUGAUGCU | 2600 | UGGAGCGGCUCGUCGUCCU | 2645 | CCGGUUGGUGUUGGACCCU | 2690 | UGAAGGGGCGCCUUGUGCC |
| 2556 | UUGCCUUUGGUUGAUGCUG | 2601 | GGAGCGGCUCGUCGUCCUC | 2646 | CGGUUGGUGUUGGACCCUC | 2691 | GAAGGGGCGCCUUGUGCCC |
| 2557 | UGCCUUUGGUUGAUGCUGC | 2602 | GAGCGGCUCGUCGUCCUCA | 2647 | GGUUGGUGUUGGACCCUCA | 2692 | AAGGGGCGCCUUGUGCCCG |
| 2558 | GCCUUUGGUUGAUGCUGCU | 2603 | AGCGGCUCGUCGUCCUCAA | 2648 | GUUGGUGUUGGACCCUCAU | 2693 | AGGGGCGCCUUGUGCCCGC |
| 2559 | CCUUUGGUUGAUGCUGCUC | 2604 | GCGGCUCGUCGUCCUCAAU | 2649 | UUGGUGUUGGACCCUCAUC | 2694 | GGGGCGCCUUGUGCCCGCA |
| 2560 | CUUUGGUUGAUGCUGCUCG | 2605 | CGGCUCGUCGUCCUCAAUG | 2650 | UGGUGUUGGACCCUCAUCU | 2695 | GGGCGCCUUGUGCCCGCAU |
| 2561 | UUUGGUUGAUGCUGCUCGU | 2606 | GGCUCGUCGUCCUCAAUGC | 2651 | GGUGUUGGACCCUCAUCUU | 2696 | GGCGCCUUGUGCCCGCAUG |
| 2562 | UUGGUUGAUGCUGCUCGUC | 2607 | GCUCGUCGUCCUCAAUGCA | 2652 | GUGUUGGACCCUCAUCUUC | 2697 | GCGCCUUGUGCCCGCAUGC |
| 2563 | UGGUUGAUGCUGCUCGUCG | 2608 | CUCGUCGUCCUCAAUGCAG | 2653 | UGUUGGACCCUCAUCUUCC | 2698 | CGCCUUGUGCCCGCAUGCA |
| 2564 | GGUUGAUGCUGCUCGUCGG | 2609 | UCGUCGUCCUCAAUGCAGC | 2654 | GUUGGACCCUCAUCUUCCU | 2699 | GCCUUGUGCCCGCAUGCAC |
| 2565 | GUUGAUGCUGCUCGUCGGC | 2610 | CGUCGUCCUCAAUGCAGCC | 2655 | UUGGACCCUCAUCUUCCUG | 2700 | CCUUGUGCCCGCAUGCACC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2701 | CUUGUGCCCGCAUGCACCU | 2746 | CUCCUGGUGAUUCUGGCCC | 2791 | AAUAGUCAGGCUGCAUCAC | 2836 | ACAAUCUUUACCCUCAGCC |
| 2702 | UUGUGCCCGCAUGCACCUA | 2747 | UCCUGGUGAUUCUGGCCCU | 2792 | AUAGUCAGGCUGCAUCACU | 2837 | CAAUCUUUACCCUCAGCCC |
| 2703 | UGUGCCCGCAUGCACCUAC | 2748 | CCUGGUGAUUCUGGCCCUG | 2793 | UAGUCAGGCUGCAUCACUU | 2838 | AAUCUUUACCCUCAGCCCU |
| 2704 | GUGCCCGCAUGCACCUACA | 2749 | CUGGUGAUUCUGGCCCUGC | 2794 | AGUCAGGCUGCAUCACUUG | 2839 | AUCUUUACCCUCAGCCCUA |
| 2705 | UGCCCGCAUGCACCUACAC | 2750 | UGGUGAUUCUGGCCCUGCC | 2795 | GUCAGGCUGCAUCACUUGG | 2840 | UCUUUACCCUCAGCCCUAU |
| 2706 | GCCCGCAUGCACCUACACA | 2751 | GGUGAUUCUGGCCCUGCCC | 2796 | UCAGGCUGCAUCACUUGGG | 2841 | CUUUACCCUCAGCCCUAUG |
| 2707 | CCCGCAUGCACCUACACAG | 2752 | GUGAUUCUGGCCCUGCCCC | 2797 | CAGGCUGCAUCACUUGGGG | 2842 | UUUACCCUCAGCCCUAUGU |
| 2708 | CCGCAUGCACCUACACAGC | 2753 | UGAUUCUGGCCCUGCCCCA | 2798 | AGGCUGCAUCACUUGGGGU | 2843 | UUACCCUCAGCCCUAUGUA |
| 2709 | CGCAUGCACCUACACAGCU | 2754 | GAUUCUGGCCCUGCCCCAA | 2799 | GGCUGCAUCACUUGGGGUC | 2844 | UACCCUCAGCCCUAUGUAC |
| 2710 | GCAUGCACCUACACAGCUC | 2755 | AUUCUGGCCCUGCCCCAAC | 2800 | GCUGCAUCACUUGGGGUCG | 2845 | ACCCUCAGCCCUAUGUACA |
| 2711 | CAUGCACCUACACAGCUCU | 2756 | UUCUGGCCCUGCCCCAACG | 2801 | CUGCAUCACUUGGGGUCGU | 2846 | CCCUCAGCCCUAUGUACAA |
| 2712 | AUGCACCUACACAGCUCUA | 2757 | UCUGGCCCUGCCCCAACGG | 2802 | UGCAUCACUUGGGGUCGUU | 2847 | CCUCAGCCCUAUGUACAAA |
| 2713 | UGCACCUACACAGCUCUAG | 2758 | CUGGCCCUGCCCCAACGGG | 2803 | GCAUCACUUGGGGUCGUUG | 2848 | CUCAGCCCUAUGUACAAAC |
| 2714 | GCACCUACACAGCUCUAGG | 2759 | UGGCCCUGCCCCAACGGGC | 2804 | CAUCACUUGGGGUCGUUGC | 2849 | UCAGCCCUAUGUACAAACA |
| 2715 | CACCUACACAGCUCUAGGC | 2760 | GGCCCUGCCCCAACGGGCA | 2805 | AUCACUUGGGGUCGUUGCC | 2850 | CAGCCCUAUGUACAAACAG |
| 2716 | ACCUACACAGCUCUAGGCA | 2761 | GCCCUGCCCCAACGGGCAU | 2806 | UCACUUGGGGUCGUUGCCC | 2851 | AGCCCUAUGUACAAACAGC |
| 2717 | CCUACACAGCUCUAGGCAU | 2762 | CCCUGCCCCAACGGGCAUA | 2807 | CACUUGGGGUCGUUGCCCU | 2852 | GCCCUAUGUACAAACAGCU |
| 2718 | CUACACAGCUCUAGGCAUG | 2763 | CCUGCCCCAACGGGCAUAU | 2808 | ACUUGGGGUCGUUGCCCUU | 2853 | CCCUAUGUACAAACAGCUG |
| 2719 | UACACAGCUCUAGGCAUGU | 2764 | CUGCCCCAACGGGCAUAUG | 2809 | CUUGGGGUCGUUGCCCUUC | 2854 | CCUAUGUACAAACAGCUGC |
| 2720 | ACACAGCUCUAGGCAUGUG | 2765 | UGCCCCAACGGGCAUAUGC | 2810 | UUGGGGUCGUUGCCCUUCU | 2855 | CUAUGUACAAACAGCUGCU |
| 2721 | CACAGCUCUAGGCAUGUGG | 2766 | GCCCCAACGGGCAUAUGCC | 2811 | UGGGGUCGUUGCCCUUCUG | 2856 | UAUGUACAAACAGCUGCUC |
| 2722 | ACAGCUCUAGGCAUGUGGC | 2767 | CCCCAACGGGCAUAUGCCU | 2812 | GGGGUCGUUGCCCUUCUGG | 2857 | AUGUACAAACAGCUGCUCA |
| 2723 | CAGCUCUAGGCAUGUGGCC | 2768 | CCCAACGGGCAUAUGCCUG | 2813 | GGGUCGUUGCCCUUCUGGU | 2858 | UGUACAAACAGCUGCUCAC |
| 2724 | AGCUCUAGGCAUGUGGCCG | 2769 | CCAACGGGCAUAUGCCUGG | 2814 | GGUCGUUGCCCUUCUGGUG | 2859 | GUACAAACAGCUGCUCACA |
| 2725 | GCUCUAGGCAUGUGGCCGA | 2770 | CAACGGGCAUAUGCCUGGG | 2815 | GUCGUUGCCCUUCUGGUGU | 2860 | UACAAACAGCUGCUCACAC |
| 2726 | CUCUAGGCAUGUGGCCGAU | 2771 | AACGGGCAUAUGCCUGGGA | 2816 | UCGUUGCCCUUCUGGUGUU | 2861 | ACAAACAGCUGCUCACACA |
| 2727 | UCUAGGCAUGUGGCCGAUU | 2772 | ACGGGCAUAUGCCUGGGAC | 2817 | CGUUGCCCUUCUGGUGUUG | 2862 | CAAACAGCUGCUCACACAC |
| 2728 | CUAGGCAUGUGGCCGAUUC | 2773 | CGGGCAUAUGCCUGGGACA | 2818 | GUUGCCCUUCUGGUGUUGA | 2863 | AAACAGCUGCUCACACACG |
| 2729 | UAGGCAUGUGGCCGAUUCU | 2774 | GGGCAUAUGCCUGGGACAA | 2819 | UUGCCCUUCUGGUGUUGAC | 2864 | AACAGCUGCUCACACACGC |
| 2730 | AGGCAUGUGGCCGAUUCUC | 2775 | GGCAUAUGCCUGGGACAAU | 2820 | UGCCCUUCUGGUGUUGACA | 2865 | ACAGCUGCUCACACACGCU |
| 2731 | GGCAUGUGGCCGAUUCUCC | 2776 | GCAUAUGCCUGGGACAAUA | 2821 | GCCCUUCUGGUGUUGACAA | 2866 | CAGCUGCUCACACACGCUA |
| 2732 | GCAUGUGGCCGAUUCUCCU | 2777 | CAUAUGCCUGGGACAAUAG | 2822 | CCCUUCUGGUGUUGACAAU | 2867 | AGCUGCUCACACACGCUAU |
| 2733 | CAUGUGGCCGAUUCUCCUG | 2778 | AUAUGCCUGGGACAAUAGU | 2823 | CCUUCUGGUGUUGACAAUC | 2868 | GCUGCUCACACACGCUAUC |
| 2734 | AUGUGGCCGAUUCUCCUGG | 2779 | UAUGCCUGGGACAAUAGUC | 2824 | CUUCUGGUGUUGACAAUCU | 2869 | CUGCUCACACACGCUAUCU |
| 2735 | UGUGGCCGAUUCUCCUGGU | 2780 | AUGCCUGGGACAAUAGUCA | 2825 | UUCUGGUGUUGACAAUCUU | 2870 | UGCUCACACACGCUAUCUG |
| 2736 | GUGGCCGAUUCUCCUGGUG | 2781 | UGCCUGGGACAAUAGUCAG | 2826 | UCUGGUGUUGACAAUCUUU | 2871 | GCUCACACACGCUAUCUGG |
| 2737 | UGGCCGAUUCUCCUGGUGA | 2782 | GCCUGGGACAAUAGUCAGG | 2827 | CUGGUGUUGACAAUCUUUA | 2872 | CUCACACACGCUAUCUGGU |
| 2738 | GGCCGAUUCUCCUGGUGAU | 2783 | CCUGGGACAAUAGUCAGGC | 2828 | UGGUGUUGACAAUCUUUAC | 2873 | UCACACACGCUAUCUGGUG |
| 2739 | GCCGAUUCUCCUGGUGAUU | 2784 | CUGGGACAAUAGUCAGGCU | 2829 | GGUGUUGACAAUCUUUACC | 2874 | CACACACGCUAUCUGGUGG |
| 2740 | CCGAUUCUCCUGGUGAUUC | 2785 | UGGGACAAUAGUCAGGCUG | 2830 | GUGUUGACAAUCUUUACCC | 2875 | ACACACGCUAUCUGGUGGA |
| 2741 | CGAUUCUCCUGGUGAUUCU | 2786 | GGGACAAUAGUCAGGCUGC | 2831 | UGUUGACAAUCUUUACCCU | 2876 | CACACGCUAUCUGGUGGAA |
| 2742 | GAUUCUCCUGGUGAUUCUG | 2787 | GGACAAUAGUCAGGCUGCA | 2832 | GUUGACAAUCUUUACCCUC | 2877 | ACACGCUAUCUGGUGGAAC |
| 2743 | AUUCUCCUGGUGAUUCUGG | 2788 | GACAAUAGUCAGGCUGCAU | 2833 | UUGACAAUCUUUACCCUCA | 2878 | CACGCUAUCUGGUGGAACC |
| 2744 | UUCUCCUGGUGAUUCUGGC | 2789 | ACAAUAGUCAGGCUGCAUC | 2834 | UGACAAUCUUUACCCUCAG | 2879 | ACGCUAUCUGGUGGAACCA |
| 2745 | UCUCCUGGUGAUUCUGGCC | 2790 | CAAUAGUCAGGCUGCAUCA | 2835 | GACAAUCUUUACCCUCAGC | 2880 | CGCUAUCUGGUGGAACCAA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2881 | GCUAUCUGGUGGAACCAAU | 2926 | AUACAUGAUUGGGUGCCAG | 2971 | GCCAUCAUUCUGCUCACCU | 3016 | GAGGUCACAAAGAUUUUGU |
| 2882 | CUAUCUGGUGGAACCAAUA | 2927 | UACAUGAUUGGGUGCCAGA | 2972 | CCAUCAUUCUGCUCACCUG | 3017 | AGGUCACAAAGAUUUUGUU |
| 2883 | UAUCUGGUGGAACCAAUAC | 2928 | ACAUGAUUGGGUGCCAGAU | 2973 | CAUCAUUCUGCUCACCUGC | 3018 | GGUCACAAAGAUUUUGUUA |
| 2884 | AUCUGGUGGAACCAAUACA | 2929 | CAUGAUUGGGUGCCAGAUU | 2974 | AUCAUUCUGCUCACCUGCU | 3019 | GUCACAAAGAUUUUGUUAG |
| 2885 | UCUGGUGGAACCAAUACAU | 2930 | AUGAUUGGGUGCCAGAUUU | 2975 | UCAUUCUGCUCACCUGCUU | 3020 | UCACAAAGAUUUUGUUAGC |
| 2886 | CUGGUGGAACCAAUACAUG | 2931 | UGAUUGGGUGCCAGAUUUG | 2976 | CAUUCUGCUCACCUGCUUG | 3021 | CACAAAGAUUUUGUUAGCC |
| 2887 | UGGUGGAACCAAUACAUGU | 2932 | GAUUGGGUGCCAGAUUUGC | 2977 | AUUCUGCUCACCUGCUUGU | 3022 | ACAAAGAUUUUGUUAGCCA |
| 2888 | GGUGGAACCAAUACAUGUU | 2933 | AUUGGGUGCCAGAUUUGCG | 2978 | UUCUGCUCACCUGCUUGUU | 3023 | CAAAGAUUUUGUUAGCCAU |
| 2889 | GUGGAACCAAUACAUGUUG | 2934 | UUGGGUGCCAGAUUUGCGG | 2979 | UCUGCUCACCUGCUUGUUA | 3024 | AAAGAUUUUGUUAGCCAUC |
| 2890 | UGGAACCAAUACAUGUUGG | 2935 | UGGGUGCCAGAUUUGCGGG | 2980 | CUGCUCACCUGCUUGUUAC | 3025 | AAGAUUUUGUUAGCCAUCU |
| 2891 | GGAACCAAUACAUGUUGGC | 2936 | GGGUGCCAGAUUUGCGGGU | 2981 | UGCUCACCUGCUUGUUACA | 3026 | AGAUUUUGUUAGCCAUCUU |
| 2892 | GAACCAAUACAUGUUGGCU | 2937 | GGUGCCAGAUUUGCGGGUC | 2982 | GCUCACCUGCUUGUUACAC | 3027 | GAUUUUGUUAGCCAUCUUA |
| 2893 | AACCAAUACAUGUUGGCUC | 2938 | GUGCCAGAUUUGCGGGUCA | 2983 | CUCACCUGCUUGUUACACC | 3028 | AUUUUGUUAGCCAUCUUAG |
| 2894 | ACCAAUACAUGUUGGCUCG | 2939 | UGCCAGAUUUGCGGGUCAG | 2984 | UCACCUGCUUGUUACACCC | 3029 | UUUUGUUAGCCAUCUUAGC |
| 2895 | CCAAUACAUGUUGGCUCGG | 2940 | GCCAGAUUUGCGGGUCAGG | 2985 | CACCUGCUUGUUACACCCA | 3030 | UUUGUUAGCCAUCUUAGCC |
| 2896 | CAAUACAUGUUGGCUCGGG | 2941 | CCAGAUUUGCGGGUCAGGG | 2986 | ACCUGCUUGUUACACCCAC | 3031 | UUGUUAGCCAUCUUAGCCC |
| 2897 | AAUACAUGUUGGCUCGGGC | 2942 | CAGAUUUGCGGGUCAGGGG | 2987 | CCUGCUUGUUACACCCACA | 3032 | UGUUAGCCAUCUUAGCCCC |
| 2898 | AUACAUGUUGGCUCGGGCU | 2943 | AGAUUUGCGGGUCAGGGGC | 2988 | CUGCUUGUUACACCCACAU | 3033 | GUUAGCCAUCUUAGCCCCU |
| 2899 | UACAUGUUGGCUCGGGCUG | 2944 | GAUUUGCGGGUCAGGGGCG | 2989 | UGCUUGUUACACCCACAUC | 3034 | UUAGCCAUCUUAGCCCCUC |
| 2900 | ACAUGUUGGCUCGGGCUGA | 2945 | AUUUGCGGGUCAGGGGCGG | 2990 | GCUUGUUACACCCACAUCU | 3035 | UAGCCAUCUUAGCCCCUCU |
| 2901 | CAUGUUGGCUCGGGCUGAA | 2946 | UUUGCGGGUCAGGGGCGGU | 2991 | CUUGUUACACCCACAUCUC | 3036 | AGCCAUCUUAGCCCCUCUG |
| 2902 | AUGUUGGCUCGGGCUGAAG | 2947 | UUGCGGGUCAGGGGCGGUA | 2992 | UUGUUACACCCACAUCUCG | 3037 | GCCAUCUUAGCCCCUCUGU |
| 2903 | UGUUGGCUCGGGCUGAAGC | 2948 | UGCGGGUCAGGGGCGGUAG | 2993 | UGUUACACCCACAUCUCGG | 3038 | CCAUCUUAGCCCCUCUGUA |
| 2904 | GUUGGCUCGGGCUGAAGCU | 2949 | GCGGGUCAGGGGCGGUAGG | 2994 | GUUACACCCACAUCUCGGG | 3039 | CAUCUUAGCCCCUCUGUAU |
| 2905 | UUGGCUCGGGCUGAAGCUA | 2950 | CGGGUCAGGGGCGGUAGGG | 2995 | UUACACCCACAUCUCGGGU | 3040 | AUCUUAGCCCCUCUGUAUA |
| 2906 | UGGCUCGGGCUGAAGCUAU | 2951 | GGGUCAGGGGCGGUAGGGA | 2996 | UACACCCACAUCUCGGGUU | 3041 | UCUUAGCCCCUCUGUAUAU |
| 2907 | GGCUCGGGCUGAAGCUAUG | 2952 | GGUCAGGGGCGGUAGGGAU | 2997 | ACACCCACAUCUCGGGUUU | 3042 | CUUAGCCCCUCUGUAUAUC |
| 2908 | GCUCGGGCUGAAGCUAUGA | 2953 | GUCAGGGGCGGUAGGGAUG | 2998 | CACCCACAUCUCGGGUUUG | 3043 | UUAGCCCCUCUGUAUAUCC |
| 2909 | CUCGGGCUGAAGCUAUGAU | 2954 | UCAGGGGCGGUAGGGAUGC | 2999 | ACCCACAUCUCGGGUUUGA | 3044 | UAGCCCCUCUGUAUAUCCU |
| 2910 | UCGGGCUGAAGCUAUGAUA | 2955 | CAGGGGCGGUAGGGAUGCC | 3000 | CCCACAUCUCGGGUUUGAG | 3045 | AGCCCCUCUGUAUAUCCUC |
| 2911 | CGGGCUGAAGCUAUGAUAC | 2956 | AGGGGCGGUAGGGAUGCCA | 3001 | CCACAUCUCGGGUUUGAGG | 3046 | GCCCCUCUGUAUAUCCUCC |
| 2912 | GGGCUGAAGCUAUGAUACA | 2957 | GGGGCGGUAGGGAUGCCAU | 3002 | CACAUCUCGGGUUUGAGGU | 3047 | CCCCUCUGUAUAUCCUCCA |
| 2913 | GGCUGAAGCUAUGAUACAU | 2958 | GGGCGGUAGGGAUGCCAUC | 3003 | ACAUCUCGGGUUUGAGGUC | 3048 | CCCUCUGUAUAUCCUCCAG |
| 2914 | GCUGAAGCUAUGAUACAUG | 2959 | GGCGGUAGGGAUGCCAUCA | 3004 | CAUCUCGGGUUUGAGGUCA | 3049 | CCUCUGUAUAUCCUCCAGC |
| 2915 | CUGAAGCUAUGAUACAUGA | 2960 | GCGGUAGGGAUGCCAUCAU | 3005 | AUCUCGGGUUUGAGGUCAC | 3050 | CUCUGUAUAUCCUCCAGCA |
| 2916 | UGAAGCUAUGAUACAUGAU | 2961 | CGGUAGGGAUGCCAUCAUU | 3006 | UCUCGGGUUUGAGGUCACA | 3051 | UCUGUAUAUCCUCCAGCAC |
| 2917 | GAAGCUAUGAUACAUGAUU | 2962 | GGUAGGGAUGCCAUCAUUC | 3007 | CUCGGGUUUGAGGUCACAA | 3052 | CUGUAUAUCCUCCAGCACA |
| 2918 | AAGCUAUGAUACAUGAUUG | 2963 | GUAGGGAUGCCAUCAUUCU | 3008 | UCGGGUUUGAGGUCACAAA | 3053 | UGUAUAUCCUCCAGCACAG |
| 2919 | AGCUAUGAUACAUGAUUGG | 2964 | UAGGGAUGCCAUCAUUCUG | 3009 | CGGGUUUGAGGUCACAAAG | 3054 | GUAUAUCCUCCAGCACAGU |
| 2920 | GCUAUGAUACAUGAUUGGG | 2965 | AGGGAUGCCAUCAUUCUGC | 3010 | GGGUUUGAGGUCACAAAGA | 3055 | UAUAUCCUCCAGCACAGUC |
| 2921 | CUAUGAUACAUGAUUGGGU | 2966 | GGGAUGCCAUCAUUCUGCU | 3011 | GGUUUGAGGUCACAAAGAU | 3056 | AUAUCCUCCAGCACAGUCU |
| 2922 | UAUGAUACAUGAUUGGGUG | 2967 | GGAUGCCAUCAUUCUGCUC | 3012 | GUUUGAGGUCACAAAGAUU | 3057 | UAUCCUCCAGCACAGUCUG |
| 2923 | AUGAUACAUGAUUGGGUGC | 2968 | GAUGCCAUCAUUCUGCUCA | 3013 | UUUGAGGUCACAAAGAUUU | 3058 | AUCCUCCAGCACAGUCUGC |
| 2924 | UGAUACAUGAUUGGGUGCC | 2969 | AUGCCAUCAUUCUGCUCAC | 3014 | UUGAGGUCACAAAGAUUUU | 3059 | UCCUCCAGCACAGUCUGCU |
| 2925 | GAUACAUGAUUGGGUGCCA | 2970 | UGCCAUCAUUCUGCUCACC | 3015 | UGAGGUCACAAAGAUUUUG | 3060 | CCUCCAGCACAGUCUGCUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3061 | CUCCAGCACAGUCUGCUCA | 3106 | AUCCUCCUGCGGGCUUGUA | 3151 | AAAUAUGUGCAAGCUUGCC | 3196 | ACAUACAUAUACGAUCAUC |
| 3062 | UCCAGCACAGUCUGCUCAA | 3107 | UCCUCCUGCGGGCUUGUAU | 3152 | AAUAUGUGCAAGCUUGCCU | 3197 | CAUACAUAUACGAUCAUCU |
| 3063 | CCAGCACAGUCUGCUCAAG | 3108 | CCUCCUGCGGGCUUGUAUG | 3153 | AUAUGUGCAAGCUUGCCUC | 3198 | AUACAUAUACGAUCAUCUA |
| 3064 | CAGCACAGUCUGCUCAAGG | 3109 | CUCCUGCGGGCUUGUAUGU | 3154 | UAUGUGCAAGCUUGCCUCU | 3199 | UACAUAUACGAUCAUCUAG |
| 3065 | AGCACAGUCUGCUCAAGGU | 3110 | UCCUGCGGGCUUGUAUGUU | 3155 | AUGUGCAAGCUUGCCUCUU | 3200 | ACAUAUACGAUCAUCUAGC |
| 3066 | GCACAGUCUGCUCAAGGUG | 3111 | CCUGCGGGCUUGUAUGUUC | 3156 | UGUGCAAGCUUGCCUCUUG | 3201 | CAUAUACGAUCAUCUAGCU |
| 3067 | CACAGUCUGCUCAAGGUGC | 3112 | CUGCGGGCUUGUAUGUUCU | 3157 | GUGCAAGCUUGCCUCUUGA | 3202 | AUAUACGAUCAUCUAGCUC |
| 3068 | ACAGUCUGCUCAAGGUGCC | 3113 | UGCGGGCUUGUAUGUUCUU | 3158 | UGCAAGCUUGCCUCUUGAG | 3203 | UAUACGAUCAUCUAGCUCC |
| 3069 | CAGUCUGCUCAAGGUGCCC | 3114 | GCGGGCUUGUAUGUUCUUC | 3159 | GCAAGCUUGCCUCUUGAGG | 3204 | AUACGAUCAUCUAGCUCCU |
| 3070 | AGUCUGCUCAAGGUGCCCU | 3115 | CGGGCUUGUAUGUUCUUCC | 3160 | CAAGCUUGCCUCUUGAGGU | 3205 | UACGAUCAUCUAGCUCCUC |
| 3071 | GUCUGCUCAAGGUGCCCUA | 3116 | GGGCUUGUAUGUUCUUCCG | 3161 | AAGCUUGCCUCUUGAGGUU | 3206 | ACGAUCAUCUAGCUCCUCU |
| 3072 | UCUGCUCAAGGUGCCCUAC | 3117 | GGCUUGUAUGUUCUUCCGC | 3162 | AGCUUGCCUCUUGAGGUUG | 3207 | CGAUCAUCUAGCUCCUCUC |
| 3073 | CUGCUCAAGGUGCCCUACU | 3118 | GCUUGUAUGUUCUUCCGCA | 3163 | GCUUGCCUCUUGAGGUUGG | 3208 | GAUCAUCUAGCUCCUCUCA |
| 3074 | UGCUCAAGGUGCCCUACUU | 3119 | CUUGUAUGUUCUUCCGCAA | 3164 | CUUGCCUCUUGAGGUUGGG | 3209 | AUCAUCUAGCUCCUCUCAG |
| 3075 | GCUCAAGGUGCCCUACUUU | 3120 | UUGUAUGUUCUUCCGCAAA | 3165 | UUGCCUCUUGAGGUUGGGC | 3210 | UCAUCUAGCUCCUCUCAGU |
| 3076 | CUCAAGGUGCCCUACUUUG | 3121 | UGUAUGUUCUUCCGCAAAG | 3166 | UGCCUCUUGAGGUUGGGCG | 3211 | CAUCUAGCUCCUCUCAGUG |
| 3077 | UCAAGGUGCCCUACUUUGU | 3122 | GUAUGUUCUUCCGCAAAGU | 3167 | GCCUCUUGAGGUUGGGCGC | 3212 | AUCUAGCUCCUCUCAGUGA |
| 3078 | CAAGGUGCCCUACUUUGUG | 3123 | UAUGUUCUUCCGCAAAGUG | 3168 | CCUCUUGAGGUUGGGCGCC | 3213 | UCUAGCUCCUCUCAGUGAG |
| 3079 | AAGGUGCCCUACUUUGUGC | 3124 | AUGUUCUUCCGCAAAGUGG | 3169 | CUCUUGAGGUUGGGCGCCU | 3214 | CUAGCUCCUCUCAGUGAGU |
| 3080 | AGGUGCCCUACUUUGUGCG | 3125 | UGUUCUUCCGCAAAGUGGC | 3170 | UCUUGAGGUUGGGCGCCUG | 3215 | UAGCUCCUCUCAGUGAGUG |
| 3081 | GGUGCCCUACUUUGUGCGC | 3126 | GUUCUUCCGCAAAGUGGCG | 3171 | CUUGAGGUUGGGCGCCUGG | 3216 | AGCUCCUCUCAGUGAGUGG |
| 3082 | GUGCCCUACUUUGUGCGCG | 3127 | UUCUUCCGCAAAGUGGCGG | 3172 | UUGAGGUUGGGCGCCUGGA | 3217 | GCUCCUCUCAGUGAGUGGG |
| 3083 | UGCCCUACUUUGUGCGCGC | 3128 | UCUUCCGCAAAGUGGCGGC | 3173 | UGAGGUUGGGCGCCUGGAC | 3218 | CUCCUCUCAGUGAGUGGGC |
| 3084 | GCCCUACUUUGUGCGCGCC | 3129 | CUUCCGCAAAGUGGCGGCC | 3174 | GAGGUUGGGCGCCUGGACU | 3219 | UCCUCUCAGUGAGUGGGCG |
| 3085 | CCCUACUUUGUGCGCGCCC | 3130 | UUCCGCAAAGUGGCGGCCG | 3175 | AGGUUGGGCGCCUGGACUG | 3220 | CCUCUCAGUGAGUGGGCGA |
| 3086 | CCUACUUUGUGCGCGCCCA | 3131 | UCCGCAAAGUGGCGGCCGG | 3176 | GGUUGGGCGCCUGGACUGG | 3221 | CUCUCAGUGAGUGGGCGAG |
| 3087 | CUACUUUGUGCGCGCCCAC | 3132 | CCGCAAAGUGGCGGCCGGU | 3177 | GUUGGGCGCCUGGACUGGC | 3222 | UCUCAGUGAGUGGGCGAGC |
| 3088 | UACUUUGUGCGCGCCCACA | 3133 | CGCAAAGUGGCGGCCGGUA | 3178 | UUGGGCGCCUGGACUGGCA | 3223 | CUCAGUGAGUGGGCGAGCG |
| 3089 | ACUUUGUGCGCGCCCACAU | 3134 | GCAAAGUGGCGGCCGGUAA | 3179 | UGGGCGCCUGGACUGGCAC | 3224 | UCAGUGAGUGGGCGAGCGA |
| 3090 | CUUUGUGCGCGCCCACAUC | 3135 | CAAAGUGGCGGCCGGUAAA | 3180 | GGGCGCCUGGACUGGCACA | 3225 | CAGUGAGUGGGCGAGCGAC |
| 3091 | UUUGUGCGCGCCCACAUCC | 3136 | AAAGUGGCGGCCGGUAAAU | 3181 | GGCGCCUGGACUGGCACAU | 3226 | AGUGAGUGGGCGAGCGACG |
| 3092 | UUGUGCGCGCCCACAUCCU | 3137 | AAGUGGCGGCCGGUAAAUA | 3182 | GCGCCUGGACUGGCACAUA | 3227 | GUGAGUGGGCGAGCGACGG |
| 3093 | UGUGCGCGCCCACAUCCUC | 3138 | AGUGGCGGCCGGUAAAUAU | 3183 | CGCCUGGACUGGCACAUAC | 3228 | UGAGUGGGCGAGCGACGGC |
| 3094 | GUGCGCGCCCACAUCCUCC | 3139 | GUGGCGGCCGGUAAAUAUG | 3184 | GCCUGGACUGGCACAUACA | 3229 | GAGUGGGCGAGCGACGGCU |
| 3095 | UGCGCGCCCACAUCCUCCU | 3140 | UGGCGGCCGGUAAAUAUGU | 3185 | CCUGGACUGGCACAUACAU | 3230 | AGUGGGCGAGCGACGGCUU |
| 3096 | GCGCGCCCACAUCCUCCUG | 3141 | GGCGGCCGGUAAAUAUGUG | 3186 | CUGGACUGGCACAUACAUA | 3231 | GUGGGCGAGCGACGGCUUG |
| 3097 | CGCGCCCACAUCCUCCUGC | 3142 | GCGGCCGGUAAAUAUGUGC | 3187 | UGGACUGGCACAUACAUAU | 3232 | UGGGCGAGCGACGGCUUGC |
| 3098 | GCGCCCACAUCCUCCUGCG | 3143 | CGGCCGGUAAAUAUGUGCA | 3188 | GGACUGGCACAUACAUAUA | 3233 | GGGCGAGCGACGGCUUGCG |
| 3099 | CGCCCACAUCCUCCUGCGG | 3144 | GGCCGGUAAAUAUGUGCAA | 3189 | GACUGGCACAUACAUAUAC | 3234 | GGCGAGCGACGGCUUGCGU |
| 3100 | GCCCACAUCCUCCUGCGGG | 3145 | GCCGGUAAAUAUGUGCAAG | 3190 | ACUGGCACAUACAUAUACG | 3235 | GCGAGCGACGGCUUGCGUG |
| 3101 | CCCACAUCCUCCUGCGGGC | 3146 | CCGGUAAAUAUGUGCAAGC | 3191 | CUGGCACAUACAUAUACGA | 3236 | CGAGCGACGGCUUGCGUGA |
| 3102 | CCACAUCCUCCUGCGGGCU | 3147 | CGGUAAAUAUGUGCAAGCU | 3192 | UGGCACAUACAUAUACGAU | 3237 | GAGCGACGGCUUGCGUGAU |
| 3103 | CACAUCCUCCUGCGGGCUU | 3148 | GGUAAAUAUGUGCAAGCUU | 3193 | GGCACAUACAUAUACGAUC | 3238 | AGCGACGGCUUGCGUGAUC |
| 3104 | ACAUCCUCCUGCGGGCUUG | 3149 | GUAAAUAUGUGCAAGCUUG | 3194 | GCACAUACAUAUACGAUCA | 3239 | GCGACGGCUUGCGUGAUCU |
| 3105 | CAUCCUCCUGCGGGCUUGU | 3150 | UAAAUAUGUGCAAGCUUGC | 3195 | CACAUACAUAUACGAUCAU | 3240 | CGACGGCUUGCGUGAUCUA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3241 | GACGGCUUGCGUGAUCUAG | 3286 | UCCCCCAUGGAGAAAAAGA | 3331 | GCGUGUGGCGACAUCUUGA | 3376 | GGGGACUUGGUGCUGCUGG |
| 3242 | ACGGCUUGCGUGAUCUAGC | 3287 | CCCCCAUGGAGAAAAAGAU | 3332 | CGUGUGGCGACAUCUUGAG | 3377 | GGGACUUGGUGCUGCUGGG |
| 3243 | CGGCUUGCGUGAUCUAGCC | 3288 | CCCCAUGGAGAAAAAGAUC | 3333 | GUGUGGCGACAUCUUGAGG | 3378 | GGACUUGGUGCUGCUGGGA |
| 3244 | GGCUUGCGUGAUCUAGCCG | 3289 | CCCAUGGAGAAAAAGAUCA | 3334 | UGUGGCGACAUCUUGAGGG | 3379 | GACUUGGUGCUGCUGGGAC |
| 3245 | GCUUGCGUGAUCUAGCCGU | 3290 | CCAUGGAGAAAAAGAUCAU | 3335 | GUGGCGACAUCUUGAGGGG | 3380 | ACUUGGUGCUGCUGGGACC |
| 3246 | CUUGCGUGAUCUAGCCGUA | 3291 | CAUGGAGAAAAAGAUCAUU | 3336 | UGGCGACAUCUUGAGGGGU | 3381 | CUUGGUGCUGCUGGGACCC |
| 3247 | UUGCGUGAUCUAGCCGUAG | 3292 | AUGGAGAAAAAGAUCAUUA | 3337 | GGCGACAUCUUGAGGGGUC | 3382 | UUGGUGCUGCUGGGACCCG |
| 3248 | UGCGUGAUCUAGCCGUAGC | 3293 | UGGAGAAAAAGAUCAUUAC | 3338 | GCGACAUCUUGAGGGGUCU | 3383 | UGGUGCUGCUGGGACCCGC |
| 3249 | GCGUGAUCUAGCCGUAGCU | 3294 | GGAGAAAAAGAUCAUUACG | 3339 | CGACAUCUUGAGGGGUCUC | 3384 | GGUGCUGCUGGGACCCGCG |
| 3250 | CGUGAUCUAGCCGUAGCUG | 3295 | GAGAAAAAGAUCAUUACGU | 3340 | GACAUCUUGAGGGGUCUCC | 3385 | GUGCUGCUGGGACCCGCGG |
| 3251 | GUGAUCUAGCCGUAGCUGU | 3296 | AGAAAAAGAUCAUUACGUG | 3341 | ACAUCUUGAGGGGUCUCCC | 3386 | UGCUGCUGGGACCCGCGGA |
| 3252 | UGAUCUAGCCGUAGCUGUU | 3297 | GAAAAAGAUCAUUACGUGG | 3342 | CAUCUUGAGGGGUCUCCCU | 3387 | GCUGCUGGGACCCGCGGAU |
| 3253 | GAUCUAGCCGUAGCUGUUG | 3298 | AAAAAGAUCAUUACGUGGG | 3343 | AUCUUGAGGGGUCUCCCUG | 3388 | CUGCUGGGACCCGCGGAUG |
| 3254 | AUCUAGCCGUAGCUGUUGA | 3299 | AAAAGAUCAUUACGUGGGG | 3344 | UCUUGAGGGGUCUCCCUGU | 3389 | UGCUGGGACCCGCGGAUGA |
| 3255 | UCUAGCCGUAGCUGUUGAG | 3300 | AAAGAUCAUUACGUGGGGU | 3345 | CUUGAGGGGUCUCCCUGUG | 3390 | GCUGGGACCCGCGGAUGAC |
| 3256 | CUAGCCGUAGCUGUUGAGC | 3301 | AAGAUCAUUACGUGGGGUG | 3346 | UUGAGGGGUCUCCCUGUGU | 3391 | CUGGGACCCGCGGAUGACA |
| 3257 | UAGCCGUAGCUGUUGAGCC | 3302 | AGAUCAUUACGUGGGGUGC | 3347 | UGAGGGGUCUCCCUGUGUC | 3392 | UGGGACCCGCGGAUGACAU |
| 3258 | AGCCGUAGCUGUUGAGCCA | 3303 | GAUCAUUACGUGGGGUGCA | 3348 | GAGGGGUCUCCCUGUGUCC | 3393 | GGGACCCGCGGAUGACAUG |
| 3259 | GCCGUAGCUGUUGAGCCAG | 3304 | AUCAUUACGUGGGGUGCAG | 3349 | AGGGGUCUCCCUGUGUCCG | 3394 | GGACCCGCGGAUGACAUGC |
| 3260 | CCGUAGCUGUUGAGCCAGU | 3305 | UCAUUACGUGGGGUGCAGA | 3350 | GGGGUCUCCCUGUGUCCGC | 3395 | GACCCGCGGAUGACAUGCG |
| 3261 | CGUAGCUGUUGAGCCAGUC | 3306 | CAUUACGUGGGGUGCAGAC | 3351 | GGGUCUCCCUGUGUCCGCG | 3396 | ACCCGCGGAUGACAUGCGU |
| 3262 | GUAGCUGUUGAGCCAGUCA | 3307 | AUUACGUGGGGUGCAGACA | 3352 | GGUCUCCCUGUGUCCGCGA | 3397 | CCCGCGGAUGACAUGCGUC |
| 3263 | UAGCUGUUGAGCCAGUCAU | 3308 | UUACGUGGGGUGCAGACAC | 3353 | GUCUCCCUGUGUCCGCGAG | 3398 | CCGCGGAUGACAUGCGUCA |
| 3264 | AGCUGUUGAGCCAGUCAUC | 3309 | UACGUGGGGUGCAGACACC | 3354 | UCUCCCUGUGUCCGCGAGA | 3399 | CGCGGAUGACAUGCGUCAC |
| 3265 | GCUGUUGAGCCAGUCAUCU | 3310 | ACGUGGGGUGCAGACACCG | 3355 | CUCCCUGUGUCCGCGAGAC | 3400 | GCGGAUGACAUGCGUCACG |
| 3266 | CUGUUGAGCCAGUCAUCUU | 3311 | CGUGGGGUGCAGACACCGC | 3356 | UCCCUGUGUCCGCGAGACU | 3401 | CGGAUGACAUGCGUCACGG |
| 3267 | UGUUGAGCCAGUCAUCUUU | 3312 | GUGGGGUGCAGACACCGCU | 3357 | CCCUGUGUCCGCGAGACUA | 3402 | GGAUGACAUGCGUCACGGA |
| 3268 | GUUGAGCCAGUCAUCUUUU | 3313 | UGGGGUGCAGACACCGCUG | 3358 | CCUGUGUCCGCGAGACUAG | 3403 | GAUGACAUGCGUCACGGAG |
| 3269 | UUGAGCCAGUCAUCUUUUC | 3314 | GGGGUGCAGACACCGCUGC | 3359 | CUGUGUCCGCGAGACUAGG | 3404 | AUGACAUGCGUCACGGAGG |
| 3270 | UGAGCCAGUCAUCUUUUCC | 3315 | GGGUGCAGACACCGCUGCG | 3360 | UGUGUCCGCGAGACUAGGG | 3405 | UGACAUGCGUCACGGAGGU |
| 3271 | GAGCCAGUCAUCUUUUCCC | 3316 | GGUGCAGACACCGCUGCGU | 3361 | GUGUCCGCGAGACUAGGGG | 3406 | GACAUGCGUCACGGAGGUU |
| 3272 | AGCCAGUCAUCUUUUCCCC | 3317 | GUGCAGACACCGCUGCGUG | 3362 | UGUCCGCGAGACUAGGGGA | 3407 | ACAUGCGUCACGGAGGUUG |
| 3273 | GCCAGUCAUCUUUUCCCCC | 3318 | UGCAGACACCGCUGCGUGU | 3363 | GUCCGCGAGACUAGGGGAC | 3408 | CAUGCGUCACGGAGGUUGG |
| 3274 | CCAGUCAUCUUUUCCCCCA | 3319 | GCAGACACCGCUGCGUGUG | 3364 | UCCGCGAGACUAGGGGACU | 3409 | AUGCGUCACGGAGGUUGGA |
| 3275 | CAGUCAUCUUUUCCCCCAU | 3320 | CAGACACCGCUGCGUGUGG | 3365 | CCGCGAGACUAGGGGACUU | 3410 | UGCGUCACGGAGGUUGGAA |
| 3276 | AGUCAUCUUUUCCCCCAUG | 3321 | AGACACCGCUGCGUGUGGC | 3366 | CGCGAGACUAGGGGACUUG | 3411 | GCGUCACGGAGGUUGGAAG |
| 3277 | GUCAUCUUUUCCCCCAUGG | 3322 | GACACCGCUGCGUGUGGCG | 3367 | GCGAGACUAGGGGACUUGG | 3412 | CGUCACGGAGGUUGGAAGC |
| 3278 | UCAUCUUUUCCCCCAUGGA | 3323 | ACACCGCUGCGUGUGGCGA | 3368 | CGAGACUAGGGGACUUGGU | 3413 | GUCACGGAGGUUGGAAGCU |
| 3279 | CAUCUUUUCCCCCAUGGAG | 3324 | CACCGCUGCGUGUGGCGAC | 3369 | GAGACUAGGGGACUUGGUG | 3414 | UCACGGAGGUUGGAAGCUU |
| 3280 | AUCUUUUCCCCCAUGGAGA | 3325 | ACCGCUGCGUGUGGCGACA | 3370 | AGACUAGGGGACUUGGUGC | 3415 | CACGGAGGUUGGAAGCUUC |
| 3281 | UCUUUUCCCCCAUGGAGAA | 3326 | CCGCUGCGUGUGGCGACAU | 3371 | GACUAGGGGACUUGGUGCU | 3416 | ACGGAGGUUGGAAGCUUCU |
| 3282 | CUUUUCCCCCAUGGAGAAA | 3327 | CGCUGCGUGUGGCGACAUC | 3372 | ACUAGGGGACUUGGUGCUG | 3417 | CGGAGGUUGGAAGCUUCUG |
| 3283 | UUUUCCCCCAUGGAGAAAA | 3328 | GCUGCGUGUGGCGACAUCU | 3373 | CUAGGGGACUUGGUGCUGC | 3418 | GGAGGUUGGAAGCUUCUGG |
| 3284 | UUUCCCCCAUGGAGAAAAA | 3329 | CUGCGUGUGGCGACAUCUU | 3374 | UAGGGGACUUGGUGCUGCU | 3419 | GAGGUUGGAAGCUUCUGGC |
| 3285 | UUCCCCCAUGGAGAAAAAG | 3330 | UGCGUGUGGCGACAUCUUG | 3375 | AGGGGACUUGGUGCUGCUG | 3420 | AGGUUGGAAGCUUCUGGCU |

**FIG. 7 (page 373 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3421 | GGUUGGAAGCUUCUGGCUC | 3466 | CGGGGACUGGUUGGCACUA | 3511 | AAGAAUGAAGCUGAGGGGG | 3556 | CAGAGUUUCCUGGCGACCA |
| 3422 | GUUGGAAGCUUCUGGCUCC | 3467 | GGGGACUGGUUGGCACUAU | 3512 | AGAAUGAAGCUGAGGGGGA | 3557 | AGAGUUUCCUGGCGACCAC |
| 3423 | UUGGAAGCUUCUGGCUCCC | 3468 | GGGACUGGUUGGCACUAUA | 3513 | GAAUGAAGCUGAGGGGGAA | 3558 | GAGUUUCCUGGCGACCACU |
| 3424 | UGGAAGCUUCUGGCUCCCA | 3469 | GGACUGGUUGGCACUAUAG | 3514 | AAUGAAGCUGAGGGGGAAG | 3559 | AGUUUCCUGGCGACCACUA |
| 3425 | GGAAGCUUCUGGCUCCCAU | 3470 | GACUGGUUGGCACUAUAGU | 3515 | AUGAAGCUGAGGGGGAAGU | 3560 | GUUUCCUGGCGACCACUAU |
| 3426 | GAAGCUUCUGGCUCCCAUC | 3471 | ACUGGUUGGCACUAUAGUG | 3516 | UGAAGCUGAGGGGGAAGUG | 3561 | UUUCCUGGCGACCACUAUC |
| 3427 | AAGCUUCUGGCUCCCAUCA | 3472 | CUGGUUGGCACUAUAGUGA | 3517 | GAAGCUGAGGGGGAAGUGC | 3562 | UUCCUGGCGACCACUAUCA |
| 3428 | AGCUUCUGGCUCCCAUCAC | 3473 | UGGUUGGCACUAUAGUGAC | 3518 | AAGCUGAGGGGGAAGUGCA | 3563 | UCCUGGCGACCACUAUCAA |
| 3429 | GCUUCUGGCUCCCAUCACC | 3474 | GGUUGGCACUAUAGUGACU | 3519 | AGCUGAGGGGGAAGUGCAG | 3564 | CCUGGCGACCACUAUCAAC |
| 3430 | CUUCUGGCUCCCAUCACCG | 3475 | GUUGGCACUAUAGUGACUA | 3520 | GCUGAGGGGGAAGUGCAGG | 3565 | CUGGCGACCACUAUCAACG |
| 3431 | UUCUGGCUCCCAUCACCGC | 3476 | UUGGCACUAUAGUGACUAG | 3521 | CUGAGGGGGAAGUGCAGGU | 3566 | UGGCGACCACUAUCAACGG |
| 3432 | UCUGGCUCCCAUCACCGCA | 3477 | UGGCACUAUAGUGACUAGU | 3522 | UGAGGGGGAAGUGCAGGUU | 3567 | GGCGACCACUAUCAACGGU |
| 3433 | CUGGCUCCCAUCACCGCAU | 3478 | GGCACUAUAGUGACUAGUU | 3523 | GAGGGGGAAGUGCAGGUUG | 3568 | GCGACCACUAUCAACGGUG |
| 3434 | UGGCUCCCAUCACCGCAUA | 3479 | GCACUAUAGUGACUAGUUU | 3524 | AGGGGGAAGUGCAGGUUGU | 3569 | CGACCACUAUCAACGGUGU |
| 3435 | GGCUCCCAUCACCGCAUAC | 3480 | CACUAUAGUGACUAGUUUG | 3525 | GGGGGAAGUGCAGGUUGUA | 3570 | GACCACUAUCAACGGUGUC |
| 3436 | GCUCCCAUCACCGCAUACG | 3481 | ACUAUAGUGACUAGUUUGA | 3526 | GGGGAAGUGCAGGUUGUAU | 3571 | ACCACUAUCAACGGUGUCC |
| 3437 | CUCCCAUCACCGCAUACGC | 3482 | CUAUAGUGACUAGUUUGAC | 3527 | GGGAAGUGCAGGUUGUAUC | 3572 | CCACUAUCAACGGUGUCCU |
| 3438 | UCCCAUCACCGCAUACGCC | 3483 | UAUAGUGACUAGUUUGACC | 3528 | GGAAGUGCAGGUUGUAUCA | 3573 | CACUAUCAACGGUGUCCUA |
| 3439 | CCCAUCACCGCAUACGCCC | 3484 | AUAGUGACUAGUUUGACCG | 3529 | GAAGUGCAGGUUGUAUCAA | 3574 | ACUAUCAACGGUGUCCUAU |
| 3440 | CCAUCACCGCAUACGCCCA | 3485 | UAGUGACUAGUUUGACCGG | 3530 | AAGUGCAGGUUGUAUCAAC | 3575 | CUAUCAACGGUGUCCUAUG |
| 3441 | CAUCACCGCAUACGCCCAA | 3486 | AGUGACUAGUUUGACCGGC | 3531 | AGUGCAGGUUGUAUCAACA | 3576 | UAUCAACGGUGUCCUAUGG |
| 3442 | AUCACCGCAUACGCCCAAC | 3487 | GUGACUAGUUUGACCGGCC | 3532 | GUGCAGGUUGUAUCAACAG | 3577 | AUCAACGGUGUCCUAUGGA |
| 3443 | UCACCGCAUACGCCCAACA | 3488 | UGACUAGUUUGACCGGCCG | 3533 | UGCAGGUUGUAUCAACAGC | 3578 | UCAACGGUGUCCUAUGGAC |
| 3444 | CACCGCAUACGCCCAACAG | 3489 | GACUAGUUUGACCGGCCGC | 3534 | GCAGGUUGUAUCAACAGCC | 3579 | CAACGGUGUCCUAUGGACU |
| 3445 | ACCGCAUACGCCCAACAGA | 3490 | ACUAGUUUGACCGGCCGCG | 3535 | CAGGUUGUAUCAACAGCCA | 3580 | AACGGUGUCCUAUGGACUG |
| 3446 | CCGCAUACGCCCAACAGAC | 3491 | CUAGUUUGACCGGCCGCGA | 3536 | AGGUUGUAUCAACAGCCAC | 3581 | ACGGUGUCCUAUGGACUGU |
| 3447 | CGCAUACGCCCAACAGACG | 3492 | UAGUUUGACCGGCCGCGAC | 3537 | GGUUGUAUCAACAGCCACU | 3582 | CGGUGUCCUAUGGACUGUU |
| 3448 | GCAUACGCCCAACAGACGC | 3493 | AGUUUGACCGGCCGCGACA | 3538 | GUUGUAUCAACAGCCACUC | 3583 | GGUGUCCUAUGGACUGUUU |
| 3449 | CAUACGCCCAACAGACGCG | 3494 | GUUUGACCGGCCGCGACAA | 3539 | UUGUAUCAACAGCCACUCA | 3584 | GUGUCCUAUGGACUGUUUA |
| 3450 | AUACGCCCAACAGACGCGG | 3495 | UUUGACCGGCCGCGACAAG | 3540 | UGUAUCAACAGCCACUCAG | 3585 | UGUCCUAUGGACUGUUUAU |
| 3451 | UACGCCCAACAGACGCGGG | 3496 | UUGACCGGCCGCGACAAGA | 3541 | GUAUCAACAGCCACUCAGA | 3586 | GUCCUAUGGACUGUUUAUC |
| 3452 | ACGCCCAACAGACGCGGGG | 3497 | UGACCGGCCGCGACAAGAA | 3542 | UAUCAACAGCCACUCAGAG | 3587 | UCCUAUGGACUGUUUAUCA |
| 3453 | CGCCCAACAGACGCGGGGA | 3498 | GACCGGCCGCGACAAGAAU | 3543 | AUCAACAGCCACUCAGAGU | 3588 | CCUAUGGACUGUUUAUCAC |
| 3454 | GCCCAACAGACGCGGGGAC | 3499 | ACCGGCCGCGACAAGAAUG | 3544 | UCAACAGCCACUCAGAGUU | 3589 | CUAUGGACUGUUUAUCACG |
| 3455 | CCCAACAGACGCGGGGACU | 3500 | CCGGCCGCGACAAGAAUGA | 3545 | CAACAGCCACUCAGAGUUU | 3590 | UAUGGACUGUUUAUCACGG |
| 3456 | CCAACAGACGCGGGGACUG | 3501 | CGGCCGCGACAAGAAUGAA | 3546 | AACAGCCACUCAGAGUUUC | 3591 | AUGGACUGUUUAUCACGGU |
| 3457 | CAACAGACGCGGGGACUGG | 3502 | GGCCGCGACAAGAAUGAAG | 3547 | ACAGCCACUCAGAGUUUCC | 3592 | UGGACUGUUUAUCACGGUG |
| 3458 | AACAGACGCGGGGACUGGU | 3503 | GCCGCGACAAGAAUGAAGC | 3548 | CAGCCACUCAGAGUUUCCU | 3593 | GGACUGUUUAUCACGGUGC |
| 3459 | ACAGACGCGGGGACUGGUU | 3504 | CCGCGACAAGAAUGAAGCU | 3549 | AGCCACUCAGAGUUUCCUG | 3594 | GACUGUUUAUCACGGUGCU |
| 3460 | CAGACGCGGGGACUGGUUG | 3505 | CGCGACAAGAAUGAAGCUG | 3550 | GCCACUCAGAGUUUCCUGG | 3595 | ACUGUUUAUCACGGUGCUG |
| 3461 | AGACGCGGGGACUGGUUGG | 3506 | GCGACAAGAAUGAAGCUGA | 3551 | CCACUCAGAGUUUCCUGGC | 3596 | CUGUUUAUCACGGUGCUGG |
| 3462 | GACGCGGGGACUGGUUGGC | 3507 | CGACAAGAAUGAAGCUGAG | 3552 | CACUCAGAGUUUCCUGGCG | 3597 | UGUUUAUCACGGUGCUGGC |
| 3463 | ACGCGGGGACUGGUUGGCA | 3508 | GACAAGAAUGAAGCUGAGG | 3553 | ACUCAGAGUUUCCUGGCGA | 3598 | GUUUAUCACGGUGCUGGCU |
| 3464 | CGCGGGGACUGGUUGGCAC | 3509 | ACAAGAAUGAAGCUGAGGG | 3554 | CUCAGAGUUUCCUGGCGAC | 3599 | UUUAUCACGGUGCUGGCUC |
| 3465 | GCGGGGACUGGUUGGCACU | 3510 | CAAGAAUGAAGCUGAGGGG | 3555 | UCAGAGUUUCCUGGCGACC | 3600 | UUAUCACGGUGCUGGCUCG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3601 | UAUCACGGUGCUGGCUCGA | 3646 | GUAUGCCAGAUGUAUACAA | 3691 | CCAGCCCCCCUGGGGGCUA | 3736 | UCUAGCGACCUCUACCUGG |
| 3602 | AUCACGGUGCUGGCUCGAA | 3647 | UAUGCCAGAUGUAUACAAA | 3692 | CAGCCCCCCUGGGGGCUAG | 3737 | CUAGCGACCUCUACCUGGU |
| 3603 | UCACGGUGCUGGCUCGAAA | 3648 | AUGCCAGAUGUAUACAAAU | 3693 | AGCCCCCCUGGGGGCUAGG | 3738 | UAGCGACCUCUACCUGGUC |
| 3604 | CACGGUGCUGGCUCGAAAA | 3649 | UGCCAGAUGUAUACAAAUG | 3694 | GCCCCCCUGGGGGCUAGGU | 3739 | AGCGACCUCUACCUGGUCA |
| 3605 | ACGGUGCUGGCUCGAAAAA | 3650 | GCCAGAUGUAUACAAAUGU | 3695 | CCCCCCUGGGGGCUAGGUC | 3740 | GCGACCUCUACCUGGUCAC |
| 3606 | CGGUGCUGGCUCGAAAAAC | 3651 | CCAGAUGUAUACAAAUGUU | 3696 | CCCCCUGGGGGCUAGGUCA | 3741 | CGACCUCUACCUGGUCACG |
| 3607 | GGUGCUGGCUCGAAAAACC | 3652 | CAGAUGUAUACAAAUGUUG | 3697 | CCCCUGGGGGCUAGGUCAC | 3742 | GACCUCUACCUGGUCACGA |
| 3608 | GUGCUGGCUCGAAAAACCU | 3653 | AGAUGUAUACAAAUGUUGA | 3698 | CCCUGGGGGCUAGGUCACU | 3743 | ACCUCUACCUGGUCACGAG |
| 3609 | UGCUGGCUCGAAAAACCUU | 3654 | GAUGUAUACAAAUGUUGAC | 3699 | CCUGGGGGCUAGGUCACUU | 3744 | CCUCUACCUGGUCACGAGA |
| 3610 | GCUGGCUCGAAAAACCUUG | 3655 | AUGUAUACAAAUGUUGACC | 3700 | CUGGGGGCUAGGUCACUUG | 3745 | CUCUACCUGGUCACGAGAG |
| 3611 | CUGGCUCGAAAAACCUUGC | 3656 | UGUAUACAAAUGUUGACCA | 3701 | UGGGGGCUAGGUCACUUGC | 3746 | UCUACCUGGUCACGAGAGG |
| 3612 | UGGCUCGAAAAACCUUGCC | 3657 | GUAUACAAAUGUUGACCAA | 3702 | GGGGGCUAGGUCACUUGCC | 3747 | CUACCUGGUCACGAGAGGU |
| 3613 | GGCUCGAAAAACCUUGCCG | 3658 | UAUACAAAUGUUGACCAAG | 3703 | GGGGCUAGGUCACUUGCCC | 3748 | UACCUGGUCACGAGAGGUG |
| 3614 | GCUCGAAAAACCUUGCCGG | 3659 | AUACAAAUGUUGACCAAGA | 3704 | GGGCUAGGUCACUUGCCCC | 3749 | ACCUGGUCACGAGAGGUGC |
| 3615 | CUCGAAAAACCUUGCCGGA | 3660 | UACAAAUGUUGACCAAGAC | 3705 | GGCUAGGUCACUUGCCCCC | 3750 | CCUGGUCACGAGAGGUGCU |
| 3616 | UCGAAAAACCUUGCCGGAC | 3661 | ACAAAUGUUGACCAAGACC | 3706 | GCUAGGUCACUUGCCCCCU | 3751 | CUGGUCACGAGAGGUGCUG |
| 3617 | CGAAAAACCUUGCCGGACC | 3662 | CAAAUGUUGACCAAGACCU | 3707 | CUAGGUCACUUGCCCCCUG | 3752 | UGGUCACGAGAGGUGCUGA |
| 3618 | GAAAAACCUUGCCGGACCA | 3663 | AAAUGUUGACCAAGACCUG | 3708 | UAGGUCACUUGCCCCCUGC | 3753 | GGUCACGAGAGGUGCUGAU |
| 3619 | AAAAACCUUGCCGGACCAA | 3664 | AAUGUUGACCAAGACCUGG | 3709 | AGGUCACUUGCCCCCUGCA | 3754 | GUCACGAGAGGUGCUGAUG |
| 3620 | AAAACCUUGCCGGACCAAA | 3665 | AUGUUGACCAAGACCUGGU | 3710 | GGUCACUUGCCCCCUGCAC | 3755 | UCACGAGAGGUGCUGAUGU |
| 3621 | AAACCUUGCCGGACCAAAA | 3666 | UGUUGACCAAGACCUGGUG | 3711 | GUCACUUGCCCCCUGCACC | 3756 | CACGAGAGGUGCUGAUGUU |
| 3622 | AACCUUGCCGGACCAAAAG | 3667 | GUUGACCAAGACCUGGUGG | 3712 | UCACUUGCCCCCUGCACCU | 3757 | ACGAGAGGUGCUGAUGUUA |
| 3623 | ACCUUGCCGGACCAAAAGG | 3668 | UUGACCAAGACCUGGUGGG | 3713 | CACUUGCCCCCUGCACCUG | 3758 | CGAGAGGUGCUGAUGUUAU |
| 3624 | CCUUGCCGGACCAAAAGGG | 3669 | UGACCAAGACCUGGUGGGC | 3714 | ACUUGCCCCCUGCACCUGU | 3759 | GAGAGGUGCUGAUGUUAUC |
| 3625 | CUUGCCGGACCAAAAGGGC | 3670 | GACCAAGACCUGGUGGGCU | 3715 | CUUGCCCCCUGCACCUGUG | 3760 | AGAGGUGCUGAUGUUAUCC |
| 3626 | UUGCCGGACCAAAAGGGCC | 3671 | ACCAAGACCUGGUGGGCUG | 3716 | UUGCCCCCUGCACCUGUGG | 3761 | GAGGUGCUGAUGUUAUCCC |
| 3627 | UGCCGGACCAAAAGGGCCC | 3672 | CCAAGACCUGGUGGGCUGG | 3717 | UGCCCCCUGCACCUGUGGG | 3762 | AGGUGCUGAUGUUAUCCCU |
| 3628 | GCCGGACCAAAAGGGCCCG | 3673 | CAAGACCUGGUGGGCUGGC | 3718 | GCCCCCUGCACCUGUGGGU | 3763 | GGUGCUGAUGUUAUCCCUG |
| 3629 | CCGGACCAAAAGGGCCCGU | 3674 | AAGACCUGGUGGGCUGGCC | 3719 | CCCCCUGCACCUGUGGGUC | 3764 | GUGCUGAUGUUAUCCCUGC |
| 3630 | CGGACCAAAAGGGCCCGUA | 3675 | AGACCUGGUGGGCUGGCCA | 3720 | CCCCUGCACCUGUGGGUCU | 3765 | UGCUGAUGUUAUCCCUGCA |
| 3631 | GGACCAAAAGGGCCCGUAU | 3676 | GACCUGGUGGGCUGGCCAG | 3721 | CCCUGCACCUGUGGGUCUA | 3766 | GCUGAUGUUAUCCCUGCAC |
| 3632 | GACCAAAAGGGCCCGUAUG | 3677 | ACCUGGUGGGCUGGCCAGC | 3722 | CCUGCACCUGUGGGUCUAG | 3767 | CUGAUGUUAUCCCUGCACG |
| 3633 | ACCAAAAGGGCCCGUAUGC | 3678 | CCUGGUGGGCUGGCCAGCC | 3723 | CUGCACCUGUGGGUCUAGC | 3768 | UGAUGUUAUCCCUGCACGU |
| 3634 | CCAAAAGGGCCCGUAUGCC | 3679 | CUGGUGGGCUGGCCAGCCC | 3724 | UGCACCUGUGGGUCUAGCG | 3769 | GAUGUUAUCCCUGCACGUC |
| 3635 | CAAAAGGGCCCGUAUGCCA | 3680 | UGGUGGGCUGGCCAGCCCC | 3725 | GCACCUGUGGGUCUAGCGA | 3770 | AUGUUAUCCCUGCACGUCG |
| 3636 | AAAAGGGCCCGUAUGCCAG | 3681 | GGUGGGCUGGCCAGCCCCC | 3726 | CACCUGUGGGUCUAGCGAC | 3771 | UGUUAUCCCUGCACGUCGU |
| 3637 | AAAGGGCCCGUAUGCCAGA | 3682 | GUGGGCUGGCCAGCCCCCC | 3727 | ACCUGUGGGUCUAGCGACC | 3772 | GUUAUCCCUGCACGUCGUA |
| 3638 | AAGGGCCCGUAUGCCAGAU | 3683 | UGGGCUGGCCAGCCCCCCU | 3728 | CCUGUGGGUCUAGCGACCU | 3773 | UUAUCCCUGCACGUCGUAG |
| 3639 | AGGGCCCGUAUGCCAGAUG | 3684 | GGGCUGGCCAGCCCCCCUG | 3729 | CUGUGGGUCUAGCGACCUC | 3774 | UAUCCCUGCACGUCGUAGG |
| 3640 | GGGCCCGUAUGCCAGAUGU | 3685 | GGCUGGCCAGCCCCCCUGG | 3730 | UGUGGGUCUAGCGACCUCU | 3775 | AUCCCUGCACGUCGUAGGG |
| 3641 | GGCCCGUAUGCCAGAUGUA | 3686 | GCUGGCCAGCCCCCCUGGG | 3731 | GUGGGUCUAGCGACCUCUA | 3776 | UCCCUGCACGUCGUAGGGG |
| 3642 | GCCCGUAUGCCAGAUGUAU | 3687 | CUGGCCAGCCCCCCUGGGG | 3732 | UGGGUCUAGCGACCUCUAC | 3777 | CCCUGCACGUCGUAGGGGU |
| 3643 | CCCGUAUGCCAGAUGUAUA | 3688 | UGGCCAGCCCCCCUGGGGG | 3733 | GGGUCUAGCGACCUCUACC | 3778 | CCUGCACGUCGUAGGGGUG |
| 3644 | CCGUAUGCCAGAUGUAUAC | 3689 | GGCCAGCCCCCCUGGGGGC | 3734 | GGUCUAGCGACCUCUACCU | 3779 | CUGCACGUCGUAGGGGUGA |
| 3645 | CGUAUGCCAGAUGUAUACA | 3690 | GCCAGCCCCCCUGGGGGCU | 3735 | GUCUAGCGACCUCUACCUG | 3780 | UGCACGUCGUAGGGGUGAU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3781 | GCACGUCGUAGGGGUGAUA | 3826 | CCCAUAAGCACCCUCAAAG | 3871 | CCAUCAGGGCACGUAGUAG | 3916 | AGGGGCGUGGCCAAGGCCC |
| 3782 | CACGUCGUAGGGGUGAUAC | 3827 | CCAUAAGCACCCUCAAAGG | 3872 | CAUCAGGGCACGUAGUAGG | 3917 | GGGGCGUGGCCAAGGCCCU |
| 3783 | ACGUCGUAGGGGUGAUACU | 3828 | CAUAAGCACCCUCAAAGGC | 3873 | AUCAGGGCACGUAGUAGGG | 3918 | GGGCGUGGCCAAGGCCCUG |
| 3784 | CGUCGUAGGGGUGAUACUC | 3829 | AUAAGCACCCUCAAAGGCU | 3874 | UCAGGGCACGUAGUAGGGC | 3919 | GGCGUGGCCAAGGCCCUGG |
| 3785 | GUCGUAGGGGUGAUACUCG | 3830 | UAAGCACCCUCAAAGGCUC | 3875 | CAGGGCACGUAGUAGGGCU | 3920 | GCGUGGCCAAGGCCCUGGA |
| 3786 | UCGUAGGGGUGAUACUCGC | 3831 | AAGCACCCUCAAAGGCUCU | 3876 | AGGGCACGUAGUAGGGCUC | 3921 | CGUGGCCAAGGCCCUGGAC |
| 3787 | CGUAGGGGUGAUACUCGCG | 3832 | AGCACCCUCAAAGGCUCUU | 3877 | GGGCACGUAGUAGGGCUCU | 3922 | GUGGCCAAGGCCCUGGACU |
| 3788 | GUAGGGGUGAUACUCGCGC | 3833 | GCACCCUCAAAGGCUCUUC | 3878 | GGCACGUAGUAGGGCUCUU | 3923 | UGGCCAAGGCCCUGGACUU |
| 3789 | UAGGGGUGAUACUCGCGCU | 3834 | CACCCUCAAAGGCUCUUCA | 3879 | GCACGUAGUAGGGCUCUUC | 3924 | GGCCAAGGCCCUGGACUUC |
| 3790 | AGGGGUGAUACUCGCGCUG | 3835 | ACCCUCAAAGGCUCUUCAG | 3880 | CACGUAGUAGGGCUCUUCA | 3925 | GCCAAGGCCCUGGACUUCA |
| 3791 | GGGGUGAUACUCGCGCUGC | 3836 | CCCUCAAAGGCUCUUCAGG | 3881 | ACGUAGUAGGGCUCUUCAG | 3926 | CCAAGGCCCUGGACUUCAU |
| 3792 | GGGUGAUACUCGCGCUGCU | 3837 | CCUCAAAGGCUCUUCAGGA | 3882 | CGUAGUAGGGCUCUUCAGG | 3927 | CAAGGCCCUGGACUUCAUC |
| 3793 | GGUGAUACUCGCGCUGCUC | 3838 | CUCAAAGGCUCUUCAGGAG | 3883 | GUAGUAGGGCUCUUCAGGG | 3928 | AAGGCCCUGGACUUCAUCC |
| 3794 | GUGAUACUCGCGCUGCUCU | 3839 | UCAAAGGCUCUUCAGGAGG | 3884 | UAGUAGGGCUCUUCAGGGC | 3929 | AGGCCCUGGACUUCAUCCC |
| 3795 | UGAUACUCGCGCUGCUCUU | 3840 | CAAAGGCUCUUCAGGAGGC | 3885 | AGUAGGGCUCUUCAGGGCG | 3930 | GGCCCUGGACUUCAUCCCU |
| 3796 | GAUACUCGCGCUGCUCUUU | 3841 | AAAGGCUCUUCAGGAGGCC | 3886 | GUAGGGCUCUUCAGGGCGG | 3931 | GCCCUGGACUUCAUCCCUG |
| 3797 | AUACUCGCGCUGCUCUUUU | 3842 | AAGGCUCUUCAGGAGGCCC | 3887 | UAGGGCUCUUCAGGGCGGC | 3932 | CCCUGGACUUCAUCCCUGU |
| 3798 | UACUCGCGCUGCUCUUUUG | 3843 | AGGCUCUUCAGGAGGCCCC | 3888 | AGGGCUCUUCAGGGCGGCC | 3933 | CCUGGACUUCAUCCCUGUG |
| 3799 | ACUCGCGCUGCUCUUUUGU | 3844 | GGCUCUUCAGGAGGCCCCC | 3889 | GGGCUCUUCAGGGCGGCCG | 3934 | CUGGACUUCAUCCCUGUGG |
| 3800 | CUCGCGCUGCUCUUUUGUC | 3845 | GCUCUUCAGGAGGCCCCCU | 3890 | GGCUCUUCAGGGCGGCCGU | 3935 | UGGACUUCAUCCCUGUGGA |
| 3801 | UCGCGCUGCUCUUUUGUCC | 3846 | CUCUUCAGGAGGCCCCCUU | 3891 | GCUCUUCAGGGCGGCCGUG | 3936 | GGACUUCAUCCCUGUGGAG |
| 3802 | CGCGCUGCUCUUUUGUCCC | 3847 | UCUUCAGGAGGCCCCCUUA | 3892 | CUCUUCAGGGCGGCCGUGU | 3937 | GACUUCAUCCCUGUGGAGA |
| 3803 | GCGCUGCUCUUUUGUCCCC | 3848 | CUUCAGGAGGCCCCCUUAU | 3893 | UCUUCAGGGCGGCCGUGUG | 3938 | ACUUCAUCCCUGUGGAGAA |
| 3804 | CGCUGCUCUUUUGUCCCCC | 3849 | UUCAGGAGGCCCCCUUAUG | 3894 | CUUCAGGGCGGCCGUGUGU | 3939 | CUUCAUCCCUGUGGAGAAU |
| 3805 | GCUGCUCUUUUGUCCCCCA | 3850 | UCAGGAGGCCCCCUUAUGU | 3895 | UUCAGGGCGGCCGUGUGUA | 3940 | UUCAUCCCUGUGGAGAAUA |
| 3806 | CUGCUCUUUUGUCCCCCAG | 3851 | CAGGAGGCCCCCUUAUGUG | 3896 | UCAGGGCGGCCGUGUGUAC | 3941 | UCAUCCCUGUGGAGAAUAU |
| 3807 | UGCUCUUUUGUCCCCCAGA | 3852 | AGGAGGCCCCCUUAUGUGC | 3897 | CAGGGCGGCCGUGUGUACG | 3942 | CAUCCCUGUGGAGAAUAUG |
| 3808 | GCUCUUUUGUCCCCCAGAC | 3853 | GGAGGCCCCCUUAUGUGCC | 3898 | AGGGCGGCCGUGUGUACGA | 3943 | AUCCCUGUGGAGAAUAUGG |
| 3809 | CUCUUUUGUCCCCCAGACC | 3854 | GAGGCCCCCUUAUGUGCCC | 3899 | GGGCGGCCGUGUGUACGAG | 3944 | UCCCUGUGGAGAAUAUGGA |
| 3810 | UCUUUUGUCCCCCAGACCC | 3855 | AGGCCCCCUUAUGUGCCCA | 3900 | GGCGGCCGUGUGUACGAGG | 3945 | CCCUGUGGAGAAUAUGGAC |
| 3811 | CUUUUGUCCCCCAGACCCA | 3856 | GGCCCCCUUAUGUGCCCAU | 3901 | GCGGCCGUGUGUACGAGGG | 3946 | CCUGUGGAGAAUAUGGACA |
| 3812 | UUUUGUCCCCCAGACCCAU | 3857 | GCCCCCUUAUGUGCCCAUC | 3902 | CGGCCGUGUGUACGAGGGG | 3947 | CUGUGGAGAAUAUGGACAC |
| 3813 | UUUGUCCCCCAGACCCAUA | 3858 | CCCCCUUAUGUGCCCAUCA | 3903 | GGCCGUGUGUACGAGGGGC | 3948 | UGUGGAGAAUAUGGACACA |
| 3814 | UUGUCCCCCAGACCCAUAA | 3859 | CCCCUUAUGUGCCCAUCAG | 3904 | GCCGUGUGUACGAGGGGCG | 3949 | GUGGAGAAUAUGGACACAA |
| 3815 | UGUCCCCCAGACCCAUAAG | 3860 | CCCUUAUGUGCCCAUCAGG | 3905 | CCGUGUGUACGAGGGGCGU | 3950 | UGGAGAAUAUGGACACAAC |
| 3816 | GUCCCCCAGACCCAUAAGC | 3861 | CCUUAUGUGCCCAUCAGGG | 3906 | CGUGUGUACGAGGGGCGUG | 3951 | GGAGAAUAUGGACACAACC |
| 3817 | UCCCCCAGACCCAUAAGCA | 3862 | CUUAUGUGCCCAUCAGGGC | 3907 | GUGUGUACGAGGGGCGUGG | 3952 | GAGAAUAUGGACACAACCA |
| 3818 | CCCCCAGACCCAUAAGCAC | 3863 | UUAUGUGCCCAUCAGGGCA | 3908 | UGUGUACGAGGGGCGUGGC | 3953 | AGAAUAUGGACACAACCAU |
| 3819 | CCCCAGACCCAUAAGCACC | 3864 | UAUGUGCCCAUCAGGGCAC | 3909 | GUGUACGAGGGGCGUGGCC | 3954 | GAAUAUGGACACAACCAUG |
| 3820 | CCCAGACCCAUAAGCACCC | 3865 | AUGUGCCCAUCAGGGCACG | 3910 | UGUACGAGGGGCGUGGCCA | 3955 | AAUAUGGACACAACCAUGC |
| 3821 | CCAGACCCAUAAGCACCCU | 3866 | UGUGCCCAUCAGGGCACGU | 3911 | GUACGAGGGGCGUGGCCAA | 3956 | AUAUGGACACAACCAUGCG |
| 3822 | CAGACCCAUAAGCACCCUC | 3867 | GUGCCCAUCAGGGCACGUA | 3912 | UACGAGGGGCGUGGCCAAG | 3957 | UAUGGACACAACCAUGCGA |
| 3823 | AGACCCAUAAGCACCCUCA | 3868 | UGCCCAUCAGGGCACGUAG | 3913 | ACGAGGGGCGUGGCCAAGG | 3958 | AUGGACACAACCAUGCGAU |
| 3824 | GACCCAUAAGCACCCUCAA | 3869 | GCCCAUCAGGGCACGUAGU | 3914 | CGAGGGGCGUGGCCAAGGC | 3959 | UGGACACAACCAUGCGAUC |
| 3825 | ACCCAUAAGCACCCUCAAA | 3870 | CCCAUCAGGGCACGUAGUA | 3915 | GAGGGGCGUGGCCAAGGCC | 3960 | GGACACAACCAUGCGAUCU |

**FIG. 7 (page 376 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3961 | GACACAACCAUGCGAUCUC | 4006 | CCUGCGGUGCCUCAGACCU | 4051 | ACGGGUAGCGGUAAAAGUA | 4096 | CAGGGAUACAAGGUGCUAG |
| 3962 | ACACAACCAUGCGAUCUCC | 4007 | CUGCGGUGCCUCAGACCUA | 4052 | CGGGUAGCGGUAAAAGUAC | 4097 | AGGGAUACAAGGUGCUAGU |
| 3963 | CACAACCAUGCGAUCUCCU | 4008 | UGCGGUGCCUCAGACCUAC | 4053 | GGGUAGCGGUAAAAGUACU | 4098 | GGGAUACAAGGUGCUAGUU |
| 3964 | ACAACCAUGCGAUCUCCUG | 4009 | GCGGUGCCUCAGACCUACC | 4054 | GGUAGCGGUAAAAGUACUC | 4099 | GGAUACAAGGUGCUAGUUC |
| 3965 | CAACCAUGCGAUCUCCUGU | 4010 | CGGUGCCUCAGACCUACCA | 4055 | GUAGCGGUAAAAGUACUCG | 4100 | GAUACAAGGUGCUAGUUCU |
| 3966 | AACCAUGCGAUCUCCUGUG | 4011 | GGUGCCUCAGACCUACCAG | 4056 | UAGCGGUAAAAGUACUCGU | 4101 | AUACAAGGUGCUAGUUCUG |
| 3967 | ACCAUGCGAUCUCCUGUGU | 4012 | GUGCCUCAGACCUACCAGG | 4057 | AGCGGUAAAAGUACUCGUG | 4102 | UACAAGGUGCUAGUUCUGA |
| 3968 | CCAUGCGAUCUCCUGUGUU | 4013 | UGCCUCAGACCUACCAGGU | 4058 | GCGGUAAAAGUACUCGUGU | 4103 | ACAAGGUGCUAGUUCUGAA |
| 3969 | CAUGCGAUCUCCUGUGUUU | 4014 | GCCUCAGACCUACCAGGUG | 4059 | CGGUAAAAGUACUCGUGUC | 4104 | CAAGGUGCUAGUUCUGAAU |
| 3970 | AUGCGAUCUCCUGUGUUUA | 4015 | CCUCAGACCUACCAGGUGG | 4060 | GGUAAAAGUACUCGUGUCC | 4105 | AAGGUGCUAGUUCUGAAUC |
| 3971 | UGCGAUCUCCUGUGUUUAC | 4016 | CUCAGACCUACCAGGUGGG | 4061 | GUAAAAGUACUCGUGUCCC | 4106 | AGGUGCUAGUUCUGAAUCC |
| 3972 | GCGAUCUCCUGUGUUUACC | 4017 | UCAGACCUACCAGGUGGGG | 4062 | UAAAAGUACUCGUGUCCCG | 4107 | GGUGCUAGUUCUGAAUCCG |
| 3973 | CGAUCUCCUGUGUUUACCG | 4018 | CAGACCUACCAGGUGGGGU | 4063 | AAAAGUACUCGUGUCCCGG | 4108 | GUGCUAGUUCUGAAUCCGU |
| 3974 | GAUCUCCUGUGUUUACCGA | 4019 | AGACCUACCAGGUGGGGUA | 4064 | AAAGUACUCGUGUCCCGGC | 4109 | UGCUAGUUCUGAAUCCGUC |
| 3975 | AUCUCCUGUGUUUACCGAC | 4020 | GACCUACCAGGUGGGGUAC | 4065 | AAGUACUCGUGUCCCGGCA | 4110 | GCUAGUUCUGAAUCCGUCU |
| 3976 | UCUCCUGUGUUUACCGACA | 4021 | ACCUACCAGGUGGGGUACC | 4066 | AGUACUCGUGUCCCGGCAG | 4111 | CUAGUUCUGAAUCCGUCUG |
| 3977 | CUCCUGUGUUUACCGACAA | 4022 | CCUACCAGGUGGGGUACCU | 4067 | GUACUCGUGUCCCGGCAGC | 4112 | UAGUUCUGAAUCCGUCUGU |
| 3978 | UCCUGUGUUUACCGACAAC | 4023 | CUACCAGGUGGGGUACCUG | 4068 | UACUCGUGUCCCGGCAGCU | 4113 | AGUUCUGAAUCCGUCUGUA |
| 3979 | CCUGUGUUUACCGACAACU | 4024 | UACCAGGUGGGGUACCUGC | 4069 | ACUCGUGUCCCGGCAGCUU | 4114 | GUUCUGAAUCCGUCUGUAG |
| 3980 | CUGUGUUUACCGACAACUC | 4025 | ACCAGGUGGGGUACCUGCA | 4070 | CUCGUGUCCCGGCAGCUUA | 4115 | UUCUGAAUCCGUCUGUAGC |
| 3981 | UGUGUUUACCGACAACUCC | 4026 | CCAGGUGGGGUACCUGCAC | 4071 | UCGUGUCCCGGCAGCUUAC | 4116 | UCUGAAUCCGUCUGUAGCG |
| 3982 | GUGUUUACCGACAACUCCU | 4027 | CAGGUGGGGUACCUGCACG | 4072 | CGUGUCCCGGCAGCUUACG | 4117 | CUGAAUCCGUCUGUAGCGG |
| 3983 | UGUUUACCGACAACUCCUC | 4028 | AGGUGGGGUACCUGCACGC | 4073 | GUGUCCCGGCAGCUUACGC | 4118 | UGAAUCCGUCUGUAGCGGC |
| 3984 | GUUUACCGACAACUCCUCG | 4029 | GGUGGGGUACCUGCACGCU | 4074 | UGUCCCGGCAGCUUACGCC | 4119 | GAAUCCGUCUGUAGCGGCA |
| 3985 | UUUACCGACAACUCCUCGC | 4030 | GUGGGGUACCUGCACGCUC | 4075 | GUCCCGGCAGCUUACGCCA | 4120 | AAUCCGUCUGUAGCGGCAA |
| 3986 | UUACCGACAACUCCUCGCC | 4031 | UGGGGUACCUGCACGCUCC | 4076 | UCCCGGCAGCUUACGCCAC | 4121 | AUCCGUCUGUAGCGGCAAC |
| 3987 | UACCGACAACUCCUCGCCG | 4032 | GGGGUACCUGCACGCUCCG | 4077 | CCCGGCAGCUUACGCCACC | 4122 | UCCGUCUGUAGCGGCAACG |
| 3988 | ACCGACAACUCCUCGCCGC | 4033 | GGGUACCUGCACGCUCCGA | 4078 | CCGGCAGCUUACGCCACCC | 4123 | CCGUCUGUAGCGGCAACGC |
| 3989 | CCGACAACUCCUCGCCGCC | 4034 | GGUACCUGCACGCUCCGAC | 4079 | CGGCAGCUUACGCCACCCA | 4124 | CGUCUGUAGCGGCAACGCU |
| 3990 | CGACAACUCCUCGCCGCCU | 4035 | GUACCUGCACGCUCCGACG | 4080 | GGCAGCUUACGCCACCCAG | 4125 | GUCUGUAGCGGCAACGCUG |
| 3991 | GACAACUCCUCGCCGCCUG | 4036 | UACCUGCACGCUCCGACGG | 4081 | GCAGCUUACGCCACCCAGG | 4126 | UCUGUAGCGGCAACGCUGA |
| 3992 | ACAACUCCUCGCCGCCUGC | 4037 | ACCUGCACGCUCCGACGGG | 4082 | CAGCUUACGCCACCCAGGG | 4127 | CUGUAGCGGCAACGCUGAG |
| 3993 | CAACUCCUCGCCGCCUGCG | 4038 | CCUGCACGCUCCGACGGGU | 4083 | AGCUUACGCCACCCAGGGA | 4128 | UGUAGCGGCAACGCUGAGC |
| 3994 | AACUCCUCGCCGCCUGCGG | 4039 | CUGCACGCUCCGACGGGUA | 4084 | GCUUACGCCACCCAGGGAU | 4129 | GUAGCGGCAACGCUGAGCU |
| 3995 | ACUCCUCGCCGCCUGCGGU | 4040 | UGCACGCUCCGACGGGUAG | 4085 | CUUACGCCACCCAGGGAUA | 4130 | UAGCGGCAACGCUGAGCUU |
| 3996 | CUCCUCGCCGCCUGCGGUG | 4041 | GCACGCUCCGACGGGUAGC | 4086 | UUACGCCACCCAGGGAUAC | 4131 | AGCGGCAACGCUGAGCUUC |
| 3997 | UCCUCGCCGCCUGCGGUGC | 4042 | CACGCUCCGACGGGUAGCG | 4087 | UACGCCACCCAGGGAUACA | 4132 | GCGGCAACGCUGAGCUUCG |
| 3998 | CCUCGCCGCCUGCGGUGCC | 4043 | ACGCUCCGACGGGUAGCGG | 4088 | ACGCCACCCAGGGAUACAA | 4133 | CGGCAACGCUGAGCUUCGG |
| 3999 | CUCGCCGCCUGCGGUGCCU | 4044 | CGCUCCGACGGGUAGCGGU | 4089 | CGCCACCCAGGGAUACAAG | 4134 | GGCAACGCUGAGCUUCGGG |
| 4000 | UCGCCGCCUGCGGUGCCUC | 4045 | GCUCCGACGGGUAGCGGUA | 4090 | GCCACCCAGGGAUACAAGG | 4135 | GCAACGCUGAGCUUCGGGG |
| 4001 | CGCCGCCUGCGGUGCCUCA | 4046 | CUCCGACGGGUAGCGGUAA | 4091 | CCACCCAGGGAUACAAGGU | 4136 | CAACGCUGAGCUUCGGGGC |
| 4002 | GCCGCCUGCGGUGCCUCAG | 4047 | UCCGACGGGUAGCGGUAAA | 4092 | CACCCAGGGAUACAAGGUG | 4137 | AACGCUGAGCUUCGGGGCA |
| 4003 | CCGCCUGCGGUGCCUCAGA | 4048 | CCGACGGGUAGCGGUAAAA | 4093 | ACCCAGGGAUACAAGGUGC | 4138 | ACGCUGAGCUUCGGGGCAU |
| 4004 | CGCCUGCGGUGCCUCAGAC | 4049 | CGACGGGUAGCGGUAAAAG | 4094 | CCCAGGGAUACAAGGUGCU | 4139 | CGCUGAGCUUCGGGGCAUA |
| 4005 | GCCUGCGGUGCCUCAGACC | 4050 | GACGGGUAGCGGUAAAAGU | 4095 | CCAGGGAUACAAGGUGCUA | 4140 | GCUGAGCUUCGGGGCAUAC |

**FIG. 7 (page 377 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4141 | CUGAGCUUCGGGGCAUACA | 4186 | AAUAUCCGGACGGGUGUCA | 4231 | ACAUACUCAACAUAUGGGA | 4276 | GGAGGAGCAUAUGAUAUCA |
| 4142 | UGAGCUUCGGGGCAUACAU | 4187 | AUAUCCGGACGGGUGUCAG | 4232 | CAUACUCAACAUAUGGGAA | 4277 | GAGGAGCAUAUGAUAUCAU |
| 4143 | GAGCUUCGGGGCAUACAUG | 4188 | UAUCCGGACGGGUGUCAGG | 4233 | AUACUCAACAUAUGGGAAG | 4278 | AGGAGCAUAUGAUAUCAUC |
| 4144 | AGCUUCGGGGCAUACAUGA | 4189 | AUCCGGACGGGUGUCAGGA | 4234 | UACUCAACAUAUGGGAAGU | 4279 | GGAGCAUAUGAUAUCAUCA |
| 4145 | GCUUCGGGGCAUACAUGAG | 4190 | UCCGGACGGGUGUCAGGAC | 4235 | ACUCAACAUAUGGGAAGUU | 4280 | GAGCAUAUGAUAUCAUCAU |
| 4146 | CUUCGGGGCAUACAUGAGC | 4191 | CCGGACGGGUGUCAGGACC | 4236 | CUCAACAUAUGGGAAGUUU | 4281 | AGCAUAUGAUAUCAUCAUC |
| 4147 | UUCGGGGCAUACAUGAGCA | 4192 | CGGACGGGUGUCAGGACCA | 4237 | UCAACAUAUGGGAAGUUUC | 4282 | GCAUAUGAUAUCAUCAUCU |
| 4148 | UCGGGGCAUACAUGAGCAA | 4193 | GGACGGGUGUCAGGACCAU | 4238 | CAACAUAUGGGAAGUUUCU | 4283 | CAUAUGAUAUCAUCAUCUG |
| 4149 | CGGGGCAUACAUGAGCAAA | 4194 | GACGGGUGUCAGGACCAUC | 4239 | AACAUAUGGGAAGUUUCUG | 4284 | AUAUGAUAUCAUCAUCUGU |
| 4150 | GGGGCAUACAUGAGCAAAG | 4195 | ACGGGUGUCAGGACCAUCA | 4240 | ACAUAUGGGAAGUUUCUGG | 4285 | UAUGAUAUCAUCAUCUGUG |
| 4151 | GGGCAUACAUGAGCAAAGC | 4196 | CGGGUGUCAGGACCAUCAC | 4241 | CAUAUGGGAAGUUUCUGGC | 4286 | AUGAUAUCAUCAUCUGUGA |
| 4152 | GGCAUACAUGAGCAAAGCU | 4197 | GGGUGUCAGGACCAUCACC | 4242 | AUAUGGGAAGUUUCUGGCC | 4287 | UGAUAUCAUCAUCUGUGAC |
| 4153 | GCAUACAUGAGCAAAGCUC | 4198 | GGUGUCAGGACCAUCACCA | 4243 | UAUGGGAAGUUUCUGGCCG | 4288 | GAUAUCAUCAUCUGUGACG |
| 4154 | CAUACAUGAGCAAAGCUCA | 4199 | GUGUCAGGACCAUCACCAC | 4244 | AUGGGAAGUUUCUGGCCGA | 4289 | AUAUCAUCAUCUGUGACGA |
| 4155 | AUACAUGAGCAAAGCUCAU | 4200 | UGUCAGGACCAUCACCACA | 4245 | UGGGAAGUUUCUGGCCGAU | 4290 | UAUCAUCAUCUGUGACGAG |
| 4156 | UACAUGAGCAAAGCUCAUG | 4201 | GUCAGGACCAUCACCACAG | 4246 | GGGAAGUUUCUGGCCGAUG | 4291 | AUCAUCAUCUGUGACGAGU |
| 4157 | ACAUGAGCAAAGCUCAUGG | 4202 | UCAGGACCAUCACCACAGG | 4247 | GGAAGUUUCUGGCCGAUGG | 4292 | UCAUCAUCUGUGACGAGUG |
| 4158 | CAUGAGCAAAGCUCAUGGU | 4203 | CAGGACCAUCACCACAGGG | 4248 | GAAGUUUCUGGCCGAUGGG | 4293 | CAUCAUCUGUGACGAGUGC |
| 4159 | AUGAGCAAAGCUCAUGGUA | 4204 | AGGACCAUCACCACAGGGG | 4249 | AAGUUUCUGGCCGAUGGGG | 4294 | AUCAUCUGUGACGAGUGCC |
| 4160 | UGAGCAAAGCUCAUGGUAU | 4205 | GGACCAUCACCACAGGGGG | 4250 | AGUUUCUGGCCGAUGGGGG | 4295 | UCAUCUGUGACGAGUGCCA |
| 4161 | GAGCAAAGCUCAUGGUAUA | 4206 | GACCAUCACCACAGGGGGU | 4251 | GUUUCUGGCCGAUGGGGGA | 4296 | CAUCUGUGACGAGUGCCAC |
| 4162 | AGCAAAGCUCAUGGUAUAG | 4207 | ACCAUCACCACAGGGGGUC | 4252 | UUUCUGGCCGAUGGGGGAU | 4297 | AUCUGUGACGAGUGCCACU |
| 4163 | GCAAAGCUCAUGGUAUAGA | 4208 | CCAUCACCACAGGGGGUCC | 4253 | UUCUGGCCGAUGGGGGAUG | 4298 | UCUGUGACGAGUGCCACUC |
| 4164 | CAAAGCUCAUGGUAUAGAC | 4209 | CAUCACCACAGGGGGUCCC | 4254 | UCUGGCCGAUGGGGGAUGU | 4299 | CUGUGACGAGUGCCACUCC |
| 4165 | AAAGCUCAUGGUAUAGACC | 4210 | AUCACCACAGGGGGUCCCG | 4255 | CUGGCCGAUGGGGGAUGUU | 4300 | UGUGACGAGUGCCACUCCA |
| 4166 | AAGCUCAUGGUAUAGACCC | 4211 | UCACCACAGGGGGUCCCGU | 4256 | UGGCCGAUGGGGGAUGUUC | 4301 | GUGACGAGUGCCACUCCAC |
| 4167 | AGCUCAUGGUAUAGACCCG | 4212 | CACCACAGGGGGUCCCGUA | 4257 | GGCCGAUGGGGGAUGUUCA | 4302 | UGACGAGUGCCACUCCACA |
| 4168 | GCUCAUGGUAUAGACCCGA | 4213 | ACCACAGGGGGUCCCGUAA | 4258 | GCCGAUGGGGGAUGUUCAG | 4303 | GACGAGUGCCACUCCACAG |
| 4169 | CUCAUGGUAUAGACCCGAA | 4214 | CCACAGGGGGUCCCGUAAC | 4259 | CCGAUGGGGGAUGUUCAGG | 4304 | ACGAGUGCCACUCCACAGA |
| 4170 | UCAUGGUAUAGACCCGAAU | 4215 | CACAGGGGGUCCCGUAACA | 4260 | CGAUGGGGGAUGUUCAGGA | 4305 | CGAGUGCCACUCCACAGAC |
| 4171 | CAUGGUAUAGACCCGAAUA | 4216 | ACAGGGGGUCCCGUAACAU | 4261 | GAUGGGGGAUGUUCAGGAG | 4306 | GAGUGCCACUCCACAGACC |
| 4172 | AUGGUAUAGACCCGAAUAU | 4217 | CAGGGGGUCCCGUAACAUA | 4262 | AUGGGGGAUGUUCAGGAGG | 4307 | AGUGCCACUCCACAGACCC |
| 4173 | UGGUAUAGACCCGAAUAUC | 4218 | AGGGGGUCCCGUAACAUAC | 4263 | UGGGGGAUGUUCAGGAGGA | 4308 | GUGCCACUCCACAGACCCA |
| 4174 | GGUAUAGACCCGAAUAUCC | 4219 | GGGGGUCCCGUAACAUACU | 4264 | GGGGGAUGUUCAGGAGGAG | 4309 | UGCCACUCCACAGACCCAA |
| 4175 | GUAUAGACCCGAAUAUCCG | 4220 | GGGGUCCCGUAACAUACUC | 4265 | GGGGAUGUUCAGGAGGAGC | 4310 | GCCACUCCACAGACCCAAC |
| 4176 | UAUAGACCCGAAUAUCCGG | 4221 | GGGUCCCGUAACAUACUCA | 4266 | GGGAUGUUCAGGAGGAGCA | 4311 | CCACUCCACAGACCCAACG |
| 4177 | AUAGACCCGAAUAUCCGGA | 4222 | GGUCCCGUAACAUACUCAA | 4267 | GGAUGUUCAGGAGGAGCAU | 4312 | CACUCCACAGACCCAACGA |
| 4178 | UAGACCCGAAUAUCCGGAC | 4223 | GUCCCGUAACAUACUCAAC | 4268 | GAUGUUCAGGAGGAGCAUA | 4313 | ACUCCACAGACCCAACGAC |
| 4179 | AGACCCGAAUAUCCGGACG | 4224 | UCCCGUAACAUACUCAACA | 4269 | AUGUUCAGGAGGAGCAUAU | 4314 | CUCCACAGACCCAACGACG |
| 4180 | GACCCGAAUAUCCGGACGG | 4225 | CCCGUAACAUACUCAACAU | 4270 | UGUUCAGGAGGAGCAUAUG | 4315 | UCCACAGACCCAACGACGG |
| 4181 | ACCCGAAUAUCCGGACGGG | 4226 | CCGUAACAUACUCAACAUA | 4271 | GUUCAGGAGGAGCAUAUGA | 4316 | CCACAGACCCAACGACGGU |
| 4182 | CCCGAAUAUCCGGACGGGU | 4227 | CGUAACAUACUCAACAUAU | 4272 | UUCAGGAGGAGCAUAUGAU | 4317 | CACAGACCCAACGACGGUG |
| 4183 | CCGAAUAUCCGGACGGGUG | 4228 | GUAACAUACUCAACAUAUG | 4273 | UCAGGAGGAGCAUAUGAUA | 4318 | ACAGACCCAACGACGGUGC |
| 4184 | CGAAUAUCCGGACGGGUGU | 4229 | UAACAUACUCAACAUAUGG | 4274 | CAGGAGGAGCAUAUGAUAU | 4319 | CAGACCCAACGACGGUGCU |
| 4185 | GAAUAUCCGGACGGGUGUC | 4230 | AACAUACUCAACAUAUGGG | 4275 | AGGAGGAGCAUAUGAUAUC | 4320 | AGACCCAACGACGGUGCUU |

**FIG. 7 (page 378 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4321 | GACCCAACGACGGUGCUUG | 4366 | GAAACCGCGGGGGUCCGCC | 4411 | CCAGGCUCUGUCACUGUCC | 4456 | CUCCCGACUACGGGGGAGA |
| 4322 | ACCCAACGACGGUGCUUGG | 4367 | AAACCGCGGGGGUCCGCCU | 4412 | CAGGCUCUGUCACUGUCCC | 4457 | UCCCGACUACGGGGGAGAU |
| 4323 | CCCAACGACGGUGCUUGGC | 4368 | AACCGCGGGGGUCCGCCUC | 4413 | AGGCUCUGUCACUGUCCCC | 4458 | CCCGACUACGGGGGAGAUA |
| 4324 | CCAACGACGGUGCUUGGCA | 4369 | ACCGCGGGGGUCCGCCUCA | 4414 | GGCUCUGUCACUGUCCCCC | 4459 | CCGACUACGGGGGAGAUAC |
| 4325 | CAACGACGGUGCUUGGCAU | 4370 | CCGCGGGGGUCCGCCUCAC | 4415 | GCUCUGUCACUGUCCCCCA | 4460 | CGACUACGGGGGAGAUACC |
| 4326 | AACGACGGUGCUUGGCAUC | 4371 | CGCGGGGGUCCGCCUCACG | 4416 | CUCUGUCACUGUCCCCCAU | 4461 | GACUACGGGGGAGAUACCA |
| 4327 | ACGACGGUGCUUGGCAUCG | 4372 | GCGGGGGUCCGCCUCACGG | 4417 | UCUGUCACUGUCCCCCAUC | 4462 | ACUACGGGGGAGAUACCAU |
| 4328 | CGACGGUGCUUGGCAUCGG | 4373 | CGGGGGUCCGCCUCACGGU | 4418 | CUGUCACUGUCCCCCAUCC | 4463 | CUACGGGGGAGAUACCAUU |
| 4329 | GACGGUGCUUGGCAUCGGC | 4374 | GGGGGUCCGCCUCACGGUG | 4419 | UGUCACUGUCCCCCAUCCU | 4464 | UACGGGGGAGAUACCAUUU |
| 4330 | ACGGUGCUUGGCAUCGGCA | 4375 | GGGGUCCGCCUCACGGUGC | 4420 | GUCACUGUCCCCCAUCCUA | 4465 | ACGGGGGAGAUACCAUUUU |
| 4331 | CGGUGCUUGGCAUCGGCAC | 4376 | GGGUCCGCCUCACGGUGCU | 4421 | UCACUGUCCCCCAUCCUAA | 4466 | CGGGGGAGAUACCAUUUUA |
| 4332 | GGUGCUUGGCAUCGGCACU | 4377 | GGUCCGCCUCACGGUGCUC | 4422 | CACUGUCCCCCAUCCUAAU | 4467 | GGGGGAGAUACCAUUUUAU |
| 4333 | GUGCUUGGCAUCGGCACUG | 4378 | GUCCGCCUCACGGUGCUCG | 4423 | ACUGUCCCCCAUCCUAAUA | 4468 | GGGGAGAUACCAUUUUAUG |
| 4334 | UGCUUGGCAUCGGCACUGU | 4379 | UCCGCCUCACGGUGCUCGC | 4424 | CUGUCCCCCAUCCUAAUAU | 4469 | GGGAGAUACCAUUUUAUGG |
| 4335 | GCUUGGCAUCGGCACUGUC | 4380 | CCGCCUCACGGUGCUCGCU | 4425 | UGUCCCCCAUCCUAAUAUA | 4470 | GGAGAUACCAUUUUAUGGC |
| 4336 | CUUGGCAUCGGCACUGUCC | 4381 | CGCCUCACGGUGCUCGCUA | 4426 | GUCCCCCAUCCUAAUAUAA | 4471 | GAGAUACCAUUUUAUGGCA |
| 4337 | UUGGCAUCGGCACUGUCCU | 4382 | GCCUCACGGUGCUCGCUAC | 4427 | UCCCCCAUCCUAAUAUAAC | 4472 | AGAUACCAUUUUAUGGCAA |
| 4338 | UGGCAUCGGCACUGUCCUA | 4383 | CCUCACGGUGCUCGCUACG | 4428 | CCCCCAUCCUAAUAUAACA | 4473 | GAUACCAUUUUAUGGCAAG |
| 4339 | GGCAUCGGCACUGUCCUAG | 4384 | CUCACGGUGCUCGCUACGG | 4429 | CCCCAUCCUAAUAUAACAG | 4474 | AUACCAUUUUAUGGCAAGU |
| 4340 | GCAUCGGCACUGUCCUAGA | 4385 | UCACGGUGCUCGCUACGGC | 4430 | CCCAUCCUAAUAUAACAGA | 4475 | UACCAUUUUAUGGCAAGUG |
| 4341 | CAUCGGCACUGUCCUAGAC | 4386 | CACGGUGCUCGCUACGGCG | 4431 | CCAUCCUAAUAUAACAGAG | 4476 | ACCAUUUUAUGGCAAGUGU |
| 4342 | AUCGGCACUGUCCUAGACC | 4387 | ACGGUGCUCGCUACGGCGA | 4432 | CAUCCUAAUAUAACAGAGA | 4477 | CCAUUUUAUGGCAAGUGUA |
| 4343 | UCGGCACUGUCCUAGACCA | 4388 | CGGUGCUCGCUACGGCGAC | 4433 | AUCCUAAUAUAACAGAGAC | 4478 | CAUUUUAUGGCAAGUGUAU |
| 4344 | CGGCACUGUCCUAGACCAG | 4389 | GGUGCUCGCUACGGCGACG | 4434 | UCCUAAUAUAACAGAGACA | 4479 | AUUUUAUGGCAAGUGUAUC |
| 4345 | GGCACUGUCCUAGACCAGG | 4390 | GUGCUCGCUACGGCGACGC | 4435 | CCUAAUAUAACAGAGACAG | 4480 | UUUUAUGGCAAGUGUAUCC |
| 4346 | GCACUGUCCUAGACCAGGC | 4391 | UGCUCGCUACGGCGACGCC | 4436 | CUAAUAUAACAGAGACAGC | 4481 | UUUAUGGCAAGUGUAUCCC |
| 4347 | CACUGUCCUAGACCAGGCA | 4392 | GCUCGCUACGGCGACGCCG | 4437 | UAAUAUAACAGAGACAGCU | 4482 | UUAUGGCAAGUGUAUCCCC |
| 4348 | ACUGUCCUAGACCAGGCAG | 4393 | CUCGCUACGGCGACGCCGC | 4438 | AAUAUAACAGAGACAGCUC | 4483 | UAUGGCAAGUGUAUCCCCC |
| 4349 | CUGUCCUAGACCAGGCAGA | 4394 | UCGCUACGGCGACGCCGCC | 4439 | AUAUAACAGAGACAGCUCU | 4484 | AUGGCAAGUGUAUCCCCCU |
| 4350 | UGUCCUAGACCAGGCAGAA | 4395 | CGCUACGGCGACGCCGCCA | 4440 | UAUAACAGAGACAGCUCUC | 4485 | UGGCAAGUGUAUCCCCCUC |
| 4351 | GUCCUAGACCAGGCAGAAA | 4396 | GCUACGGCGACGCCGCCAG | 4441 | AUAACAGAGACAGCUCUCC | 4486 | GGCAAGUGUAUCCCCCUCG |
| 4352 | UCCUAGACCAGGCAGAAAC | 4397 | CUACGGCGACGCCGCCAGG | 4442 | UAACAGAGACAGCUCUCCC | 4487 | GCAAGUGUAUCCCCCUCGA |
| 4353 | CCUAGACCAGGCAGAAACC | 4398 | UACGGCGACGCCGCCAGGC | 4443 | AACAGAGACAGCUCUCCCG | 4488 | CAAGUGUAUCCCCCUCGAA |
| 4354 | CUAGACCAGGCAGAAACCG | 4399 | ACGGCGACGCCGCCAGGCU | 4444 | ACAGAGACAGCUCUCCCGA | 4489 | AAGUGUAUCCCCCUCGAAU |
| 4355 | UAGACCAGGCAGAAACCGC | 4400 | CGGCGACGCCGCCAGGCUC | 4445 | CAGAGACAGCUCUCCCGAC | 4490 | AGUGUAUCCCCCUCGAAUU |
| 4356 | AGACCAGGCAGAAACCGCG | 4401 | GGCGACGCCGCCAGGCUCU | 4446 | AGAGACAGCUCUCCCGACU | 4491 | GUGUAUCCCCCUCGAAUUU |
| 4357 | GACCAGGCAGAAACCGCGG | 4402 | GCGACGCCGCCAGGCUCUG | 4447 | GAGACAGCUCUCCCGACUA | 4492 | UGUAUCCCCCUCGAAUUUA |
| 4358 | ACCAGGCAGAAACCGCGGG | 4403 | CGACGCCGCCAGGCUCUGU | 4448 | AGACAGCUCUCCCGACUAC | 4493 | GUAUCCCCCUCGAAUUUAU |
| 4359 | CCAGGCAGAAACCGCGGGG | 4404 | GACGCCGCCAGGCUCUGUC | 4449 | GACAGCUCUCCCGACUACG | 4494 | UAUCCCCCUCGAAUUUAUC |
| 4360 | CAGGCAGAAACCGCGGGGG | 4405 | ACGCCGCCAGGCUCUGUCA | 4450 | ACAGCUCUCCCGACUACGG | 4495 | AUCCCCCUCGAAUUUAUCA |
| 4361 | AGGCAGAAACCGCGGGGGU | 4406 | CGCCGCCAGGCUCUGUCAC | 4451 | CAGCUCUCCCGACUACGGG | 4496 | UCCCCCUCGAAUUUAUCAA |
| 4362 | GGCAGAAACCGCGGGGGUC | 4407 | GCCGCCAGGCUCUGUCACU | 4452 | AGCUCUCCCGACUACGGGG | 4497 | CCCCCUCGAAUUUAUCAAG |
| 4363 | GCAGAAACCGCGGGGGUCC | 4408 | CCGCCAGGCUCUGUCACUG | 4453 | GCUCUCCCGACUACGGGGG | 4498 | CCCCUCGAAUUUAUCAAGG |
| 4364 | CAGAAACCGCGGGGGUCCG | 4409 | CGCCAGGCUCUGUCACUGU | 4454 | CUCUCCCGACUACGGGGGA | 4499 | CCCUCGAAUUUAUCAAGGG |
| 4365 | AGAAACCGCGGGGGUCCGC | 4410 | GCCAGGCUCUGUCACUGUC | 4455 | UCUCCCGACUACGGGGGAG | 4500 | CCUCGAAUUUAUCAAGGGG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4501 | CUCGAAUUUAUCAAGGGGG | 4546 | AAGAAGAAAUGCGACGAAC | 4591 | CUCAAUGCUGUCGCAUUCU | 4636 | CCCACCUCAGGCGACGUCG |
| 4502 | UCGAAUUUAUCAAGGGGGG | 4547 | AGAAGAAAUGCGACGAACU | 4592 | UCAAUGCUGUCGCAUUCUA | 4637 | CCACCUCAGGCGACGUCGU |
| 4503 | CGAAUUUAUCAAGGGGGGA | 4548 | GAAGAAAUGCGACGAACUG | 4593 | CAAUGCUGUCGCAUUCUAU | 4638 | CACCUCAGGCGACGUCGUC |
| 4504 | GAAUUUAUCAAGGGGGGAA | 4549 | AAGAAAUGCGACGAACUGU | 4594 | AAUGCUGUCGCAUUCUAUA | 4639 | ACCUCAGGCGACGUCGUCG |
| 4505 | AAUUUAUCAAGGGGGGAAG | 4550 | AGAAAUGCGACGAACUGUC | 4595 | AUGCUGUCGCAUUCUAUAG | 4640 | CCUCAGGCGACGUCGUCGU |
| 4506 | AUUUAUCAAGGGGGGAAGA | 4551 | GAAAUGCGACGAACUGUCU | 4596 | UGCUGUCGCAUUCUAUAGA | 4641 | CUCAGGCGACGUCGUCGUC |
| 4507 | UUUAUCAAGGGGGGAAGAC | 4552 | AAAUGCGACGAACUGUCUA | 4597 | GCUGUCGCAUUCUAUAGAG | 4642 | UCAGGCGACGUCGUCGUCU |
| 4508 | UUAUCAAGGGGGGAAGACA | 4553 | AAUGCGACGAACUGUCUAA | 4598 | CUGUCGCAUUCUAUAGAGG | 4643 | CAGGCGACGUCGUCGUCUG |
| 4509 | UAUCAAGGGGGGAAGACAU | 4554 | AUGCGACGAACUGUCUAAA | 4599 | UGUCGCAUUCUAUAGAGGU | 4644 | AGGCGACGUCGUCGUCUGC |
| 4510 | AUCAAGGGGGGAAGACAUC | 4555 | UGCGACGAACUGUCUAAAC | 4600 | GUCGCAUUCUAUAGAGGUG | 4645 | GGCGACGUCGUCGUCUGCG |
| 4511 | UCAAGGGGGGAAGACAUCU | 4556 | GCGACGAACUGUCUAAACA | 4601 | UCGCAUUCUAUAGAGGUGU | 4646 | GCGACGUCGUCGUCUGCGC |
| 4512 | CAAGGGGGGAAGACAUCUC | 4557 | CGACGAACUGUCUAAACAA | 4602 | CGCAUUCUAUAGAGGUGUC | 4647 | CGACGUCGUCGUCUGCGCG |
| 4513 | AAGGGGGGAAGACAUCUCA | 4558 | GACGAACUGUCUAAACAAC | 4603 | GCAUUCUAUAGAGGUGUCG | 4648 | GACGUCGUCGUCUGCGCGA |
| 4514 | AGGGGGGAAGACAUCUCAU | 4559 | ACGAACUGUCUAAACAACU | 4604 | CAUUCUAUAGAGGUGUCGA | 4649 | ACGUCGUCGUCUGCGCGAC |
| 4515 | GGGGGGAAGACAUCUCAUC | 4560 | CGAACUGUCUAAACAACUA | 4605 | AUUCUAUAGAGGUGUCGAU | 4650 | CGUCGUCGUCUGCGCGACG |
| 4516 | GGGGGAAGACAUCUCAUCU | 4561 | GAACUGUCUAAACAACUAA | 4606 | UUCUAUAGAGGUGUCGAUG | 4651 | GUCGUCGUCUGCGCGACGG |
| 4517 | GGGGAAGACAUCUCAUCUU | 4562 | AACUGUCUAAACAACUAAC | 4607 | UCUAUAGAGGUGUCGAUGU | 4652 | UCGUCGUCUGCGCGACGGA |
| 4518 | GGGAAGACAUCUCAUCUUC | 4563 | ACUGUCUAAACAACUAACC | 4608 | CUAUAGAGGUGUCGAUGUG | 4653 | CGUCGUCUGCGCGACGGAC |
| 4519 | GGAAGACAUCUCAUCUUCU | 4564 | CUGUCUAAACAACUAACCU | 4609 | UAUAGAGGUGUCGAUGUGG | 4654 | GUCGUCUGCGCGACGGACG |
| 4520 | GAAGACAUCUCAUCUUCUG | 4565 | UGUCUAAACAACUAACCUC | 4610 | AUAGAGGUGUCGAUGUGGC | 4655 | UCGUCUGCGCGACGGACGC |
| 4521 | AAGACAUCUCAUCUUCUGU | 4566 | GUCUAAACAACUAACCUCA | 4611 | UAGAGGUGUCGAUGUGGCU | 4656 | CGUCUGCGCGACGGACGCC |
| 4522 | AGACAUCUCAUCUUCUGUC | 4567 | UCUAAACAACUAACCUCAU | 4612 | AGAGGUGUCGAUGUGGCUG | 4657 | GUCUGCGCGACGGACGCCC |
| 4523 | GACAUCUCAUCUUCUGUCA | 4568 | CUAAACAACUAACCUCAUU | 4613 | GAGGUGUCGAUGUGGCUGU | 4658 | UCUGCGCGACGGACGCCCU |
| 4524 | ACAUCUCAUCUUCUGUCAC | 4569 | UAAACAACUAACCUCAUUA | 4614 | AGGUGUCGAUGUGGCUGUG | 4659 | CUGCGCGACGGACGCCCUU |
| 4525 | CAUCUCAUCUUCUGUCACU | 4570 | AAACAACUAACCUCAUUAG | 4615 | GGUGUCGAUGUGGCUGUGA | 4660 | UGCGCGACGGACGCCCUUA |
| 4526 | AUCUCAUCUUCUGUCACUC | 4571 | AACAACUAACCUCAUUAGG | 4616 | GUGUCGAUGUGGCUGUGAU | 4661 | GCGCGACGGACGCCCUUAU |
| 4527 | UCUCAUCUUCUGUCACUCA | 4572 | ACAACUAACCUCAUUAGGU | 4617 | UGUCGAUGUGGCUGUGAUC | 4662 | CGCGACGGACGCCCUUAUG |
| 4528 | CUCAUCUUCUGUCACUCAA | 4573 | CAACUAACCUCAUUAGGUC | 4618 | GUCGAUGUGGCUGUGAUCC | 4663 | GCGACGGACGCCCUUAUGA |
| 4529 | UCAUCUUCUGUCACUCAAA | 4574 | AACUAACCUCAUUAGGUCU | 4619 | UCGAUGUGGCUGUGAUCCC | 4664 | CGACGGACGCCCUUAUGAC |
| 4530 | CAUCUUCUGUCACUCAAAG | 4575 | ACUAACCUCAUUAGGUCUC | 4620 | CGAUGUGGCUGUGAUCCCC | 4665 | GACGGACGCCCUUAUGACC |
| 4531 | AUCUUCUGUCACUCAAAGA | 4576 | CUAACCUCAUUAGGUCUCA | 4621 | GAUGUGGCUGUGAUCCCCA | 4666 | ACGGACGCCCUUAUGACCG |
| 4532 | UCUUCUGUCACUCAAAGAA | 4577 | UAACCUCAUUAGGUCUCAA | 4622 | AUGUGGCUGUGAUCCCCAC | 4667 | CGGACGCCCUUAUGACCGG |
| 4533 | CUUCUGUCACUCAAAGAAG | 4578 | AACCUCAUUAGGUCUCAAU | 4623 | UGUGGCUGUGAUCCCCACC | 4668 | GGACGCCCUUAUGACCGGC |
| 4534 | UUCUGUCACUCAAAGAAGA | 4579 | ACCUCAUUAGGUCUCAAUG | 4624 | GUGGCUGUGAUCCCCACCU | 4669 | GACGCCCUUAUGACCGGCU |
| 4535 | UCUGUCACUCAAAGAAGAA | 4580 | CCUCAUUAGGUCUCAAUGC | 4625 | UGGCUGUGAUCCCCACCUC | 4670 | ACGCCCUUAUGACCGGCUA |
| 4536 | CUGUCACUCAAAGAAGAAA | 4581 | CUCAUUAGGUCUCAAUGCU | 4626 | GGCUGUGAUCCCCACCUCA | 4671 | CGCCCUUAUGACCGGCUAC |
| 4537 | UGUCACUCAAAGAAGAAAU | 4582 | UCAUUAGGUCUCAAUGCUG | 4627 | GCUGUGAUCCCCACCUCAG | 4672 | GCCCUUAUGACCGGCUACA |
| 4538 | GUCACUCAAAGAAGAAAUG | 4583 | CAUUAGGUCUCAAUGCUGU | 4628 | CUGUGAUCCCCACCUCAGG | 4673 | CCCUUAUGACCGGCUACAC |
| 4539 | UCACUCAAAGAAGAAAUGC | 4584 | AUUAGGUCUCAAUGCUGUC | 4629 | UGUGAUCCCCACCUCAGGC | 4674 | CCUUAUGACCGGCUACACG |
| 4540 | CACUCAAAGAAGAAAUGCG | 4585 | UUAGGUCUCAAUGCUGUCG | 4630 | GUGAUCCCCACCUCAGGCG | 4675 | CUUAUGACCGGCUACACGG |
| 4541 | ACUCAAAGAAGAAAUGCGA | 4586 | UAGGUCUCAAUGCUGUCGC | 4631 | UGAUCCCCACCUCAGGCGA | 4676 | UUAUGACCGGCUACACGGG |
| 4542 | CUCAAAGAAGAAAUGCGAC | 4587 | AGGUCUCAAUGCUGUCGCA | 4632 | GAUCCCCACCUCAGGCGAC | 4677 | UAUGACCGGCUACACGGGC |
| 4543 | UCAAAGAAGAAAUGCGACG | 4588 | GGUCUCAAUGCUGUCGCAU | 4633 | AUCCCCACCUCAGGCGACG | 4678 | AUGACCGGCUACACGGGCG |
| 4544 | CAAAGAAGAAAUGCGACGA | 4589 | GUCUCAAUGCUGUCGCAUU | 4634 | UCCCCACCUCAGGCGACGU | 4679 | UGACCGGCUACACGGGCGA |
| 4545 | AAAGAAGAAAUGCGACGAA | 4590 | UCUCAAUGCUGUCGCAUUC | 4635 | CCCCACCUCAGGCGACGUC | 4680 | GACCGGCUACACGGGCGAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4681 | ACCGGCUACACGGGCGACU | 4726 | GCCGUGACGCAGGUGGUAG | 4771 | AUAGAGACCACCACAGUCC | 4816 | CGGCGUGGUCGCACGGGAC |
| 4682 | CCGGCUACACGGGCGACUU | 4727 | CCGUGACGCAGGUGGUAGA | 4772 | UAGAGACCACCACAGUCCC | 4817 | GGCGUGGUCGCACGGGACG |
| 4683 | CGGCUACACGGGCGACUUU | 4728 | CGUGACGCAGGUGGUAGAC | 4773 | AGAGACCACCACAGUCCCC | 4818 | GCGUGGUCGCACGGGACGA |
| 4684 | GGCUACACGGGCGACUUUG | 4729 | GUGACGCAGGUGGUAGACU | 4774 | GAGACCACCACAGUCCCCC | 4819 | CGUGGUCGCACGGGACGAG |
| 4685 | GCUACACGGGCGACUUUGA | 4730 | UGACGCAGGUGGUAGACUU | 4775 | AGACCACCACAGUCCCCCA | 4820 | GUGGUCGCACGGGACGAGG |
| 4686 | CUACACGGGCGACUUUGAC | 4731 | GACGCAGGUGGUAGACUUC | 4776 | GACCACCACAGUCCCCCAA | 4821 | UGGUCGCACGGGACGAGGA |
| 4687 | UACACGGGCGACUUUGACU | 4732 | ACGCAGGUGGUAGACUUCA | 4777 | ACCACCACAGUCCCCCAAG | 4822 | GGUCGCACGGGACGAGGAA |
| 4688 | ACACGGGCGACUUUGACUC | 4733 | CGCAGGUGGUAGACUUCAG | 4778 | CCACCACAGUCCCCCAAGA | 4823 | GUCGCACGGGACGAGGAAA |
| 4689 | CACGGGCGACUUUGACUCU | 4734 | GCAGGUGGUAGACUUCAGC | 4779 | CACCACAGUCCCCCAAGAC | 4824 | UCGCACGGGACGAGGAAAG |
| 4690 | ACGGGCGACUUUGACUCUG | 4735 | CAGGUGGUAGACUUCAGCU | 4780 | ACCACAGUCCCCCAAGACG | 4825 | CGCACGGGACGAGGAAAGC |
| 4691 | CGGGCGACUUUGACUCUGU | 4736 | AGGUGGUAGACUUCAGCUU | 4781 | CCACAGUCCCCCAAGACGC | 4826 | GCACGGGACGAGGAAAGCC |
| 4692 | GGGCGACUUUGACUCUGUC | 4737 | GGUGGUAGACUUCAGCUUG | 4782 | CACAGUCCCCCAAGACGCU | 4827 | CACGGGACGAGGAAAGCCG |
| 4693 | GGCGACUUUGACUCUGUCA | 4738 | GUGGUAGACUUCAGCUUGG | 4783 | ACAGUCCCCCAAGACGCUG | 4828 | ACGGGACGAGGAAAGCCGG |
| 4694 | GCGACUUUGACUCUGUCAU | 4739 | UGGUAGACUUCAGCUUGGA | 4784 | CAGUCCCCCAAGACGCUGU | 4829 | CGGGACGAGGAAAGCCGGG |
| 4695 | CGACUUUGACUCUGUCAUU | 4740 | GGUAGACUUCAGCUUGGAC | 4785 | AGUCCCCCAAGACGCUGUC | 4830 | GGGACGAGGAAAGCCGGGG |
| 4696 | GACUUUGACUCUGUCAUUG | 4741 | GUAGACUUCAGCUUGGACC | 4786 | GUCCCCCAAGACGCUGUCU | 4831 | GGACGAGGAAAGCCGGGGG |
| 4697 | ACUUUGACUCUGUCAUUGA | 4742 | UAGACUUCAGCUUGGACCC | 4787 | UCCCCCAAGACGCUGUCUC | 4832 | GACGAGGAAAGCCGGGGGU |
| 4698 | CUUUGACUCUGUCAUUGAU | 4743 | AGACUUCAGCUUGGACCCA | 4788 | CCCCCAAGACGCUGUCUCG | 4833 | ACGAGGAAAGCCGGGGGUG |
| 4699 | UUUGACUCUGUCAUUGAUU | 4744 | GACUUCAGCUUGGACCCAA | 4789 | CCCCAAGACGCUGUCUCGA | 4834 | CGAGGAAAGCCGGGGGUGU |
| 4700 | UUGACUCUGUCAUUGAUUG | 4745 | ACUUCAGCUUGGACCCAAC | 4790 | CCCAAGACGCUGUCUCGAG | 4835 | GAGGAAAGCCGGGGGUGUA |
| 4701 | UGACUCUGUCAUUGAUUGU | 4746 | CUUCAGCUUGGACCCAACU | 4791 | CCAAGACGCUGUCUCGAGA | 4836 | AGGAAAGCCGGGGGUGUAU |
| 4702 | GACUCUGUCAUUGAUUGUA | 4747 | UUCAGCUUGGACCCAACUU | 4792 | CAAGACGCUGUCUCGAGAA | 4837 | GGAAAGCCGGGGGUGUAUA |
| 4703 | ACUCUGUCAUUGAUUGUAA | 4748 | UCAGCUUGGACCCAACUUU | 4793 | AAGACGCUGUCUCGAGAAG | 4838 | GAAAGCCGGGGGUGUAUAG |
| 4704 | CUCUGUCAUUGAUUGUAAC | 4749 | CAGCUUGGACCCAACUUUU | 4794 | AGACGCUGUCUCGAGAAGC | 4839 | AAAGCCGGGGGUGUAUAGG |
| 4705 | UCUGUCAUUGAUUGUAACG | 4750 | AGCUUGGACCCAACUUUUU | 4795 | GACGCUGUCUCGAGAAGCC | 4840 | AAGCCGGGGGUGUAUAGGU |
| 4706 | CUGUCAUUGAUUGUAACGU | 4751 | GCUUGGACCCAACUUUUUC | 4796 | ACGCUGUCUCGAGAAGCCA | 4841 | AGCCGGGGGUGUAUAGGUU |
| 4707 | UGUCAUUGAUUGUAACGUA | 4752 | CUUGGACCCAACUUUUUCC | 4797 | CGCUGUCUCGAGAAGCCAA | 4842 | GCCGGGGGUGUAUAGGUUU |
| 4708 | GUCAUUGAUUGUAACGUAG | 4753 | UUGGACCCAACUUUUUCCA | 4798 | GCUGUCUCGAGAAGCCAAC | 4843 | CCGGGGGUGUAUAGGUUUG |
| 4709 | UCAUUGAUUGUAACGUAGC | 4754 | UGGACCCAACUUUUUCCAU | 4799 | CUGUCUCGAGAAGCCAACG | 4844 | CGGGGGUGUAUAGGUUUGU |
| 4710 | CAUUGAUUGUAACGUAGCC | 4755 | GGACCCAACUUUUUCCAUA | 4800 | UGUCUCGAGAAGCCAACGG | 4845 | GGGGGUGUAUAGGUUUGUC |
| 4711 | AUUGAUUGUAACGUAGCCG | 4756 | GACCCAACUUUUUCCAUAG | 4801 | GUCUCGAGAAGCCAACGGC | 4846 | GGGGUGUAUAGGUUUGUCU |
| 4712 | UUGAUUGUAACGUAGCCGU | 4757 | ACCCAACUUUUUCCAUAGA | 4802 | UCUCGAGAAGCCAACGGCG | 4847 | GGGUGUAUAGGUUUGUCUC |
| 4713 | UGAUUGUAACGUAGCCGUG | 4758 | CCCAACUUUUUCCAUAGAG | 4803 | CUCGAGAAGCCAACGGCGU | 4848 | GGUGUAUAGGUUUGUCUCG |
| 4714 | GAUUGUAACGUAGCCGUGA | 4759 | CCAACUUUUUCCAUAGAGA | 4804 | UCGAGAAGCCAACGGCGUG | 4849 | GUGUAUAGGUUUGUCUCGC |
| 4715 | AUUGUAACGUAGCCGUGAC | 4760 | CAACUUUUUCCAUAGAGAC | 4805 | CGAGAAGCCAACGGCGUGG | 4850 | UGUAUAGGUUUGUCUCGCA |
| 4716 | UUGUAACGUAGCCGUGACG | 4761 | AACUUUUUCCAUAGAGACC | 4806 | GAGAAGCCAACGGCGUGGU | 4851 | GUAUAGGUUUGUCUCGCAG |
| 4717 | UGUAACGUAGCCGUGACGC | 4762 | ACUUUUUCCAUAGAGACCA | 4807 | AGAAGCCAACGGCGUGGUC | 4852 | UAUAGGUUUGUCUCGCAGG |
| 4718 | GUAACGUAGCCGUGACGCA | 4763 | CUUUUUCCAUAGAGACCAC | 4808 | GAAGCCAACGGCGUGGUCG | 4853 | AUAGGUUUGUCUCGCAGGG |
| 4719 | UAACGUAGCCGUGACGCAG | 4764 | UUUUUCCAUAGAGACCACC | 4809 | AAGCCAACGGCGUGGUCGC | 4854 | UAGGUUUGUCUCGCAGGGG |
| 4720 | AACGUAGCCGUGACGCAGG | 4765 | UUUUCCAUAGAGACCACCA | 4810 | AGCCAACGGCGUGGUCGCA | 4855 | AGGUUUGUCUCGCAGGGGG |
| 4721 | ACGUAGCCGUGACGCAGGU | 4766 | UUUCCAUAGAGACCACCAC | 4811 | GCCAACGGCGUGGUCGCAC | 4856 | GGUUUGUCUCGCAGGGGGA |
| 4722 | CGUAGCCGUGACGCAGGUG | 4767 | UUCCAUAGAGACCACCACA | 4812 | CCAACGGCGUGGUCGCACG | 4857 | GUUUGUCUCGCAGGGGGAA |
| 4723 | GUAGCCGUGACGCAGGUGG | 4768 | UCCAUAGAGACCACCACAG | 4813 | CAACGGCGUGGUCGCACGG | 4858 | UUUGUCUCGCAGGGGGAAA |
| 4724 | UAGCCGUGACGCAGGUGGU | 4769 | CCAUAGAGACCACCACAGU | 4814 | AACGGCGUGGUCGCACGGG | 4859 | UUGUCUCGCAGGGGGAAAG |
| 4725 | AGCCGUGACGCAGGUGGUA | 4770 | CAUAGAGACCACCACAGUC | 4815 | ACGGCGUGGUCGCACGGGA | 4860 | UGUCUCGCAGGGGGAAAGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4861 | GUCUCGCAGGGGGAAAGAC | 4906 | CUCUGUGAAGCUUAUGACA | 4951 | CCUGCAGAGACAACGGUUA | 4996 | GGGUUGCCCGUCUGCCAAG |
| 4862 | UCUCGCAGGGGGAAAGACC | 4907 | UCUGUGAAGCUUAUGACAC | 4952 | CUGCAGAGACAACGGUUAG | 4997 | GGUUGCCCGUCUGCCAAGA |
| 4863 | CUCGCAGGGGGAAAGACCU | 4908 | CUGUGAAGCUUAUGACACG | 4953 | UGCAGAGACAACGGUUAGA | 4998 | GUUGCCCGUCUGCCAAGAC |
| 4864 | UCGCAGGGGGAAAGACCUU | 4909 | UGUGAAGCUUAUGACACGG | 4954 | GCAGAGACAACGGUUAGAC | 4999 | UUGCCCGUCUGCCAAGACC |
| 4865 | CGCAGGGGGAAAGACCUUC | 4910 | GUGAAGCUUAUGACACGGG | 4955 | CAGAGACAACGGUUAGACU | 5000 | UGCCCGUCUGCCAAGACCA |
| 4866 | GCAGGGGGAAAGACCUUCA | 4911 | UGAAGCUUAUGACACGGGG | 4956 | AGAGACAACGGUUAGACUA | 5001 | GCCCGUCUGCCAAGACCAC |
| 4867 | CAGGGGGAAAGACCUUCAG | 4912 | GAAGCUUAUGACACGGGGU | 4957 | GAGACAACGGUUAGACUAC | 5002 | CCCGUCUGCCAAGACCACC |
| 4868 | AGGGGGAAAGACCUUCAGG | 4913 | AAGCUUAUGACACGGGGUG | 4958 | AGACAACGGUUAGACUACG | 5003 | CCGUCUGCCAAGACCACCU |
| 4869 | GGGGGAAAGACCUUCAGGU | 4914 | AGCUUAUGACACGGGGUGC | 4959 | GACAACGGUUAGACUACGU | 5004 | CGUCUGCCAAGACCACCUG |
| 4870 | GGGGAAAGACCUUCAGGUA | 4915 | GCUUAUGACACGGGGUGCG | 4960 | ACAACGGUUAGACUACGUG | 5005 | GUCUGCCAAGACCACCUGG |
| 4871 | GGGAAAGACCUUCAGGUAU | 4916 | CUUAUGACACGGGGUGCGC | 4961 | CAACGGUUAGACUACGUGC | 5006 | UCUGCCAAGACCACCUGGA |
| 4872 | GGAAAGACCUUCAGGUAUG | 4917 | UUAUGACACGGGGUGCGCA | 4962 | AACGGUUAGACUACGUGCC | 5007 | CUGCCAAGACCACCUGGAG |
| 4873 | GAAAGACCUUCAGGUAUGU | 4918 | UAUGACACGGGGUGCGCAU | 4963 | ACGGUUAGACUACGUGCCU | 5008 | UGCCAAGACCACCUGGAGU |
| 4874 | AAAGACCUUCAGGUAUGUU | 4919 | AUGACACGGGGUGCGCAUG | 4964 | CGGUUAGACUACGUGCCUA | 5009 | GCCAAGACCACCUGGAGUU |
| 4875 | AAGACCUUCAGGUAUGUUU | 4920 | UGACACGGGGUGCGCAUGG | 4965 | GGUUAGACUACGUGCCUAC | 5010 | CCAAGACCACCUGGAGUUU |
| 4876 | AGACCUUCAGGUAUGUUUG | 4921 | GACACGGGGUGCGCAUGGU | 4966 | GUUAGACUACGUGCCUACC | 5011 | CAAGACCACCUGGAGUUUU |
| 4877 | GACCUUCAGGUAUGUUUGA | 4922 | ACACGGGGUGCGCAUGGUA | 4967 | UUAGACUACGUGCCUACCU | 5012 | AAGACCACCUGGAGUUUUG |
| 4878 | ACCUUCAGGUAUGUUUGAU | 4923 | CACGGGGUGCGCAUGGUAU | 4968 | UAGACUACGUGCCUACCUA | 5013 | AGACCACCUGGAGUUUUGG |
| 4879 | CCUUCAGGUAUGUUUGAUA | 4924 | ACGGGGUGCGCAUGGUAUG | 4969 | AGACUACGUGCCUACCUAA | 5014 | GACCACCUGGAGUUUUGGG |
| 4880 | CUUCAGGUAUGUUUGAUAG | 4925 | CGGGGUGCGCAUGGUAUGA | 4970 | GACUACGUGCCUACCUAAA | 5015 | ACCACCUGGAGUUUUGGGA |
| 4881 | UUCAGGUAUGUUUGAUAGC | 4926 | GGGGUGCGCAUGGUAUGAG | 4971 | ACUACGUGCCUACCUAAAC | 5016 | CCACCUGGAGUUUUGGGAG |
| 4882 | UCAGGUAUGUUUGAUAGCG | 4927 | GGGUGCGCAUGGUAUGAGC | 4972 | CUACGUGCCUACCUAAACA | 5017 | CACCUGGAGUUUUGGGAGG |
| 4883 | CAGGUAUGUUUGAUAGCGU | 4928 | GGUGCGCAUGGUAUGAGCU | 4973 | UACGUGCCUACCUAAACAC | 5018 | ACCUGGAGUUUUGGGAGGG |
| 4884 | AGGUAUGUUUGAUAGCGUC | 4929 | GUGCGCAUGGUAUGAGCUA | 4974 | ACGUGCCUACCUAAACACU | 5019 | CCUGGAGUUUUGGGAGGGG |
| 4885 | GGUAUGUUUGAUAGCGUCG | 4930 | UGCGCAUGGUAUGAGCUAA | 4975 | CGUGCCUACCUAAACACUC | 5020 | CUGGAGUUUUGGGAGGGGG |
| 4886 | GUAUGUUUGAUAGCGUCGU | 4931 | GCGCAUGGUAUGAGCUAAC | 4976 | GUGCCUACCUAAACACUCC | 5021 | UGGAGUUUUGGGAGGGGGU |
| 4887 | UAUGUUUGAUAGCGUCGUG | 4932 | CGCAUGGUAUGAGCUAACU | 4977 | UGCCUACCUAAACACUCCC | 5022 | GGAGUUUUGGGAGGGGGUA |
| 4888 | AUGUUUGAUAGCGUCGUGC | 4933 | GCAUGGUAUGAGCUAACUC | 4978 | GCCUACCUAAACACUCCCG | 5023 | GAGUUUUGGGAGGGGGUAU |
| 4889 | UGUUUGAUAGCGUCGUGCU | 4934 | CAUGGUAUGAGCUAACUCC | 4979 | CCUACCUAAACACUCCCGG | 5024 | AGUUUUGGGAGGGGGUAUU |
| 4890 | GUUUGAUAGCGUCGUGCUC | 4935 | AUGGUAUGAGCUAACUCCU | 4980 | CUACCUAAACACUCCCGGG | 5025 | GUUUUGGGAGGGGGUAUUC |
| 4891 | UUUGAUAGCGUCGUGCUCU | 4936 | UGGUAUGAGCUAACUCCUG | 4981 | UACCUAAACACUCCCGGGU | 5026 | UUUUGGGAGGGGGUAUUCA |
| 4892 | UUGAUAGCGUCGUGCUCUG | 4937 | GGUAUGAGCUAACUCCUGC | 4982 | ACCUAAACACUCCCGGGUU | 5027 | UUUGGGAGGGGGUAUUCAC |
| 4893 | UGAUAGCGUCGUGCUCUGU | 4938 | GUAUGAGCUAACUCCUGCA | 4983 | CCUAAACACUCCCGGGUUG | 5028 | UUGGGAGGGGGUAUUCACA |
| 4894 | GAUAGCGUCGUGCUCUGUG | 4939 | UAUGAGCUAACUCCUGCAG | 4984 | CUAAACACUCCCGGGUUGC | 5029 | UGGGAGGGGGUAUUCACAG |
| 4895 | AUAGCGUCGUGCUCUGUGA | 4940 | AUGAGCUAACUCCUGCAGA | 4985 | UAAACACUCCCGGGUUGCC | 5030 | GGGAGGGGGUAUUCACAGG |
| 4896 | UAGCGUCGUGCUCUGUGAA | 4941 | UGAGCUAACUCCUGCAGAG | 4986 | AAACACUCCCGGGUUGCCC | 5031 | GGAGGGGGUAUUCACAGGA |
| 4897 | AGCGUCGUGCUCUGUGAAG | 4942 | GAGCUAACUCCUGCAGAGA | 4987 | AACACUCCCGGGUUGCCCG | 5032 | GAGGGGGUAUUCACAGGAU |
| 4898 | GCGUCGUGCUCUGUGAAGC | 4943 | AGCUAACUCCUGCAGAGAC | 4988 | ACACUCCCGGGUUGCCCGU | 5033 | AGGGGGUAUUCACAGGAUU |
| 4899 | CGUCGUGCUCUGUGAAGCU | 4944 | GCUAACUCCUGCAGAGACA | 4989 | CACUCCCGGGUUGCCCGUC | 5034 | GGGGGUAUUCACAGGAUUG |
| 4900 | GUCGUGCUCUGUGAAGCUU | 4945 | CUAACUCCUGCAGAGACAA | 4990 | ACUCCCGGGUUGCCCGUCU | 5035 | GGGGUAUUCACAGGAUUGA |
| 4901 | UCGUGCUCUGUGAAGCUUA | 4946 | UAACUCCUGCAGAGACAAC | 4991 | CUCCCGGGUUGCCCGUCUG | 5036 | GGGUAUUCACAGGAUUGAC |
| 4902 | CGUGCUCUGUGAAGCUUAU | 4947 | AACUCCUGCAGAGACAACG | 4992 | UCCCGGGUUGCCCGUCUGC | 5037 | GGUAUUCACAGGAUUGACU |
| 4903 | GUGCUCUGUGAAGCUUAUG | 4948 | ACUCCUGCAGAGACAACGG | 4993 | CCCGGGUUGCCCGUCUGCC | 5038 | GUAUUCACAGGAUUGACUC |
| 4904 | UGCUCUGUGAAGCUUAUGA | 4949 | CUCCUGCAGAGACAACGGU | 4994 | CCGGGUUGCCCGUCUGCCA | 5039 | UAUUCACAGGAUUGACUCA |
| 4905 | GCUCUGUGAAGCUUAUGAC | 4950 | UCCUGCAGAGACAACGGUU | 4995 | CGGGUUGCCCGUCUGCCAA | 5040 | AUUCACAGGAUUGACUCAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5041 | UUCACAGGAUUGACUCACA | 5086 | AAGCAGGGGGGCGAGAACU | 5131 | ACGGUGUGUGCCAGAGCCA | 5176 | AUGUGGAAAUGUCUCACCA |
| 5042 | UCACAGGAUUGACUCACAU | 5087 | AGCAGGGGGGCGAGAACUU | 5132 | CGGUGUGUGCCAGAGCCAA | 5177 | UGUGGAAAUGUCUCACCAG |
| 5043 | CACAGGAUUGACUCACAUA | 5088 | GCAGGGGGGCGAGAACUUU | 5133 | GGUGUGUGCCAGAGCCAAA | 5178 | GUGGAAAUGUCUCACCAGA |
| 5044 | ACAGGAUUGACUCACAUAG | 5089 | CAGGGGGGCGAGAACUUUG | 5134 | GUGUGUGCCAGAGCCAAAG | 5179 | UGGAAAUGUCUCACCAGAC |
| 5045 | CAGGAUUGACUCACAUAGA | 5090 | AGGGGGGCGAGAACUUUGC | 5135 | UGUGUGCCAGAGCCAAAGC | 5180 | GGAAAUGUCUCACCAGACU |
| 5046 | AGGAUUGACUCACAUAGAU | 5091 | GGGGGGCGAGAACUUUGCC | 5136 | GUGUGCCAGAGCCAAAGCC | 5181 | GAAAUGUCUCACCAGACUU |
| 5047 | GGAUUGACUCACAUAGAUG | 5092 | GGGGGCGAGAACUUUGCCU | 5137 | UGUGCCAGAGCCAAAGCCC | 5182 | AAAUGUCUCACCAGACUUA |
| 5048 | GAUUGACUCACAUAGAUGC | 5093 | GGGGCGAGAACUUUGCCUA | 5138 | GUGCCAGAGCCAAAGCCCC | 5183 | AAUGUCUCACCAGACUUAA |
| 5049 | AUUGACUCACAUAGAUGCC | 5094 | GGGCGAGAACUUUGCCUAC | 5139 | UGCCAGAGCCAAAGCCCCC | 5184 | AUGUCUCACCAGACUUAAG |
| 5050 | UUGACUCACAUAGAUGCCC | 5095 | GGCGAGAACUUUGCCUACC | 5140 | GCCAGAGCCAAAGCCCCCC | 5185 | UGUCUCACCAGACUUAAGC |
| 5051 | UGACUCACAUAGAUGCCCA | 5096 | GCGAGAACUUUGCCUACCU | 5141 | CCAGAGCCAAAGCCCCCCC | 5186 | GUCUCACCAGACUUAAGCC |
| 5052 | GACUCACAUAGAUGCCCAC | 5097 | CGAGAACUUUGCCUACCUC | 5142 | CAGAGCCAAAGCCCCCCCG | 5187 | UCUCACCAGACUUAAGCCG |
| 5053 | ACUCACAUAGAUGCCCACU | 5098 | GAGAACUUUGCCUACCUCG | 5143 | AGAGCCAAAGCCCCCCCGC | 5188 | CUCACCAGACUUAAGCCGA |
| 5054 | CUCACAUAGAUGCCCACUU | 5099 | AGAACUUUGCCUACCUCGU | 5144 | GAGCCAAAGCCCCCCCGCC | 5189 | UCACCAGACUUAAGCCGAC |
| 5055 | UCACAUAGAUGCCCACUUC | 5100 | GAACUUUGCCUACCUCGUG | 5145 | AGCCAAAGCCCCCCCGCCG | 5190 | CACCAGACUUAAGCCGACC |
| 5056 | CACAUAGAUGCCCACUUCU | 5101 | AACUUUGCCUACCUCGUGG | 5146 | GCCAAAGCCCCCCCGCCGU | 5191 | ACCAGACUUAAGCCGACCC |
| 5057 | ACAUAGAUGCCCACUUCUU | 5102 | ACUUUGCCUACCUCGUGGC | 5147 | CCAAAGCCCCCCCGCCGUC | 5192 | CCAGACUUAAGCCGACCCU |
| 5058 | CAUAGAUGCCCACUUCUUG | 5103 | CUUUGCCUACCUCGUGGCC | 5148 | CAAAGCCCCCCCGCCGUCA | 5193 | CAGACUUAAGCCGACCCUC |
| 5059 | AUAGAUGCCCACUUCUUGU | 5104 | UUUGCCUACCUCGUGGCCU | 5149 | AAAGCCCCCCCGCCGUCAU | 5194 | AGACUUAAGCCGACCCUCA |
| 5060 | UAGAUGCCCACUUCUUGUC | 5105 | UUGCCUACCUCGUGGCCUA | 5150 | AAGCCCCCCCGCCGUCAUG | 5195 | GACUUAAGCCGACCCUCAC |
| 5061 | AGAUGCCCACUUCUUGUCC | 5106 | UGCCUACCUCGUGGCCUAU | 5151 | AGCCCCCCCGCCGUCAUGG | 5196 | ACUUAAGCCGACCCUCACA |
| 5062 | GAUGCCCACUUCUUGUCCC | 5107 | GCCUACCUCGUGGCCUAUC | 5152 | GCCCCCCCGCCGUCAUGGG | 5197 | CUUAAGCCGACCCUCACAG |
| 5063 | AUGCCCACUUCUUGUCCCA | 5108 | CCUACCUCGUGGCCUAUCA | 5153 | CCCCCCCGCCGUCAUGGGA | 5198 | UUAAGCCGACCCUCACAGG |
| 5064 | UGCCCACUUCUUGUCCCAG | 5109 | CUACCUCGUGGCCUAUCAG | 5154 | CCCCCCGCCGUCAUGGGAC | 5199 | UAAGCCGACCCUCACAGGU |
| 5065 | GCCCACUUCUUGUCCCAGA | 5110 | UACCUCGUGGCCUAUCAGG | 5155 | CCCCCGCCGUCAUGGGACG | 5200 | AAGCCGACCCUCACAGGUC |
| 5066 | CCCACUUCUUGUCCCAGAC | 5111 | ACCUCGUGGCCUAUCAGGC | 5156 | CCCCGCCGUCAUGGGACGU | 5201 | AGCCGACCCUCACAGGUCC |
| 5067 | CCACUUCUUGUCCCAGACG | 5112 | CCUCGUGGCCUAUCAGGCC | 5157 | CCCGCCGUCAUGGGACGUG | 5202 | GCCGACCCUCACAGGUCCU |
| 5068 | CACUUCUUGUCCCAGACGA | 5113 | CUCGUGGCCUAUCAGGCCA | 5158 | CCGCCGUCAUGGGACGUGA | 5203 | CCGACCCUCACAGGUCCUA |
| 5069 | ACUUCUUGUCCCAGACGAA | 5114 | UCGUGGCCUAUCAGGCCAC | 5159 | CGCCGUCAUGGGACGUGAU | 5204 | CGACCCUCACAGGUCCUAC |
| 5070 | CUUCUUGUCCCAGACGAAG | 5115 | CGUGGCCUAUCAGGCCACG | 5160 | GCCGUCAUGGGACGUGAUG | 5205 | GACCCUCACAGGUCCUACC |
| 5071 | UUCUUGUCCCAGACGAAGC | 5116 | GUGGCCUAUCAGGCCACGG | 5161 | CCGUCAUGGGACGUGAUGU | 5206 | ACCCUCACAGGUCCUACCC |
| 5072 | UCUUGUCCCAGACGAAGCA | 5117 | UGGCCUAUCAGGCCACGGU | 5162 | CGUCAUGGGACGUGAUGUG | 5207 | CCCUCACAGGUCCUACCCC |
| 5073 | CUUGUCCCAGACGAAGCAG | 5118 | GGCCUAUCAGGCCACGGUG | 5163 | GUCAUGGGACGUGAUGUGG | 5208 | CCUCACAGGUCCUACCCCC |
| 5074 | UUGUCCCAGACGAAGCAGG | 5119 | GCCUAUCAGGCCACGGUGU | 5164 | UCAUGGGACGUGAUGUGGA | 5209 | CUCACAGGUCCUACCCCCC |
| 5075 | UGUCCCAGACGAAGCAGGG | 5120 | CCUAUCAGGCCACGGUGUG | 5165 | CAUGGGACGUGAUGUGGAA | 5210 | UCACAGGUCCUACCCCCCU |
| 5076 | GUCCCAGACGAAGCAGGGG | 5121 | CUAUCAGGCCACGGUGUGU | 5166 | AUGGGACGUGAUGUGGAAA | 5211 | CACAGGUCCUACCCCCCUC |
| 5077 | UCCCAGACGAAGCAGGGGG | 5122 | UAUCAGGCCACGGUGUGUG | 5167 | UGGGACGUGAUGUGGAAAU | 5212 | ACAGGUCCUACCCCCCUCC |
| 5078 | CCCAGACGAAGCAGGGGGG | 5123 | AUCAGGCCACGGUGUGUGC | 5168 | GGGACGUGAUGUGGAAAUG | 5213 | CAGGUCCUACCCCCCUCCU |
| 5079 | CCAGACGAAGCAGGGGGGC | 5124 | UCAGGCCACGGUGUGUGCC | 5169 | GGACGUGAUGUGGAAAUGU | 5214 | AGGUCCUACCCCCCUCCUA |
| 5080 | CAGACGAAGCAGGGGGGCG | 5125 | CAGGCCACGGUGUGUGCCA | 5170 | GACGUGAUGUGGAAAUGUC | 5215 | GGUCCUACCCCCCUCCUAU |
| 5081 | AGACGAAGCAGGGGGGCGA | 5126 | AGGCCACGGUGUGUGCCAG | 5171 | ACGUGAUGUGGAAAUGUCU | 5216 | GUCCUACCCCCCUCCUAUA |
| 5082 | GACGAAGCAGGGGGGCGAG | 5127 | GGCCACGGUGUGUGCCAGA | 5172 | CGUGAUGUGGAAAUGUCUC | 5217 | UCCUACCCCCCUCCUAUAU |
| 5083 | ACGAAGCAGGGGGGCGAGA | 5128 | GCCACGGUGUGUGCCAGAG | 5173 | GUGAUGUGGAAAUGUCUCA | 5218 | CCUACCCCCCUCCUAUAUC |
| 5084 | CGAAGCAGGGGGGCGAGAA | 5129 | CCACGGUGUGUGCCAGAGC | 5174 | UGAUGUGGAAAUGUCUCAC | 5219 | CUACCCCCCUCCUAUAUCG |
| 5085 | GAAGCAGGGGGGCGAGAAC | 5130 | CACGGUGUGUGCCAGAGCC | 5175 | GAUGUGGAAAUGUCUCACC | 5220 | UACCCCCCUCCUAUAUCGU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5221 | ACCCCCCUCCUAUAUCGUC | 5266 | ACAACACAUCCAAUCACAA | 5311 | GACCUGGAAGUCAUCACAA | 5356 | CUUGCCGCAUUAGCAGCCU |
| 5222 | CCCCCCUCCUAUAUCGUCU | 5267 | CAACACAUCCAAUCACAAA | 5312 | ACCUGGAAGUCAUCACAAG | 5357 | UUGCCGCAUUAGCAGCCUA |
| 5223 | CCCCCUCCUAUAUCGUCUG | 5268 | AACACAUCCAAUCACAAAG | 5313 | CCUGGAAGUCAUCACAAGU | 5358 | UGCCGCAUUAGCAGCCUAC |
| 5224 | CCCCUCCUAUAUCGUCUGG | 5269 | ACACAUCCAAUCACAAAGU | 5314 | CUGGAAGUCAUCACAAGUA | 5359 | GCCGCAUUAGCAGCCUACU |
| 5225 | CCCUCCUAUAUCGUCUGGG | 5270 | CACAUCCAAUCACAAAGUA | 5315 | UGGAAGUCAUCACAAGUAC | 5360 | CCGCAUUAGCAGCCUACUG |
| 5226 | CCUCCUAUAUCGUCUGGGG | 5271 | ACAUCCAAUCACAAAGUAC | 5316 | GGAAGUCAUCACAAGUACG | 5361 | CGCAUUAGCAGCCUACUGU |
| 5227 | CUCCUAUAUCGUCUGGGGG | 5272 | CAUCCAAUCACAAAGUACA | 5317 | GAAGUCAUCACAAGUACGU | 5362 | GCAUUAGCAGCCUACUGUU |
| 5228 | UCCUAUAUCGUCUGGGGGC | 5273 | AUCCAAUCACAAAGUACAU | 5318 | AAGUCAUCACAAGUACGUG | 5363 | CAUUAGCAGCCUACUGUUU |
| 5229 | CCUAUAUCGUCUGGGGGCU | 5274 | UCCAAUCACAAAGUACAUC | 5319 | AGUCAUCACAAGUACGUGG | 5364 | AUUAGCAGCCUACUGUUUG |
| 5230 | CUAUAUCGUCUGGGGGCUG | 5275 | CCAAUCACAAAGUACAUCA | 5320 | GUCAUCACAAGUACGUGGG | 5365 | UUAGCAGCCUACUGUUUGA |
| 5231 | UAUAUCGUCUGGGGGCUGU | 5276 | CAAUCACAAAGUACAUCAU | 5321 | UCAUCACAAGUACGUGGGU | 5366 | UAGCAGCCUACUGUUUGAC |
| 5232 | AUAUCGUCUGGGGGCUGUC | 5277 | AAUCACAAAGUACAUCAUG | 5322 | CAUCACAAGUACGUGGGUA | 5367 | AGCAGCCUACUGUUUGACA |
| 5233 | UAUCGUCUGGGGGCUGUCC | 5278 | AUCACAAAGUACAUCAUGA | 5323 | AUCACAAGUACGUGGGUAA | 5368 | GCAGCCUACUGUUUGACAG |
| 5234 | AUCGUCUGGGGGCUGUCCA | 5279 | UCACAAAGUACAUCAUGAC | 5324 | UCACAAGUACGUGGGUAAU | 5369 | CAGCCUACUGUUUGACAGU |
| 5235 | UCGUCUGGGGGCUGUCCAA | 5280 | CACAAAGUACAUCAUGACC | 5325 | CACAAGUACGUGGGUAAUC | 5370 | AGCCUACUGUUUGACAGUG |
| 5236 | CGUCUGGGGGCUGUCCAAA | 5281 | ACAAAGUACAUCAUGACCU | 5326 | ACAAGUACGUGGGUAAUCG | 5371 | GCCUACUGUUUGACAGUGG |
| 5237 | GUCUGGGGGCUGUCCAAAA | 5282 | CAAAGUACAUCAUGACCUG | 5327 | CAAGUACGUGGGUAAUCGU | 5372 | CCUACUGUUUGACAGUGGG |
| 5238 | UCUGGGGGCUGUCCAAAAU | 5283 | AAAGUACAUCAUGACCUGC | 5328 | AAGUACGUGGGUAAUCGUA | 5373 | CUACUGUUUGACAGUGGGC |
| 5239 | CUGGGGGCUGUCCAAAAUG | 5284 | AAGUACAUCAUGACCUGCA | 5329 | AGUACGUGGGUAAUCGUAG | 5374 | UACUGUUUGACAGUGGGCU |
| 5240 | UGGGGGCUGUCCAAAAUGA | 5285 | AGUACAUCAUGACCUGCAU | 5330 | GUACGUGGGUAAUCGUAGG | 5375 | ACUGUUUGACAGUGGGCUG |
| 5241 | GGGGGCUGUCCAAAAUGAG | 5286 | GUACAUCAUGACCUGCAUG | 5331 | UACGUGGGUAAUCGUAGGU | 5376 | CUGUUUGACAGUGGGCUGU |
| 5242 | GGGGCUGUCCAAAAUGAGA | 5287 | UACAUCAUGACCUGCAUGU | 5332 | ACGUGGGUAAUCGUAGGUG | 5377 | UGUUUGACAGUGGGCUGUG |
| 5243 | GGGCUGUCCAAAAUGAGAU | 5288 | ACAUCAUGACCUGCAUGUC | 5333 | CGUGGGUAAUCGUAGGUGG | 5378 | GUUUGACAGUGGGCUGUGU |
| 5244 | GGCUGUCCAAAAUGAGAUA | 5289 | CAUCAUGACCUGCAUGUCU | 5334 | GUGGGUAAUCGUAGGUGGA | 5379 | UUUGACAGUGGGCUGUGUU |
| 5245 | GCUGUCCAAAAUGAGAUAG | 5290 | AUCAUGACCUGCAUGUCUG | 5335 | UGGGUAAUCGUAGGUGGAG | 5380 | UUGACAGUGGGCUGUGUUG |
| 5246 | CUGUCCAAAAUGAGAUAGU | 5291 | UCAUGACCUGCAUGUCUGC | 5336 | GGGUAAUCGUAGGUGGAGU | 5381 | UGACAGUGGGCUGUGUUGU |
| 5247 | UGUCCAAAAUGAGAUAGUA | 5292 | CAUGACCUGCAUGUCUGCA | 5337 | GGUAAUCGUAGGUGGAGUC | 5382 | GACAGUGGGCUGUGUUGUC |
| 5248 | GUCCAAAAUGAGAUAGUAA | 5293 | AUGACCUGCAUGUCUGCAG | 5338 | GUAAUCGUAGGUGGAGUCC | 5383 | ACAGUGGGCUGUGUUGUCA |
| 5249 | UCCAAAAUGAGAUAGUAAC | 5294 | UGACCUGCAUGUCUGCAGA | 5339 | UAAUCGUAGGUGGAGUCCU | 5384 | CAGUGGGCUGUGUUGUCAU |
| 5250 | CCAAAAUGAGAUAGUAACA | 5295 | GACCUGCAUGUCUGCAGAC | 5340 | AAUCGUAGGUGGAGUCCUU | 5385 | AGUGGGCUGUGUUGUCAUC |
| 5251 | CAAAAUGAGAUAGUAACAA | 5296 | ACCUGCAUGUCUGCAGACC | 5341 | AUCGUAGGUGGAGUCCUUG | 5386 | GUGGGCUGUGUUGUCAUCU |
| 5252 | AAAAUGAGAUAGUAACAAC | 5297 | CCUGCAUGUCUGCAGACCU | 5342 | UCGUAGGUGGAGUCCUUGC | 5387 | UGGGCUGUGUUGUCAUCUG |
| 5253 | AAAUGAGAUAGUAACAACA | 5298 | CUGCAUGUCUGCAGACCUG | 5343 | CGUAGGUGGAGUCCUUGCC | 5388 | GGGCUGUGUUGUCAUCUGU |
| 5254 | AAUGAGAUAGUAACAACAC | 5299 | UGCAUGUCUGCAGACCUGG | 5344 | GUAGGUGGAGUCCUUGCCG | 5389 | GGCUGUGUUGUCAUCUGUG |
| 5255 | AUGAGAUAGUAACAACACA | 5300 | GCAUGUCUGCAGACCUGGA | 5345 | UAGGUGGAGUCCUUGCCGC | 5390 | GCUGUGUUGUCAUCUGUGG |
| 5256 | UGAGAUAGUAACAACACAU | 5301 | CAUGUCUGCAGACCUGGAA | 5346 | AGGUGGAGUCCUUGCCGCA | 5391 | CUGUGUUGUCAUCUGUGGC |
| 5257 | GAGAUAGUAACAACACAUC | 5302 | AUGUCUGCAGACCUGGAAG | 5347 | GGUGGAGUCCUUGCCGCAU | 5392 | UGUGUUGUCAUCUGUGGCA |
| 5258 | AGAUAGUAACAACACAUCC | 5303 | UGUCUGCAGACCUGGAAGU | 5348 | GUGGAGUCCUUGCCGCAUU | 5393 | GUGUUGUCAUCUGUGGCAG |
| 5259 | GAUAGUAACAACACAUCCA | 5304 | GUCUGCAGACCUGGAAGUC | 5349 | UGGAGUCCUUGCCGCAUUA | 5394 | UGUUGUCAUCUGUGGCAGG |
| 5260 | AUAGUAACAACACAUCCAA | 5305 | UCUGCAGACCUGGAAGUCA | 5350 | GGAGUCCUUGCCGCAUUAG | 5395 | GUUGUCAUCUGUGGCAGGA |
| 5261 | UAGUAACAACACAUCCAAU | 5306 | CUGCAGACCUGGAAGUCAU | 5351 | GAGUCCUUGCCGCAUUAGC | 5396 | UUGUCAUCUGUGGCAGGAU |
| 5262 | AGUAACAACACAUCCAAUC | 5307 | UGCAGACCUGGAAGUCAUC | 5352 | AGUCCUUGCCGCAUUAGCA | 5397 | UGUCAUCUGUGGCAGGAUC |
| 5263 | GUAACAACACAUCCAAUCA | 5308 | GCAGACCUGGAAGUCAUCA | 5353 | GUCCUUGCCGCAUUAGCAG | 5398 | GUCAUCUGUGGCAGGAUCG |
| 5264 | UAACAACACAUCCAAUCAC | 5309 | CAGACCUGGAAGUCAUCAC | 5354 | UCCUUGCCGCAUUAGCAGC | 5399 | UCAUCUGUGGCAGGAUCGU |
| 5265 | AACAACACAUCCAAUCACA | 5310 | AGACCUGGAAGUCAUCACA | 5355 | CCUUGCCGCAUUAGCAGCC | 5400 | CAUCUGUGGCAGGAUCGUG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5401 | AUCUGUGGCAGGAUCGUGA | 5446 | GAUCGGGAGGUCCUGUACC | 5491 | UCUAAGCACAUCCCCUACC | 5536 | CAGUUCAAGCAAAAGGUCC |
| 5402 | UCUGUGGCAGGAUCGUGAC | 5447 | AUCGGGAGGUCCUGUACCA | 5492 | CUAAGCACAUCCCCUACCU | 5537 | AGUUCAAGCAAAAGGUCCU |
| 5403 | CUGUGGCAGGAUCGUGACA | 5448 | UCGGGAGGUCCUGUACCAG | 5493 | UAAGCACAUCCCCUACCUA | 5538 | GUUCAAGCAAAAGGUCCUU |
| 5404 | UGUGGCAGGAUCGUGACAA | 5449 | CGGGAGGUCCUGUACCAGC | 5494 | AAGCACAUCCCCUACCUAG | 5539 | UUCAAGCAAAAGGUCCUUG |
| 5405 | GUGGCAGGAUCGUGACAAG | 5450 | GGGAGGUCCUGUACCAGCA | 5495 | AGCACAUCCCCUACCUAGU | 5540 | UCAAGCAAAAGGUCCUUGG |
| 5406 | UGGCAGGAUCGUGACAAGC | 5451 | GGAGGUCCUGUACCAGCAG | 5496 | GCACAUCCCCUACCUAGUU | 5541 | CAAGCAAAAGGUCCUUGGG |
| 5407 | GGCAGGAUCGUGACAAGCG | 5452 | GAGGUCCUGUACCAGCAGU | 5497 | CACAUCCCCUACCUAGUUG | 5542 | AAGCAAAAGGUCCUUGGGC |
| 5408 | GCAGGAUCGUGACAAGCGG | 5453 | AGGUCCUGUACCAGCAGUU | 5498 | ACAUCCCCUACCUAGUUGA | 5543 | AGCAAAAGGUCCUUGGGCU |
| 5409 | CAGGAUCGUGACAAGCGGC | 5454 | GGUCCUGUACCAGCAGUUU | 5499 | CAUCCCCUACCUAGUUGAG | 5544 | GCAAAAGGUCCUUGGGCUG |
| 5410 | AGGAUCGUGACAAGCGGCA | 5455 | GUCCUGUACCAGCAGUUUG | 5500 | AUCCCCUACCUAGUUGAGG | 5545 | CAAAAGGUCCUUGGGCUGC |
| 5411 | GGAUCGUGACAAGCGGCAA | 5456 | UCCUGUACCAGCAGUUUGA | 5501 | UCCCCUACCUAGUUGAGGG | 5546 | AAAAGGUCCUUGGGCUGCU |
| 5412 | GAUCGUGACAAGCGGCAAG | 5457 | CCUGUACCAGCAGUUUGAU | 5502 | CCCCUACCUAGUUGAGGGU | 5547 | AAAGGUCCUUGGGCUGCUC |
| 5413 | AUCGUGACAAGCGGCAAGC | 5458 | CUGUACCAGCAGUUUGAUG | 5503 | CCCUACCUAGUUGAGGGUC | 5548 | AAGGUCCUUGGGCUGCUCC |
| 5414 | UCGUGACAAGCGGCAAGCC | 5459 | UGUACCAGCAGUUUGAUGA | 5504 | CCUACCUAGUUGAGGGUCA | 5549 | AGGUCCUUGGGCUGCUCCA |
| 5415 | CGUGACAAGCGGCAAGCCU | 5460 | GUACCAGCAGUUUGAUGAG | 5505 | CUACCUAGUUGAGGGUCAG | 5550 | GGUCCUUGGGCUGCUCCAG |
| 5416 | GUGACAAGCGGCAAGCCUG | 5461 | UACCAGCAGUUUGAUGAGA | 5506 | UACCUAGUUGAGGGUCAGC | 5551 | GUCCUUGGGCUGCUCCAGG |
| 5417 | UGACAAGCGGCAAGCCUGC | 5462 | ACCAGCAGUUUGAUGAGAU | 5507 | ACCUAGUUGAGGGUCAGCA | 5552 | UCCUUGGGCUGCUCCAGGC |
| 5418 | GACAAGCGGCAAGCCUGCG | 5463 | CCAGCAGUUUGAUGAGAUG | 5508 | CCUAGUUGAGGGUCAGCAG | 5553 | CCUUGGGCUGCUCCAGGCC |
| 5419 | ACAAGCGGCAAGCCUGCGG | 5464 | CAGCAGUUUGAUGAGAUGG | 5509 | CUAGUUGAGGGUCAGCAGA | 5554 | CUUGGGCUGCUCCAGGCCG |
| 5420 | CAAGCGGCAAGCCUGCGGU | 5465 | AGCAGUUUGAUGAGAUGGA | 5510 | UAGUUGAGGGUCAGCAGAU | 5555 | UUGGGCUGCUCCAGGCCGG |
| 5421 | AAGCGGCAAGCCUGCGGUU | 5466 | GCAGUUUGAUGAGAUGGAG | 5511 | AGUUGAGGGUCAGCAGAUU | 5556 | UGGGCUGCUCCAGGCCGGC |
| 5422 | AGCGGCAAGCCUGCGGUUG | 5467 | CAGUUUGAUGAGAUGGAGG | 5512 | GUUGAGGGUCAGCAGAUUG | 5557 | GGGCUGCUCCAGGCCGGCA |
| 5423 | GCGGCAAGCCUGCGGUUGU | 5468 | AGUUUGAUGAGAUGGAGGA | 5513 | UUGAGGGUCAGCAGAUUGC | 5558 | GGCUGCUCCAGGCCGGCAC |
| 5424 | CGGCAAGCCUGCGGUUGUC | 5469 | GUUUGAUGAGAUGGAGGAG | 5514 | UGAGGGUCAGCAGAUUGCU | 5559 | GCUGCUCCAGGCCGGCACC |
| 5425 | GGCAAGCCUGCGGUUGUCC | 5470 | UUUGAUGAGAUGGAGGAGU | 5515 | GAGGGUCAGCAGAUUGCUG | 5560 | CUGCUCCAGGCCGGCACCA |
| 5426 | GCAAGCCUGCGGUUGUCCC | 5471 | UUGAUGAGAUGGAGGAGUG | 5516 | AGGGUCAGCAGAUUGCUGA | 5561 | UGCUCCAGGCCGGCACCAA |
| 5427 | CAAGCCUGCGGUUGUCCCU | 5472 | UGAUGAGAUGGAGGAGUGC | 5517 | GGGUCAGCAGAUUGCUGAG | 5562 | GCUCCAGGCCGGCACCAAA |
| 5428 | AAGCCUGCGGUUGUCCCUG | 5473 | GAUGAGAUGGAGGAGUGCU | 5518 | GGUCAGCAGAUUGCUGAGC | 5563 | CUCCAGGCCGGCACCAAAC |
| 5429 | AGCCUGCGGUUGUCCCUGA | 5474 | AUGAGAUGGAGGAGUGCUC | 5519 | GUCAGCAGAUUGCUGAGCA | 5564 | UCCAGGCCGGCACCAAACA |
| 5430 | GCCUGCGGUUGUCCCUGAU | 5475 | UGAGAUGGAGGAGUGCUCU | 5520 | UCAGCAGAUUGCUGAGCAG | 5565 | CCAGGCCGGCACCAAACAU |
| 5431 | CCUGCGGUUGUCCCUGAUC | 5476 | GAGAUGGAGGAGUGCUCUA | 5521 | CAGCAGAUUGCUGAGCAGU | 5566 | CAGGCCGGCACCAAACAUG |
| 5432 | CUGCGGUUGUCCCUGAUCG | 5477 | AGAUGGAGGAGUGCUCUAA | 5522 | AGCAGAUUGCUGAGCAGUU | 5567 | AGGCCGGCACCAAACAUGC |
| 5433 | UGCGGUUGUCCCUGAUCGG | 5478 | GAUGGAGGAGUGCUCUAAG | 5523 | GCAGAUUGCUGAGCAGUUC | 5568 | GGCCGGCACCAAACAUGCA |
| 5434 | GCGGUUGUCCCUGAUCGGG | 5479 | AUGGAGGAGUGCUCUAAGC | 5524 | CAGAUUGCUGAGCAGUUCA | 5569 | GCCGGCACCAAACAUGCAG |
| 5435 | CGGUUGUCCCUGAUCGGGA | 5480 | UGGAGGAGUGCUCUAAGCA | 5525 | AGAUUGCUGAGCAGUUCAA | 5570 | CCGGCACCAAACAUGCAGA |
| 5436 | GGUUGUCCCUGAUCGGGAG | 5481 | GGAGGAGUGCUCUAAGCAC | 5526 | GAUUGCUGAGCAGUUCAAG | 5571 | CGGCACCAAACAUGCAGAA |
| 5437 | GUUGUCCCUGAUCGGGAGG | 5482 | GAGGAGUGCUCUAAGCACA | 5527 | AUUGCUGAGCAGUUCAAGC | 5572 | GGCACCAAACAUGCAGAAG |
| 5438 | UUGUCCCUGAUCGGGAGGU | 5483 | AGGAGUGCUCUAAGCACAU | 5528 | UUGCUGAGCAGUUCAAGCA | 5573 | GCACCAAACAUGCAGAAGA |
| 5439 | UGUCCCUGAUCGGGAGGUC | 5484 | GGAGUGCUCUAAGCACAUC | 5529 | UGCUGAGCAGUUCAAGCAA | 5574 | CACCAAACAUGCAGAAGAA |
| 5440 | GUCCCUGAUCGGGAGGUCC | 5485 | GAGUGCUCUAAGCACAUCC | 5530 | GCUGAGCAGUUCAAGCAAA | 5575 | ACCAAACAUGCAGAAGAAC |
| 5441 | UCCCUGAUCGGGAGGUCCU | 5486 | AGUGCUCUAAGCACAUCCC | 5531 | CUGAGCAGUUCAAGCAAAA | 5576 | CCAAACAUGCAGAAGAACU |
| 5442 | CCCUGAUCGGGAGGUCCUG | 5487 | GUGCUCUAAGCACAUCCCC | 5532 | UGAGCAGUUCAAGCAAAAG | 5577 | CAAACAUGCAGAAGAACUG |
| 5443 | CCUGAUCGGGAGGUCCUGU | 5488 | UGCUCUAAGCACAUCCCCU | 5533 | GAGCAGUUCAAGCAAAAGG | 5578 | AAACAUGCAGAAGAACUGA |
| 5444 | CUGAUCGGGAGGUCCUGUA | 5489 | GCUCUAAGCACAUCCCCUA | 5534 | AGCAGUUCAAGCAAAAGGU | 5579 | AACAUGCAGAAGAACUGAA |
| 5445 | UGAUCGGGAGGUCCUGUAC | 5490 | CUCUAAGCACAUCCCCUAC | 5535 | GCAGUUCAAGCAAAAGGUC | 5580 | ACAUGCAGAAGAACUGAAA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5581 | CAUGCAGAAGAACUGAAAC | 5626 | GUGGAGGAGUUCUGGAGGA | 5671 | AUUCAGUACCUGGCGGGCU | 5716 | GUGGCGUCGCUAAUGUCAU |
| 5582 | AUGCAGAAGAACUGAAACC | 5627 | UGGAGGAGUUCUGGAGGAA | 5672 | UUCAGUACCUGGCGGGCUU | 5717 | UGGCGUCGCUAAUGUCAUU |
| 5583 | UGCAGAAGAACUGAAACCC | 5628 | GGAGGAGUUCUGGAGGAAA | 5673 | UCAGUACCUGGCGGGCUUA | 5718 | GGCGUCGCUAAUGUCAUUC |
| 5584 | GCAGAAGAACUGAAACCCG | 5629 | GAGGAGUUCUGGAGGAAAC | 5674 | CAGUACCUGGCGGGCUUAU | 5719 | GCGUCGCUAAUGUCAUUCA |
| 5585 | CAGAAGAACUGAAACCCGC | 5630 | AGGAGUUCUGGAGGAAACA | 5675 | AGUACCUGGCGGGCUUAUC | 5720 | CGUCGCUAAUGUCAUUCAC |
| 5586 | AGAAGAACUGAAACCCGCU | 5631 | GGAGUUCUGGAGGAAACAC | 5676 | GUACCUGGCGGGCUUAUCA | 5721 | GUCGCUAAUGUCAUUCACA |
| 5587 | GAAGAACUGAAACCCGCUA | 5632 | GAGUUCUGGAGGAAACACA | 5677 | UACCUGGCGGGCUUAUCAA | 5722 | UCGCUAAUGUCAUUCACAG |
| 5588 | AAGAACUGAAACCCGCUAU | 5633 | AGUUCUGGAGGAAACACAU | 5678 | ACCUGGCGGGCUUAUCAAC | 5723 | CGCUAAUGUCAUUCACAGC |
| 5589 | AGAACUGAAACCCGCUAUC | 5634 | GUUCUGGAGGAAACACAUG | 5679 | CCUGGCGGGCUUAUCAACA | 5724 | GCUAAUGUCAUUCACAGCG |
| 5590 | GAACUGAAACCCGCUAUCC | 5635 | UUCUGGAGGAAACACAUGU | 5680 | CUGGCGGGCUUAUCAACAC | 5725 | CUAAUGUCAUUCACAGCGU |
| 5591 | AACUGAAACCCGCUAUCCA | 5636 | UCUGGAGGAAACACAUGUG | 5681 | UGGCGGGCUUAUCAACACU | 5726 | UAAUGUCAUUCACAGCGUC |
| 5592 | ACUGAAACCCGCUAUCCAU | 5637 | CUGGAGGAAACACAUGUGG | 5682 | GGCGGGCUUAUCAACACUA | 5727 | AAUGUCAUUCACAGCGUCC |
| 5593 | CUGAAACCCGCUAUCCAUU | 5638 | UGGAGGAAACACAUGUGGA | 5683 | GCGGGCUUAUCAACACUAC | 5728 | AUGUCAUUCACAGCGUCCU |
| 5594 | UGAAACCCGCUAUCCAUUC | 5639 | GGAGGAAACACAUGUGGAA | 5684 | CGGGCUUAUCAACACUACC | 5729 | UGUCAUUCACAGCGUCCUU |
| 5595 | GAAACCCGCUAUCCAUUCC | 5640 | GAGGAAACACAUGUGGAAC | 5685 | GGGCUUAUCAACACUACCA | 5730 | GUCAUUCACAGCGUCCUUG |
| 5596 | AAACCCGCUAUCCAUUCCA | 5641 | AGGAAACACAUGUGGAACU | 5686 | GGCUUAUCAACACUACCAG | 5731 | UCAUUCACAGCGUCCUUGA |
| 5597 | AACCCGCUAUCCAUUCCAC | 5642 | GGAAACACAUGUGGAACUU | 5687 | GCUUAUCAACACUACCAGG | 5732 | CAUUCACAGCGUCCUUGAC |
| 5598 | ACCCGCUAUCCAUUCCACG | 5643 | GAAACACAUGUGGAACUUU | 5688 | CUUAUCAACACUACCAGGU | 5733 | AUUCACAGCGUCCUUGACU |
| 5599 | CCCGCUAUCCAUUCCACGU | 5644 | AAACACAUGUGGAACUUUG | 5689 | UUAUCAACACUACCAGGUA | 5734 | UUCACAGCGUCCUUGACUA |
| 5600 | CCGCUAUCCAUUCCACGUG | 5645 | AACACAUGUGGAACUUUGU | 5690 | UAUCAACACUACCAGGUAG | 5735 | UCACAGCGUCCUUGACUAG |
| 5601 | CGCUAUCCAUUCCACGUGG | 5646 | ACACAUGUGGAACUUUGUU | 5691 | AUCAACACUACCAGGUAGU | 5736 | CACAGCGUCCUUGACUAGU |
| 5602 | GCUAUCCAUUCCACGUGGC | 5647 | CACAUGUGGAACUUUGUUA | 5692 | UCAACACUACCAGGUAGUC | 5737 | ACAGCGUCCUUGACUAGUC |
| 5603 | CUAUCCAUUCCACGUGGCC | 5648 | ACAUGUGGAACUUUGUUAG | 5693 | CAACACUACCAGGUAGUCC | 5738 | CAGCGUCCUUGACUAGUCC |
| 5604 | UAUCCAUUCCACGUGGCCC | 5649 | CAUGUGGAACUUUGUUAGU | 5694 | AACACUACCAGGUAGUCCG | 5739 | AGCGUCCUUGACUAGUCCU |
| 5605 | AUCCAUUCCACGUGGCCCA | 5650 | AUGUGGAACUUUGUUAGUG | 5695 | ACACUACCAGGUAGUCCGG | 5740 | GCGUCCUUGACUAGUCCUC |
| 5606 | UCCAUUCCACGUGGCCCAG | 5651 | UGUGGAACUUUGUUAGUGG | 5696 | CACUACCAGGUAGUCCGGC | 5741 | CGUCCUUGACUAGUCCUCU |
| 5607 | CCAUUCCACGUGGCCCAGG | 5652 | GUGGAACUUUGUUAGUGGG | 5697 | ACUACCAGGUAGUCCGGCG | 5742 | GUCCUUGACUAGUCCUCUA |
| 5608 | CAUUCCACGUGGCCCAGGG | 5653 | UGGAACUUUGUUAGUGGGA | 5698 | CUACCAGGUAGUCCGGCGG | 5743 | UCCUUGACUAGUCCUCUAA |
| 5609 | AUUCCACGUGGCCCAGGGU | 5654 | GGAACUUUGUUAGUGGGAU | 5699 | UACCAGGUAGUCCGGCGGU | 5744 | CCUUGACUAGUCCUCUAAG |
| 5610 | UUCCACGUGGCCCAGGGUG | 5655 | GAACUUUGUUAGUGGGAUU | 5700 | ACCAGGUAGUCCGGCGGUG | 5745 | CUUGACUAGUCCUCUAAGG |
| 5611 | UCCACGUGGCCCAGGGUGG | 5656 | AACUUUGUUAGUGGGAUUC | 5701 | CCAGGUAGUCCGGCGGUGG | 5746 | UUGACUAGUCCUCUAAGGA |
| 5612 | CCACGUGGCCCAGGGUGGA | 5657 | ACUUUGUUAGUGGGAUUCA | 5702 | CAGGUAGUCCGGCGGUGGC | 5747 | UGACUAGUCCUCUAAGGAC |
| 5613 | CACGUGGCCCAGGGUGGAG | 5658 | CUUUGUUAGUGGGAUUCAG | 5703 | AGGUAGUCCGGCGGUGGCG | 5748 | GACUAGUCCUCUAAGGACC |
| 5614 | ACGUGGCCCAGGGUGGAGG | 5659 | UUUGUUAGUGGGAUUCAGU | 5704 | GGUAGUCCGGCGGUGGCGU | 5749 | ACUAGUCCUCUAAGGACCU |
| 5615 | CGUGGCCCAGGGUGGAGGA | 5660 | UUGUUAGUGGGAUUCAGUA | 5705 | GUAGUCCGGCGGUGGCGUC | 5750 | CUAGUCCUCUAAGGACCUC |
| 5616 | GUGGCCCAGGGUGGAGGAG | 5661 | UGUUAGUGGGAUUCAGUAC | 5706 | UAGUCCGGCGGUGGCGUCG | 5751 | UAGUCCUCUAAGGACCUCC |
| 5617 | UGGCCCAGGGUGGAGGAGU | 5662 | GUUAGUGGGAUUCAGUACC | 5707 | AGUCCGGCGGUGGCGUCGC | 5752 | AGUCCUCUAAGGACCUCCC |
| 5618 | GGCCCAGGGUGGAGGAGUU | 5663 | UUAGUGGGAUUCAGUACCU | 5708 | GUCCGGCGGUGGCGUCGCU | 5753 | GUCCUCUAAGGACCUCCCA |
| 5619 | GCCCAGGGUGGAGGAGUUC | 5664 | UAGUGGGAUUCAGUACCUG | 5709 | UCCGGCGGUGGCGUCGCUA | 5754 | UCCUCUAAGGACCUCCCAG |
| 5620 | CCCAGGGUGGAGGAGUUCU | 5665 | AGUGGGAUUCAGUACCUGG | 5710 | CCGGCGGUGGCGUCGCUAA | 5755 | CCUCUAAGGACCUCCCAGA |
| 5621 | CCAGGGUGGAGGAGUUCUG | 5666 | GUGGGAUUCAGUACCUGGC | 5711 | CGGCGGUGGCGUCGCUAAU | 5756 | CUCUAAGGACCUCCCAGAC |
| 5622 | CAGGGUGGAGGAGUUCUGG | 5667 | UGGGAUUCAGUACCUGGCG | 5712 | GGCGGUGGCGUCGCUAAUG | 5757 | UCUAAGGACCUCCCAGACC |
| 5623 | AGGGUGGAGGAGUUCUGGA | 5668 | GGGAUUCAGUACCUGGCGG | 5713 | GCGGUGGCGUCGCUAAUGU | 5758 | CUAAGGACCUCCCAGACCC |
| 5624 | GGGUGGAGGAGUUCUGGAG | 5669 | GGAUUCAGUACCUGGCGGG | 5714 | CGGUGGCGUCGCUAAUGUC | 5759 | UAAGGACCUCCCAGACCCU |
| 5625 | GGUGGAGGAGUUCUGGAGG | 5670 | GAUUCAGUACCUGGCGGGC | 5715 | GGUGGCGUCGCUAAUGUCA | 5760 | AAGGACCUCCCAGACCCUG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5761 | AGGACCUCCCAGACCCUGU | 5806 | GCUUCCCAAGUAGCUCCCC | 5851 | AGCGGCUUAGCAGGCGCCA | 5896 | GUUAUUGUUGACAUCCUUG |
| 5762 | GGACCUCCCAGACCCUGUU | 5807 | CUUCCCAAGUAGCUCCCCC | 5852 | GCGGCUUAGCAGGCGCCAC | 5897 | UUAUUGUUGACAUCCUUGC |
| 5763 | GACCUCCCAGACCCUGUUG | 5808 | UUCCCAAGUAGCUCCCCCC | 5853 | CGGCUUAGCAGGCGCCACG | 5898 | UAUUGUUGACAUCCUUGCC |
| 5764 | ACCUCCCAGACCCUGUUGC | 5809 | UCCCAAGUAGCUCCCCCCU | 5854 | GGCUUAGCAGGCGCCACGG | 5899 | AUUGUUGACAUCCUUGCCG |
| 5765 | CCUCCCAGACCCUGUUGCU | 5810 | CCCAAGUAGCUCCCCCCUC | 5855 | GCUUAGCAGGCGCCACGGU | 5900 | UUGUUGACAUCCUUGCCGG |
| 5766 | CUCCCAGACCCUGUUGCUC | 5811 | CCAAGUAGCUCCCCCCUCC | 5856 | CUUAGCAGGCGCCACGGUG | 5901 | UGUUGACAUCCUUGCCGGG |
| 5767 | UCCCAGACCCUGUUGCUCA | 5812 | CAAGUAGCUCCCCCCUCCG | 5857 | UUAGCAGGCGCCACGGUGG | 5902 | GUUGACAUCCUUGCCGGGU |
| 5768 | CCCAGACCCUGUUGCUCAA | 5813 | AAGUAGCUCCCCCCUCCGC | 5858 | UAGCAGGCGCCACGGUGGC | 5903 | UUGACAUCCUUGCCGGGUA |
| 5769 | CCAGACCCUGUUGCUCAAC | 5814 | AGUAGCUCCCCCCUCCGCG | 5859 | AGCAGGCGCCACGGUGGCC | 5904 | UGACAUCCUUGCCGGGUAC |
| 5770 | CAGACCCUGUUGCUCAACA | 5815 | GUAGCUCCCCCCUCCGCGU | 5860 | GCAGGCGCCACGGUGGCCA | 5905 | GACAUCCUUGCCGGGUACG |
| 5771 | AGACCCUGUUGCUCAACAU | 5816 | UAGCUCCCCCCUCCGCGUC | 5861 | CAGGCGCCACGGUGGCCAG | 5906 | ACAUCCUUGCCGGGUACGG |
| 5772 | GACCCUGUUGCUCAACAUA | 5817 | AGCUCCCCCCUCCGCGUCC | 5862 | AGGCGCCACGGUGGCCAGC | 5907 | CAUCCUUGCCGGGUACGGG |
| 5773 | ACCCUGUUGCUCAACAUAU | 5818 | GCUCCCCCCUCCGCGUCCA | 5863 | GGCGCCACGGUGGCCAGCA | 5908 | AUCCUUGCCGGGUACGGGG |
| 5774 | CCCUGUUGCUCAACAUAUU | 5819 | CUCCCCCCUCCGCGUCCAC | 5864 | GCGCCACGGUGGCCAGCAU | 5909 | UCCUUGCCGGGUACGGGGC |
| 5775 | CCUGUUGCUCAACAUAUUG | 5820 | UCCCCCCUCCGCGUCCACA | 5865 | CGCCACGGUGGCCAGCAUA | 5910 | CCUUGCCGGGUACGGGGCC |
| 5776 | CUGUUGCUCAACAUAUUGG | 5821 | CCCCCCUCCGCGUCCACAG | 5866 | GCCACGGUGGCCAGCAUAG | 5911 | CUUGCCGGGUACGGGGCCG |
| 5777 | UGUUGCUCAACAUAUUGGG | 5822 | CCCCCUCCGCGUCCACAGC | 5867 | CCACGGUGGCCAGCAUAGG | 5912 | UUGCCGGGUACGGGGCCGG |
| 5778 | GUUGCUCAACAUAUUGGGC | 5823 | CCCCUCCGCGUCCACAGCU | 5868 | CACGGUGGCCAGCAUAGGA | 5913 | UGCCGGGUACGGGGCCGGU |
| 5779 | UUGCUCAACAUAUUGGGCG | 5824 | CCCUCCGCGUCCACAGCUU | 5869 | ACGGUGGCCAGCAUAGGAC | 5914 | GCCGGGUACGGGGCCGGUG |
| 5780 | UGCUCAACAUAUUGGGCGG | 5825 | CCUCCGCGUCCACAGCUUU | 5870 | CGGUGGCCAGCAUAGGACU | 5915 | CCGGGUACGGGGCCGGUGU |
| 5781 | GCUCAACAUAUUGGGCGGC | 5826 | CUCCGCGUCCACAGCUUUC | 5871 | GGUGGCCAGCAUAGGACUG | 5916 | CGGGUACGGGGCCGGUGUG |
| 5782 | CUCAACAUAUUGGGCGGCU | 5827 | UCCGCGUCCACAGCUUUCG | 5872 | GUGGCCAGCAUAGGACUGG | 5917 | GGGUACGGGGCCGGUGUGG |
| 5783 | UCAACAUAUUGGGCGGCUG | 5828 | CCGCGUCCACAGCUUUCGU | 5873 | UGGCCAGCAUAGGACUGGG | 5918 | GGUACGGGGCCGGUGUGGC |
| 5784 | CAACAUAUUGGGCGGCUGG | 5829 | CGCGUCCACAGCUUUCGUC | 5874 | GGCCAGCAUAGGACUGGGG | 5919 | GUACGGGGCCGGUGUGGCG |
| 5785 | AACAUAUUGGGCGGCUGGA | 5830 | GCGUCCACAGCUUUCGUCG | 5875 | GCCAGCAUAGGACUGGGGA | 5920 | UACGGGGCCGGUGUGGCGG |
| 5786 | ACAUAUUGGGCGGCUGGAU | 5831 | CGUCCACAGCUUUCGUCGU | 5876 | CCAGCAUAGGACUGGGGAG | 5921 | ACGGGGCCGGUGUGGCGGG |
| 5787 | CAUAUUGGGCGGCUGGAUA | 5832 | GUCCACAGCUUUCGUCGUG | 5877 | CAGCAUAGGACUGGGGAGG | 5922 | CGGGGCCGGUGUGGCGGGU |
| 5788 | AUAUUGGGCGGCUGGAUAG | 5833 | UCCACAGCUUUCGUCGUGA | 5878 | AGCAUAGGACUGGGGAGGG | 5923 | GGGGCCGGUGUGGCGGGUG |
| 5789 | UAUUGGGCGGCUGGAUAGC | 5834 | CCACAGCUUUCGUCGUGAG | 5879 | GCAUAGGACUGGGGAGGGU | 5924 | GGGCCGGUGUGGCGGGUGC |
| 5790 | AUUGGGCGGCUGGAUAGCU | 5835 | CACAGCUUUCGUCGUGAGC | 5880 | CAUAGGACUGGGGAGGGUU | 5925 | GGCCGGUGUGGCGGGUGCA |
| 5791 | UUGGGCGGCUGGAUAGCUU | 5836 | ACAGCUUUCGUCGUGAGCG | 5881 | AUAGGACUGGGGAGGGUUA | 5926 | GCCGGUGUGGCGGGUGCAC |
| 5792 | UGGGCGGCUGGAUAGCUUC | 5837 | CAGCUUUCGUCGUGAGCGG | 5882 | UAGGACUGGGGAGGGUUAU | 5927 | CCGGUGUGGCGGGUGCACU |
| 5793 | GGGCGGCUGGAUAGCUUCC | 5838 | AGCUUUCGUCGUGAGCGGC | 5883 | AGGACUGGGGAGGGUUAUU | 5928 | CGGUGUGGCGGGUGCACUG |
| 5794 | GGCGGCUGGAUAGCUUCCC | 5839 | GCUUUCGUCGUGAGCGGCU | 5884 | GGACUGGGGAGGGUUAUUG | 5929 | GGUGUGGCGGGUGCACUGG |
| 5795 | GCGGCUGGAUAGCUUCCCA | 5840 | CUUUCGUCGUGAGCGGCUU | 5885 | GACUGGGGAGGGUUAUUGU | 5930 | GUGUGGCGGGUGCACUGGU |
| 5796 | CGGCUGGAUAGCUUCCCAA | 5841 | UUUCGUCGUGAGCGGCUUA | 5886 | ACUGGGGAGGGUUAUUGUU | 5931 | UGUGGCGGGUGCACUGGUC |
| 5797 | GGCUGGAUAGCUUCCCAAG | 5842 | UUCGUCGUGAGCGGCUUAG | 5887 | CUGGGGAGGGUUAUUGUUG | 5932 | GUGGCGGGUGCACUGGUCG |
| 5798 | GCUGGAUAGCUUCCCAAGU | 5843 | UCGUCGUGAGCGGCUUAGC | 5888 | UGGGGAGGGUUAUUGUUGA | 5933 | UGGCGGGUGCACUGGUCGC |
| 5799 | CUGGAUAGCUUCCCAAGUA | 5844 | CGUCGUGAGCGGCUUAGCA | 5889 | GGGGAGGGUUAUUGUUGAC | 5934 | GGCGGGUGCACUGGUCGCC |
| 5800 | UGGAUAGCUUCCCAAGUAG | 5845 | GUCGUGAGCGGCUUAGCAG | 5890 | GGGAGGGUUAUUGUUGACA | 5935 | GCGGGUGCACUGGUCGCCU |
| 5801 | GGAUAGCUUCCCAAGUAGC | 5846 | UCGUGAGCGGCUUAGCAGG | 5891 | GGAGGGUUAUUGUUGACAU | 5936 | CGGGUGCACUGGUCGCCUU |
| 5802 | GAUAGCUUCCCAAGUAGCU | 5847 | CGUGAGCGGCUUAGCAGGC | 5892 | GAGGGUUAUUGUUGACAUC | 5937 | GGGUGCACUGGUCGCCUUU |
| 5803 | AUAGCUUCCCAAGUAGCUC | 5848 | GUGAGCGGCUUAGCAGGCG | 5893 | AGGGUUAUUGUUGACAUCC | 5938 | GGUGCACUGGUCGCCUUUA |
| 5804 | UAGCUUCCCAAGUAGCUCC | 5849 | UGAGCGGCUUAGCAGGCGC | 5894 | GGGUUAUUGUUGACAUCCU | 5939 | GUGCACUGGUCGCCUUUAA |
| 5805 | AGCUUCCCAAGUAGCUCCC | 5850 | GAGCGGCUUAGCAGGCGCC | 5895 | GGUUAUUGUUGACAUCCUU | 5940 | UGCACUGGUCGCCUUUAAG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5941 | GCACUGGUCGCCUUUAAGA | 5986 | GAGGACAUGGUGAACUUGC | 6031 | CUUGUGGUGGGAGUUGUGU | 6076 | GGCCCCUCUGAAGGCGCUA |
| 5942 | CACUGGUCGCCUUUAAGAU | 5987 | AGGACAUGGUGAACUUGCU | 6032 | UUGUGGUGGGAGUUGUGUG | 6077 | GCCCCUCUGAAGGCGCUAA |
| 5943 | ACUGGUCGCCUUUAAGAUC | 5988 | GGACAUGGUGAACUUGCUA | 6033 | UGUGGUGGGAGUUGUGUGU | 6078 | CCCCUCUGAAGGCGCUAAC |
| 5944 | CUGGUCGCCUUUAAGAUCA | 5989 | GACAUGGUGAACUUGCUAC | 6034 | GUGGUGGGAGUUGUGUGUG | 6079 | CCCUCUGAAGGCGCUAACC |
| 5945 | UGGUCGCCUUUAAGAUCAU | 5990 | ACAUGGUGAACUUGCUACC | 6035 | UGGUGGGAGUUGUGUGUGC | 6080 | CCUCUGAAGGCGCUAACCA |
| 5946 | GGUCGCCUUUAAGAUCAUG | 5991 | CAUGGUGAACUUGCUACCC | 6036 | GGUGGGAGUUGUGUGUGCU | 6081 | CUCUGAAGGCGCUAACCAG |
| 5947 | GUCGCCUUUAAGAUCAUGA | 5992 | AUGGUGAACUUGCUACCCG | 6037 | GUGGGAGUUGUGUGUGCUG | 6082 | UCUGAAGGCGCUAACCAGU |
| 5948 | UCGCCUUUAAGAUCAUGAG | 5993 | UGGUGAACUUGCUACCCGC | 6038 | UGGGAGUUGUGUGUGCUGC | 6083 | CUGAAGGCGCUAACCAGUG |
| 5949 | CGCCUUUAAGAUCAUGAGC | 5994 | GGUGAACUUGCUACCCGCC | 6039 | GGGAGUUGUGUGUGCUGCC | 6084 | UGAAGGCGCUAACCAGUGG |
| 5950 | GCCUUUAAGAUCAUGAGCG | 5995 | GUGAACUUGCUACCCGCCU | 6040 | GGAGUUGUGUGUGCUGCCA | 6085 | GAAGGCGCUAACCAGUGGA |
| 5951 | CCUUUAAGAUCAUGAGCGG | 5996 | UGAACUUGCUACCCGCCUU | 6041 | GAGUUGUGUGUGCUGCCAU | 6086 | AAGGCGCUAACCAGUGGAU |
| 5952 | CUUUAAGAUCAUGAGCGGC | 5997 | GAACUUGCUACCCGCCUUG | 6042 | AGUUGUGUGUGCUGCCAUC | 6087 | AGGCGCUAACCAGUGGAUG |
| 5953 | UUUAAGAUCAUGAGCGGCG | 5998 | AACUUGCUACCCGCCUUGC | 6043 | GUUGUGUGUGCUGCCAUCC | 6088 | GGCGCUAACCAGUGGAUGA |
| 5954 | UUAAGAUCAUGAGCGGCGA | 5999 | ACUUGCUACCCGCCUUGCU | 6044 | UUGUGUGUGCUGCCAUCCU | 6089 | GCGCUAACCAGUGGAUGAA |
| 5955 | UAAGAUCAUGAGCGGCGAG | 6000 | CUUGCUACCCGCCUUGCUG | 6045 | UGUGUGUGCUGCCAUCCUG | 6090 | CGCUAACCAGUGGAUGAAC |
| 5956 | AAGAUCAUGAGCGGCGAGU | 6001 | UUGCUACCCGCCUUGCUGU | 6046 | GUGUGUGCUGCCAUCCUGA | 6091 | GCUAACCAGUGGAUGAACA |
| 5957 | AGAUCAUGAGCGGCGAGUG | 6002 | UGCUACCCGCCUUGCUGUC | 6047 | UGUGUGCUGCCAUCCUGAG | 6092 | CUAACCAGUGGAUGAACAG |
| 5958 | GAUCAUGAGCGGCGAGUGU | 6003 | GCUACCCGCCUUGCUGUCG | 6048 | GUGUGCUGCCAUCCUGAGA | 6093 | UAACCAGUGGAUGAACAGG |
| 5959 | AUCAUGAGCGGCGAGUGUC | 6004 | CUACCCGCCUUGCUGUCGC | 6049 | UGUGCUGCCAUCCUGAGAC | 6094 | AACCAGUGGAUGAACAGGC |
| 5960 | UCAUGAGCGGCGAGUGUCC | 6005 | UACCCGCCUUGCUGUCGCC | 6050 | GUGCUGCCAUCCUGAGACG | 6095 | ACCAGUGGAUGAACAGGCU |
| 5961 | CAUGAGCGGCGAGUGUCCA | 6006 | ACCCGCCUUGCUGUCGCCG | 6051 | UGCUGCCAUCCUGAGACGC | 6096 | CCAGUGGAUGAACAGGCUA |
| 5962 | AUGAGCGGCGAGUGUCCAU | 6007 | CCCGCCUUGCUGUCGCCGG | 6052 | GCUGCCAUCCUGAGACGCC | 6097 | CAGUGGAUGAACAGGCUAA |
| 5963 | UGAGCGGCGAGUGUCCAUC | 6008 | CCGCCUUGCUGUCGCCGGG | 6053 | CUGCCAUCCUGAGACGCCA | 6098 | AGUGGAUGAACAGGCUAAU |
| 5964 | GAGCGGCGAGUGUCCAUCA | 6009 | CGCCUUGCUGUCGCCGGGU | 6054 | UGCCAUCCUGAGACGCCAC | 6099 | GUGGAUGAACAGGCUAAUA |
| 5965 | AGCGGCGAGUGUCCAUCAA | 6010 | GCCUUGCUGUCGCCGGGUG | 6055 | GCCAUCCUGAGACGCCACG | 6100 | UGGAUGAACAGGCUAAUAG |
| 5966 | GCGGCGAGUGUCCAUCAAC | 6011 | CCUUGCUGUCGCCGGGUGC | 6056 | CCAUCCUGAGACGCCACGU | 6101 | GGAUGAACAGGCUAAUAGC |
| 5967 | CGGCGAGUGUCCAUCAACA | 6012 | CUUGCUGUCGCCGGGUGCC | 6057 | CAUCCUGAGACGCCACGUU | 6102 | GAUGAACAGGCUAAUAGCC |
| 5968 | GGCGAGUGUCCAUCAACAG | 6013 | UUGCUGUCGCCGGGUGCCC | 6058 | AUCCUGAGACGCCACGUUG | 6103 | AUGAACAGGCUAAUAGCCU |
| 5969 | GCGAGUGUCCAUCAACAGA | 6014 | UGCUGUCGCCGGGUGCCCU | 6059 | UCCUGAGACGCCACGUUGG | 6104 | UGAACAGGCUAAUAGCCUU |
| 5970 | CGAGUGUCCAUCAACAGAG | 6015 | GCUGUCGCCGGGUGCCCUU | 6060 | CCUGAGACGCCACGUUGGC | 6105 | GAACAGGCUAAUAGCCUUU |
| 5971 | GAGUGUCCAUCAACAGAGG | 6016 | CUGUCGCCGGGUGCCCUUG | 6061 | CUGAGACGCCACGUUGGCC | 6106 | AACAGGCUAAUAGCCUUUG |
| 5972 | AGUGUCCAUCAACAGAGGA | 6017 | UGUCGCCGGGUGCCCUUGU | 6062 | UGAGACGCCACGUUGGCCC | 6107 | ACAGGCUAAUAGCCUUUGC |
| 5973 | GUGUCCAUCAACAGAGGAC | 6018 | GUCGCCGGGUGCCCUUGUG | 6063 | GAGACGCCACGUUGGCCCC | 6108 | CAGGCUAAUAGCCUUUGCC |
| 5974 | UGUCCAUCAACAGAGGACA | 6019 | UCGCCGGGUGCCCUUGUGG | 6064 | AGACGCCACGUUGGCCCCU | 6109 | AGGCUAAUAGCCUUUGCCU |
| 5975 | GUCCAUCAACAGAGGACAU | 6020 | CGCCGGGUGCCCUUGUGGU | 6065 | GACGCCACGUUGGCCCCUC | 6110 | GGCUAAUAGCCUUUGCCUC |
| 5976 | UCCAUCAACAGAGGACAUG | 6021 | GCCGGGUGCCCUUGUGGUG | 6066 | ACGCCACGUUGGCCCCUCU | 6111 | GCUAAUAGCCUUUGCCUCC |
| 5977 | CCAUCAACAGAGGACAUGG | 6022 | CCGGGUGCCCUUGUGGUGG | 6067 | CGCCACGUUGGCCCCUCUG | 6112 | CUAAUAGCCUUUGCCUCCA |
| 5978 | CAUCAACAGAGGACAUGGU | 6023 | CGGGUGCCCUUGUGGUGGG | 6068 | GCCACGUUGGCCCCUCUGA | 6113 | UAAUAGCCUUUGCCUCCAG |
| 5979 | AUCAACAGAGGACAUGGUG | 6024 | GGGUGCCCUUGUGGUGGGA | 6069 | CCACGUUGGCCCCUCUGAA | 6114 | AAUAGCCUUUGCCUCCAGG |
| 5980 | UCAACAGAGGACAUGGUGA | 6025 | GGUGCCCUUGUGGUGGGAG | 6070 | CACGUUGGCCCCUCUGAAG | 6115 | AUAGCCUUUGCCUCCAGGG |
| 5981 | CAACAGAGGACAUGGUGAA | 6026 | GUGCCCUUGUGGUGGGAGU | 6071 | ACGUUGGCCCCUCUGAAGG | 6116 | UAGCCUUUGCCUCCAGGGG |
| 5982 | AACAGAGGACAUGGUGAAC | 6027 | UGCCCUUGUGGUGGGAGUU | 6072 | CGUUGGCCCCUCUGAAGGC | 6117 | AGCCUUUGCCUCCAGGGGC |
| 5983 | ACAGAGGACAUGGUGAACU | 6028 | GCCCUUGUGGUGGGAGUUG | 6073 | GUUGGCCCCUCUGAAGGCG | 6118 | GCCUUUGCCUCCAGGGGCA |
| 5984 | CAGAGGACAUGGUGAACUU | 6029 | CCCUUGUGGUGGGAGUUGU | 6074 | UUGGCCCCUCUGAAGGCGC | 6119 | CCUUUGCCUCCAGGGGCAA |
| 5985 | AGAGGACAUGGUGAACUUG | 6030 | CCUUGUGGUGGGAGUUGUG | 6075 | UGGCCCCUCUGAAGGCGCU | 6120 | CUUUGCCUCCAGGGGCAAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6121 | UUUGCCUCCAGGGGCAACC | 6166 | GAGACGGACGCAUCAAACA | 6211 | ACCAUCACUAGCCUGUUAC | 6256 | GAUACGUCCACGCCUUGCG |
| 6122 | UUGCCUCCAGGGGCAACCA | 6167 | AGACGGACGCAUCAAACAA | 6212 | CCAUCACUAGCCUGUUACG | 6257 | AUACGUCCACGCCUUGCGC |
| 6123 | UGCCUCCAGGGGCAACCAU | 6168 | GACGGACGCAUCAAACAAA | 6213 | CAUCACUAGCCUGUUACGC | 6258 | UACGUCCACGCCUUGCGCG |
| 6124 | GCCUCCAGGGGCAACCAUG | 6169 | ACGGACGCAUCAAACAAAG | 6214 | AUCACUAGCCUGUUACGCA | 6259 | ACGUCCACGCCUUGCGCGU |
| 6125 | CCUCCAGGGGCAACCAUGU | 6170 | CGGACGCAUCAAACAAAGU | 6215 | UCACUAGCCUGUUACGCAG | 6260 | CGUCCACGCCUUGCGCGUC |
| 6126 | CUCCAGGGGCAACCAUGUC | 6171 | GGACGCAUCAAACAAAGUC | 6216 | CACUAGCCUGUUACGCAGG | 6261 | GUCCACGCCUUGCGCGUCC |
| 6127 | UCCAGGGGCAACCAUGUCU | 6172 | GACGCAUCAAACAAAGUCA | 6217 | ACUAGCCUGUUACGCAGGC | 6262 | UCCACGCCUUGCGCGUCCU |
| 6128 | CCAGGGGCAACCAUGUCUC | 6173 | ACGCAUCAAACAAAGUCAC | 6218 | CUAGCCUGUUACGCAGGCU | 6263 | CCACGCCUUGCGCGUCCUC |
| 6129 | CAGGGGCAACCAUGUCUCU | 6174 | CGCAUCAAACAAAGUCACC | 6219 | UAGCCUGUUACGCAGGCUA | 6264 | CACGCCUUGCGCGUCCUCA |
| 6130 | AGGGGCAACCAUGUCUCUC | 6175 | GCAUCAAACAAAGUCACCC | 6220 | AGCCUGUUACGCAGGCUAC | 6265 | ACGCCUUGCGCGUCCUCAU |
| 6131 | GGGGCAACCAUGUCUCUCC | 6176 | CAUCAAACAAAGUCACCCA | 6221 | GCCUGUUACGCAGGCUACA | 6266 | CGCCUUGCGCGUCCUCAUG |
| 6132 | GGGCAACCAUGUCUCUCCU | 6177 | AUCAAACAAAGUCACCCAA | 6222 | CCUGUUACGCAGGCUACAC | 6267 | GCCUUGCGCGUCCUCAUGG |
| 6133 | GGCAACCAUGUCUCUCCUA | 6178 | UCAAACAAAGUCACCCAAA | 6223 | CUGUUACGCAGGCUACACC | 6268 | CCUUGCGCGUCCUCAUGGC |
| 6134 | GCAACCAUGUCUCUCCUAC | 6179 | CAAACAAAGUCACCCAAAU | 6224 | UGUUACGCAGGCUACACCA | 6269 | CUUGCGCGUCCUCAUGGCU |
| 6135 | CAACCAUGUCUCUCCUACA | 6180 | AAACAAAGUCACCCAAAUA | 6225 | GUUACGCAGGCUACACCAG | 6270 | UUGCGCGUCCUCAUGGCUG |
| 6136 | AACCAUGUCUCUCCUACAC | 6181 | AACAAAGUCACCCAAAUAC | 6226 | UUACGCAGGCUACACCAGU | 6271 | UGCGCGUCCUCAUGGCUGC |
| 6137 | ACCAUGUCUCUCCUACACA | 6182 | ACAAAGUCACCCAAAUACU | 6227 | UACGCAGGCUACACCAGUG | 6272 | GCGCGUCCUCAUGGCUGCG |
| 6138 | CCAUGUCUCUCCUACACAC | 6183 | CAAAGUCACCCAAAUACUC | 6228 | ACGCAGGCUACACCAGUGG | 6273 | CGCGUCCUCAUGGCUGCGA |
| 6139 | CAUGUCUCUCCUACACACU | 6184 | AAAGUCACCCAAAUACUCA | 6229 | CGCAGGCUACACCAGUGGA | 6274 | GCGUCCUCAUGGCUGCGAG |
| 6140 | AUGUCUCUCCUACACACUA | 6185 | AAGUCACCCAAAUACUCAG | 6230 | GCAGGCUACACCAGUGGAU | 6275 | CGUCCUCAUGGCUGCGAGA |
| 6141 | UGUCUCUCCUACACACUAU | 6186 | AGUCACCCAAAUACUCAGU | 6231 | CAGGCUACACCAGUGGAUU | 6276 | GUCCUCAUGGCUGCGAGAC |
| 6142 | GUCUCUCCUACACACUAUG | 6187 | GUCACCCAAAUACUCAGUU | 6232 | AGGCUACACCAGUGGAUUC | 6277 | UCCUCAUGGCUGCGAGACG |
| 6143 | UCUCUCCUACACACUAUGU | 6188 | UCACCCAAAUACUCAGUUC | 6233 | GGCUACACCAGUGGAUUCA | 6278 | CCUCAUGGCUGCGAGACGU |
| 6144 | CUCUCCUACACACUAUGUG | 6189 | CACCCAAAUACUCAGUUCA | 6234 | GCUACACCAGUGGAUUCAC | 6279 | CUCAUGGCUGCGAGACGUG |
| 6145 | UCUCCUACACACUAUGUGC | 6190 | ACCCAAAUACUCAGUUCAC | 6235 | CUACACCAGUGGAUUCACG | 6280 | UCAUGGCUGCGAGACGUGU |
| 6146 | CUCCUACACACUAUGUGCC | 6191 | CCCAAAUACUCAGUUCACU | 6236 | UACACCAGUGGAUUCACGA | 6281 | CAUGGCUGCGAGACGUGUG |
| 6147 | UCCUACACACUAUGUGCCC | 6192 | CCAAAUACUCAGUUCACUU | 6237 | ACACCAGUGGAUUCACGAG | 6282 | AUGGCUGCGAGACGUGUGG |
| 6148 | CCUACACACUAUGUGCCCG | 6193 | CAAAUACUCAGUUCACUUA | 6238 | CACCAGUGGAUUCACGAGG | 6283 | UGGCUGCGAGACGUGUGGG |
| 6149 | CUACACACUAUGUGCCCGA | 6194 | AAAUACUCAGUUCACUUAC | 6239 | ACCAGUGGAUUCACGAGGA | 6284 | GGCUGCGAGACGUGUGGGA |
| 6150 | UACACACUAUGUGCCCGAG | 6195 | AAUACUCAGUUCACUUACC | 6240 | CCAGUGGAUUCACGAGGAU | 6285 | GCUGCGAGACGUGUGGGAC |
| 6151 | ACACACUAUGUGCCCGAGA | 6196 | AUACUCAGUUCACUUACCA | 6241 | CAGUGGAUUCACGAGGAUA | 6286 | CUGCGAGACGUGUGGGACU |
| 6152 | CACACUAUGUGCCCGAGAC | 6197 | UACUCAGUUCACUUACCAU | 6242 | AGUGGAUUCACGAGGAUAC | 6287 | UGCGAGACGUGUGGGACUG |
| 6153 | ACACUAUGUGCCCGAGACG | 6198 | ACUCAGUUCACUUACCAUC | 6243 | GUGGAUUCACGAGGAUACG | 6288 | GCGAGACGUGUGGGACUGG |
| 6154 | CACUAUGUGCCCGAGACGG | 6199 | CUCAGUUCACUUACCAUCA | 6244 | UGGAUUCACGAGGAUACGU | 6289 | CGAGACGUGUGGGACUGGG |
| 6155 | ACUAUGUGCCCGAGACGGA | 6200 | UCAGUUCACUUACCAUCAC | 6245 | GGAUUCACGAGGAUACGUC | 6290 | GAGACGUGUGGGACUGGGU |
| 6156 | CUAUGUGCCCGAGACGGAC | 6201 | CAGUUCACUUACCAUCACU | 6246 | GAUUCACGAGGAUACGUCC | 6291 | AGACGUGUGGGACUGGGUG |
| 6157 | UAUGUGCCCGAGACGGACG | 6202 | AGUUCACUUACCAUCACUA | 6247 | AUUCACGAGGAUACGUCCA | 6292 | GACGUGUGGGACUGGGUGU |
| 6158 | AUGUGCCCGAGACGGACGC | 6203 | GUUCACUUACCAUCACUAG | 6248 | UUCACGAGGAUACGUCCAC | 6293 | ACGUGUGGGACUGGGUGUG |
| 6159 | UGUGCCCGAGACGGACGCA | 6204 | UUCACUUACCAUCACUAGC | 6249 | UCACGAGGAUACGUCCACG | 6294 | CGUGUGGGACUGGGUGUGU |
| 6160 | GUGCCCGAGACGGACGCAU | 6205 | UCACUUACCAUCACUAGCC | 6250 | CACGAGGAUACGUCCACGC | 6295 | GUGUGGGACUGGGUGUGUA |
| 6161 | UGCCCGAGACGGACGCAUC | 6206 | CACUUACCAUCACUAGCCU | 6251 | ACGAGGAUACGUCCACGCC | 6296 | UGUGGGACUGGGUGUGUAC |
| 6162 | GCCCGAGACGGACGCAUCA | 6207 | ACUUACCAUCACUAGCCUG | 6252 | CGAGGAUACGUCCACGCCU | 6297 | GUGGGACUGGGUGUGUACA |
| 6163 | CCCGAGACGGACGCAUCAA | 6208 | CUUACCAUCACUAGCCUGU | 6253 | GAGGAUACGUCCACGCCUU | 6298 | UGGGACUGGGUGUGUACAG |
| 6164 | CCGAGACGGACGCAUCAAA | 6209 | UUACCAUCACUAGCCUGUU | 6254 | AGGAUACGUCCACGCCUUG | 6299 | GGGACUGGGUGUGUACAGU |
| 6165 | CGAGACGGACGCAUCAAAC | 6210 | UACCAUCACUAGCCUGUUA | 6255 | GGAUACGUCCACGCCUUGC | 6300 | GGACUGGGUGUGUACAGUG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6301 | GACUGGGUGUGUACAGUGC | 6346 | GCCAAAAUAACGCCCCGCA | 6391 | CAGGCAGGGUAUAGGGGAG | 6436 | ACCACUUGCUCAUGCGGGG |
| 6302 | ACUGGGUGUGUACAGUGCU | 6347 | CCAAAAUAACGCCCCGCAU | 6392 | AGGCAGGGUAUAGGGGAGU | 6437 | CCACUUGCUCAUGCGGGGC |
| 6303 | CUGGGUGUGUACAGUGCUA | 6348 | CAAAAUAACGCCCCGCAUA | 6393 | GGCAGGGUAUAGGGGAGUU | 6438 | CACUUGCUCAUGCGGGGCU |
| 6304 | UGGGUGUGUACAGUGCUAU | 6349 | AAAAUAACGCCCCGCAUAC | 6394 | GCAGGGUAUAGGGGAGUUU | 6439 | ACUUGCUCAUGCGGGGCUC |
| 6305 | GGGUGUGUACAGUGCUAUC | 6350 | AAAUAACGCCCCGCAUACC | 6395 | CAGGGUAUAGGGGAGUUUG | 6440 | CUUGCUCAUGCGGGGCUCA |
| 6306 | GGUGUGUACAGUGCUAUCU | 6351 | AAUAACGCCCCGCAUACCU | 6396 | AGGGUAUAGGGGAGUUUGG | 6441 | UUGCUCAUGCGGGGCUCAA |
| 6307 | GUGUGUACAGUGCUAUCUG | 6352 | AUAACGCCCCGCAUACCUG | 6397 | GGGUAUAGGGGAGUUUGGG | 6442 | UGCUCAUGCGGGGCUCAAA |
| 6308 | UGUGUACAGUGCUAUCUGA | 6353 | UAACGCCCCGCAUACCUGG | 6398 | GGUAUAGGGGAGUUUGGGC | 6443 | GCUCAUGCGGGGCUCAAAU |
| 6309 | GUGUACAGUGCUAUCUGAC | 6354 | AACGCCCCGCAUACCUGGA | 6399 | GUAUAGGGGAGUUUGGGCU | 6444 | CUCAUGCGGGGCUCAAAUU |
| 6310 | UGUACAGUGCUAUCUGACU | 6355 | ACGCCCCGCAUACCUGGAA | 6400 | UAUAGGGGAGUUUGGGCUG | 6445 | UCAUGCGGGGCUCAAAUUG |
| 6311 | GUACAGUGCUAUCUGACUU | 6356 | CGCCCCGCAUACCUGGAAU | 6401 | AUAGGGGAGUUUGGGCUGG | 6446 | CAUGCGGGGCUCAAAUUGC |
| 6312 | UACAGUGCUAUCUGACUUC | 6357 | GCCCCGCAUACCUGGAAUC | 6402 | UAGGGGAGUUUGGGCUGGU | 6447 | AUGCGGGGCUCAAAUUGCU |
| 6313 | ACAGUGCUAUCUGACUUCA | 6358 | CCCCGCAUACCUGGAAUCC | 6403 | AGGGGAGUUUGGGCUGGUG | 6448 | UGCGGGGCUCAAAUUGCUG |
| 6314 | CAGUGCUAUCUGACUUCAA | 6359 | CCCGCAUACCUGGAAUCCC | 6404 | GGGGAGUUUGGGCUGGUGA | 6449 | GCGGGGCUCAAAUUGCUGG |
| 6315 | AGUGCUAUCUGACUUCAAG | 6360 | CCGCAUACCUGGAAUCCCC | 6405 | GGGAGUUUGGGCUGGUGAC | 6450 | CGGGGCUCAAAUUGCUGGA |
| 6316 | GUGCUAUCUGACUUCAAGA | 6361 | CGCAUACCUGGAAUCCCCU | 6406 | GGAGUUUGGGCUGGUGACG | 6451 | GGGGCUCAAAUUGCUGGAC |
| 6317 | UGCUAUCUGACUUCAAGAC | 6362 | GCAUACCUGGAAUCCCCUU | 6407 | GAGUUUGGGCUGGUGACGG | 6452 | GGGCUCAAAUUGCUGGACA |
| 6318 | GCUAUCUGACUUCAAGACC | 6363 | CAUACCUGGAAUCCCCUUU | 6408 | AGUUUGGGCUGGUGACGGG | 6453 | GGCUCAAAUUGCUGGACAC |
| 6319 | CUAUCUGACUUCAAGACCU | 6364 | AUACCUGGAAUCCCCUUUA | 6409 | GUUUGGGCUGGUGACGGGG | 6454 | GCUCAAAUUGCUGGACACG |
| 6320 | UAUCUGACUUCAAGACCUG | 6365 | UACCUGGAAUCCCCUUUAU | 6410 | UUUGGGCUGGUGACGGGGU | 6455 | CUCAAAUUGCUGGACACGU |
| 6321 | AUCUGACUUCAAGACCUGG | 6366 | ACCUGGAAUCCCCUUUAUA | 6411 | UUGGGCUGGUGACGGGGUG | 6456 | UCAAAUUGCUGGACACGUG |
| 6322 | UCUGACUUCAAGACCUGGC | 6367 | CCUGGAAUCCCCUUUAUAU | 6412 | UGGGCUGGUGACGGGGUGU | 6457 | CAAAUUGCUGGACACGUGA |
| 6323 | CUGACUUCAAGACCUGGCU | 6368 | CUGGAAUCCCCUUUAUAUC | 6413 | GGGCUGGUGACGGGGUGUG | 6458 | AAAUUGCUGGACACGUGAA |
| 6324 | UGACUUCAAGACCUGGCUC | 6369 | UGGAAUCCCCUUUAUAUCU | 6414 | GGCUGGUGACGGGGUGUGU | 6459 | AAUUGCUGGACACGUGAAG |
| 6325 | GACUUCAAGACCUGGCUCA | 6370 | GGAAUCCCCUUUAUAUCUU | 6415 | GCUGGUGACGGGGUGUGUC | 6460 | AUUGCUGGACACGUGAAGA |
| 6326 | ACUUCAAGACCUGGCUCAA | 6371 | GAAUCCCCUUUAUAUCUUG | 6416 | CUGGUGACGGGGUGUGUCA | 6461 | UUGCUGGACACGUGAAGAA |
| 6327 | CUUCAAGACCUGGCUCAAG | 6372 | AAUCCCCUUUAUAUCUUGC | 6417 | UGGUGACGGGGUGUGUCAC | 6462 | UGCUGGACACGUGAAGAAC |
| 6328 | UUCAAGACCUGGCUCAAGG | 6373 | AUCCCCUUUAUAUCUUGCC | 6418 | GGUGACGGGGUGUGUCACA | 6463 | GCUGGACACGUGAAGAACG |
| 6329 | UCAAGACCUGGCUCAAGGC | 6374 | UCCCCUUUAUAUCUUGCCA | 6419 | GUGACGGGGUGUGUCACAC | 6464 | CUGGACACGUGAAGAACGG |
| 6330 | CAAGACCUGGCUCAAGGCC | 6375 | CCCCUUUAUAUCUUGCCAG | 6420 | UGACGGGGUGUGUCACACC | 6465 | UGGACACGUGAAGAACGGG |
| 6331 | AAGACCUGGCUCAAGGCCA | 6376 | CCCUUUAUAUCUUGCCAGG | 6421 | GACGGGGUGUGUCACACCA | 6466 | GGACACGUGAAGAACGGGU |
| 6332 | AGACCUGGCUCAAGGCCAA | 6377 | CCUUUAUAUCUUGCCAGGC | 6422 | ACGGGGUGUGUCACACCAC | 6467 | GACACGUGAAGAACGGGUC |
| 6333 | GACCUGGCUCAAGGCCAAA | 6378 | CUUUAUAUCUUGCCAGGCA | 6423 | CGGGGUGUGUCACACCACU | 6468 | ACACGUGAAGAACGGGUCU |
| 6334 | ACCUGGCUCAAGGCCAAAA | 6379 | UUUAUAUCUUGCCAGGCAG | 6424 | GGGGUGUGUCACACCACUU | 6469 | CACGUGAAGAACGGGUCUA |
| 6335 | CCUGGCUCAAGGCCAAAAU | 6380 | UUAUAUCUUGCCAGGCAGG | 6425 | GGGUGUGUCACACCACUUG | 6470 | ACGUGAAGAACGGGUCUAU |
| 6336 | CUGGCUCAAGGCCAAAAUA | 6381 | UAUAUCUUGCCAGGCAGGG | 6426 | GGUGUGUCACACCACUUGC | 6471 | CGUGAAGAACGGGUCUAUG |
| 6337 | UGGCUCAAGGCCAAAAUAA | 6382 | AUAUCUUGCCAGGCAGGGU | 6427 | GUGUGUCACACCACUUGCU | 6472 | GUGAAGAACGGGUCUAUGA |
| 6338 | GGCUCAAGGCCAAAAUAAC | 6383 | UAUCUUGCCAGGCAGGGUA | 6428 | UGUGUCACACCACUUGCUC | 6473 | UGAAGAACGGGUCUAUGAA |
| 6339 | GCUCAAGGCCAAAAUAACG | 6384 | AUCUUGCCAGGCAGGGUAU | 6429 | GUGUCACACCACUUGCUCA | 6474 | GAAGAACGGGUCUAUGAAG |
| 6340 | CUCAAGGCCAAAAUAACGC | 6385 | UCUUGCCAGGCAGGGUAUA | 6430 | UGUCACACCACUUGCUCAU | 6475 | AAGAACGGGUCUAUGAAGA |
| 6341 | UCAAGGCCAAAAUAACGCC | 6386 | CUUGCCAGGCAGGGUAUAG | 6431 | GUCACACCACUUGCUCAUG | 6476 | AGAACGGGUCUAUGAAGAU |
| 6342 | CAAGGCCAAAAUAACGCCC | 6387 | UUGCCAGGCAGGGUAUAGG | 6432 | UCACACCACUUGCUCAUGC | 6477 | GAACGGGUCUAUGAAGAUC |
| 6343 | AAGGCCAAAAUAACGCCCC | 6388 | UGCCAGGCAGGGUAUAGGG | 6433 | CACACCACUUGCUCAUGCG | 6478 | AACGGGUCUAUGAAGAUCA |
| 6344 | AGGCCAAAAUAACGCCCCG | 6389 | GCCAGGCAGGGUAUAGGGG | 6434 | ACACCACUUGCUCAUGCGG | 6479 | ACGGGUCUAUGAAGAUCAC |
| 6345 | GGCCAAAAUAACGCCCCGC | 6390 | CCAGGCAGGGUAUAGGGGA | 6435 | CACCACUUGCUCAUGCGGG | 6480 | CGGGUCUAUGAAGAUCACA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6481 | GGGUCUAUGAAGAUCACAG | 6526 | CAUGGAACGUUUCCGAUCA | 6571 | CCGGUACCGGCCCCCAACU | 6616 | GCUGAGGAGUACGUUGAAG |
| 6482 | GGUCUAUGAAGAUCACAGG | 6527 | AUGGAACGUUUCCGAUCAA | 6572 | CGGUACCGGCCCCCAACUA | 6617 | CUGAGGAGUACGUUGAAGU |
| 6483 | GUCUAUGAAGAUCACAGGA | 6528 | UGGAACGUUUCCGAUCAAC | 6573 | GGUACCGGCCCCCAACUAC | 6618 | UGAGGAGUACGUUGAAGUA |
| 6484 | UCUAUGAAGAUCACAGGAC | 6529 | GGAACGUUUCCGAUCAACG | 6574 | GUACCGGCCCCCAACUACA | 6619 | GAGGAGUACGUUGAAGUAG |
| 6485 | CUAUGAAGAUCACAGGACC | 6530 | GAACGUUUCCGAUCAACGC | 6575 | UACCGGCCCCCAACUACAA | 6620 | AGGAGUACGUUGAAGUAGA |
| 6486 | UAUGAAGAUCACAGGACCC | 6531 | AACGUUUCCGAUCAACGCC | 6576 | ACCGGCCCCCAACUACAAA | 6621 | GGAGUACGUUGAAGUAGAG |
| 6487 | AUGAAGAUCACAGGACCCC | 6532 | ACGUUUCCGAUCAACGCCA | 6577 | CCGGCCCCCAACUACAAAC | 6622 | GAGUACGUUGAAGUAGAGA |
| 6488 | UGAAGAUCACAGGACCCCG | 6533 | CGUUUCCGAUCAACGCCAC | 6578 | CGGCCCCCAACUACAAACG | 6623 | AGUACGUUGAAGUAGAGAG |
| 6489 | GAAGAUCACAGGACCCCGG | 6534 | GUUUCCGAUCAACGCCACA | 6579 | GGCCCCCAACUACAAACGC | 6624 | GUACGUUGAAGUAGAGAGG |
| 6490 | AAGAUCACAGGACCCCGGA | 6535 | UUUCCGAUCAACGCCACAA | 6580 | GCCCCCAACUACAAACGCG | 6625 | UACGUUGAAGUAGAGAGGC |
| 6491 | AGAUCACAGGACCCCGGAU | 6536 | UUCCGAUCAACGCCACAAC | 6581 | CCCCCAACUACAAACGCGC | 6626 | ACGUUGAAGUAGAGAGGCA |
| 6492 | GAUCACAGGACCCCGGAUG | 6537 | UCCGAUCAACGCCACAACU | 6582 | CCCCAACUACAAACGCGCU | 6627 | CGUUGAAGUAGAGAGGCAC |
| 6493 | AUCACAGGACCCCGGAUGU | 6538 | CCGAUCAACGCCACAACUA | 6583 | CCCAACUACAAACGCGCUC | 6628 | GUUGAAGUAGAGAGGCACG |
| 6494 | UCACAGGACCCCGGAUGUG | 6539 | CGAUCAACGCCACAACUAC | 6584 | CCAACUACAAACGCGCUCU | 6629 | UUGAAGUAGAGAGGCACGG |
| 6495 | CACAGGACCCCGGAUGUGC | 6540 | GAUCAACGCCACAACUACC | 6585 | CAACUACAAACGCGCUCUC | 6630 | UGAAGUAGAGAGGCACGGC |
| 6496 | ACAGGACCCCGGAUGUGCA | 6541 | AUCAACGCCACAACUACCA | 6586 | AACUACAAACGCGCUCUCU | 6631 | GAAGUAGAGAGGCACGGCG |
| 6497 | CAGGACCCCGGAUGUGCAG | 6542 | UCAACGCCACAACUACCAG | 6587 | ACUACAAACGCGCUCUCUG | 6632 | AAGUAGAGAGGCACGGCGA |
| 6498 | AGGACCCCGGAUGUGCAGC | 6543 | CAACGCCACAACUACCAGC | 6588 | CUACAAACGCGCUCUCUGG | 6633 | AGUAGAGAGGCACGGCGAC |
| 6499 | GGACCCCGGAUGUGCAGCA | 6544 | AACGCCACAACUACCAGCC | 6589 | UACAAACGCGCUCUCUGGC | 6634 | GUAGAGAGGCACGGCGACC |
| 6500 | GACCCCGGAUGUGCAGCAA | 6545 | ACGCCACAACUACCAGCCC | 6590 | ACAAACGCGCUCUCUGGCG | 6635 | UAGAGAGGCACGGCGACCG |
| 6501 | ACCCCGGAUGUGCAGCAAC | 6546 | CGCCACAACUACCAGCCCU | 6591 | CAAACGCGCUCUCUGGCGA | 6636 | AGAGAGGCACGGCGACCGU |
| 6502 | CCCCGGAUGUGCAGCAACA | 6547 | GCCACAACUACCAGCCCUA | 6592 | AAACGCGCUCUCUGGCGAG | 6637 | GAGAGGCACGGCGACCGUC |
| 6503 | CCCGGAUGUGCAGCAACAC | 6548 | CCACAACUACCAGCCCUAG | 6593 | AACGCGCUCUCUGGCGAGU | 6638 | AGAGGCACGGCGACCGUCA |
| 6504 | CCGGAUGUGCAGCAACACU | 6549 | CACAACUACCAGCCCUAGU | 6594 | ACGCGCUCUCUGGCGAGUU | 6639 | GAGGCACGGCGACCGUCAC |
| 6505 | CGGAUGUGCAGCAACACUU | 6550 | ACAACUACCAGCCCUAGUG | 6595 | CGCGCUCUCUGGCGAGUUU | 6640 | AGGCACGGCGACCGUCACU |
| 6506 | GGAUGUGCAGCAACACUUG | 6551 | CAACUACCAGCCCUAGUGU | 6596 | GCGCUCUCUGGCGAGUUUC | 6641 | GGCACGGCGACCGUCACUA |
| 6507 | GAUGUGCAGCAACACUUGG | 6552 | AACUACCAGCCCUAGUGUG | 6597 | CGCUCUCUGGCGAGUUUCC | 6642 | GCACGGCGACCGUCACUAU |
| 6508 | AUGUGCAGCAACACUUGGC | 6553 | ACUACCAGCCCUAGUGUGC | 6598 | GCUCUCUGGCGAGUUUCCG | 6643 | CACGGCGACCGUCACUAUG |
| 6509 | UGUGCAGCAACACUUGGCA | 6554 | CUACCAGCCCUAGUGUGCC | 6599 | CUCUCUGGCGAGUUUCCGC | 6644 | ACGGCGACCGUCACUAUGU |
| 6510 | GUGCAGCAACACUUGGCAU | 6555 | UACCAGCCCUAGUGUGCCG | 6600 | UCUCUGGCGAGUUUCCGCU | 6645 | CGGCGACCGUCACUAUGUG |
| 6511 | UGCAGCAACACUUGGCAUG | 6556 | ACCAGCCCUAGUGUGCCGG | 6601 | CUCUGGCGAGUUUCCGCUG | 6646 | GGCGACCGUCACUAUGUGG |
| 6512 | GCAGCAACACUUGGCAUGG | 6557 | CCAGCCCUAGUGUGCCGGU | 6602 | UCUGGCGAGUUUCCGCUGA | 6647 | GCGACCGUCACUAUGUGGU |
| 6513 | CAGCAACACUUGGCAUGGA | 6558 | CAGCCCUAGUGUGCCGGUA | 6603 | CUGGCGAGUUUCCGCUGAG | 6648 | CGACCGUCACUAUGUGGUG |
| 6514 | AGCAACACUUGGCAUGGAA | 6559 | AGCCCUAGUGUGCCGGUAC | 6604 | UGGCGAGUUUCCGCUGAGG | 6649 | GACCGUCACUAUGUGGUGG |
| 6515 | GCAACACUUGGCAUGGAAC | 6560 | GCCCUAGUGUGCCGGUACC | 6605 | GGCGAGUUUCCGCUGAGGA | 6650 | ACCGUCACUAUGUGGUGGG |
| 6516 | CAACACUUGGCAUGGAACG | 6561 | CCCUAGUGUGCCGGUACCG | 6606 | GCGAGUUUCCGCUGAGGAG | 6651 | CCGUCACUAUGUGGUGGGA |
| 6517 | AACACUUGGCAUGGAACGU | 6562 | CCUAGUGUGCCGGUACCGG | 6607 | CGAGUUUCCGCUGAGGAGU | 6652 | CGUCACUAUGUGGUGGGAG |
| 6518 | ACACUUGGCAUGGAACGUU | 6563 | CUAGUGUGCCGGUACCGGC | 6608 | GAGUUUCCGCUGAGGAGUA | 6653 | GUCACUAUGUGGUGGGAGU |
| 6519 | CACUUGGCAUGGAACGUUU | 6564 | UAGUGUGCCGGUACCGGCC | 6609 | AGUUUCCGCUGAGGAGUAC | 6654 | UCACUAUGUGGUGGGAGUC |
| 6520 | ACUUGGCAUGGAACGUUUC | 6565 | AGUGUGCCGGUACCGGCCC | 6610 | GUUUCCGCUGAGGAGUACG | 6655 | CACUAUGUGGUGGGAGUCA |
| 6521 | CUUGGCAUGGAACGUUUCC | 6566 | GUGUGCCGGUACCGGCCCC | 6611 | UUUCCGCUGAGGAGUACGU | 6656 | ACUAUGUGGUGGGAGUCAC |
| 6522 | UUGGCAUGGAACGUUUCCG | 6567 | UGUGCCGGUACCGGCCCCC | 6612 | UUCCGCUGAGGAGUACGUU | 6657 | CUAUGUGGUGGGAGUCACU |
| 6523 | UGGCAUGGAACGUUUCCGA | 6568 | GUGCCGGUACCGGCCCCCA | 6613 | UCCGCUGAGGAGUACGUUG | 6658 | UAUGUGGUGGGAGUCACUG |
| 6524 | GGCAUGGAACGUUUCCGAU | 6569 | UGCCGGUACCGGCCCCCAA | 6614 | CCGCUGAGGAGUACGUUGA | 6659 | AUGUGGUGGGAGUCACUGC |
| 6525 | GCAUGGAACGUUUCCGAUC | 6570 | GCCGGUACCGGCCCCCAAC | 6615 | CGCUGAGGAGUACGUUGAA | 6660 | UGUGGUGGGAGUCACUGCU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6661 | GUGGUGGGAGUCACUGCUG | 6706 | CCCGGACCUGAGUUCUUCA | 6751 | CGUUAUGCGCCACCCUGCA | 6796 | UUCUCUGUGGGCCUCCUAG |
| 6662 | UGGUGGGAGUCACUGCUGA | 6707 | CCGGACCUGAGUUCUUCAC | 6752 | GUUAUGCGCCACCCUGCAA | 6797 | UCUCUGUGGGCCUCCUAGA |
| 6663 | GGUGGGAGUCACUGCUGAU | 6708 | CGGACCUGAGUUCUUCACU | 6753 | UUAUGCGCCACCCUGCAAA | 6798 | CUCUGUGGGCCUCCUAGAG |
| 6664 | GUGGGAGUCACUGCUGAUG | 6709 | GGACCUGAGUUCUUCACUG | 6754 | UAUGCGCCACCCUGCAAAC | 6799 | UCUGUGGGCCUCCUAGAGU |
| 6665 | UGGGAGUCACUGCUGAUGG | 6710 | GACCUGAGUUCUUCACUGA | 6755 | AUGCGCCACCCUGCAAACC | 6800 | CUGUGGGCCUCCUAGAGUU |
| 6666 | GGGAGUCACUGCUGAUGGC | 6711 | ACCUGAGUUCUUCACUGAG | 6756 | UGCGCCACCCUGCAAACCC | 6801 | UGUGGGCCUCCUAGAGUUU |
| 6667 | GGAGUCACUGCUGAUGGCC | 6712 | CCUGAGUUCUUCACUGAGG | 6757 | GCGCCACCCUGCAAACCCC | 6802 | GUGGGCCUCCUAGAGUUUG |
| 6668 | GAGUCACUGCUGAUGGCCU | 6713 | CUGAGUUCUUCACUGAGGU | 6758 | CGCCACCCUGCAAACCCCU | 6803 | UGGGCCUCCUAGAGUUUGU |
| 6669 | AGUCACUGCUGAUGGCCUU | 6714 | UGAGUUCUUCACUGAGGUG | 6759 | GCCACCCUGCAAACCCCUG | 6804 | GGGCCUCCUAGAGUUUGUU |
| 6670 | GUCACUGCUGAUGGCCUUA | 6715 | GAGUUCUUCACUGAGGUGG | 6760 | CCACCCUGCAAACCCCUGC | 6805 | GGCCUCCUAGAGUUUGUUG |
| 6671 | UCACUGCUGAUGGCCUUAA | 6716 | AGUUCUUCACUGAGGUGGA | 6761 | CACCCUGCAAACCCCUGCU | 6806 | GCCUCCUAGAGUUUGUUGU |
| 6672 | CACUGCUGAUGGCCUUAAA | 6717 | GUUCUUCACUGAGGUGGAU | 6762 | ACCCUGCAAACCCCUGCUU | 6807 | CCUCCUAGAGUUUGUUGUG |
| 6673 | ACUGCUGAUGGCCUUAAAU | 6718 | UUCUUCACUGAGGUGGAUG | 6763 | CCCUGCAAACCCCUGCUUA | 6808 | CUCCUAGAGUUUGUUGUGG |
| 6674 | CUGCUGAUGGCCUUAAAUG | 6719 | UCUUCACUGAGGUGGAUGG | 6764 | CCUGCAAACCCCUGCUUAG | 6809 | UCCUAGAGUUUGUUGUGGG |
| 6675 | UGCUGAUGGCCUUAAAUGC | 6720 | CUUCACUGAGGUGGAUGGC | 6765 | CUGCAAACCCCUGCUUAGA | 6810 | CCUAGAGUUUGUUGUGGGG |
| 6676 | GCUGAUGGCCUUAAAUGCC | 6721 | UUCACUGAGGUGGAUGGCG | 6766 | UGCAAACCCCUGCUUAGAG | 6811 | CUAGAGUUUGUUGUGGGGU |
| 6677 | CUGAUGGCCUUAAAUGCCC | 6722 | UCACUGAGGUGGAUGGCGU | 6767 | GCAAACCCCUGCUUAGAGA | 6812 | UAGAGUUUGUUGUGGGGUC |
| 6678 | UGAUGGCCUUAAAUGCCCU | 6723 | CACUGAGGUGGAUGGCGUA | 6768 | CAAACCCCUGCUUAGAGAU | 6813 | AGAGUUUGUUGUGGGGUCU |
| 6679 | GAUGGCCUUAAAUGCCCUU | 6724 | ACUGAGGUGGAUGGCGUAA | 6769 | AAACCCCUGCUUAGAGAUG | 6814 | GAGUUUGUUGUGGGGUCUC |
| 6680 | AUGGCCUUAAAUGCCCUUG | 6725 | CUGAGGUGGAUGGCGUAAG | 6770 | AACCCCUGCUUAGAGAUGA | 6815 | AGUUUGUUGUGGGGUCUCA |
| 6681 | UGGCCUUAAAUGCCCUUGC | 6726 | UGAGGUGGAUGGCGUAAGG | 6771 | ACCCCUGCUUAGAGAUGAG | 6816 | GUUUGUUGUGGGGUCUCAG |
| 6682 | GGCCUUAAAUGCCCUUGCC | 6727 | GAGGUGGAUGGCGUAAGGA | 6772 | CCCCUGCUUAGAGAUGAGG | 6817 | UUUGUUGUGGGGUCUCAGC |
| 6683 | GCCUUAAAUGCCCUUGCCA | 6728 | AGGUGGAUGGCGUAAGGAU | 6773 | CCCUGCUUAGAGAUGAGGU | 6818 | UUGUUGUGGGGUCUCAGCU |
| 6684 | CCUUAAAUGCCCUUGCCAA | 6729 | GGUGGAUGGCGUAAGGAUA | 6774 | CCUGCUUAGAGAUGAGGUG | 6819 | UGUUGUGGGGUCUCAGCUC |
| 6685 | CUUAAAUGCCCUUGCCAAG | 6730 | GUGGAUGGCGUAAGGAUAC | 6775 | CUGCUUAGAGAUGAGGUGA | 6820 | GUUGUGGGGUCUCAGCUCC |
| 6686 | UUAAAUGCCCUUGCCAAGU | 6731 | UGGAUGGCGUAAGGAUACA | 6776 | UGCUUAGAGAUGAGGUGAG | 6821 | UUGUGGGGUCUCAGCUCCC |
| 6687 | UAAAUGCCCUUGCCAAGUU | 6732 | GGAUGGCGUAAGGAUACAU | 6777 | GCUUAGAGAUGAGGUGAGC | 6822 | UGUGGGGUCUCAGCUCCCU |
| 6688 | AAAUGCCCUUGCCAAGUUC | 6733 | GAUGGCGUAAGGAUACAUC | 6778 | CUUAGAGAUGAGGUGAGCU | 6823 | GUGGGGUCUCAGCUCCCUU |
| 6689 | AAUGCCCUUGCCAAGUUCC | 6734 | AUGGCGUAAGGAUACAUCG | 6779 | UUAGAGAUGAGGUGAGCUU | 6824 | UGGGGUCUCAGCUCCCUUG |
| 6690 | AUGCCCUUGCCAAGUUCCC | 6735 | UGGCGUAAGGAUACAUCGU | 6780 | UAGAGAUGAGGUGAGCUUC | 6825 | GGGGUCUCAGCUCCCUUGU |
| 6691 | UGCCCUUGCCAAGUUCCCG | 6736 | GGCGUAAGGAUACAUCGUU | 6781 | AGAGAUGAGGUGAGCUUCU | 6826 | GGGUCUCAGCUCCCUUGUG |
| 6692 | GCCCUUGCCAAGUUCCCGG | 6737 | GCGUAAGGAUACAUCGUUA | 6782 | GAGAUGAGGUGAGCUUCUC | 6827 | GGUCUCAGCUCCCUUGUGA |
| 6693 | CCCUUGCCAAGUUCCCGGA | 6738 | CGUAAGGAUACAUCGUUAU | 6783 | AGAUGAGGUGAGCUUCUCU | 6828 | GUCUCAGCUCCCUUGUGAG |
| 6694 | CCUUGCCAAGUUCCCGGAC | 6739 | GUAAGGAUACAUCGUUAUG | 6784 | GAUGAGGUGAGCUUCUCUG | 6829 | UCUCAGCUCCCUUGUGAGC |
| 6695 | CUUGCCAAGUUCCCGGACC | 6740 | UAAGGAUACAUCGUUAUGC | 6785 | AUGAGGUGAGCUUCUCUGU | 6830 | CUCAGCUCCCUUGUGAGCC |
| 6696 | UUGCCAAGUUCCCGGACCU | 6741 | AAGGAUACAUCGUUAUGCG | 6786 | UGAGGUGAGCUUCUCUGUG | 6831 | UCAGCUCCCUUGUGAGCCA |
| 6697 | UGCCAAGUUCCCGGACCUG | 6742 | AGGAUACAUCGUUAUGCGC | 6787 | GAGGUGAGCUUCUCUGUGG | 6832 | CAGCUCCCUUGUGAGCCAG |
| 6698 | GCCAAGUUCCCGGACCUGA | 6743 | GGAUACAUCGUUAUGCGCC | 6788 | AGGUGAGCUUCUCUGUGGG | 6833 | AGCUCCCUUGUGAGCCAGA |
| 6699 | CCAAGUUCCCGGACCUGAG | 6744 | GAUACAUCGUUAUGCGCCA | 6789 | GGUGAGCUUCUCUGUGGGC | 6834 | GCUCCCUUGUGAGCCAGAG |
| 6700 | CAAGUUCCCGGACCUGAGU | 6745 | AUACAUCGUUAUGCGCCAC | 6790 | GUGAGCUUCUCUGUGGGCC | 6835 | CUCCCUUGUGAGCCAGAGC |
| 6701 | AAGUUCCCGGACCUGAGUU | 6746 | UACAUCGUUAUGCGCCACC | 6791 | UGAGCUUCUCUGUGGGCCU | 6836 | UCCCUUGUGAGCCAGAGCC |
| 6702 | AGUUCCCGGACCUGAGUUC | 6747 | ACAUCGUUAUGCGCCACCC | 6792 | GAGCUUCUCUGUGGGCCUC | 6837 | CCCUUGUGAGCCAGAGCCU |
| 6703 | GUUCCCGGACCUGAGUUCU | 6748 | CAUCGUUAUGCGCCACCCU | 6793 | AGCUUCUCUGUGGGCCUCC | 6838 | CCUUGUGAGCCAGAGCCUG |
| 6704 | UUCCCGGACCUGAGUUCUU | 6749 | AUCGUUAUGCGCCACCCUG | 6794 | GCUUCUCUGUGGGCCUCCU | 6839 | CUUGUGAGCCAGAGCCUGA |
| 6705 | UCCCGGACCUGAGUUCUUC | 6750 | UCGUUAUGCGCCACCCUGC | 6795 | CUUCUCUGUGGGCCUCCUA | 6840 | UUGUGAGCCAGAGCCUGAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6841 | UGUGAGCCAGAGCCUGACG | 6886 | GACCCCUCACACAUCACCG | 6931 | AGGGGAUCUCCCCCCUCCC | 6976 | UCAGCGCCAUCACUUAAAG |
| 6842 | GUGAGCCAGAGCCUGACGU | 6887 | ACCCCUCACACAUCACCGC | 6932 | GGGGAUCUCCCCCCUCCCU | 6977 | CAGCGCCAUCACUUAAAGC |
| 6843 | UGAGCCAGAGCCUGACGUG | 6888 | CCCCUCACACAUCACCGCA | 6933 | GGGAUCUCCCCCCUCCCUG | 6978 | AGCGCCAUCACUUAAAGCC |
| 6844 | GAGCCAGAGCCUGACGUGA | 6889 | CCCUCACACAUCACCGCAG | 6934 | GGAUCUCCCCCCUCCCUGG | 6979 | GCGCCAUCACUUAAAGCCA |
| 6845 | AGCCAGAGCCUGACGUGAC | 6890 | CCUCACACAUCACCGCAGA | 6935 | GAUCUCCCCCCUCCCUGGC | 6980 | CGCCAUCACUUAAAGCCAC |
| 6846 | GCCAGAGCCUGACGUGACC | 6891 | CUCACACAUCACCGCAGAG | 6936 | AUCUCCCCCCUCCCUGGCG | 6981 | GCCAUCACUUAAAGCCACU |
| 6847 | CCAGAGCCUGACGUGACCG | 6892 | UCACACAUCACCGCAGAGA | 6937 | UCUCCCCCCUCCCUGGCGA | 6982 | CCAUCACUUAAAGCCACUU |
| 6848 | CAGAGCCUGACGUGACCGU | 6893 | CACACAUCACCGCAGAGAC | 6938 | CUCCCCCCUCCCUGGCGAG | 6983 | CAUCACUUAAAGCCACUUG |
| 6849 | AGAGCCUGACGUGACCGUA | 6894 | ACACAUCACCGCAGAGACA | 6939 | UCCCCCCUCCCUGGCGAGU | 6984 | AUCACUUAAAGCCACUUGC |
| 6850 | GAGCCUGACGUGACCGUAG | 6895 | CACAUCACCGCAGAGACAG | 6940 | CCCCCCUCCCUGGCGAGUU | 6985 | UCACUUAAAGCCACUUGCA |
| 6851 | AGCCUGACGUGACCGUAGU | 6896 | ACAUCACCGCAGAGACAGC | 6941 | CCCCCUCCCUGGCGAGUUC | 6986 | CACUUAAAGCCACUUGCAC |
| 6852 | GCCUGACGUGACCGUAGUC | 6897 | CAUCACCGCAGAGACAGCC | 6942 | CCCCUCCCUGGCGAGUUCA | 6987 | ACUUAAAGCCACUUGCACG |
| 6853 | CCUGACGUGACCGUAGUCA | 6898 | AUCACCGCAGAGACAGCCU | 6943 | CCCUCCCUGGCGAGUUCAU | 6988 | CUUAAAGCCACUUGCACGG |
| 6854 | CUGACGUGACCGUAGUCAC | 6899 | UCACCGCAGAGACAGCCUC | 6944 | CCUCCCUGGCGAGUUCAUC | 6989 | UUAAAGCCACUUGCACGGC |
| 6855 | UGACGUGACCGUAGUCACG | 6900 | CACCGCAGAGACAGCCUCU | 6945 | CUCCCUGGCGAGUUCAUCC | 6990 | UAAAGCCACUUGCACGGCG |
| 6856 | GACGUGACCGUAGUCACGU | 6901 | ACCGCAGAGACAGCCUCUC | 6946 | UCCCUGGCGAGUUCAUCCG | 6991 | AAAGCCACUUGCACGGCGA |
| 6857 | ACGUGACCGUAGUCACGUC | 6902 | CCGCAGAGACAGCCUCUCG | 6947 | CCCUGGCGAGUUCAUCCGC | 6992 | AAGCCACUUGCACGGCGAA |
| 6858 | CGUGACCGUAGUCACGUCA | 6903 | CGCAGAGACAGCCUCUCGG | 6948 | CCUGGCGAGUUCAUCCGCC | 6993 | AGCCACUUGCACGGCGAAC |
| 6859 | GUGACCGUAGUCACGUCAA | 6904 | GCAGAGACAGCCUCUCGGC | 6949 | CUGGCGAGUUCAUCCGCCA | 6994 | GCCACUUGCACGGCGAACG |
| 6860 | UGACCGUAGUCACGUCAAU | 6905 | CAGAGACAGCCUCUCGGCG | 6950 | UGGCGAGUUCAUCCGCCAG | 6995 | CCACUUGCACGGCGAACGG |
| 6861 | GACCGUAGUCACGUCAAUG | 6906 | AGAGACAGCCUCUCGGCGC | 6951 | GGCGAGUUCAUCCGCCAGC | 6996 | CACUUGCACGGCGAACGGA |
| 6862 | ACCGUAGUCACGUCAAUGC | 6907 | GAGACAGCCUCUCGGCGCU | 6952 | GCGAGUUCAUCCGCCAGCC | 6997 | ACUUGCACGGCGAACGGAG |
| 6863 | CCGUAGUCACGUCAAUGCU | 6908 | AGACAGCCUCUCGGCGCUU | 6953 | CGAGUUCAUCCGCCAGCCA | 6998 | CUUGCACGGCGAACGGAGA |
| 6864 | CGUAGUCACGUCAAUGCUC | 6909 | GACAGCCUCUCGGCGCUUG | 6954 | GAGUUCAUCCGCCAGCCAG | 6999 | UUGCACGGCGAACGGAGAC |
| 6865 | GUAGUCACGUCAAUGCUCA | 6910 | ACAGCCUCUCGGCGCUUGA | 6955 | AGUUCAUCCGCCAGCCAGU | 7000 | UGCACGGCGAACGGAGACC |
| 6866 | UAGUCACGUCAAUGCUCAC | 6911 | CAGCCUCUCGGCGCUUGAA | 6956 | GUUCAUCCGCCAGCCAGUU | 7001 | GCACGGCGAACGGAGACCA |
| 6867 | AGUCACGUCAAUGCUCACU | 6912 | AGCCUCUCGGCGCUUGAAG | 6957 | UUCAUCCGCCAGCCAGUUG | 7002 | CACGGCGAACGGAGACCAC |
| 6868 | GUCACGUCAAUGCUCACUG | 6913 | GCCUCUCGGCGCUUGAAGA | 6958 | UCAUCCGCCAGCCAGUUGU | 7003 | ACGGCGAACGGAGACCACC |
| 6869 | UCACGUCAAUGCUCACUGA | 6914 | CCUCUCGGCGCUUGAAGAG | 6959 | CAUCCGCCAGCCAGUUGUC | 7004 | CGGCGAACGGAGACCACCC |
| 6870 | CACGUCAAUGCUCACUGAC | 6915 | CUCUCGGCGCUUGAAGAGG | 6960 | AUCCGCCAGCCAGUUGUCA | 7005 | GGCGAACGGAGACCACCCG |
| 6871 | ACGUCAAUGCUCACUGACC | 6916 | UCUCGGCGCUUGAAGAGGG | 6961 | UCCGCCAGCCAGUUGUCAG | 7006 | GCGAACGGAGACCACCCGG |
| 6872 | CGUCAAUGCUCACUGACCC | 6917 | CUCGGCGCUUGAAGAGGGG | 6962 | CCGCCAGCCAGUUGUCAGC | 7007 | CGAACGGAGACCACCCGGA |
| 6873 | GUCAAUGCUCACUGACCCC | 6918 | UCGGCGCUUGAAGAGGGGA | 6963 | CGCCAGCCAGUUGUCAGCG | 7008 | GAACGGAGACCACCCGGAC |
| 6874 | UCAAUGCUCACUGACCCCU | 6919 | CGGCGCUUGAAGAGGGGAU | 6964 | GCCAGCCAGUUGUCAGCGC | 7009 | AACGGAGACCACCCGGACG |
| 6875 | CAAUGCUCACUGACCCCUC | 6920 | GGCGCUUGAAGAGGGGAUC | 6965 | CCAGCCAGUUGUCAGCGCC | 7010 | ACGGAGACCACCCGGACGC |
| 6876 | AAUGCUCACUGACCCCUCA | 6921 | GCGCUUGAAGAGGGGAUCU | 6966 | CAGCCAGUUGUCAGCGCCA | 7011 | CGGAGACCACCCGGACGCC |
| 6877 | AUGCUCACUGACCCCUCAC | 6922 | CGCUUGAAGAGGGGAUCUC | 6967 | AGCCAGUUGUCAGCGCCAU | 7012 | GGAGACCACCCGGACGCCG |
| 6878 | UGCUCACUGACCCCUCACA | 6923 | GCUUGAAGAGGGGAUCUCC | 6968 | GCCAGUUGUCAGCGCCAUC | 7013 | GAGACCACCCGGACGCCGA |
| 6879 | GCUCACUGACCCCUCACAC | 6924 | CUUGAAGAGGGGAUCUCCC | 6969 | CCAGUUGUCAGCGCCAUCA | 7014 | AGACCACCCGGACGCCGAG |
| 6880 | CUCACUGACCCCUCACACA | 6925 | UUGAAGAGGGGAUCUCCCC | 6970 | CAGUUGUCAGCGCCAUCAC | 7015 | GACCACCCGGACGCCGAGC |
| 6881 | UCACUGACCCCUCACACAU | 6926 | UGAAGAGGGGAUCUCCCCC | 6971 | AGUUGUCAGCGCCAUCACU | 7016 | ACCACCCGGACGCCGAGCU |
| 6882 | CACUGACCCCUCACACAUC | 6927 | GAAGAGGGGAUCUCCCCCC | 6972 | GUUGUCAGCGCCAUCACUU | 7017 | CCACCCGGACGCCGAGCUG |
| 6883 | ACUGACCCCUCACACAUCA | 6928 | AAGAGGGGAUCUCCCCCCU | 6973 | UUGUCAGCGCCAUCACUUA | 7018 | CACCCGGACGCCGAGCUGA |
| 6884 | CUGACCCCUCACACAUCAC | 6929 | AGAGGGGAUCUCCCCCCUC | 6974 | UGUCAGCGCCAUCACUUAA | 7019 | ACCCGGACGCCGAGCUGAU |
| 6885 | UGACCCCUCACACAUCACC | 6930 | GAGGGGAUCUCCCCCCUCC | 6975 | GUCAGCGCCAUCACUUAAA | 7020 | CCCGGACGCCGAGCUGAUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7021 | CCGGACGCCGAGCUGAUCG | 7066 | AUGGGAAGCAACAUCACCC | 7111 | AUCCUCGACUCGUUUGAUC | 7156 | GAGAUAUCAGUGUCAGCAG |
| 7022 | CGGACGCCGAGCUGAUCGA | 7067 | UGGGAAGCAACAUCACCCG | 7112 | UCCUCGACUCGUUUGAUCC | 7157 | AGAUAUCAGUGUCAGCAGA |
| 7023 | GGACGCCGAGCUGAUCGAG | 7068 | GGGAAGCAACAUCACCCGG | 7113 | CCUCGACUCGUUUGAUCCU | 7158 | GAUAUCAGUGUCAGCAGAG |
| 7024 | GACGCCGAGCUGAUCGAGG | 7069 | GGAAGCAACAUCACCCGGG | 7114 | CUCGACUCGUUUGAUCCUC | 7159 | AUAUCAGUGUCAGCAGAGU |
| 7025 | ACGCCGAGCUGAUCGAGGC | 7070 | GAAGCAACAUCACCCGGGU | 7115 | UCGACUCGUUUGAUCCUCU | 7160 | UAUCAGUGUCAGCAGAGUG |
| 7026 | CGCCGAGCUGAUCGAGGCC | 7071 | AAGCAACAUCACCCGGGUU | 7116 | CGACUCGUUUGAUCCUCUG | 7161 | AUCAGUGUCAGCAGAGUGC |
| 7027 | GCCGAGCUGAUCGAGGCCA | 7072 | AGCAACAUCACCCGGGUUG | 7117 | GACUCGUUUGAUCCUCUGG | 7162 | UCAGUGUCAGCAGAGUGCC |
| 7028 | CCGAGCUGAUCGAGGCCAA | 7073 | GCAACAUCACCCGGGUUGA | 7118 | ACUCGUUUGAUCCUCUGGU | 7163 | CAGUGUCAGCAGAGUGCCA |
| 7029 | CGAGCUGAUCGAGGCCAAU | 7074 | CAACAUCACCCGGGUUGAG | 7119 | CUCGUUUGAUCCUCUGGUU | 7164 | AGUGUCAGCAGAGUGCCAU |
| 7030 | GAGCUGAUCGAGGCCAAUC | 7075 | AACAUCACCCGGGUUGAGU | 7120 | UCGUUUGAUCCUCUGGUUG | 7165 | GUGUCAGCAGAGUGCCAUA |
| 7031 | AGCUGAUCGAGGCCAAUCU | 7076 | ACAUCACCCGGGUUGAGUC | 7121 | CGUUUGAUCCUCUGGUUGC | 7166 | UGUCAGCAGAGUGCCAUAG |
| 7032 | GCUGAUCGAGGCCAAUCUC | 7077 | CAUCACCCGGGUUGAGUCG | 7122 | GUUUGAUCCUCUGGUUGCA | 7167 | GUCAGCAGAGUGCCAUAGA |
| 7033 | CUGAUCGAGGCCAAUCUCC | 7078 | AUCACCCGGGUUGAGUCGG | 7123 | UUUGAUCCUCUGGUUGCAG | 7168 | UCAGCAGAGUGCCAUAGAC |
| 7034 | UGAUCGAGGCCAAUCUCCU | 7079 | UCACCCGGGUUGAGUCGGA | 7124 | UUGAUCCUCUGGUUGCAGA | 7169 | CAGCAGAGUGCCAUAGACC |
| 7035 | GAUCGAGGCCAAUCUCCUA | 7080 | CACCCGGGUUGAGUCGGAG | 7125 | UGAUCCUCUGGUUGCAGAG | 7170 | AGCAGAGUGCCAUAGACCA |
| 7036 | AUCGAGGCCAAUCUCCUAU | 7081 | ACCCGGGUUGAGUCGGAGA | 7126 | GAUCCUCUGGUUGCAGAGU | 7171 | GCAGAGUGCCAUAGACCAC |
| 7037 | UCGAGGCCAAUCUCCUAUG | 7082 | CCCGGGUUGAGUCGGAGAC | 7127 | AUCCUCUGGUUGCAGAGUA | 7172 | CAGAGUGCCAUAGACCACC |
| 7038 | CGAGGCCAAUCUCCUAUGG | 7083 | CCGGGUUGAGUCGGAGACC | 7128 | UCCUCUGGUUGCAGAGUAU | 7173 | AGAGUGCCAUAGACCACCU |
| 7039 | GAGGCCAAUCUCCUAUGGA | 7084 | CGGGUUGAGUCGGAGACCA | 7129 | CCUCUGGUUGCAGAGUAUG | 7174 | GAGUGCCAUAGACCACCUA |
| 7040 | AGGCCAAUCUCCUAUGGAG | 7085 | GGGUUGAGUCGGAGACCAA | 7130 | CUCUGGUUGCAGAGUAUGA | 7175 | AGUGCCAUAGACCACCUAG |
| 7041 | GGCCAAUCUCCUAUGGAGA | 7086 | GGUUGAGUCGGAGACCAAA | 7131 | UCUGGUUGCAGAGUAUGAC | 7176 | GUGCCAUAGACCACCUAGG |
| 7042 | GCCAAUCUCCUAUGGAGAC | 7087 | GUUGAGUCGGAGACCAAAG | 7132 | CUGGUUGCAGAGUAUGACG | 7177 | UGCCAUAGACCACCUAGGC |
| 7043 | CCAAUCUCCUAUGGAGACA | 7088 | UUGAGUCGGAGACCAAAGU | 7133 | UGGUUGCAGAGUAUGACGA | 7178 | GCCAUAGACCACCUAGGCC |
| 7044 | CAAUCUCCUAUGGAGACAG | 7089 | UGAGUCGGAGACCAAAGUU | 7134 | GGUUGCAGAGUAUGACGAC | 7179 | CCAUAGACCACCUAGGCCU |
| 7045 | AAUCUCCUAUGGAGACAGG | 7090 | GAGUCGGAGACCAAAGUUG | 7135 | GUUGCAGAGUAUGACGACA | 7180 | CAUAGACCACCUAGGCCUA |
| 7046 | AUCUCCUAUGGAGACAGGA | 7091 | AGUCGGAGACCAAAGUUGU | 7136 | UUGCAGAGUAUGACGACAG | 7181 | AUAGACCACCUAGGCCUAA |
| 7047 | UCUCCUAUGGAGACAGGAG | 7092 | GUCGGAGACCAAAGUUGUC | 7137 | UGCAGAGUAUGACGACAGG | 7182 | UAGACCACCUAGGCCUAAG |
| 7048 | CUCCUAUGGAGACAGGAGA | 7093 | UCGGAGACCAAAGUUGUCA | 7138 | GCAGAGUAUGACGACAGGG | 7183 | AGACCACCUAGGCCUAAGU |
| 7049 | UCCUAUGGAGACAGGAGAU | 7094 | CGGAGACCAAAGUUGUCAU | 7139 | CAGAGUAUGACGACAGGGA | 7184 | GACCACCUAGGCCUAAGUU |
| 7050 | CCUAUGGAGACAGGAGAUG | 7095 | GGAGACCAAAGUUGUCAUC | 7140 | AGAGUAUGACGACAGGGAG | 7185 | ACCACCUAGGCCUAAGUUC |
| 7051 | CUAUGGAGACAGGAGAUGG | 7096 | GAGACCAAAGUUGUCAUCC | 7141 | GAGUAUGACGACAGGGAGA | 7186 | CCACCUAGGCCUAAGUUCC |
| 7052 | UAUGGAGACAGGAGAUGGG | 7097 | AGACCAAAGUUGUCAUCCU | 7142 | AGUAUGACGACAGGGAGAU | 7187 | CACCUAGGCCUAAGUUCCC |
| 7053 | AUGGAGACAGGAGAUGGGA | 7098 | GACCAAAGUUGUCAUCCUC | 7143 | GUAUGACGACAGGGAGAUA | 7188 | ACCUAGGCCUAAGUUCCCU |
| 7054 | UGGAGACAGGAGAUGGGAA | 7099 | ACCAAAGUUGUCAUCCUCG | 7144 | UAUGACGACAGGGAGAUAU | 7189 | CCUAGGCCUAAGUUCCCUC |
| 7055 | GGAGACAGGAGAUGGGAAG | 7100 | CCAAAGUUGUCAUCCUCGA | 7145 | AUGACGACAGGGAGAUAUC | 7190 | CUAGGCCUAAGUUCCCUCC |
| 7056 | GAGACAGGAGAUGGGAAGC | 7101 | CAAAGUUGUCAUCCUCGAC | 7146 | UGACGACAGGGAGAUAUCA | 7191 | UAGGCCUAAGUUCCCUCCU |
| 7057 | AGACAGGAGAUGGGAAGCA | 7102 | AAAGUUGUCAUCCUCGACU | 7147 | GACGACAGGGAGAUAUCAG | 7192 | AGGCCUAAGUUCCCUCCUG |
| 7058 | GACAGGAGAUGGGAAGCAA | 7103 | AAGUUGUCAUCCUCGACUC | 7148 | ACGACAGGGAGAUAUCAGU | 7193 | GGCCUAAGUUCCCUCCUGC |
| 7059 | ACAGGAGAUGGGAAGCAAC | 7104 | AGUUGUCAUCCUCGACUCG | 7149 | CGACAGGGAGAUAUCAGUG | 7194 | GCCUAAGUUCCCUCCUGCU |
| 7060 | CAGGAGAUGGGAAGCAACA | 7105 | GUUGUCAUCCUCGACUCGU | 7150 | GACAGGGAGAUAUCAGUGU | 7195 | CCUAAGUUCCCUCCUGCUC |
| 7061 | AGGAGAUGGGAAGCAACAU | 7106 | UUGUCAUCCUCGACUCGUU | 7151 | ACAGGGAGAUAUCAGUGUC | 7196 | CUAAGUUCCCUCCUGCUCU |
| 7062 | GGAGAUGGGAAGCAACAUC | 7107 | UGUCAUCCUCGACUCGUUU | 7152 | CAGGGAGAUAUCAGUGUCA | 7197 | UAAGUUCCCUCCUGCUCUC |
| 7063 | GAGAUGGGAAGCAACAUCA | 7108 | GUCAUCCUCGACUCGUUUG | 7153 | AGGGAGAUAUCAGUGUCAG | 7198 | AAGUUCCCUCCUGCUCUCC |
| 7064 | AGAUGGGAAGCAACAUCAC | 7109 | UCAUCCUCGACUCGUUUGA | 7154 | GGGAGAUAUCAGUGUCAGC | 7199 | AGUUCCCUCCUGCUCUCCC |
| 7065 | GAUGGGAAGCAACAUCACC | 7110 | CAUCCUCGACUCGUUUGAU | 7155 | GGAGAUAUCAGUGUCAGCA | 7200 | GUUCCCUCCUGCUCUCCCG |

**FIG. 7 (page 394 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7201 | UUCCCUCCUGCUCUCCCGA | 7246 | CCUCUCCUACAGAAAUGGC | 7291 | GUGUCUGGAUGUGCGUUGC | 7336 | CCACCAAGGCGGAAGAGGC |
| 7202 | UCCCUCCUGCUCUCCCGAU | 7247 | CUCUCCUACAGAAAUGGCA | 7292 | UGUCUGGAUGUGCGUUGCC | 7337 | CACCAAGGCGGAAGAGGCU |
| 7203 | CCCUCCUGCUCUCCCGAUU | 7248 | UCUCCUACAGAAAUGGCAA | 7293 | GUCUGGAUGUGCGUUGCCU | 7338 | ACCAAGGCGGAAGAGGCUC |
| 7204 | CCUCCUGCUCUCCCGAUUU | 7249 | CUCCUACAGAAAUGGCAAA | 7294 | UCUGGAUGUGCGUUGCCUC | 7339 | CCAAGGCGGAAGAGGCUCA |
| 7205 | CUCCUGCUCUCCCGAUUUG | 7250 | UCCUACAGAAAUGGCAAAU | 7295 | CUGGAUGUGCGUUGCCUCC | 7340 | CAAGGCGGAAGAGGCUCAU |
| 7206 | UCCUGCUCUCCCGAUUUGG | 7251 | CCUACAGAAAUGGCAAAUG | 7296 | UGGAUGUGCGUUGCCUCCA | 7341 | AAGGCGGAAGAGGCUCAUA |
| 7207 | CCUGCUCUCCCGAUUUGGG | 7252 | CUACAGAAAUGGCAAAUGC | 7297 | GGAUGUGCGUUGCCUCCAG | 7342 | AGGCGGAAGAGGCUCAUAC |
| 7208 | CUGCUCUCCCGAUUUGGGC | 7253 | UACAGAAAUGGCAAAUGCC | 7298 | GAUGUGCGUUGCCUCCAGC | 7343 | GGCGGAAGAGGCUCAUACA |
| 7209 | UGCUCUCCCGAUUUGGGCC | 7254 | ACAGAAAUGGCAAAUGCCC | 7299 | AUGUGCGUUGCCUCCAGCU | 7344 | GCGGAAGAGGCUCAUACAG |
| 7210 | GCUCUCCCGAUUUGGGCCA | 7255 | CAGAAAUGGCAAAUGCCCG | 7300 | UGUGCGUUGCCUCCAGCUA | 7345 | CGGAAGAGGCUCAUACAGC |
| 7211 | CUCUCCCGAUUUGGGCCAG | 7256 | AGAAAUGGCAAAUGCCCGG | 7301 | GUGCGUUGCCUCCAGCUAA | 7346 | GGAAGAGGCUCAUACAGCU |
| 7212 | UCUCCCGAUUUGGGCCAGA | 7257 | GAAAUGGCAAAUGCCCGGA | 7302 | UGCGUUGCCUCCAGCUAAA | 7347 | GAAGAGGCUCAUACAGCUG |
| 7213 | CUCCCGAUUUGGGCCAGAC | 7258 | AAAUGGCAAAUGCCCGGAU | 7303 | GCGUUGCCUCCAGCUAAAC | 7348 | AAGAGGCUCAUACAGCUGG |
| 7214 | UCCCGAUUUGGGCCAGACC | 7259 | AAUGGCAAAUGCCCGGAUA | 7304 | CGUUGCCUCCAGCUAAACC | 7349 | AGAGGCUCAUACAGCUGGA |
| 7215 | CCCGAUUUGGGCCAGACCU | 7260 | AUGGCAAAUGCCCGGAUAC | 7305 | GUUGCCUCCAGCUAAACCA | 7350 | GAGGCUCAUACAGCUGGAC |
| 7216 | CCGAUUUGGGCCAGACCUG | 7261 | UGGCAAAUGCCCGGAUACG | 7306 | UUGCCUCCAGCUAAACCAA | 7351 | AGGCUCAUACAGCUGGACG |
| 7217 | CGAUUUGGGCCAGACCUGA | 7262 | GGCAAAUGCCCGGAUACGA | 7307 | UGCCUCCAGCUAAACCAAC | 7352 | GGCUCAUACAGCUGGACGA |
| 7218 | GAUUUGGGCCAGACCUGAC | 7263 | GCAAAUGCCCGGAUACGAG | 7308 | GCCUCCAGCUAAACCAACA | 7353 | GCUCAUACAGCUGGACGAG |
| 7219 | AUUUGGGCCAGACCUGACU | 7264 | CAAAUGCCCGGAUACGAGC | 7309 | CCUCCAGCUAAACCAACAC | 7354 | CUCAUACAGCUGGACGAGU |
| 7220 | UUUGGGCCAGACCUGACUA | 7265 | AAAUGCCCGGAUACGAGCC | 7310 | CUCCAGCUAAACCAACACC | 7355 | UCAUACAGCUGGACGAGUC |
| 7221 | UUGGGCCAGACCUGACUAC | 7266 | AAUGCCCGGAUACGAGCCC | 7311 | UCCAGCUAAACCAACACCU | 7356 | CAUACAGCUGGACGAGUCU |
| 7222 | UGGGCCAGACCUGACUACA | 7267 | AUGCCCGGAUACGAGCCCC | 7312 | CCAGCUAAACCAACACCUA | 7357 | AUACAGCUGGACGAGUCUG |
| 7223 | GGGCCAGACCUGACUACAA | 7268 | UGCCCGGAUACGAGCCCCC | 7313 | CAGCUAAACCAACACCUAU | 7358 | UACAGCUGGACGAGUCUGC |
| 7224 | GGCCAGACCUGACUACAAU | 7269 | GCCCGGAUACGAGCCCCCC | 7314 | AGCUAAACCAACACCUAUC | 7359 | ACAGCUGGACGAGUCUGCU |
| 7225 | GCCAGACCUGACUACAAUC | 7270 | CCCGGAUACGAGCCCCCCG | 7315 | GCUAAACCAACACCUAUCC | 7360 | CAGCUGGACGAGUCUGCUG |
| 7226 | CCAGACCUGACUACAAUCC | 7271 | CCGGAUACGAGCCCCCCGU | 7316 | CUAAACCAACACCUAUCCC | 7361 | AGCUGGACGAGUCUGCUGU |
| 7227 | CAGACCUGACUACAAUCCA | 7272 | CGGAUACGAGCCCCCCGUC | 7317 | UAAACCAACACCUAUCCCG | 7362 | GCUGGACGAGUCUGCUGUA |
| 7228 | AGACCUGACUACAAUCCAC | 7273 | GGAUACGAGCCCCCCGUCG | 7318 | AAACCAACACCUAUCCCGC | 7363 | CUGGACGAGUCUGCUGUAU |
| 7229 | GACCUGACUACAAUCCACC | 7274 | GAUACGAGCCCCCCGUCGU | 7319 | AACCAACACCUAUCCCGCC | 7364 | UGGACGAGUCUGCUGUAUC |
| 7230 | ACCUGACUACAAUCCACCU | 7275 | AUACGAGCCCCCCGUCGUG | 7320 | ACCAACACCUAUCCCGCCA | 7365 | GGACGAGUCUGCUGUAUCG |
| 7231 | CCUGACUACAAUCCACCUC | 7276 | UACGAGCCCCCCGUCGUGU | 7321 | CCAACACCUAUCCCGCCAC | 7366 | GACGAGUCUGCUGUAUCGC |
| 7232 | CUGACUACAAUCCACCUCU | 7277 | ACGAGCCCCCCGUCGUGUC | 7322 | CAACACCUAUCCCGCCACC | 7367 | ACGAGUCUGCUGUAUCGCA |
| 7233 | UGACUACAAUCCACCUCUC | 7278 | CGAGCCCCCCGUCGUGUCU | 7323 | AACACCUAUCCCGCCACCA | 7368 | CGAGUCUGCUGUAUCGCAA |
| 7234 | GACUACAAUCCACCUCUCC | 7279 | GAGCCCCCCGUCGUGUCUG | 7324 | ACACCUAUCCCGCCACCAA | 7369 | GAGUCUGCUGUAUCGCAAG |
| 7235 | ACUACAAUCCACCUCUCCU | 7280 | AGCCCCCCGUCGUGUCUGG | 7325 | CACCUAUCCCGCCACCAAG | 7370 | AGUCUGCUGUAUCGCAAGC |
| 7236 | CUACAAUCCACCUCUCCUA | 7281 | GCCCCCCGUCGUGUCUGGA | 7326 | ACCUAUCCCGCCACCAAGG | 7371 | GUCUGCUGUAUCGCAAGCU |
| 7237 | UACAAUCCACCUCUCCUAC | 7282 | CCCCCCGUCGUGUCUGGAU | 7327 | CCUAUCCCGCCACCAAGGC | 7372 | UCUGCUGUAUCGCAAGCUC |
| 7238 | ACAAUCCACCUCUCCUACA | 7283 | CCCCCGUCGUGUCUGGAUG | 7328 | CUAUCCCGCCACCAAGGCG | 7373 | CUGCUGUAUCGCAAGCUCU |
| 7239 | CAAUCCACCUCUCCUACAG | 7284 | CCCCGUCGUGUCUGGAUGU | 7329 | UAUCCCGCCACCAAGGCGG | 7374 | UGCUGUAUCGCAAGCUCUA |
| 7240 | AAUCCACCUCUCCUACAGA | 7285 | CCCGUCGUGUCUGGAUGUG | 7330 | AUCCCGCCACCAAGGCGGA | 7375 | GCUGUAUCGCAAGCUCUAC |
| 7241 | AUCCACCUCUCCUACAGAA | 7286 | CCGUCGUGUCUGGAUGUGC | 7331 | UCCCGCCACCAAGGCGGAA | 7376 | CUGUAUCGCAAGCUCUACA |
| 7242 | UCCACCUCUCCUACAGAAA | 7287 | CGUCGUGUCUGGAUGUGCG | 7332 | CCCGCCACCAAGGCGGAAG | 7377 | UGUAUCGCAAGCUCUACAA |
| 7243 | CCACCUCUCCUACAGAAAU | 7288 | GUCGUGUCUGGAUGUGCGU | 7333 | CCGCCACCAAGGCGGAAGA | 7378 | GUAUCGCAAGCUCUACAAC |
| 7244 | CACCUCUCCUACAGAAAUG | 7289 | UCGUGUCUGGAUGUGCGUU | 7334 | CGCCACCAAGGCGGAAGAG | 7379 | UAUCGCAAGCUCUACAACA |
| 7245 | ACCUCUCCUACAGAAAUGG | 7290 | CGUGUCUGGAUGUGCGUUG | 7335 | GCCACCAAGGCGGAAGAGG | 7380 | AUCGCAAGCUCUACAACAG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7381 | UCGCAAGCUCUACAACAGC | 7426 | ACUAGCACCUCAGAGCCGA | 7471 | GGCCCAUCAUCUCCUGACC | 7516 | GACGCGGGAUCCUUUAGCU |
| 7382 | CGCAAGCUCUACAACAGCU | 7427 | CUAGCACCUCAGAGCCGAG | 7472 | GCCCAUCAUCUCCUGACCC | 7517 | ACGCGGGAUCCUUUAGCUC |
| 7383 | GCAAGCUCUACAACAGCUG | 7428 | UAGCACCUCAGAGCCGAGC | 7473 | CCCAUCAUCUCCUGACCCG | 7518 | CGCGGGAUCCUUUAGCUCA |
| 7384 | CAAGCUCUACAACAGCUGG | 7429 | AGCACCUCAGAGCCGAGCU | 7474 | CCAUCAUCUCCUGACCCGA | 7519 | GCGGGAUCCUUUAGCUCAA |
| 7385 | AAGCUCUACAACAGCUGGC | 7430 | GCACCUCAGAGCCGAGCUC | 7475 | CAUCAUCUCCUGACCCGAC | 7520 | CGGGAUCCUUUAGCUCAAU |
| 7386 | AGCUCUACAACAGCUGGCU | 7431 | CACCUCAGAGCCGAGCUCC | 7476 | AUCAUCUCCUGACCCGACA | 7521 | GGGAUCCUUUAGCUCAAUG |
| 7387 | GCUCUACAACAGCUGGCUG | 7432 | ACCUCAGAGCCGAGCUCCG | 7477 | UCAUCUCCUGACCCGACAA | 7522 | GGAUCCUUUAGCUCAAUGC |
| 7388 | CUCUACAACAGCUGGCUGA | 7433 | CCUCAGAGCCGAGCUCCGG | 7478 | CAUCUCCUGACCCGACAAC | 7523 | GAUCCUUUAGCUCAAUGCC |
| 7389 | UCUACAACAGCUGGCUGAU | 7434 | CUCAGAGCCGAGCUCCGGC | 7479 | AUCUCCUGACCCGACAACA | 7524 | AUCCUUUAGCUCAAUGCCC |
| 7390 | CUACAACAGCUGGCUGAUA | 7435 | UCAGAGCCGAGCUCCGGCC | 7480 | UCUCCUGACCCGACAACAG | 7525 | UCCUUUAGCUCAAUGCCCC |
| 7391 | UACAACAGCUGGCUGAUAA | 7436 | CAGAGCCGAGCUCCGGCCU | 7481 | CUCCUGACCCGACAACAGC | 7526 | CCUUUAGCUCAAUGCCCCC |
| 7392 | ACAACAGCUGGCUGAUAAG | 7437 | AGAGCCGAGCUCCGGCCUC | 7482 | UCCUGACCCGACAACAGCA | 7527 | CUUUAGCUCAAUGCCCCCC |
| 7393 | CAACAGCUGGCUGAUAAGG | 7438 | GAGCCGAGCUCCGGCCUCG | 7483 | CCUGACCCGACAACAGCAG | 7528 | UUUAGCUCAAUGCCCCCCC |
| 7394 | AACAGCUGGCUGAUAAGGU | 7439 | AGCCGAGCUCCGGCCUCGG | 7484 | CUGACCCGACAACAGCAGA | 7529 | UUAGCUCAAUGCCCCCCCU |
| 7395 | ACAGCUGGCUGAUAAGGUG | 7440 | GCCGAGCUCCGGCCUCGGA | 7485 | UGACCCGACAACAGCAGAU | 7530 | UAGCUCAAUGCCCCCCCUC |
| 7396 | CAGCUGGCUGAUAAGGUGU | 7441 | CCGAGCUCCGGCCUCGGAG | 7486 | GACCCGACAACAGCAGAUG | 7531 | AGCUCAAUGCCCCCCCUCG |
| 7397 | AGCUGGCUGAUAAGGUGUU | 7442 | CGAGCUCCGGCCUCGGAGG | 7487 | ACCCGACAACAGCAGAUGA | 7532 | GCUCAAUGCCCCCCCUCGA |
| 7398 | GCUGGCUGAUAAGGUGUUU | 7443 | GAGCUCCGGCCUCGGAGGG | 7488 | CCCGACAACAGCAGAUGAC | 7533 | CUCAAUGCCCCCCCUCGAG |
| 7399 | CUGGCUGAUAAGGUGUUUG | 7444 | AGCUCCGGCCUCGGAGGGU | 7489 | CCGACAACAGCAGAUGACA | 7534 | UCAAUGCCCCCCCUCGAGG |
| 7400 | UGGCUGAUAAGGUGUUUGU | 7445 | GCUCCGGCCUCGGAGGGUC | 7490 | CGACAACAGCAGAUGACAC | 7535 | CAAUGCCCCCCCUCGAGGG |
| 7401 | GGCUGAUAAGGUGUUUGUG | 7446 | CUCCGGCCUCGGAGGGUCA | 7491 | GACAACAGCAGAUGACACG | 7536 | AAUGCCCCCCCUCGAGGGG |
| 7402 | GCUGAUAAGGUGUUUGUGG | 7447 | UCCGGCCUCGGAGGGUCAA | 7492 | ACAACAGCAGAUGACACGU | 7537 | AUGCCCCCCCUCGAGGGGG |
| 7403 | CUGAUAAGGUGUUUGUGGA | 7448 | CCGGCCUCGGAGGGUCAAU | 7493 | CAACAGCAGAUGACACGUG | 7538 | UGCCCCCCCUCGAGGGGGA |
| 7404 | UGAUAAGGUGUUUGUGGAG | 7449 | CGGCCUCGGAGGGUCAAUA | 7494 | AACAGCAGAUGACACGUGU | 7539 | GCCCCCCCUCGAGGGGGAA |
| 7405 | GAUAAGGUGUUUGUGGAGG | 7450 | GGCCUCGGAGGGUCAAUAG | 7495 | ACAGCAGAUGACACGUGUU | 7540 | CCCCCCCUCGAGGGGGAAC |
| 7406 | AUAAGGUGUUUGUGGAGGA | 7451 | GCCUCGGAGGGUCAAUAGC | 7496 | CAGCAGAUGACACGUGUUC | 7541 | CCCCCCUCGAGGGGGAACC |
| 7407 | UAAGGUGUUUGUGGAGGAC | 7452 | CCUCGGAGGGUCAAUAGCC | 7497 | AGCAGAUGACACGUGUUCU | 7542 | CCCCCUCGAGGGGGAACCU |
| 7408 | AAGGUGUUUGUGGAGGACA | 7453 | CUCGGAGGGUCAAUAGCCG | 7498 | GCAGAUGACACGUGUUCUG | 7543 | CCCCUCGAGGGGGAACCUG |
| 7409 | AGGUGUUUGUGGAGGACAC | 7454 | UCGGAGGGUCAAUAGCCGG | 7499 | CAGAUGACACGUGUUCUGA | 7544 | CCCUCGAGGGGGAACCUGG |
| 7410 | GGUGUUUGUGGAGGACACU | 7455 | CGGAGGGUCAAUAGCCGGC | 7500 | AGAUGACACGUGUUCUGAC | 7545 | CCUCGAGGGGGAACCUGGA |
| 7411 | GUGUUUGUGGAGGACACUA | 7456 | GGAGGGUCAAUAGCCGGCC | 7501 | GAUGACACGUGUUCUGACG | 7546 | CUCGAGGGGGAACCUGGAG |
| 7412 | UGUUUGUGGAGGACACUAG | 7457 | GAGGGUCAAUAGCCGGCCC | 7502 | AUGACACGUGUUCUGACGC | 7547 | UCGAGGGGGAACCUGGAGA |
| 7413 | GUUUGUGGAGGACACUAGC | 7458 | AGGGUCAAUAGCCGGCCCA | 7503 | UGACACGUGUUCUGACGCG | 7548 | CGAGGGGGAACCUGGAGAC |
| 7414 | UUUGUGGAGGACACUAGCA | 7459 | GGGUCAAUAGCCGGCCCAU | 7504 | GACACGUGUUCUGACGCGG | 7549 | GAGGGGGAACCUGGAGACC |
| 7415 | UUGUGGAGGACACUAGCAC | 7460 | GGUCAAUAGCCGGCCCAUC | 7505 | ACACGUGUUCUGACGCGGG | 7550 | AGGGGGAACCUGGAGACCC |
| 7416 | UGUGGAGGACACUAGCACC | 7461 | GUCAAUAGCCGGCCCAUCA | 7506 | CACGUGUUCUGACGCGGGA | 7551 | GGGGGAACCUGGAGACCCA |
| 7417 | GUGGAGGACACUAGCACCU | 7462 | UCAAUAGCCGGCCCAUCAU | 7507 | ACGUGUUCUGACGCGGGAU | 7552 | GGGGAACCUGGAGACCCAG |
| 7418 | UGGAGGACACUAGCACCUC | 7463 | CAAUAGCCGGCCCAUCAUC | 7508 | CGUGUUCUGACGCGGGAUC | 7553 | GGGAACCUGGAGACCCAGA |
| 7419 | GGAGGACACUAGCACCUCA | 7464 | AAUAGCCGGCCCAUCAUCU | 7509 | GUGUUCUGACGCGGGAUCC | 7554 | GGAACCUGGAGACCCAGAC |
| 7420 | GAGGACACUAGCACCUCAG | 7465 | AUAGCCGGCCCAUCAUCUC | 7510 | UGUUCUGACGCGGGAUCCU | 7555 | GAACCUGGAGACCCAGACU |
| 7421 | AGGACACUAGCACCUCAGA | 7466 | UAGCCGGCCCAUCAUCUCC | 7511 | GUUCUGACGCGGGAUCCUU | 7556 | AACCUGGAGACCCAGACUU |
| 7422 | GGACACUAGCACCUCAGAG | 7467 | AGCCGGCCCAUCAUCUCCU | 7512 | UUCUGACGCGGGAUCCUUU | 7557 | ACCUGGAGACCCAGACUUG |
| 7423 | GACACUAGCACCUCAGAGC | 7468 | GCCGGCCCAUCAUCUCCUG | 7513 | UCUGACGCGGGAUCCUUUA | 7558 | CCUGGAGACCCAGACUUGA |
| 7424 | ACACUAGCACCUCAGAGCC | 7469 | CCGGCCCAUCAUCUCCUGA | 7514 | CUGACGCGGGAUCCUUUAG | 7559 | CUGGAGACCCAGACUUGAG |
| 7425 | CACUAGCACCUCAGAGCCG | 7470 | CGGCCCAUCAUCUCCUGAC | 7515 | UGACGCGGGAUCCUUUAGC | 7560 | UGGAGACCCAGACUUGAGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7561 | GGAGACCCAGACUUGAGCA | 7606 | GAGGACGAUGUCGUCUGUU | 7651 | GCCUUGAUCACACCAUGCG | 7696 | AACCCUUUGAGCAAUUCUC |
| 7562 | GAGACCCAGACUUGAGCAC | 7607 | AGGACGAUGUCGUCUGUUG | 7652 | CCUUGAUCACACCAUGCGC | 7697 | ACCCUUUGAGCAAUUCUCU |
| 7563 | AGACCCAGACUUGAGCACU | 7608 | GGACGAUGUCGUCUGUUGC | 7653 | CUUGAUCACACCAUGCGCU | 7698 | CCCUUUGAGCAAUUCUCUC |
| 7564 | GACCCAGACUUGAGCACUG | 7609 | GACGAUGUCGUCUGUUGCU | 7654 | UUGAUCACACCAUGCGCUG | 7699 | CCUUUGAGCAAUUCUCUCA |
| 7565 | ACCCAGACUUGAGCACUGG | 7610 | ACGAUGUCGUCUGUUGCUC | 7655 | UGAUCACACCAUGCGCUGC | 7700 | CUUUGAGCAAUUCUCUCAU |
| 7566 | CCCAGACUUGAGCACUGGU | 7611 | CGAUGUCGUCUGUUGCUCU | 7656 | GAUCACACCAUGCGCUGCU | 7701 | UUUGAGCAAUUCUCUCAUA |
| 7567 | CCAGACUUGAGCACUGGUU | 7612 | GAUGUCGUCUGUUGCUCUA | 7657 | AUCACACCAUGCGCUGCUG | 7702 | UUGAGCAAUUCUCUCAUAA |
| 7568 | CAGACUUGAGCACUGGUUC | 7613 | AUGUCGUCUGUUGCUCUAU | 7658 | UCACACCAUGCGCUGCUGA | 7703 | UGAGCAAUUCUCUCAUAAG |
| 7569 | AGACUUGAGCACUGGUUCC | 7614 | UGUCGUCUGUUGCUCUAUG | 7659 | CACACCAUGCGCUGCUGAG | 7704 | GAGCAAUUCUCUCAUAAGA |
| 7570 | GACUUGAGCACUGGUUCCU | 7615 | GUCGUCUGUUGCUCUAUGU | 7660 | ACACCAUGCGCUGCUGAGG | 7705 | AGCAAUUCUCUCAUAAGAC |
| 7571 | ACUUGAGCACUGGUUCCUG | 7616 | UCGUCUGUUGCUCUAUGUC | 7661 | CACCAUGCGCUGCUGAGGA | 7706 | GCAAUUCUCUCAUAAGACA |
| 7572 | CUUGAGCACUGGUUCCUGG | 7617 | CGUCUGUUGCUCUAUGUCA | 7662 | ACCAUGCGCUGCUGAGGAG | 7707 | CAAUUCUCUCAUAAGACAC |
| 7573 | UUGAGCACUGGUUCCUGGU | 7618 | GUCUGUUGCUCUAUGUCAU | 7663 | CCAUGCGCUGCUGAGGAGG | 7708 | AAUUCUCUCAUAAGACACC |
| 7574 | UGAGCACUGGUUCCUGGUC | 7619 | UCUGUUGCUCUAUGUCAUA | 7664 | CAUGCGCUGCUGAGGAGGA | 7709 | AUUCUCUCAUAAGACACCA |
| 7575 | GAGCACUGGUUCCUGGUCC | 7620 | CUGUUGCUCUAUGUCAUAC | 7665 | AUGCGCUGCUGAGGAGGAG | 7710 | UUCUCUCAUAAGACACCAC |
| 7576 | AGCACUGGUUCCUGGUCCA | 7621 | UGUUGCUCUAUGUCAUACA | 7666 | UGCGCUGCUGAGGAGGAGA | 7711 | UCUCUCAUAAGACACCACA |
| 7577 | GCACUGGUUCCUGGUCCAC | 7622 | GUUGCUCUAUGUCAUACAC | 7667 | GCGCUGCUGAGGAGGAGAA | 7712 | CUCUCAUAAGACACCACAA |
| 7578 | CACUGGUUCCUGGUCCACU | 7623 | UUGCUCUAUGUCAUACACU | 7668 | CGCUGCUGAGGAGGAGAAA | 7713 | UCUCAUAAGACACCACAAC |
| 7579 | ACUGGUUCCUGGUCCACUG | 7624 | UGCUCUAUGUCAUACACUU | 7669 | GCUGCUGAGGAGGAGAAAU | 7714 | CUCAUAAGACACCACAACA |
| 7580 | CUGGUUCCUGGUCCACUGU | 7625 | GCUCUAUGUCAUACACUUG | 7670 | CUGCUGAGGAGGAGAAAUU | 7715 | UCAUAAGACACCACAACAU |
| 7581 | UGGUUCCUGGUCCACUGUU | 7626 | CUCUAUGUCAUACACUUGG | 7671 | UGCUGAGGAGGAGAAAUUG | 7716 | CAUAAGACACCACAACAUG |
| 7582 | GGUUCCUGGUCCACUGUUA | 7627 | UCUAUGUCAUACACUUGGA | 7672 | GCUGAGGAGGAGAAAUUGC | 7717 | AUAAGACACCACAACAUGG |
| 7583 | GUUCCUGGUCCACUGUUAG | 7628 | CUAUGUCAUACACUUGGAC | 7673 | CUGAGGAGGAGAAAUUGCC | 7718 | UAAGACACCACAACAUGGU |
| 7584 | UUCCUGGUCCACUGUUAGU | 7629 | UAUGUCAUACACUUGGACG | 7674 | UGAGGAGGAGAAAUUGCCA | 7719 | AAGACACCACAACAUGGUC |
| 7585 | UCCUGGUCCACUGUUAGUG | 7630 | AUGUCAUACACUUGGACGG | 7675 | GAGGAGGAGAAAUUGCCAA | 7720 | AGACACCACAACAUGGUCU |
| 7586 | CCUGGUCCACUGUUAGUGA | 7631 | UGUCAUACACUUGGACGGG | 7676 | AGGAGGAGAAAUUGCCAAU | 7721 | GACACCACAACAUGGUCUA |
| 7587 | CUGGUCCACUGUUAGUGAA | 7632 | GUCAUACACUUGGACGGGG | 7677 | GGAGGAGAAAUUGCCAAUA | 7722 | ACACCACAACAUGGUCUAC |
| 7588 | UGGUCCACUGUUAGUGAAG | 7633 | UCAUACACUUGGACGGGGG | 7678 | GAGGAGAAAUUGCCAAUAA | 7723 | CACCACAACAUGGUCUACU |
| 7589 | GGUCCACUGUUAGUGAAGA | 7634 | CAUACACUUGGACGGGGGC | 7679 | AGGAGAAAUUGCCAAUAAA | 7724 | ACCACAACAUGGUCUACUC |
| 7590 | GUCCACUGUUAGUGAAGAG | 7635 | AUACACUUGGACGGGGGCC | 7680 | GGAGAAAUUGCCAAUAAAC | 7725 | CCACAACAUGGUCUACUCC |
| 7591 | UCCACUGUUAGUGAAGAGG | 7636 | UACACUUGGACGGGGGCCU | 7681 | GAGAAAUUGCCAAUAAACC | 7726 | CACAACAUGGUCUACUCCA |
| 7592 | CCACUGUUAGUGAAGAGGA | 7637 | ACACUUGGACGGGGGCCUU | 7682 | AGAAAUUGCCAAUAAACCC | 7727 | ACAACAUGGUCUACUCCAC |
| 7593 | CACUGUUAGUGAAGAGGAC | 7638 | CACUUGGACGGGGGCCUUG | 7683 | GAAAUUGCCAAUAAACCCU | 7728 | CAACAUGGUCUACUCCACG |
| 7594 | ACUGUUAGUGAAGAGGACG | 7639 | ACUUGGACGGGGGCCUUGA | 7684 | AAAUUGCCAAUAAACCCUU | 7729 | AACAUGGUCUACUCCACGA |
| 7595 | CUGUUAGUGAAGAGGACGA | 7640 | CUUGGACGGGGGCCUUGAU | 7685 | AAUUGCCAAUAAACCCUUU | 7730 | ACAUGGUCUACUCCACGAC |
| 7596 | UGUUAGUGAAGAGGACGAU | 7641 | UUGGACGGGGGCCUUGAUC | 7686 | AUUGCCAAUAAACCCUUUG | 7731 | CAUGGUCUACUCCACGACA |
| 7597 | GUUAGUGAAGAGGACGAUG | 7642 | UGGACGGGGGCCUUGAUCA | 7687 | UUGCCAAUAAACCCUUUGA | 7732 | AUGGUCUACUCCACGACAU |
| 7598 | UUAGUGAAGAGGACGAUGU | 7643 | GGACGGGGGCCUUGAUCAC | 7688 | UGCCAAUAAACCCUUUGAG | 7733 | UGGUCUACUCCACGACAUC |
| 7599 | UAGUGAAGAGGACGAUGUC | 7644 | GACGGGGGCCUUGAUCACA | 7689 | GCCAAUAAACCCUUUGAGC | 7734 | GGUCUACUCCACGACAUCA |
| 7600 | AGUGAAGAGGACGAUGUCG | 7645 | ACGGGGGCCUUGAUCACAC | 7690 | CCAAUAAACCCUUUGAGCA | 7735 | GUCUACUCCACGACAUCAC |
| 7601 | GUGAAGAGGACGAUGUCGU | 7646 | CGGGGGCCUUGAUCACACC | 7691 | CAAUAAACCCUUUGAGCAA | 7736 | UCUACUCCACGACAUCACG |
| 7602 | UGAAGAGGACGAUGUCGUC | 7647 | GGGGGCCUUGAUCACACCA | 7692 | AAUAAACCCUUUGAGCAAU | 7737 | CUACUCCACGACAUCACGU |
| 7603 | GAAGAGGACGAUGUCGUCU | 7648 | GGGGCCUUGAUCACACCAU | 7693 | AUAAACCCUUUGAGCAAUU | 7738 | UACUCCACGACAUCACGUA |
| 7604 | AAGAGGACGAUGUCGUCUG | 7649 | GGGCCUUGAUCACACCAUG | 7694 | UAAACCCUUUGAGCAAUUC | 7739 | ACUCCACGACAUCACGUAG |
| 7605 | AGAGGACGAUGUCGUCUGU | 7650 | GGCCUUGAUCACACCAUGC | 7695 | AAACCCUUUGAGCAAUUCU | 7740 | CUCCACGACAUCACGUAGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7741 | UCCACGACAUCACGUAGCG | 7786 | UUUGACAGACUACAGGUAG | 7831 | AAGGAGAUUAAGCUCAGAG | 7876 | UCCACCGAGGAGGCCUGUU |
| 7742 | CCACGACAUCACGUAGCGC | 7787 | UUGACAGACUACAGGUAGU | 7832 | AGGAGAUUAAGCUCAGAGC | 7877 | CCACCGAGGAGGCCUGUUC |
| 7743 | CACGACAUCACGUAGCGCC | 7788 | UGACAGACUACAGGUAGUU | 7833 | GGAGAUUAAGCUCAGAGCA | 7878 | CACCGAGGAGGCCUGUUCG |
| 7744 | ACGACAUCACGUAGCGCCG | 7789 | GACAGACUACAGGUAGUUG | 7834 | GAGAUUAAGCUCAGAGCAU | 7879 | ACCGAGGAGGCCUGUUCGC |
| 7745 | CGACAUCACGUAGCGCCGG | 7790 | ACAGACUACAGGUAGUUGA | 7835 | AGAUUAAGCUCAGAGCAUC | 7880 | CCGAGGAGGCCUGUUCGCU |
| 7746 | GACAUCACGUAGCGCCGGC | 7791 | CAGACUACAGGUAGUUGAC | 7836 | GAUUAAGCUCAGAGCAUCG | 7881 | CGAGGAGGCCUGUUCGCUC |
| 7747 | ACAUCACGUAGCGCCGGCC | 7792 | AGACUACAGGUAGUUGACC | 7837 | AUUAAGCUCAGAGCAUCGA | 7882 | GAGGAGGCCUGUUCGCUCA |
| 7748 | CAUCACGUAGCGCCGGCCU | 7793 | GACUACAGGUAGUUGACCA | 7838 | UUAAGCUCAGAGCAUCGAC | 7883 | AGGAGGCCUGUUCGCUCAC |
| 7749 | AUCACGUAGCGCCGGCCUU | 7794 | ACUACAGGUAGUUGACCAA | 7839 | UAAGCUCAGAGCAUCGACC | 7884 | GGAGGCCUGUUCGCUCACU |
| 7750 | UCACGUAGCGCCGGCCUUC | 7795 | CUACAGGUAGUUGACCAAC | 7840 | AAGCUCAGAGCAUCGACCG | 7885 | GAGGCCUGUUCGCUCACUC |
| 7751 | CACGUAGCGCCGGCCUUCG | 7796 | UACAGGUAGUUGACCAACA | 7841 | AGCUCAGAGCAUCGACCGU | 7886 | AGGCCUGUUCGCUCACUCC |
| 7752 | ACGUAGCGCCGGCCUUCGC | 7797 | ACAGGUAGUUGACCAACAC | 7842 | GCUCAGAGCAUCGACCGUG | 7887 | GGCCUGUUCGCUCACUCCA |
| 7753 | CGUAGCGCCGGCCUUCGCC | 7798 | CAGGUAGUUGACCAACACU | 7843 | CUCAGAGCAUCGACCGUGC | 7888 | GCCUGUUCGCUCACUCCAC |
| 7754 | GUAGCGCCGGCCUUCGCCA | 7799 | AGGUAGUUGACCAACACUA | 7844 | UCAGAGCAUCGACCGUGCA | 7889 | CCUGUUCGCUCACUCCACC |
| 7755 | UAGCGCCGGCCUUCGCCAG | 7800 | GGUAGUUGACCAACACUAC | 7845 | CAGAGCAUCGACCGUGCAC | 7890 | CUGUUCGCUCACUCCACCG |
| 7756 | AGCGCCGGCCUUCGCCAGA | 7801 | GUAGUUGACCAACACUACC | 7846 | AGAGCAUCGACCGUGCACG | 7891 | UGUUCGCUCACUCCACCGC |
| 7757 | GCGCCGGCCUUCGCCAGAA | 7802 | UAGUUGACCAACACUACCA | 7847 | GAGCAUCGACCGUGCACGC | 7892 | GUUCGCUCACUCCACCGCA |
| 7758 | CGCCGGCCUUCGCCAGAAG | 7803 | AGUUGACCAACACUACCAA | 7848 | AGCAUCGACCGUGCACGCC | 7893 | UUCGCUCACUCCACCGCAC |
| 7759 | GCCGGCCUUCGCCAGAAGA | 7804 | GUUGACCAACACUACCAAG | 7849 | GCAUCGACCGUGCACGCCA | 7894 | UCGCUCACUCCACCGCACU |
| 7760 | CCGGCCUUCGCCAGAAGAA | 7805 | UUGACCAACACUACCAAGA | 7850 | CAUCGACCGUGCACGCCAG | 7895 | CGCUCACUCCACCGCACUC |
| 7761 | CGGCCUUCGCCAGAAGAAA | 7806 | UGACCAACACUACCAAGAU | 7851 | AUCGACCGUGCACGCCAGG | 7896 | GCUCACUCCACCGCACUCA |
| 7762 | GGCCUUCGCCAGAAGAAAG | 7807 | GACCAACACUACCAAGAUG | 7852 | UCGACCGUGCACGCCAGGC | 7897 | CUCACUCCACCGCACUCAG |
| 7763 | GCCUUCGCCAGAAGAAAGU | 7808 | ACCAACACUACCAAGAUGU | 7853 | CGACCGUGCACGCCAGGCU | 7898 | UCACUCCACCGCACUCAGC |
| 7764 | CCUUCGCCAGAAGAAAGUC | 7809 | CCAACACUACCAAGAUGUC | 7854 | GACCGUGCACGCCAGGCUC | 7899 | CACUCCACCGCACUCAGCC |
| 7765 | CUUCGCCAGAAGAAAGUCA | 7810 | CAACACUACCAAGAUGUCC | 7855 | ACCGUGCACGCCAGGCUCC | 7900 | ACUCCACCGCACUCAGCCC |
| 7766 | UUCGCCAGAAGAAAGUCAC | 7811 | AACACUACCAAGAUGUCCU | 7856 | CCGUGCACGCCAGGCUCCU | 7901 | CUCCACCGCACUCAGCCCG |
| 7767 | UCGCCAGAAGAAAGUCACA | 7812 | ACACUACCAAGAUGUCCUA | 7857 | CGUGCACGCCAGGCUCCUA | 7902 | UCCACCGCACUCAGCCCGA |
| 7768 | CGCCAGAAGAAAGUCACAU | 7813 | CACUACCAAGAUGUCCUAA | 7858 | GUGCACGCCAGGCUCCUAU | 7903 | CCACCGCACUCAGCCCGAU |
| 7769 | GCCAGAAGAAAGUCACAUU | 7814 | ACUACCAAGAUGUCCUAAA | 7859 | UGCACGCCAGGCUCCUAUC | 7904 | CACCGCACUCAGCCCGAUC |
| 7770 | CCAGAAGAAAGUCACAUUU | 7815 | CUACCAAGAUGUCCUAAAG | 7860 | GCACGCCAGGCUCCUAUCC | 7905 | ACCGCACUCAGCCCGAUCA |
| 7771 | CAGAAGAAAGUCACAUUUG | 7816 | UACCAAGAUGUCCUAAAGG | 7861 | CACGCCAGGCUCCUAUCCA | 7906 | CCGCACUCAGCCCGAUCAA |
| 7772 | AGAAGAAAGUCACAUUUGA | 7817 | ACCAAGAUGUCCUAAAGGA | 7862 | ACGCCAGGCUCCUAUCCAC | 7907 | CGCACUCAGCCCGAUCAAG |
| 7773 | GAAGAAAGUCACAUUUGAC | 7818 | CCAAGAUGUCCUAAAGGAG | 7863 | CGCCAGGCUCCUAUCCACC | 7908 | GCACUCAGCCCGAUCAAGG |
| 7774 | AAGAAAGUCACAUUUGACA | 7819 | CAAGAUGUCCUAAAGGAGA | 7864 | GCCAGGCUCCUAUCCACCG | 7909 | CACUCAGCCCGAUCAAGGU |
| 7775 | AGAAAGUCACAUUUGACAG | 7820 | AAGAUGUCCUAAAGGAGAU | 7865 | CCAGGCUCCUAUCCACCGA | 7910 | ACUCAGCCCGAUCAAGGUA |
| 7776 | GAAAGUCACAUUUGACAGA | 7821 | AGAUGUCCUAAAGGAGAUU | 7866 | CAGGCUCCUAUCCACCGAG | 7911 | CUCAGCCCGAUCAAGGUAU |
| 7777 | AAAGUCACAUUUGACAGAC | 7822 | GAUGUCCUAAAGGAGAUUA | 7867 | AGGCUCCUAUCCACCGAGG | 7912 | UCAGCCCGAUCAAGGUAUG |
| 7778 | AAGUCACAUUUGACAGACU | 7823 | AUGUCCUAAAGGAGAUUAA | 7868 | GGCUCCUAUCCACCGAGGA | 7913 | CAGCCCGAUCAAGGUAUGG |
| 7779 | AGUCACAUUUGACAGACUA | 7824 | UGUCCUAAAGGAGAUUAAG | 7869 | GCUCCUAUCCACCGAGGAG | 7914 | AGCCCGAUCAAGGUAUGGG |
| 7780 | GUCACAUUUGACAGACUAC | 7825 | GUCCUAAAGGAGAUUAAGC | 7870 | CUCCUAUCCACCGAGGAGG | 7915 | GCCCGAUCAAGGUAUGGGU |
| 7781 | UCACAUUUGACAGACUACA | 7826 | UCCUAAAGGAGAUUAAGCU | 7871 | UCCUAUCCACCGAGGAGGC | 7916 | CCCGAUCAAGGUAUGGGUA |
| 7782 | CACAUUUGACAGACUACAG | 7827 | CCUAAAGGAGAUUAAGCUC | 7872 | CCUAUCCACCGAGGAGGCC | 7917 | CCGAUCAAGGUAUGGGUAU |
| 7783 | ACAUUUGACAGACUACAGG | 7828 | CUAAAGGAGAUUAAGCUCA | 7873 | CUAUCCACCGAGGAGGCCU | 7918 | CGAUCAAGGUAUGGGUAUG |
| 7784 | CAUUUGACAGACUACAGGU | 7829 | UAAAGGAGAUUAAGCUCAG | 7874 | UAUCCACCGAGGAGGCCUG | 7919 | GAUCAAGGUAUGGGUAUGG |
| 7785 | AUUUGACAGACUACAGGUA | 7830 | AAAGGAGAUUAAGCUCAGA | 7875 | AUCCACCGAGGAGGCCUGU | 7920 | AUCAAGGUAUGGGUAUGGA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7921 | UCAAGGUAUGGGUAUGGAG | 7966 | AAGGCCGUUAAACACAUCG | 8011 | GACAAUGCCACCCCAAUAC | 8056 | GUCUUCUGUGUAGACCCGU |
| 7922 | CAAGGUAUGGGUAUGGAGC | 7967 | AGGCCGUUAAACACAUCGA | 8012 | ACAAUGCCACCCCAAUACC | 8057 | UCUUCUGUGUAGACCCGUC |
| 7923 | AAGGUAUGGGUAUGGAGCA | 7968 | GGCCGUUAAACACAUCGAC | 8013 | CAAUGCCACCCCAAUACCU | 8058 | CUUCUGUGUAGACCCGUCA |
| 7924 | AGGUAUGGGUAUGGAGCAC | 7969 | GCCGUUAAACACAUCGACU | 8014 | AAUGCCACCCCAAUACCUA | 8059 | UUCUGUGUAGACCCGUCAA |
| 7925 | GGUAUGGGUAUGGAGCACG | 7970 | CCGUUAAACACAUCGACUC | 8015 | AUGCCACCCCAAUACCUAC | 8060 | UCUGUGUAGACCCGUCAAA |
| 7926 | GUAUGGGUAUGGAGCACGG | 7971 | CGUUAAACACAUCGACUCC | 8016 | UGCCACCCCAAUACCUACC | 8061 | CUGUGUAGACCCGUCAAAA |
| 7927 | UAUGGGUAUGGAGCACGGG | 7972 | GUUAAACACAUCGACUCCG | 8017 | GCCACCCCAAUACCUACCA | 8062 | UGUGUAGACCCGUCAAAAG |
| 7928 | AUGGGUAUGGAGCACGGGA | 7973 | UUAAACACAUCGACUCCGU | 8018 | CCACCCCAAUACCUACCAC | 8063 | GUGUAGACCCGUCAAAAGG |
| 7929 | UGGGUAUGGAGCACGGGAU | 7974 | UAAACACAUCGACUCCGUG | 8019 | CACCCCAAUACCUACCACU | 8064 | UGUAGACCCGUCAAAAGGG |
| 7930 | GGGUAUGGAGCACGGGAUG | 7975 | AAACACAUCGACUCCGUGU | 8020 | ACCCCAAUACCUACCACUA | 8065 | GUAGACCCGUCAAAAGGGG |
| 7931 | GGUAUGGAGCACGGGAUGU | 7976 | AACACAUCGACUCCGUGUG | 8021 | CCCCAAUACCUACCACUAU | 8066 | UAGACCCGUCAAAAGGGGG |
| 7932 | GUAUGGAGCACGGGAUGUU | 7977 | ACACAUCGACUCCGUGUGG | 8022 | CCCAAUACCUACCACUAUC | 8067 | AGACCCGUCAAAAGGGGGU |
| 7933 | UAUGGAGCACGGGAUGUUA | 7978 | CACAUCGACUCCGUGUGGG | 8023 | CCAAUACCUACCACUAUCA | 8068 | GACCCGUCAAAAGGGGGUC |
| 7934 | AUGGAGCACGGGAUGUUAG | 7979 | ACAUCGACUCCGUGUGGGA | 8024 | CAAUACCUACCACUAUCAU | 8069 | ACCCGUCAAAAGGGGGUCG |
| 7935 | UGGAGCACGGGAUGUUAGG | 7980 | CAUCGACUCCGUGUGGGAG | 8025 | AAUACCUACCACUAUCAUG | 8070 | CCCGUCAAAAGGGGGUCGC |
| 7936 | GGAGCACGGGAUGUUAGGA | 7981 | AUCGACUCCGUGUGGGAGG | 8026 | AUACCUACCACUAUCAUGG | 8071 | CCGUCAAAAGGGGGUCGCA |
| 7937 | GAGCACGGGAUGUUAGGAG | 7982 | UCGACUCCGUGUGGGAGGA | 8027 | UACCUACCACUAUCAUGGC | 8072 | CGUCAAAAGGGGGUCGCAA |
| 7938 | AGCACGGGAUGUUAGGAGC | 7983 | CGACUCCGUGUGGGAGGAC | 8028 | ACCUACCACUAUCAUGGCC | 8073 | GUCAAAAGGGGGUCGCAAG |
| 7939 | GCACGGGAUGUUAGGAGCC | 7984 | GACUCCGUGUGGGAGGACU | 8029 | CCUACCACUAUCAUGGCCA | 8074 | UCAAAAGGGGGUCGCAAGC |
| 7940 | CACGGGAUGUUAGGAGCCA | 7985 | ACUCCGUGUGGGAGGACUU | 8030 | CUACCACUAUCAUGGCCAA | 8075 | CAAAAGGGGGUCGCAAGCC |
| 7941 | ACGGGAUGUUAGGAGCCAU | 7986 | CUCCGUGUGGGAGGACUUG | 8031 | UACCACUAUCAUGGCCAAG | 8076 | AAAAGGGGGUCGCAAGCCC |
| 7942 | CGGGAUGUUAGGAGCCAUA | 7987 | UCCGUGUGGGAGGACUUGC | 8032 | ACCACUAUCAUGGCCAAGA | 8077 | AAAGGGGGUCGCAAGCCCG |
| 7943 | GGGAUGUUAGGAGCCAUAC | 7988 | CCGUGUGGGAGGACUUGCU | 8033 | CCACUAUCAUGGCCAAGAA | 8078 | AAGGGGGUCGCAAGCCCGC |
| 7944 | GGAUGUUAGGAGCCAUACU | 7989 | CGUGUGGGAGGACUUGCUA | 8034 | CACUAUCAUGGCCAAGAAU | 8079 | AGGGGGUCGCAAGCCCGCG |
| 7945 | GAUGUUAGGAGCCAUACUA | 7990 | GUGUGGGAGGACUUGCUAG | 8035 | ACUAUCAUGGCCAAGAAUG | 8080 | GGGGGUCGCAAGCCCGCGC |
| 7946 | AUGUUAGGAGCCAUACUAG | 7991 | UGUGGGAGGACUUGCUAGA | 8036 | CUAUCAUGGCCAAGAAUGA | 8081 | GGGGUCGCAAGCCCGCGCG |
| 7947 | UGUUAGGAGCCAUACUAGC | 7992 | GUGGGAGGACUUGCUAGAA | 8037 | UAUCAUGGCCAAGAAUGAA | 8082 | GGGUCGCAAGCCCGCGCGG |
| 7948 | GUUAGGAGCCAUACUAGCA | 7993 | UGGGAGGACUUGCUAGAAG | 8038 | AUCAUGGCCAAGAAUGAAG | 8083 | GGUCGCAAGCCCGCGCGGU |
| 7949 | UUAGGAGCCAUACUAGCAA | 7994 | GGGAGGACUUGCUAGAAGA | 8039 | UCAUGGCCAAGAAUGAAGU | 8084 | GUCGCAAGCCCGCGCGGUU |
| 7950 | UAGGAGCCAUACUAGCAAG | 7995 | GGAGGACUUGCUAGAAGAC | 8040 | CAUGGCCAAGAAUGAAGUC | 8085 | UCGCAAGCCCGCGCGGUUA |
| 7951 | AGGAGCCAUACUAGCAAGG | 7996 | GAGGACUUGCUAGAAGACA | 8041 | AUGGCCAAGAAUGAAGUCU | 8086 | CGCAAGCCCGCGCGGUUAA |
| 7952 | GGAGCCAUACUAGCAAGGC | 7997 | AGGACUUGCUAGAAGACAA | 8042 | UGGCCAAGAAUGAAGUCUU | 8087 | GCAAGCCCGCGCGGUUAAU |
| 7953 | GAGCCAUACUAGCAAGGCC | 7998 | GGACUUGCUAGAAGACAAU | 8043 | GGCCAAGAAUGAAGUCUUC | 8088 | CAAGCCCGCGCGGUUAAUU |
| 7954 | AGCCAUACUAGCAAGGCCG | 7999 | GACUUGCUAGAAGACAAUG | 8044 | GCCAAGAAUGAAGUCUUCU | 8089 | AAGCCCGCGCGGUUAAUUG |
| 7955 | GCCAUACUAGCAAGGCCGU | 8000 | ACUUGCUAGAAGACAAUGC | 8045 | CCAAGAAUGAAGUCUUCUG | 8090 | AGCCCGCGCGGUUAAUUGU |
| 7956 | CCAUACUAGCAAGGCCGUU | 8001 | CUUGCUAGAAGACAAUGCC | 8046 | CAAGAAUGAAGUCUUCUGU | 8091 | GCCCGCGCGGUUAAUUGUU |
| 7957 | CAUACUAGCAAGGCCGUUA | 8002 | UUGCUAGAAGACAAUGCCA | 8047 | AAGAAUGAAGUCUUCUGUG | 8092 | CCCGCGCGGUUAAUUGUUU |
| 7958 | AUACUAGCAAGGCCGUUAA | 8003 | UGCUAGAAGACAAUGCCAC | 8048 | AGAAUGAAGUCUUCUGUGU | 8093 | CCGCGCGGUUAAUUGUUUA |
| 7959 | UACUAGCAAGGCCGUUAAA | 8004 | GCUAGAAGACAAUGCCACC | 8049 | GAAUGAAGUCUUCUGUGUA | 8094 | CGCGCGGUUAAUUGUUUAU |
| 7960 | ACUAGCAAGGCCGUUAAAC | 8005 | CUAGAAGACAAUGCCACCC | 8050 | AAUGAAGUCUUCUGUGUAG | 8095 | GCGCGGUUAAUUGUUUAUC |
| 7961 | CUAGCAAGGCCGUUAAACA | 8006 | UAGAAGACAAUGCCACCCC | 8051 | AUGAAGUCUUCUGUGUAGA | 8096 | CGCGGUUAAUUGUUUAUCC |
| 7962 | UAGCAAGGCCGUUAAACAC | 8007 | AGAAGACAAUGCCACCCCA | 8052 | UGAAGUCUUCUGUGUAGAC | 8097 | GCGGUUAAUUGUUUAUCCA |
| 7963 | AGCAAGGCCGUUAAACACA | 8008 | GAAGACAAUGCCACCCCAA | 8053 | GAAGUCUUCUGUGUAGACC | 8098 | CGGUUAAUUGUUUAUCCAG |
| 7964 | GCAAGGCCGUUAAACACAU | 8009 | AAGACAAUGCCACCCCAAU | 8054 | AAGUCUUCUGUGUAGACCC | 8099 | GGUUAAUUGUUUAUCCAGA |
| 7965 | CAAGGCCGUUAAACACAUC | 8010 | AGACAAUGCCACCCCAAUA | 8055 | AGUCUUCUGUGUAGACCCG | 8100 | GUUAAUUGUUUAUCCAGAC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8101 | UUAAUUGUUUAUCCAGACU | 8146 | GCACUCUACGAUGUGACGC | 8191 | UCUGCAUACGGUUUCCAGU | 8236 | UUGCUCAAAAUGUGGCGCU |
| 8102 | UAAUUGUUUAUCCAGACUU | 8147 | CACUCUACGAUGUGACGCA | 8192 | CUGCAUACGGUUUCCAGUA | 8237 | UGCUCAAAAUGUGGCGCUC |
| 8103 | AAUUGUUUAUCCAGACUUA | 8148 | ACUCUACGAUGUGACGCAG | 8193 | UGCAUACGGUUUCCAGUAC | 8238 | GCUCAAAAUGUGGCGCUCG |
| 8104 | AUUGUUUAUCCAGACUUAU | 8149 | CUCUACGAUGUGACGCAGA | 8194 | GCAUACGGUUUCCAGUACU | 8239 | CUCAAAAUGUGGCGCUCGA |
| 8105 | UUGUUUAUCCAGACUUAUC | 8150 | UCUACGAUGUGACGCAGAA | 8195 | CAUACGGUUUCCAGUACUC | 8240 | UCAAAAUGUGGCGCUCGAA |
| 8106 | UGUUUAUCCAGACUUAUCC | 8151 | CUACGAUGUGACGCAGAAG | 8196 | AUACGGUUUCCAGUACUCC | 8241 | CAAAAUGUGGCGCUCGAAG |
| 8107 | GUUUAUCCAGACUUAUCCG | 8152 | UACGAUGUGACGCAGAAGU | 8197 | UACGGUUUCCAGUACUCCC | 8242 | AAAAUGUGGCGCUCGAAGA |
| 8108 | UUUAUCCAGACUUAUCCGU | 8153 | ACGAUGUGACGCAGAAGUU | 8198 | ACGGUUUCCAGUACUCCCC | 8243 | AAAUGUGGCGCUCGAAGAA |
| 8109 | UUAUCCAGACUUAUCCGUG | 8154 | CGAUGUGACGCAGAAGUUG | 8199 | CGGUUUCCAGUACUCCCCC | 8244 | AAUGUGGCGCUCGAAGAAA |
| 8110 | UAUCCAGACUUAUCCGUGC | 8155 | GAUGUGACGCAGAAGUUGC | 8200 | GGUUUCCAGUACUCCCCCU | 8245 | AUGUGGCGCUCGAAGAAAA |
| 8111 | AUCCAGACUUAUCCGUGCG | 8156 | AUGUGACGCAGAAGUUGCC | 8201 | GUUUCCAGUACUCCCCCUC | 8246 | UGUGGCGCUCGAAGAAAAC |
| 8112 | UCCAGACUUAUCCGUGCGG | 8157 | UGUGACGCAGAAGUUGCCU | 8202 | UUUCCAGUACUCCCCCUCC | 8247 | GUGGCGCUCGAAGAAAACG |
| 8113 | CCAGACUUAUCCGUGCGGG | 8158 | GUGACGCAGAAGUUGCCUA | 8203 | UUCCAGUACUCCCCCUCCC | 8248 | UGGCGCUCGAAGAAAACGC |
| 8114 | CAGACUUAUCCGUGCGGGU | 8159 | UGACGCAGAAGUUGCCUAA | 8204 | UCCAGUACUCCCCCUCCCA | 8249 | GGCGCUCGAAGAAAACGCC |
| 8115 | AGACUUAUCCGUGCGGGUU | 8160 | GACGCAGAAGUUGCCUAAG | 8205 | CCAGUACUCCCCCUCCCAA | 8250 | GCGCUCGAAGAAAACGCCA |
| 8116 | GACUUAUCCGUGCGGGUUU | 8161 | ACGCAGAAGUUGCCUAAGA | 8206 | CAGUACUCCCCCUCCCAAC | 8251 | CGCUCGAAGAAAACGCCAA |
| 8117 | ACUUAUCCGUGCGGGUUUG | 8162 | CGCAGAAGUUGCCUAAGAC | 8207 | AGUACUCCCCCUCCCAACG | 8252 | GCUCGAAGAAAACGCCAAU |
| 8118 | CUUAUCCGUGCGGGUUUGC | 8163 | GCAGAAGUUGCCUAAGACC | 8208 | GUACUCCCCCUCCCAACGG | 8253 | CUCGAAGAAAACGCCAAUG |
| 8119 | UUAUCCGUGCGGGUUUGCG | 8164 | CAGAAGUUGCCUAAGACCG | 8209 | UACUCCCCCUCCCAACGGG | 8254 | UCGAAGAAAACGCCAAUGG |
| 8120 | UAUCCGUGCGGGUUUGCGA | 8165 | AGAAGUUGCCUAAGACCGU | 8210 | ACUCCCCCUCCCAACGGGU | 8255 | CGAAGAAAACGCCAAUGGG |
| 8121 | AUCCGUGCGGGUUUGCGAG | 8166 | GAAGUUGCCUAAGACCGUG | 8211 | CUCCCCCUCCCAACGGGUA | 8256 | GAAGAAAACGCCAAUGGGG |
| 8122 | UCCGUGCGGGUUUGCGAGA | 8167 | AAGUUGCCUAAGACCGUGA | 8212 | UCCCCCUCCCAACGGGUAG | 8257 | AAGAAAACGCCAAUGGGGU |
| 8123 | CCGUGCGGGUUUGCGAGAA | 8168 | AGUUGCCUAAGACCGUGAU | 8213 | CCCCCUCCCAACGGGUAGA | 8258 | AGAAAACGCCAAUGGGGUU |
| 8124 | CGUGCGGGUUUGCGAGAAG | 8169 | GUUGCCUAAGACCGUGAUG | 8214 | CCCCUCCCAACGGGUAGAG | 8259 | GAAAACGCCAAUGGGGUUU |
| 8125 | GUGCGGGUUUGCGAGAAGA | 8170 | UUGCCUAAGACCGUGAUGG | 8215 | CCCUCCCAACGGGUAGAGU | 8260 | AAAACGCCAAUGGGGUUUU |
| 8126 | UGCGGGUUUGCGAGAAGAU | 8171 | UGCCUAAGACCGUGAUGGG | 8216 | CCUCCCAACGGGUAGAGUA | 8261 | AAACGCCAAUGGGGUUUUC |
| 8127 | GCGGGUUUGCGAGAAGAUG | 8172 | GCCUAAGACCGUGAUGGGA | 8217 | CUCCCAACGGGUAGAGUAC | 8262 | AACGCCAAUGGGGUUUUCA |
| 8128 | CGGGUUUGCGAGAAGAUGG | 8173 | CCUAAGACCGUGAUGGGAU | 8218 | UCCCAACGGGUAGAGUACU | 8263 | ACGCCAAUGGGGUUUUCAU |
| 8129 | GGGUUUGCGAGAAGAUGGC | 8174 | CUAAGACCGUGAUGGGAUC | 8219 | CCCAACGGGUAGAGUACUU | 8264 | CGCCAAUGGGGUUUUCAUA |
| 8130 | GGUUUGCGAGAAGAUGGCA | 8175 | UAAGACCGUGAUGGGAUCU | 8220 | CCAACGGGUAGAGUACUUG | 8265 | GCCAAUGGGGUUUUCAUAU |
| 8131 | GUUUGCGAGAAGAUGGCAC | 8176 | AAGACCGUGAUGGGAUCUG | 8221 | CAACGGGUAGAGUACUUGC | 8266 | CCAAUGGGGUUUUCAUAUG |
| 8132 | UUUGCGAGAAGAUGGCACU | 8177 | AGACCGUGAUGGGAUCUGC | 8222 | AACGGGUAGAGUACUUGCU | 8267 | CAAUGGGGUUUUCAUAUGA |
| 8133 | UUGCGAGAAGAUGGCACUC | 8178 | GACCGUGAUGGGAUCUGCA | 8223 | ACGGGUAGAGUACUUGCUC | 8268 | AAUGGGGUUUUCAUAUGAC |
| 8134 | UGCGAGAAGAUGGCACUCU | 8179 | ACCGUGAUGGGAUCUGCAU | 8224 | CGGGUAGAGUACUUGCUCA | 8269 | AUGGGGUUUUCAUAUGACA |
| 8135 | GCGAGAAGAUGGCACUCUA | 8180 | CCGUGAUGGGAUCUGCAUA | 8225 | GGGUAGAGUACUUGCUCAA | 8270 | UGGGGUUUUCAUAUGACAC |
| 8136 | CGAGAAGAUGGCACUCUAC | 8181 | CGUGAUGGGAUCUGCAUAC | 8226 | GGUAGAGUACUUGCUCAAA | 8271 | GGGGUUUUCAUAUGACACC |
| 8137 | GAGAAGAUGGCACUCUACG | 8182 | GUGAUGGGAUCUGCAUACG | 8227 | GUAGAGUACUUGCUCAAAA | 8272 | GGGUUUUCAUAUGACACCA |
| 8138 | AGAAGAUGGCACUCUACGA | 8183 | UGAUGGGAUCUGCAUACGG | 8228 | UAGAGUACUUGCUCAAAAU | 8273 | GGUUUUCAUAUGACACCAG |
| 8139 | GAAGAUGGCACUCUACGAU | 8184 | GAUGGGAUCUGCAUACGGU | 8229 | AGAGUACUUGCUCAAAAUG | 8274 | GUUUUCAUAUGACACCAGG |
| 8140 | AAGAUGGCACUCUACGAUG | 8185 | AUGGGAUCUGCAUACGGUU | 8230 | GAGUACUUGCUCAAAAUGU | 8275 | UUUUCAUAUGACACCAGGU |
| 8141 | AGAUGGCACUCUACGAUGU | 8186 | UGGGAUCUGCAUACGGUUU | 8231 | AGUACUUGCUCAAAAUGUG | 8276 | UUUCAUAUGACACCAGGUG |
| 8142 | GAUGGCACUCUACGAUGUG | 8187 | GGGAUCUGCAUACGGUUUC | 8232 | GUACUUGCUCAAAAUGUGG | 8277 | UUCAUAUGACACCAGGUGC |
| 8143 | AUGGCACUCUACGAUGUGA | 8188 | GGAUCUGCAUACGGUUUCC | 8233 | UACUUGCUCAAAAUGUGGC | 8278 | UCAUAUGACACCAGGUGCU |
| 8144 | UGGCACUCUACGAUGUGAC | 8189 | GAUCUGCAUACGGUUUCCA | 8234 | ACUUGCUCAAAAUGUGGCG | 8279 | CAUAUGACACCAGGUGCUU |
| 8145 | GGCACUCUACGAUGUGACG | 8190 | AUCUGCAUACGGUUUCCAG | 8235 | CUUGCUCAAAAUGUGGCGC | 8280 | AUAUGACACCAGGUGCUUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8281 | UAUGACACCAGGUGCUUCG | 8326 | CGAACUGAAGAGGACAUCU | 8371 | GCGAGGAAAGCAAUAUCAU | 8416 | GGCCCGAUGUUUAACUCCA |
| 8282 | AUGACACCAGGUGCUUCGA | 8327 | GAACUGAAGAGGACAUCUA | 8372 | CGAGGAAAGCAAUAUCAUC | 8417 | GCCCGAUGUUUAACUCCAA |
| 8283 | UGACACCAGGUGCUUCGAU | 8328 | AACUGAAGAGGACAUCUAC | 8373 | GAGGAAAGCAAUAUCAUCC | 8418 | CCCGAUGUUUAACUCCAAA |
| 8284 | GACACCAGGUGCUUCGAUU | 8329 | ACUGAAGAGGACAUCUACC | 8374 | AGGAAAGCAAUAUCAUCCC | 8419 | CCGAUGUUUAACUCCAAAG |
| 8285 | ACACCAGGUGCUUCGAUUC | 8330 | CUGAAGAGGACAUCUACCA | 8375 | GGAAAGCAAUAUCAUCCCU | 8420 | CGAUGUUUAACUCCAAAGG |
| 8286 | CACCAGGUGCUUCGAUUCG | 8331 | UGAAGAGGACAUCUACCAA | 8376 | GAAAGCAAUAUCAUCCCUC | 8421 | GAUGUUUAACUCCAAAGGG |
| 8287 | ACCAGGUGCUUCGAUUCGA | 8332 | GAAGAGGACAUCUACCAAU | 8377 | AAAGCAAUAUCAUCCCUCA | 8422 | AUGUUUAACUCCAAAGGGG |
| 8288 | CCAGGUGCUUCGAUUCGAC | 8333 | AAGAGGACAUCUACCAAUC | 8378 | AAGCAAUAUCAUCCCUCAC | 8423 | UGUUUAACUCCAAAGGGGA |
| 8289 | CAGGUGCUUCGAUUCGACC | 8334 | AGAGGACAUCUACCAAUCU | 8379 | AGCAAUAUCAUCCCUCACA | 8424 | GUUUAACUCCAAAGGGGAA |
| 8290 | AGGUGCUUCGAUUCGACCG | 8335 | GAGGACAUCUACCAAUCUU | 8380 | GCAAUAUCAUCCCUCACAG | 8425 | UUUAACUCCAAAGGGGAAU |
| 8291 | GGUGCUUCGAUUCGACCGU | 8336 | AGGACAUCUACCAAUCUUG | 8381 | CAAUAUCAUCCCUCACAGA | 8426 | UUAACUCCAAAGGGGAAUC |
| 8292 | GUGCUUCGAUUCGACCGUC | 8337 | GGACAUCUACCAAUCUUGC | 8382 | AAUAUCAUCCCUCACAGAA | 8427 | UAACUCCAAAGGGGAAUCA |
| 8293 | UGCUUCGAUUCGACCGUCA | 8338 | GACAUCUACCAAUCUUGCC | 8383 | AUAUCAUCCCUCACAGAAC | 8428 | AACUCCAAAGGGGAAUCAU |
| 8294 | GCUUCGAUUCGACCGUCAC | 8339 | ACAUCUACCAAUCUUGCCA | 8384 | UAUCAUCCCUCACAGAACG | 8429 | ACUCCAAAGGGGAAUCAUG |
| 8295 | CUUCGAUUCGACCGUCACC | 8340 | CAUCUACCAAUCUUGCCAA | 8385 | AUCAUCCCUCACAGAACGC | 8430 | CUCCAAAGGGGAAUCAUGU |
| 8296 | UUCGAUUCGACCGUCACCG | 8341 | AUCUACCAAUCUUGCCAAC | 8386 | UCAUCCCUCACAGAACGCC | 8431 | UCCAAAGGGGAAUCAUGUG |
| 8297 | UCGAUUCGACCGUCACCGA | 8342 | UCUACCAAUCUUGCCAACU | 8387 | CAUCCCUCACAGAACGCCU | 8432 | CCAAAGGGGAAUCAUGUGG |
| 8298 | CGAUUCGACCGUCACCGAG | 8343 | CUACCAAUCUUGCCAACUA | 8388 | AUCCCUCACAGAACGCCUC | 8433 | CAAAGGGGAAUCAUGUGGC |
| 8299 | GAUUCGACCGUCACCGAGC | 8344 | UACCAAUCUUGCCAACUAG | 8389 | UCCCUCACAGAACGCCUCU | 8434 | AAAGGGGAAUCAUGUGGCU |
| 8300 | AUUCGACCGUCACCGAGCG | 8345 | ACCAAUCUUGCCAACUAGA | 8390 | CCCUCACAGAACGCCUCUA | 8435 | AAGGGGAAUCAUGUGGCUA |
| 8301 | UUCGACCGUCACCGAGCGG | 8346 | CCAAUCUUGCCAACUAGAC | 8391 | CCUCACAGAACGCCUCUAU | 8436 | AGGGGAAUCAUGUGGCUAU |
| 8302 | UCGACCGUCACCGAGCGGG | 8347 | CAAUCUUGCCAACUAGACC | 8392 | CUCACAGAACGCCUCUAUU | 8437 | GGGGAAUCAUGUGGCUAUC |
| 8303 | CGACCGUCACCGAGCGGGA | 8348 | AAUCUUGCCAACUAGACCC | 8393 | UCACAGAACGCCUCUAUUG | 8438 | GGGAAUCAUGUGGCUAUCG |
| 8304 | GACCGUCACCGAGCGGGAU | 8349 | AUCUUGCCAACUAGACCCU | 8394 | CACAGAACGCCUCUAUUGU | 8439 | GGAAUCAUGUGGCUAUCGC |
| 8305 | ACCGUCACCGAGCGGGAUA | 8350 | UCUUGCCAACUAGACCCUA | 8395 | ACAGAACGCCUCUAUUGUG | 8440 | GAAUCAUGUGGCUAUCGCA |
| 8306 | CCGUCACCGAGCGGGAUAU | 8351 | CUUGCCAACUAGACCCUAC | 8396 | CAGAACGCCUCUAUUGUGG | 8441 | AAUCAUGUGGCUAUCGCAG |
| 8307 | CGUCACCGAGCGGGAUAUC | 8352 | UUGCCAACUAGACCCUACC | 8397 | AGAACGCCUCUAUUGUGGU | 8442 | AUCAUGUGGCUAUCGCAGA |
| 8308 | GUCACCGAGCGGGAUAUCC | 8353 | UGCCAACUAGACCCUACCG | 8398 | GAACGCCUCUAUUGUGGUG | 8443 | UCAUGUGGCUAUCGCAGAU |
| 8309 | UCACCGAGCGGGAUAUCCG | 8354 | GCCAACUAGACCCUACCGC | 8399 | AACGCCUCUAUUGUGGUGG | 8444 | CAUGUGGCUAUCGCAGAUG |
| 8310 | CACCGAGCGGGAUAUCCGA | 8355 | CCAACUAGACCCUACCGCG | 8400 | ACGCCUCUAUUGUGGUGGC | 8445 | AUGUGGCUAUCGCAGAUGC |
| 8311 | ACCGAGCGGGAUAUCCGAA | 8356 | CAACUAGACCCUACCGCGA | 8401 | CGCCUCUAUUGUGGUGGCC | 8446 | UGUGGCUAUCGCAGAUGCC |
| 8312 | CCGAGCGGGAUAUCCGAAC | 8357 | AACUAGACCCUACCGCGAG | 8402 | GCCUCUAUUGUGGUGGCCC | 8447 | GUGGCUAUCGCAGAUGCCG |
| 8313 | CGAGCGGGAUAUCCGAACU | 8358 | ACUAGACCCUACCGCGAGG | 8403 | CCUCUAUUGUGGUGGCCCG | 8448 | UGGCUAUCGCAGAUGCCGU |
| 8314 | GAGCGGGAUAUCCGAACUG | 8359 | CUAGACCCUACCGCGAGGA | 8404 | CUCUAUUGUGGUGGCCCGA | 8449 | GGCUAUCGCAGAUGCCGUG |
| 8315 | AGCGGGAUAUCCGAACUGA | 8360 | UAGACCCUACCGCGAGGAA | 8405 | UCUAUUGUGGUGGCCCGAU | 8450 | GCUAUCGCAGAUGCCGUGC |
| 8316 | GCGGGAUAUCCGAACUGAA | 8361 | AGACCCUACCGCGAGGAAA | 8406 | CUAUUGUGGUGGCCCGAUG | 8451 | CUAUCGCAGAUGCCGUGCC |
| 8317 | CGGGAUAUCCGAACUGAAG | 8362 | GACCCUACCGCGAGGAAAG | 8407 | UAUUGUGGUGGCCCGAUGU | 8452 | UAUCGCAGAUGCCGUGCCA |
| 8318 | GGGAUAUCCGAACUGAAGA | 8363 | ACCCUACCGCGAGGAAAGC | 8408 | AUUGUGGUGGCCCGAUGUU | 8453 | AUCGCAGAUGCCGUGCCAG |
| 8319 | GGAUAUCCGAACUGAAGAG | 8364 | CCCUACCGCGAGGAAAGCA | 8409 | UUGUGGUGGCCCGAUGUUU | 8454 | UCGCAGAUGCCGUGCCAGU |
| 8320 | GAUAUCCGAACUGAAGAGG | 8365 | CCUACCGCGAGGAAAGCAA | 8410 | UGUGGUGGCCCGAUGUUUA | 8455 | CGCAGAUGCCGUGCCAGUG |
| 8321 | AUAUCCGAACUGAAGAGGA | 8366 | CUACCGCGAGGAAAGCAAU | 8411 | GUGGUGGCCCGAUGUUUAA | 8456 | GCAGAUGCCGUGCCAGUGG |
| 8322 | UAUCCGAACUGAAGAGGAC | 8367 | UACCGCGAGGAAAGCAAUA | 8412 | UGGUGGCCCGAUGUUUAAC | 8457 | CAGAUGCCGUGCCAGUGGG |
| 8323 | AUCCGAACUGAAGAGGACA | 8368 | ACCGCGAGGAAAGCAAUAU | 8413 | GGUGGCCCGAUGUUUAACU | 8458 | AGAUGCCGUGCCAGUGGGG |
| 8324 | UCCGAACUGAAGAGGACAU | 8369 | CCGCGAGGAAAGCAAUAUC | 8414 | GUGGCCCGAUGUUUAACUC | 8459 | GAUGCCGUGCCAGUGGGGU |
| 8325 | CCGAACUGAAGAGGACAUC | 8370 | CGCGAGGAAAGCAAUAUCA | 8415 | UGGCCCGAUGUUUAACUCC | 8460 | AUGCCGUGCCAGUGGGGUG |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8461 | UGCCGUGCCAGUGGGGUGC | 8506 | ACUUGUUAUCUUAAGGCAC | 8551 | AAAAAUUUUGACAUGCUGG | 8596 | UGUGAGAGCGCCGGCGUAC |
| 8462 | GCCGUGCCAGUGGGGUGCU | 8507 | CUUGUUAUCUUAAGGCACA | 8552 | AAAAUUUUGACAUGCUGGU | 8597 | GUGAGAGCGCCGGCGUACA |
| 8463 | CCGUGCCAGUGGGGUGCUC | 8508 | UUGUUAUCUUAAGGCACAG | 8553 | AAAUUUUGACAUGCUGGUA | 8598 | UGAGAGCGCCGGCGUACAG |
| 8464 | CGUGCCAGUGGGGUGCUCA | 8509 | UGUUAUCUUAAGGCACAGG | 8554 | AAUUUUGACAUGCUGGUAU | 8599 | GAGAGCGCCGGCGUACAGG |
| 8465 | GUGCCAGUGGGGUGCUCAC | 8510 | GUUAUCUUAAGGCACAGGC | 8555 | AUUUUGACAUGCUGGUAUG | 8600 | AGAGCGCCGGCGUACAGGA |
| 8466 | UGCCAGUGGGGUGCUCACU | 8511 | UUAUCUUAAGGCACAGGCG | 8556 | UUUUGACAUGCUGGUAUGC | 8601 | GAGCGCCGGCGUACAGGAG |
| 8467 | GCCAGUGGGGUGCUCACUA | 8512 | UAUCUUAAGGCACAGGCGG | 8557 | UUUGACAUGCUGGUAUGCG | 8602 | AGCGCCGGCGUACAGGAGG |
| 8468 | CCAGUGGGGUGCUCACUAC | 8513 | AUCUUAAGGCACAGGCGGC | 8558 | UUGACAUGCUGGUAUGCGG | 8603 | GCGCCGGCGUACAGGAGGA |
| 8469 | CAGUGGGGUGCUCACUACC | 8514 | UCUUAAGGCACAGGCGGCG | 8559 | UGACAUGCUGGUAUGCGGA | 8604 | CGCCGGCGUACAGGAGGAU |
| 8470 | AGUGGGGUGCUCACUACCA | 8515 | CUUAAGGCACAGGCGGCGU | 8560 | GACAUGCUGGUAUGCGGAG | 8605 | GCCGGCGUACAGGAGGAUG |
| 8471 | GUGGGGUGCUCACUACCAG | 8516 | UUAAGGCACAGGCGGCGUG | 8561 | ACAUGCUGGUAUGCGGAGA | 8606 | CCGGCGUACAGGAGGAUGU |
| 8472 | UGGGGUGCUCACUACCAGU | 8517 | UAAGGCACAGGCGGCGUGU | 8562 | CAUGCUGGUAUGCGGAGAU | 8607 | CGGCGUACAGGAGGAUGUC |
| 8473 | GGGGUGCUCACUACCAGUU | 8518 | AAGGCACAGGCGGCGUGUA | 8563 | AUGCUGGUAUGCGGAGAUG | 8608 | GGCGUACAGGAGGAUGUCG |
| 8474 | GGGUGCUCACUACCAGUUU | 8519 | AGGCACAGGCGGCGUGUAG | 8564 | UGCUGGUAUGCGGAGAUGA | 8609 | GCGUACAGGAGGAUGUCGU |
| 8475 | GGUGCUCACUACCAGUUUG | 8520 | GGCACAGGCGGCGUGUAGG | 8565 | GCUGGUAUGCGGAGAUGAU | 8610 | CGUACAGGAGGAUGUCGUA |
| 8476 | GUGCUCACUACCAGUUUGG | 8521 | GCACAGGCGGCGUGUAGGG | 8566 | CUGGUAUGCGGAGAUGAUC | 8611 | GUACAGGAGGAUGUCGUAG |
| 8477 | UGCUCACUACCAGUUUGGG | 8522 | CACAGGCGGCGUGUAGGGC | 8567 | UGGUAUGCGGAGAUGAUCU | 8612 | UACAGGAGGAUGUCGUAGC |
| 8478 | GCUCACUACCAGUUUGGGG | 8523 | ACAGGCGGCGUGUAGGGCA | 8568 | GGUAUGCGGAGAUGAUCUG | 8613 | ACAGGAGGAUGUCGUAGCA |
| 8479 | CUCACUACCAGUUUGGGGA | 8524 | CAGGCGGCGUGUAGGGCAG | 8569 | GUAUGCGGAGAUGAUCUGG | 8614 | CAGGAGGAUGUCGUAGCAC |
| 8480 | UCACUACCAGUUUGGGGAA | 8525 | AGGCGGCGUGUAGGGCAGC | 8570 | UAUGCGGAGAUGAUCUGGU | 8615 | AGGAGGAUGUCGUAGCACU |
| 8481 | CACUACCAGUUUGGGGAAC | 8526 | GGCGGCGUGUAGGGCAGCC | 8571 | AUGCGGAGAUGAUCUGGUG | 8616 | GGAGGAUGUCGUAGCACUG |
| 8482 | ACUACCAGUUUGGGGAACA | 8527 | GCGGCGUGUAGGGCAGCCA | 8572 | UGCGGAGAUGAUCUGGUGG | 8617 | GAGGAUGUCGUAGCACUGA |
| 8483 | CUACCAGUUUGGGGAACAC | 8528 | CGGCGUGUAGGGCAGCCAA | 8573 | GCGGAGAUGAUCUGGUGGU | 8618 | AGGAUGUCGUAGCACUGAG |
| 8484 | UACCAGUUUGGGGAACACC | 8529 | GGCGUGUAGGGCAGCCAAC | 8574 | CGGAGAUGAUCUGGUGGUC | 8619 | GGAUGUCGUAGCACUGAGA |
| 8485 | ACCAGUUUGGGGAACACCC | 8530 | GCGUGUAGGGCAGCCAACA | 8575 | GGAGAUGAUCUGGUGGUCA | 8620 | GAUGUCGUAGCACUGAGAG |
| 8486 | CCAGUUUGGGGAACACCCU | 8531 | CGUGUAGGGCAGCCAACAU | 8576 | GAGAUGAUCUGGUGGUCAU | 8621 | AUGUCGUAGCACUGAGAGC |
| 8487 | CAGUUUGGGGAACACCCUC | 8532 | GUGUAGGGCAGCCAACAUC | 8577 | AGAUGAUCUGGUGGUCAUU | 8622 | UGUCGUAGCACUGAGAGCG |
| 8488 | AGUUUGGGGAACACCCUCA | 8533 | UGUAGGGCAGCCAACAUCA | 8578 | GAUGAUCUGGUGGUCAUUU | 8623 | GUCGUAGCACUGAGAGCGU |
| 8489 | GUUUGGGGAACACCCUCAC | 8534 | GUAGGGCAGCCAACAUCAA | 8579 | AUGAUCUGGUGGUCAUUUG | 8624 | UCGUAGCACUGAGAGCGUU |
| 8490 | UUUGGGGAACACCCUCACU | 8535 | UAGGGCAGCCAACAUCAAA | 8580 | UGAUCUGGUGGUCAUUUGU | 8625 | CGUAGCACUGAGAGCGUUU |
| 8491 | UUGGGGAACACCCUCACUU | 8536 | AGGGCAGCCAACAUCAAAA | 8581 | GAUCUGGUGGUCAUUUGUG | 8626 | GUAGCACUGAGAGCGUUUA |
| 8492 | UGGGGAACACCCUCACUUG | 8537 | GGGCAGCCAACAUCAAAAA | 8582 | AUCUGGUGGUCAUUUGUGA | 8627 | UAGCACUGAGAGCGUUUAC |
| 8493 | GGGGAACACCCUCACUUGU | 8538 | GGCAGCCAACAUCAAAAAU | 8583 | UCUGGUGGUCAUUUGUGAG | 8628 | AGCACUGAGAGCGUUUACA |
| 8494 | GGGAACACCCUCACUUGUU | 8539 | GCAGCCAACAUCAAAAAUU | 8584 | CUGGUGGUCAUUUGUGAGA | 8629 | GCACUGAGAGCGUUUACAG |
| 8495 | GGAACACCCUCACUUGUUA | 8540 | CAGCCAACAUCAAAAAUUU | 8585 | UGGUGGUCAUUUGUGAGAG | 8630 | CACUGAGAGCGUUUACAGA |
| 8496 | GAACACCCUCACUUGUUAU | 8541 | AGCCAACAUCAAAAAUUUU | 8586 | GGUGGUCAUUUGUGAGAGC | 8631 | ACUGAGAGCGUUUACAGAC |
| 8497 | AACACCCUCACUUGUUAUC | 8542 | GCCAACAUCAAAAAUUUUG | 8587 | GUGGUCAUUUGUGAGAGCG | 8632 | CUGAGAGCGUUUACAGACG |
| 8498 | ACACCCUCACUUGUUAUCU | 8543 | CCAACAUCAAAAAUUUUGA | 8588 | UGGUCAUUUGUGAGAGCGC | 8633 | UGAGAGCGUUUACAGACGC |
| 8499 | CACCCUCACUUGUUAUCUU | 8544 | CAACAUCAAAAAUUUUGAC | 8589 | GGUCAUUUGUGAGAGCGCC | 8634 | GAGAGCGUUUACAGACGCU |
| 8500 | ACCCUCACUUGUUAUCUUA | 8545 | AACAUCAAAAAUUUUGACA | 8590 | GUCAUUUGUGAGAGCGCCG | 8635 | AGAGCGUUUACAGACGCUA |
| 8501 | CCCUCACUUGUUAUCUUAA | 8546 | ACAUCAAAAAUUUUGACAU | 8591 | UCAUUUGUGAGAGCGCCGG | 8636 | GAGCGUUUACAGACGCUAU |
| 8502 | CCUCACUUGUUAUCUUAAG | 8547 | CAUCAAAAAUUUUGACAUG | 8592 | CAUUUGUGAGAGCGCCGGC | 8637 | AGCGUUUACAGACGCUAUG |
| 8503 | CUCACUUGUUAUCUUAAGG | 8548 | AUCAAAAAUUUUGACAUGC | 8593 | AUUUGUGAGAGCGCCGGCG | 8638 | GCGUUUACAGACGCUAUGA |
| 8504 | UCACUUGUUAUCUUAAGGC | 8549 | UCAAAAAUUUUGACAUGCU | 8594 | UUUGUGAGAGCGCCGGCGU | 8639 | CGUUUACAGACGCUAUGAU |
| 8505 | CACUUGUUAUCUUAAGGCA | 8550 | CAAAAAUUUUGACAUGCUG | 8595 | UUGUGAGAGCGCCGGCGUA | 8640 | GUUUACAGACGCUAUGAUC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8641 | UUUACAGACGCUAUGAUCA | 8686 | CCACAGCCCACAUACGACC | 8731 | AACGUCUCCGUAGCCCACG | 8776 | CUCACCCGUGACUGUACCA |
| 8642 | UUACAGACGCUAUGAUCAG | 8687 | CACAGCCCACAUACGACCU | 8732 | ACGUCUCCGUAGCCCACGA | 8777 | UCACCCGUGACUGUACCAC |
| 8643 | UACAGACGCUAUGAUCAGA | 8688 | ACAGCCCACAUACGACCUU | 8733 | CGUCUCCGUAGCCCACGAU | 8778 | CACCCGUGACUGUACCACU |
| 8644 | ACAGACGCUAUGAUCAGAU | 8689 | CAGCCCACAUACGACCUUG | 8734 | GUCUCCGUAGCCCACGAUG | 8779 | ACCCGUGACUGUACCACUC |
| 8645 | CAGACGCUAUGAUCAGAUA | 8690 | AGCCCACAUACGACCUUGA | 8735 | UCUCCGUAGCCCACGAUGG | 8780 | CCCGUGACUGUACCACUCC |
| 8646 | AGACGCUAUGAUCAGAUAC | 8691 | GCCCACAUACGACCUUGAG | 8736 | CUCCGUAGCCCACGAUGGC | 8781 | CCGUGACUGUACCACUCCA |
| 8647 | GACGCUAUGAUCAGAUACU | 8692 | CCCACAUACGACCUUGAGC | 8737 | UCCGUAGCCCACGAUGGCA | 8782 | CGUGACUGUACCACUCCAC |
| 8648 | ACGCUAUGAUCAGAUACUC | 8693 | CCACAUACGACCUUGAGCU | 8738 | CCGUAGCCCACGAUGGCAC | 8783 | GUGACUGUACCACUCCACU |
| 8649 | CGCUAUGAUCAGAUACUCA | 8694 | CACAUACGACCUUGAGCUG | 8739 | CGUAGCCCACGAUGGCACC | 8784 | UGACUGUACCACUCCACUU |
| 8650 | GCUAUGAUCAGAUACUCAG | 8695 | ACAUACGACCUUGAGCUGA | 8740 | GUAGCCCACGAUGGCACCG | 8785 | GACUGUACCACUCCACUUG |
| 8651 | CUAUGAUCAGAUACUCAGC | 8696 | CAUACGACCUUGAGCUGAU | 8741 | UAGCCCACGAUGGCACCGG | 8786 | ACUGUACCACUCCACUUGC |
| 8652 | UAUGAUCAGAUACUCAGCU | 8697 | AUACGACCUUGAGCUGAUA | 8742 | AGCCCACGAUGGCACCGGA | 8787 | CUGUACCACUCCACUUGCG |
| 8653 | AUGAUCAGAUACUCAGCUC | 8698 | UACGACCUUGAGCUGAUAA | 8743 | GCCCACGAUGGCACCGGAC | 8788 | UGUACCACUCCACUUGCGC |
| 8654 | UGAUCAGAUACUCAGCUCC | 8699 | ACGACCUUGAGCUGAUAAC | 8744 | CCCACGAUGGCACCGGACA | 8789 | GUACCACUCCACUUGCGCG |
| 8655 | GAUCAGAUACUCAGCUCCC | 8700 | CGACCUUGAGCUGAUAACA | 8745 | CCACGAUGGCACCGGACAG | 8790 | UACCACUCCACUUGCGCGA |
| 8656 | AUCAGAUACUCAGCUCCCC | 8701 | GACCUUGAGCUGAUAACAU | 8746 | CACGAUGGCACCGGACAGA | 8791 | ACCACUCCACUUGCGCGAG |
| 8657 | UCAGAUACUCAGCUCCCCC | 8702 | ACCUUGAGCUGAUAACAUC | 8747 | ACGAUGGCACCGGACAGAG | 8792 | CCACUCCACUUGCGCGAGC |
| 8658 | CAGAUACUCAGCUCCCCCA | 8703 | CCUUGAGCUGAUAACAUCA | 8748 | CGAUGGCACCGGACAGAGA | 8793 | CACUCCACUUGCGCGAGCU |
| 8659 | AGAUACUCAGCUCCCCCAG | 8704 | CUUGAGCUGAUAACAUCAU | 8749 | GAUGGCACCGGACAGAGAU | 8794 | ACUCCACUUGCGCGAGCUG |
| 8660 | GAUACUCAGCUCCCCCAGG | 8705 | UUGAGCUGAUAACAUCAUG | 8750 | AUGGCACCGGACAGAGAUA | 8795 | CUCCACUUGCGCGAGCUGC |
| 8661 | AUACUCAGCUCCCCCAGGA | 8706 | UGAGCUGAUAACAUCAUGC | 8751 | UGGCACCGGACAGAGAUAU | 8796 | UCCACUUGCGCGAGCUGCU |
| 8662 | UACUCAGCUCCCCCAGGAG | 8707 | GAGCUGAUAACAUCAUGCU | 8752 | GGCACCGGACAGAGAUAUU | 8797 | CCACUUGCGCGAGCUGCUU |
| 8663 | ACUCAGCUCCCCCAGGAGA | 8708 | AGCUGAUAACAUCAUGCUC | 8753 | GCACCGGACAGAGAUAUUA | 8798 | CACUUGCGCGAGCUGCUUG |
| 8664 | CUCAGCUCCCCCAGGAGAU | 8709 | GCUGAUAACAUCAUGCUCG | 8754 | CACCGGACAGAGAUAUUAC | 8799 | ACUUGCGCGAGCUGCUUGG |
| 8665 | UCAGCUCCCCCAGGAGAUG | 8710 | CUGAUAACAUCAUGCUCGU | 8755 | ACCGGACAGAGAUAUUACU | 8800 | CUUGCGCGAGCUGCUUGGG |
| 8666 | CAGCUCCCCCAGGAGAUGC | 8711 | UGAUAACAUCAUGCUCGUC | 8756 | CCGGACAGAGAUAUUACUA | 8801 | UUGCGCGAGCUGCUUGGGA |
| 8667 | AGCUCCCCCAGGAGAUGCG | 8712 | GAUAACAUCAUGCUCGUCC | 8757 | CGGACAGAGAUAUUACUAC | 8802 | UGCGCGAGCUGCUUGGGAG |
| 8668 | GCUCCCCCAGGAGAUGCGC | 8713 | AUAACAUCAUGCUCGUCCA | 8758 | GGACAGAGAUAUUACUACC | 8803 | GCGCGAGCUGCUUGGGAGA |
| 8669 | CUCCCCCAGGAGAUGCGCC | 8714 | UAACAUCAUGCUCGUCCAA | 8759 | GACAGAGAUAUUACUACCU | 8804 | CGCGAGCUGCUUGGGAGAC |
| 8670 | UCCCCCAGGAGAUGCGCCA | 8715 | AACAUCAUGCUCGUCCAAC | 8760 | ACAGAGAUAUUACUACCUC | 8805 | GCGAGCUGCUUGGGAGACA |
| 8671 | CCCCCAGGAGAUGCGCCAC | 8716 | ACAUCAUGCUCGUCCAACG | 8761 | CAGAGAUAUUACUACCUCA | 8806 | CGAGCUGCUUGGGAGACAG |
| 8672 | CCCCAGGAGAUGCGCCACA | 8717 | CAUCAUGCUCGUCCAACGU | 8762 | AGAGAUAUUACUACCUCAC | 8807 | GAGCUGCUUGGGAGACAGC |
| 8673 | CCCAGGAGAUGCGCCACAG | 8718 | AUCAUGCUCGUCCAACGUC | 8763 | GAGAUAUUACUACCUCACC | 8808 | AGCUGCUUGGGAGACAGCU |
| 8674 | CCAGGAGAUGCGCCACAGC | 8719 | UCAUGCUCGUCCAACGUCU | 8764 | AGAUAUUACUACCUCACCC | 8809 | GCUGCUUGGGAGACAGCUC |
| 8675 | CAGGAGAUGCGCCACAGCC | 8720 | CAUGCUCGUCCAACGUCUC | 8765 | GAUAUUACUACCUCACCCG | 8810 | CUGCUUGGGAGACAGCUCG |
| 8676 | AGGAGAUGCGCCACAGCCC | 8721 | AUGCUCGUCCAACGUCUCC | 8766 | AUAUUACUACCUCACCCGU | 8811 | UGCUUGGGAGACAGCUCGC |
| 8677 | GGAGAUGCGCCACAGCCCA | 8722 | UGCUCGUCCAACGUCUCCG | 8767 | UAUUACUACCUCACCCGUG | 8812 | GCUUGGGAGACAGCUCGCC |
| 8678 | GAGAUGCGCCACAGCCCAC | 8723 | GCUCGUCCAACGUCUCCGU | 8768 | AUUACUACCUCACCCGUGA | 8813 | CUUGGGAGACAGCUCGCCA |
| 8679 | AGAUGCGCCACAGCCCACA | 8724 | CUCGUCCAACGUCUCCGUA | 8769 | UUACUACCUCACCCGUGAC | 8814 | UUGGGAGACAGCUCGCCAU |
| 8680 | GAUGCGCCACAGCCCACAU | 8725 | UCGUCCAACGUCUCCGUAG | 8770 | UACUACCUCACCCGUGACU | 8815 | UGGGAGACAGCUCGCCAUA |
| 8681 | AUGCGCCACAGCCCACAUA | 8726 | CGUCCAACGUCUCCGUAGC | 8771 | ACUACCUCACCCGUGACUG | 8816 | GGGAGACAGCUCGCCAUAC |
| 8682 | UGCGCCACAGCCCACAUAC | 8727 | GUCCAACGUCUCCGUAGCC | 8772 | CUACCUCACCCGUGACUGU | 8817 | GGAGACAGCUCGCCAUACC |
| 8683 | GCGCCACAGCCCACAUACG | 8728 | UCCAACGUCUCCGUAGCCC | 8773 | UACCUCACCCGUGACUGUA | 8818 | GAGACAGCUCGCCAUACCC |
| 8684 | CGCCACAGCCCACAUACGA | 8729 | CCAACGUCUCCGUAGCCCA | 8774 | ACCUCACCCGUGACUGUAC | 8819 | AGACAGCUCGCCAUACCCC |
| 8685 | GCCACAGCCCACAUACGAC | 8730 | CAACGUCUCCGUAGCCCAC | 8775 | CCUCACCCGUGACUGUACC | 8820 | GACAGCUCGCCAUACCCCU |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8821 | ACAGCUCGCCAUACCCCUG | 8866 | AUGUACGCCCCCACAAUAU | 8911 | UUCUUCUCCAUCCUCCAAU | 8956 | AAUUUUGACAUGUAUGGGG |
| 8822 | CAGCUCGCCAUACCCCUGU | 8867 | UGUACGCCCCCACAAUAUG | 8912 | UCUUCUCCAUCCUCCAAUG | 8957 | AUUUUGACAUGUAUGGGGU |
| 8823 | AGCUCGCCAUACCCCUGUC | 8868 | GUACGCCCCCACAAUAUGG | 8913 | CUUCUCCAUCCUCCAAUGC | 8958 | UUUUGACAUGUAUGGGGUA |
| 8824 | GCUCGCCAUACCCCUGUCA | 8869 | UACGCCCCCACAAUAUGGG | 8914 | UUCUCCAUCCUCCAAUGCC | 8959 | UUUGACAUGUAUGGGGUAA |
| 8825 | CUCGCCAUACCCCUGUCAA | 8870 | ACGCCCCCACAAUAUGGGU | 8915 | UCUCCAUCCUCCAAUGCCA | 8960 | UUGACAUGUAUGGGGUAAC |
| 8826 | UCGCCAUACCCCUGUCAAU | 8871 | CGCCCCCACAAUAUGGGUA | 8916 | CUCCAUCCUCCAAUGCCAG | 8961 | UGACAUGUAUGGGGUAACC |
| 8827 | CGCCAUACCCCUGUCAAUU | 8872 | GCCCCCACAAUAUGGGUAC | 8917 | UCCAUCCUCCAAUGCCAGG | 8962 | GACAUGUAUGGGGUAACCU |
| 8828 | GCCAUACCCCUGUCAAUUC | 8873 | CCCCCACAAUAUGGGUACG | 8918 | CCAUCCUCCAAUGCCAGGA | 8963 | ACAUGUAUGGGGUAACCUA |
| 8829 | CCAUACCCCUGUCAAUUCG | 8874 | CCCCACAAUAUGGGUACGC | 8919 | CAUCCUCCAAUGCCAGGAG | 8964 | CAUGUAUGGGGUAACCUAC |
| 8830 | CAUACCCCUGUCAAUUCGU | 8875 | CCCACAAUAUGGGUACGCA | 8920 | AUCCUCCAAUGCCAGGAGC | 8965 | AUGUAUGGGGUAACCUACU |
| 8831 | AUACCCCUGUCAAUUCGUG | 8876 | CCACAAUAUGGGUACGCAU | 8921 | UCCUCCAAUGCCAGGAGCA | 8966 | UGUAUGGGGUAACCUACUC |
| 8832 | UACCCCUGUCAAUUCGUGG | 8877 | CACAAUAUGGGUACGCAUG | 8922 | CCUCCAAUGCCAGGAGCAG | 8967 | GUAUGGGGUAACCUACUCC |
| 8833 | ACCCCUGUCAAUUCGUGGU | 8878 | ACAAUAUGGGUACGCAUGG | 8923 | CUCCAAUGCCAGGAGCAGU | 8968 | UAUGGGGUAACCUACUCCG |
| 8834 | CCCCUGUCAAUUCGUGGUU | 8879 | CAAUAUGGGUACGCAUGGU | 8924 | UCCAAUGCCAGGAGCAGUU | 8969 | AUGGGGUAACCUACUCCGU |
| 8835 | CCCUGUCAAUUCGUGGUUG | 8880 | AAUAUGGGUACGCAUGGUC | 8925 | CCAAUGCCAGGAGCAGUUG | 8970 | UGGGGUAACCUACUCCGUC |
| 8836 | CCUGUCAAUUCGUGGUUGG | 8881 | AUAUGGGUACGCAUGGUCC | 8926 | CAAUGCCAGGAGCAGUUGG | 8971 | GGGGUAACCUACUCCGUCA |
| 8837 | CUGUCAAUUCGUGGUUGGG | 8882 | UAUGGGUACGCAUGGUCCU | 8927 | AAUGCCAGGAGCAGUUGGA | 8972 | GGGUAACCUACUCCGUCAC |
| 8838 | UGUCAAUUCGUGGUUGGGC | 8883 | AUGGGUACGCAUGGUCCUC | 8928 | AUGCCAGGAGCAGUUGGAG | 8973 | GGUAACCUACUCCGUCACU |
| 8839 | GUCAAUUCGUGGUUGGGCA | 8884 | UGGGUACGCAUGGUCCUCA | 8929 | UGCCAGGAGCAGUUGGAGG | 8974 | GUAACCUACUCCGUCACUC |
| 8840 | UCAAUUCGUGGUUGGGCAA | 8885 | GGGUACGCAUGGUCCUCAU | 8930 | GCCAGGAGCAGUUGGAGGC | 8975 | UAACCUACUCCGUCACUCC |
| 8841 | CAAUUCGUGGUUGGGCAAC | 8886 | GGUACGCAUGGUCCUCAUG | 8931 | CCAGGAGCAGUUGGAGGCG | 8976 | AACCUACUCCGUCACUCCA |
| 8842 | AAUUCGUGGUUGGGCAACA | 8887 | GUACGCAUGGUCCUCAUGA | 8932 | CAGGAGCAGUUGGAGGCGG | 8977 | ACCUACUCCGUCACUCCAC |
| 8843 | AUUCGUGGUUGGGCAACAU | 8888 | UACGCAUGGUCCUCAUGAC | 8933 | AGGAGCAGUUGGAGGCGGC | 8978 | CCUACUCCGUCACUCCACU |
| 8844 | UUCGUGGUUGGGCAACAUC | 8889 | ACGCAUGGUCCUCAUGACC | 8934 | GGAGCAGUUGGAGGCGGCA | 8979 | CUACUCCGUCACUCCACUC |
| 8845 | UCGUGGUUGGGCAACAUCA | 8890 | CGCAUGGUCCUCAUGACCC | 8935 | GAGCAGUUGGAGGCGGCAC | 8980 | UACUCCGUCACUCCACUCG |
| 8846 | CGUGGUUGGGCAACAUCAU | 8891 | GCAUGGUCCUCAUGACCCA | 8936 | AGCAGUUGGAGGCGGCACU | 8981 | ACUCCGUCACUCCACUCGA |
| 8847 | GUGGUUGGGCAACAUCAUC | 8892 | CAUGGUCCUCAUGACCCAU | 8937 | GCAGUUGGAGGCGGCACUU | 8982 | CUCCGUCACUCCACUCGAU |
| 8848 | UGGUUGGGCAACAUCAUCA | 8893 | AUGGUCCUCAUGACCCAUU | 8938 | CAGUUGGAGGCGGCACUUA | 8983 | UCCGUCACUCCACUCGAUC |
| 8849 | GGUUGGGCAACAUCAUCAU | 8894 | UGGUCCUCAUGACCCAUUU | 8939 | AGUUGGAGGCGGCACUUAA | 8984 | CCGUCACUCCACUCGAUCU |
| 8850 | GUUGGGCAACAUCAUCAUG | 8895 | GGUCCUCAUGACCCAUUUC | 8940 | GUUGGAGGCGGCACUUAAU | 8985 | CGUCACUCCACUCGAUCUC |
| 8851 | UUGGGCAACAUCAUCAUGU | 8896 | GUCCUCAUGACCCAUUUCU | 8941 | UUGGAGGCGGCACUUAAUU | 8986 | GUCACUCCACUCGAUCUCC |
| 8852 | UGGGCAACAUCAUCAUGUA | 8897 | UCCUCAUGACCCAUUUCUU | 8942 | UGGAGGCGGCACUUAAUUU | 8987 | UCACUCCACUCGAUCUCCC |
| 8853 | GGGCAACAUCAUCAUGUAC | 8898 | CCUCAUGACCCAUUUCUUC | 8943 | GGAGGCGGCACUUAAUUUU | 8988 | CACUCCACUCGAUCUCCCU |
| 8854 | GGCAACAUCAUCAUGUACG | 8899 | CUCAUGACCCAUUUCUUCU | 8944 | GAGGCGGCACUUAAUUUUG | 8989 | ACUCCACUCGAUCUCCCUG |
| 8855 | GCAACAUCAUCAUGUACGC | 8900 | UCAUGACCCAUUUCUUCUC | 8945 | AGGCGGCACUUAAUUUUGA | 8990 | CUCCACUCGAUCUCCCUGC |
| 8856 | CAACAUCAUCAUGUACGCC | 8901 | CAUGACCCAUUUCUUCUCC | 8946 | GGCGGCACUUAAUUUUGAC | 8991 | UCCACUCGAUCUCCCUGCA |
| 8857 | AACAUCAUCAUGUACGCCC | 8902 | AUGACCCAUUUCUUCUCCA | 8947 | GCGGCACUUAAUUUUGACA | 8992 | CCACUCGAUCUCCCUGCAA |
| 8858 | ACAUCAUCAUGUACGCCCC | 8903 | UGACCCAUUUCUUCUCCAU | 8948 | CGGCACUUAAUUUUGACAU | 8993 | CACUCGAUCUCCCUGCAAU |
| 8859 | CAUCAUCAUGUACGCCCCC | 8904 | GACCCAUUUCUUCUCCAUC | 8949 | GGCACUUAAUUUUGACAUG | 8994 | ACUCGAUCUCCCUGCAAUC |
| 8860 | AUCAUCAUGUACGCCCCCA | 8905 | ACCCAUUUCUUCUCCAUCC | 8950 | GCACUUAAUUUUGACAUGU | 8995 | CUCGAUCUCCCUGCAAUCA |
| 8861 | UCAUCAUGUACGCCCCCAC | 8906 | CCCAUUUCUUCUCCAUCCU | 8951 | CACUUAAUUUUGACAUGUA | 8996 | UCGAUCUCCCUGCAAUCAU |
| 8862 | CAUCAUGUACGCCCCCACA | 8907 | CCAUUUCUUCUCCAUCCUC | 8952 | ACUUAAUUUUGACAUGUAU | 8997 | CGAUCUCCCUGCAAUCAUU |
| 8863 | AUCAUGUACGCCCCCACAA | 8908 | CAUUUCUUCUCCAUCCUCC | 8953 | CUUAAUUUUGACAUGUAUG | 8998 | GAUCUCCCUGCAAUCAUUC |
| 8864 | UCAUGUACGCCCCCACAAU | 8909 | AUUUCUUCUCCAUCCUCCA | 8954 | UUAAUUUUGACAUGUAUGG | 8999 | AUCUCCCUGCAAUCAUUCA |
| 8865 | CAUGUACGCCCCCACAAUA | 8910 | UUUCUUCUCCAUCCUCCAA | 8955 | UAAUUUUGACAUGUAUGGG | 9000 | UCUCCCUGCAAUCAUUCAA |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9001 | CUCCCUGCAAUCAUUCAAC | 9046 | CUACAUGGGUACUCUCCAA | 9091 | CUCAGGAAGCUUGGGGCGC | 9136 | GCCAGAGCUGUCAGAGCCA |
| 9002 | UCCCUGCAAUCAUUCAACG | 9047 | UACAUGGGUACUCUCCAAC | 9092 | UCAGGAAGCUUGGGGCGCC | 9137 | CCAGAGCUGUCAGAGCCAA |
| 9003 | CCCUGCAAUCAUUCAACGA | 9048 | ACAUGGGUACUCUCCAACU | 9093 | CAGGAAGCUUGGGGCGCCA | 9138 | CAGAGCUGUCAGAGCCAAA |
| 9004 | CCUGCAAUCAUUCAACGAC | 9049 | CAUGGGUACUCUCCAACUG | 9094 | AGGAAGCUUGGGGCGCCAC | 9139 | AGAGCUGUCAGAGCCAAAC |
| 9005 | CUGCAAUCAUUCAACGACU | 9050 | AUGGGUACUCUCCAACUGA | 9095 | GGAAGCUUGGGGCGCCACC | 9140 | GAGCUGUCAGAGCCAAACU |
| 9006 | UGCAAUCAUUCAACGACUC | 9051 | UGGGUACUCUCCAACUGAA | 9096 | GAAGCUUGGGGCGCCACCC | 9141 | AGCUGUCAGAGCCAAACUC |
| 9007 | GCAAUCAUUCAACGACUCC | 9052 | GGGUACUCUCCAACUGAAC | 9097 | AAGCUUGGGGCGCCACCCU | 9142 | GCUGUCAGAGCCAAACUCA |
| 9008 | CAAUCAUUCAACGACUCCA | 9053 | GGUACUCUCCAACUGAACU | 9098 | AGCUUGGGGCGCCACCCUU | 9143 | CUGUCAGAGCCAAACUCAU |
| 9009 | AAUCAUUCAACGACUCCAU | 9054 | GUACUCUCCAACUGAACUC | 9099 | GCUUGGGGCGCCACCCUUA | 9144 | UGUCAGAGCCAAACUCAUU |
| 9010 | AUCAUUCAACGACUCCAUG | 9055 | UACUCUCCAACUGAACUCA | 9100 | CUUGGGGCGCCACCCUUAA | 9145 | GUCAGAGCCAAACUCAUUG |
| 9011 | UCAUUCAACGACUCCAUGG | 9056 | ACUCUCCAACUGAACUCAA | 9101 | UUGGGGCGCCACCCUUAAG | 9146 | UCAGAGCCAAACUCAUUGC |
| 9012 | CAUUCAACGACUCCAUGGU | 9057 | CUCUCCAACUGAACUCAAC | 9102 | UGGGGCGCCACCCUUAAGA | 9147 | CAGAGCCAAACUCAUUGCC |
| 9013 | AUUCAACGACUCCAUGGUA | 9058 | UCUCCAACUGAACUCAACA | 9103 | GGGGCGCCACCCUUAAGAG | 9148 | AGAGCCAAACUCAUUGCCC |
| 9014 | UUCAACGACUCCAUGGUAU | 9059 | CUCCAACUGAACUCAACAG | 9104 | GGGCGCCACCCUUAAGAGC | 9149 | GAGCCAAACUCAUUGCCCA |
| 9015 | UCAACGACUCCAUGGUAUG | 9060 | UCCAACUGAACUCAACAGG | 9105 | GGCGCCACCCUUAAGAGCU | 9150 | AGCCAAACUCAUUGCCCAA |
| 9016 | CAACGACUCCAUGGUAUGG | 9061 | CCAACUGAACUCAACAGGG | 9106 | GCGCCACCCUUAAGAGCUU | 9151 | GCCAAACUCAUUGCCCAAG |
| 9017 | AACGACUCCAUGGUAUGGC | 9062 | CAACUGAACUCAACAGGGU | 9107 | CGCCACCCUUAAGAGCUUG | 9152 | CCAAACUCAUUGCCCAAGG |
| 9018 | ACGACUCCAUGGUAUGGCA | 9063 | AACUGAACUCAACAGGGUG | 9108 | GCCACCCUUAAGAGCUUGG | 9153 | CAAACUCAUUGCCCAAGGU |
| 9019 | CGACUCCAUGGUAUGGCAG | 9064 | ACUGAACUCAACAGGGUGG | 9109 | CCACCCUUAAGAGCUUGGA | 9154 | AAACUCAUUGCCCAAGGUG |
| 9020 | GACUCCAUGGUAUGGCAGC | 9065 | CUGAACUCAACAGGGUGGG | 9110 | CACCCUUAAGAGCUUGGAG | 9155 | AACUCAUUGCCCAAGGUGG |
| 9021 | ACUCCAUGGUAUGGCAGCU | 9066 | UGAACUCAACAGGGUGGGA | 9111 | ACCCUUAAGAGCUUGGAGA | 9156 | ACUCAUUGCCCAAGGUGGG |
| 9022 | CUCCAUGGUAUGGCAGCUU | 9067 | GAACUCAACAGGGUGGGAG | 9112 | CCCUUAAGAGCUUGGAGAC | 9157 | CUCAUUGCCCAAGGUGGGA |
| 9023 | UCCAUGGUAUGGCAGCUUU | 9068 | AACUCAACAGGGUGGGAGC | 9113 | CCUUAAGAGCUUGGAGACA | 9158 | UCAUUGCCCAAGGUGGGAA |
| 9024 | CCAUGGUAUGGCAGCUUUU | 9069 | ACUCAACAGGGUGGGAGCG | 9114 | CUUAAGAGCUUGGAGACAU | 9159 | CAUUGCCCAAGGUGGGAAA |
| 9025 | CAUGGUAUGGCAGCUUUUU | 9070 | CUCAACAGGGUGGGAGCGA | 9115 | UUAAGAGCUUGGAGACAUC | 9160 | AUUGCCCAAGGUGGGAAAG |
| 9026 | AUGGUAUGGCAGCUUUUUC | 9071 | UCAACAGGGUGGGAGCGAG | 9116 | UAAGAGCUUGGAGACAUCG | 9161 | UUGCCCAAGGUGGGAAAGC |
| 9027 | UGGUAUGGCAGCUUUUUCC | 9072 | CAACAGGGUGGGAGCGAGC | 9117 | AAGAGCUUGGAGACAUCGA | 9162 | UGCCCAAGGUGGGAAAGCA |
| 9028 | GGUAUGGCAGCUUUUUCCC | 9073 | AACAGGGUGGGAGCGAGCC | 9118 | AGAGCUUGGAGACAUCGAG | 9163 | GCCCAAGGUGGGAAAGCAG |
| 9029 | GUAUGGCAGCUUUUUCCCU | 9074 | ACAGGGUGGGAGCGAGCCU | 9119 | GAGCUUGGAGACAUCGAGC | 9164 | CCCAAGGUGGGAAAGCAGC |
| 9030 | UAUGGCAGCUUUUUCCCUA | 9075 | CAGGGUGGGAGCGAGCCUC | 9120 | AGCUUGGAGACAUCGAGCC | 9165 | CCAAGGUGGGAAAGCAGCG |
| 9031 | AUGGCAGCUUUUUCCCUAC | 9076 | AGGGUGGGAGCGAGCCUCA | 9121 | GCUUGGAGACAUCGAGCCA | 9166 | CAAGGUGGGAAAGCAGCGA |
| 9032 | UGGCAGCUUUUUCCCUACA | 9077 | GGGUGGGAGCGAGCCUCAG | 9122 | CUUGGAGACAUCGAGCCAG | 9167 | AAGGUGGGAAAGCAGCGAU |
| 9033 | GGCAGCUUUUUCCCUACAU | 9078 | GGUGGGAGCGAGCCUCAGG | 9123 | UUGGAGACAUCGAGCCAGA | 9168 | AGGUGGGAAAGCAGCGAUA |
| 9034 | GCAGCUUUUUCCCUACAUG | 9079 | GUGGGAGCGAGCCUCAGGA | 9124 | UGGAGACAUCGAGCCAGAG | 9169 | GGUGGGAAAGCAGCGAUAU |
| 9035 | CAGCUUUUUCCCUACAUGG | 9080 | UGGGAGCGAGCCUCAGGAA | 9125 | GGAGACAUCGAGCCAGAGC | 9170 | GUGGGAAAGCAGCGAUAUG |
| 9036 | AGCUUUUUCCCUACAUGGG | 9081 | GGGAGCGAGCCUCAGGAAG | 9126 | GAGACAUCGAGCCAGAGCU | 9171 | UGGGAAAGCAGCGAUAUGC |
| 9037 | GCUUUUUCCCUACAUGGGU | 9082 | GGAGCGAGCCUCAGGAAGC | 9127 | AGACAUCGAGCCAGAGCUG | 9172 | GGGAAAGCAGCGAUAUGCG |
| 9038 | CUUUUUCCCUACAUGGGUA | 9083 | GAGCGAGCCUCAGGAAGCU | 9128 | GACAUCGAGCCAGAGCUGU | 9173 | GGAAAGCAGCGAUAUGCGG |
| 9039 | UUUUUCCCUACAUGGGUAC | 9084 | AGCGAGCCUCAGGAAGCUU | 9129 | ACAUCGAGCCAGAGCUGUC | 9174 | GAAAGCAGCGAUAUGCGGC |
| 9040 | UUUUCCCUACAUGGGUACU | 9085 | GCGAGCCUCAGGAAGCUUG | 9130 | CAUCGAGCCAGAGCUGUCA | 9175 | AAAGCAGCGAUAUGCGGCA |
| 9041 | UUUCCCUACAUGGGUACUC | 9086 | CGAGCCUCAGGAAGCUUGG | 9131 | AUCGAGCCAGAGCUGUCAG | 9176 | AAGCAGCGAUAUGCGGCAA |
| 9042 | UUCCCUACAUGGGUACUCU | 9087 | GAGCCUCAGGAAGCUUGGG | 9132 | UCGAGCCAGAGCUGUCAGA | 9177 | AGCAGCGAUAUGCGGCAAG |
| 9043 | UCCCUACAUGGGUACUCUC | 9088 | AGCCUCAGGAAGCUUGGGG | 9133 | CGAGCCAGAGCUGUCAGAG | 9178 | GCAGCGAUAUGCGGCAAGU |
| 9044 | CCCUACAUGGGUACUCUCC | 9089 | GCCUCAGGAAGCUUGGGGC | 9134 | GAGCCAGAGCUGUCAGAGC | 9179 | CAGCGAUAUGCGGCAAGUA |
| 9045 | CCUACAUGGGUACUCUCCA | 9090 | CCUCAGGAAGCUUGGGGCG | 9135 | AGCCAGAGCUGUCAGAGCC | 9180 | AGCGAUAUGCGGCAAGUAC |

**FIG. 7 (page 405 of 479)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9181 | GCGAUAUGCGGCAAGUACC | 9226 | CUCAAACUCACUCCAUUGG | 9271 | GGCUGGUUUGUCGCAGGCU | 9316 | GUGUCCCGGGCUCGACCCC |
| 9182 | CGAUAUGCGGCAAGUACCU | 9227 | UCAAACUCACUCCAUUGGC | 9272 | GCUGGUUUGUCGCAGGCUA | 9317 | UGUCCCGGGCUCGACCCCG |
| 9183 | GAUAUGCGGCAAGUACCUC | 9228 | CAAACUCACUCCAUUGGCU | 9273 | CUGGUUUGUCGCAGGCUAC | 9318 | GUCCCGGGCUCGACCCCGU |
| 9184 | AUAUGCGGCAAGUACCUCU | 9229 | AAACUCACUCCAUUGGCUG | 9274 | UGGUUUGUCGCAGGCUACG | 9319 | UCCCGGGCUCGACCCCGUC |
| 9185 | UAUGCGGCAAGUACCUCUU | 9230 | AACUCACUCCAUUGGCUGC | 9275 | GGUUUGUCGCAGGCUACGA | 9320 | CCCGGGCUCGACCCCGUCU |
| 9186 | AUGCGGCAAGUACCUCUUU | 9231 | ACUCACUCCAUUGGCUGCG | 9276 | GUUUGUCGCAGGCUACGAC | 9321 | CCGGGCUCGACCCCGUCUG |
| 9187 | UGCGGCAAGUACCUCUUUA | 9232 | CUCACUCCAUUGGCUGCGG | 9277 | UUUGUCGCAGGCUACGACG | 9322 | CGGGCUCGACCCCGUCUGU |
| 9188 | GCGGCAAGUACCUCUUUAA | 9233 | UCACUCCAUUGGCUGCGGC | 9278 | UUGUCGCAGGCUACGACGG | 9323 | GGGCUCGACCCCGUCUGUU |
| 9189 | CGGCAAGUACCUCUUUAAC | 9234 | CACUCCAUUGGCUGCGGCA | 9279 | UGUCGCAGGCUACGACGGG | 9324 | GGCUCGACCCCGUCUGUUA |
| 9190 | GGCAAGUACCUCUUUAACU | 9235 | ACUCCAUUGGCUGCGGCAA | 9280 | GUCGCAGGCUACGACGGGG | 9325 | GCUCGACCCCGUCUGUUAC |
| 9191 | GCAAGUACCUCUUUAACUG | 9236 | CUCCAUUGGCUGCGGCAAG | 9281 | UCGCAGGCUACGACGGGGG | 9326 | CUCGACCCCGUCUGUUACU |
| 9192 | CAAGUACCUCUUUAACUGG | 9237 | UCCAUUGGCUGCGGCAAGC | 9282 | CGCAGGCUACGACGGGGGG | 9327 | UCGACCCCGUCUGUUACUC |
| 9193 | AAGUACCUCUUUAACUGGG | 9238 | CCAUUGGCUGCGGCAAGCC | 9283 | GCAGGCUACGACGGGGGGG | 9328 | CGACCCCGUCUGUUACUCC |
| 9194 | AGUACCUCUUUAACUGGGC | 9239 | CAUUGGCUGCGGCAAGCCA | 9284 | CAGGCUACGACGGGGGGGA | 9329 | GACCCCGUCUGUUACUCCU |
| 9195 | GUACCUCUUUAACUGGGCA | 9240 | AUUGGCUGCGGCAAGCCAG | 9285 | AGGCUACGACGGGGGGGAC | 9330 | ACCCCGUCUGUUACUCCUU |
| 9196 | UACCUCUUUAACUGGGCAG | 9241 | UUGGCUGCGGCAAGCCAGC | 9286 | GGCUACGACGGGGGGGACA | 9331 | CCCCGUCUGUUACUCCUUG |
| 9197 | ACCUCUUUAACUGGGCAGU | 9242 | UGGCUGCGGCAAGCCAGCU | 9287 | GCUACGACGGGGGGGACAU | 9332 | CCCGUCUGUUACUCCUUGG |
| 9198 | CCUCUUUAACUGGGCAGUG | 9243 | GGCUGCGGCAAGCCAGCUU | 9288 | CUACGACGGGGGGGACAUU | 9333 | CCGUCUGUUACUCCUUGGC |
| 9199 | CUCUUUAACUGGGCAGUGA | 9244 | GCUGCGGCAAGCCAGCUUG | 9289 | UACGACGGGGGGGACAUUU | 9334 | CGUCUGUUACUCCUUGGCC |
| 9200 | UCUUUAACUGGGCAGUGAA | 9245 | CUGCGGCAAGCCAGCUUGA | 9290 | ACGACGGGGGGGACAUUUA | 9335 | GUCUGUUACUCCUUGGCCU |
| 9201 | CUUUAACUGGGCAGUGAAG | 9246 | UGCGGCAAGCCAGCUUGAU | 9291 | CGACGGGGGGGACAUUUAU | 9336 | UCUGUUACUCCUUGGCCUA |
| 9202 | UUUAACUGGGCAGUGAAGA | 9247 | GCGGCAAGCCAGCUUGAUU | 9292 | GACGGGGGGGACAUUUAUC | 9337 | CUGUUACUCCUUGGCCUAC |
| 9203 | UUAACUGGGCAGUGAAGAC | 9248 | CGGCAAGCCAGCUUGAUUU | 9293 | ACGGGGGGGACAUUUAUCA | 9338 | UGUUACUCCUUGGCCUACU |
| 9204 | UAACUGGGCAGUGAAGACC | 9249 | GGCAAGCCAGCUUGAUUUG | 9294 | CGGGGGGGACAUUUAUCAC | 9339 | GUUACUCCUUGGCCUACUC |
| 9205 | AACUGGGCAGUGAAGACCA | 9250 | GCAAGCCAGCUUGAUUUGU | 9295 | GGGGGGGACAUUUAUCACA | 9340 | UUACUCCUUGGCCUACUCC |
| 9206 | ACUGGGCAGUGAAGACCAA | 9251 | CAAGCCAGCUUGAUUUGUC | 9296 | GGGGGGACAUUUAUCACAG | 9341 | UACUCCUUGGCCUACUCCU |
| 9207 | CUGGGCAGUGAAGACCAAG | 9252 | AAGCCAGCUUGAUUUGUCA | 9297 | GGGGGACAUUUAUCACAGC | 9342 | ACUCCUUGGCCUACUCCUA |
| 9208 | UGGGCAGUGAAGACCAAGC | 9253 | AGCCAGCUUGAUUUGUCAG | 9298 | GGGGACAUUUAUCACAGCG | 9343 | CUCCUUGGCCUACUCCUAC |
| 9209 | GGGCAGUGAAGACCAAGCU | 9254 | GCCAGCUUGAUUUGUCAGG | 9299 | GGGACAUUUAUCACAGCGU | 9344 | UCCUUGGCCUACUCCUACU |
| 9210 | GGCAGUGAAGACCAAGCUC | 9255 | CCAGCUUGAUUUGUCAGGC | 9300 | GGACAUUUAUCACAGCGUG | 9345 | CCUUGGCCUACUCCUACUC |
| 9211 | GCAGUGAAGACCAAGCUCA | 9256 | CAGCUUGAUUUGUCAGGCU | 9301 | GACAUUUAUCACAGCGUGU | 9346 | CUUGGCCUACUCCUACUCA |
| 9212 | CAGUGAAGACCAAGCUCAA | 9257 | AGCUUGAUUUGUCAGGCUG | 9302 | ACAUUUAUCACAGCGUGUC | 9347 | UUGGCCUACUCCUACUCAC |
| 9213 | AGUGAAGACCAAGCUCAAA | 9258 | GCUUGAUUUGUCAGGCUGG | 9303 | CAUUUAUCACAGCGUGUCC | 9348 | UGGCCUACUCCUACUCACU |
| 9214 | GUGAAGACCAAGCUCAAAC | 9259 | CUUGAUUUGUCAGGCUGGU | 9304 | AUUUAUCACAGCGUGUCCC | 9349 | GGCCUACUCCUACUCACUG |
| 9215 | UGAAGACCAAGCUCAAACU | 9260 | UUGAUUUGUCAGGCUGGUU | 9305 | UUUAUCACAGCGUGUCCCG | 9350 | GCCUACUCCUACUCACUGU |
| 9216 | GAAGACCAAGCUCAAACUC | 9261 | UGAUUUGUCAGGCUGGUUU | 9306 | UUAUCACAGCGUGUCCCGG | 9351 | CCUACUCCUACUCACUGUA |
| 9217 | AAGACCAAGCUCAAACUCA | 9262 | GAUUUGUCAGGCUGGUUUG | 9307 | UAUCACAGCGUGUCCCGGG | 9352 | CUACUCCUACUCACUGUAG |
| 9218 | AGACCAAGCUCAAACUCAC | 9263 | AUUUGUCAGGCUGGUUUGU | 9308 | AUCACAGCGUGUCCCGGGC | 9353 | UACUCCUACUCACUGUAGG |
| 9219 | GACCAAGCUCAAACUCACU | 9264 | UUUGUCAGGCUGGUUUGUC | 9309 | UCACAGCGUGUCCCGGGCU | 9354 | ACUCCUACUCACUGUAGGG |
| 9220 | ACCAAGCUCAAACUCACUC | 9265 | UUGUCAGGCUGGUUUGUCG | 9310 | CACAGCGUGUCCCGGGCUC | 9355 | CUCCUACUCACUGUAGGGG |
| 9221 | CCAAGCUCAAACUCACUCC | 9266 | UGUCAGGCUGGUUUGUCGC | 9311 | ACAGCGUGUCCCGGGCUCG | 9356 | UCCUACUCACUGUAGGGGU |
| 9222 | CAAGCUCAAACUCACUCCA | 9267 | GUCAGGCUGGUUUGUCGCA | 9312 | CAGCGUGUCCCGGGCUCGA | 9357 | CCUACUCACUGUAGGGGUA |
| 9223 | AAGCUCAAACUCACUCCAU | 9268 | UCAGGCUGGUUUGUCGCAG | 9313 | AGCGUGUCCCGGGCUCGAC | 9358 | CUACUCACUGUAGGGGUAG |
| 9224 | AGCUCAAACUCACUCCAUU | 9269 | CAGGCUGGUUUGUCGCAGG | 9314 | GCGUGUCCCGGGCUCGACC | 9359 | UACUCACUGUAGGGGUAGG |
| 9225 | GCUCAAACUCACUCCAUUG | 9270 | AGGCUGGUUUGUCGCAGGC | 9315 | CGUGUCCCGGGCUCGACCC | 9360 | ACUCACUGUAGGGGUAGGC |

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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9361 | CUCACUGUAGGGGUAGGCA | 9406 | AGCGGCCCUAAACAACACU | 9451 | UUUUUUUUUUUUUUUUUUU | 9496 | CUUUCUUAUCUGUCUAUCC |
| 9362 | UCACUGUAGGGGUAGGCAU | 9407 | GCGGCCCUAAACAACACUC | 9452 | UUUUUUUUUUUUUUUUUUU | 9497 | UUUCUUAUCUGUCUAUCCC |
| 9363 | CACUGUAGGGGUAGGCAUC | 9408 | CGGCCCUAAACAACACUCC | 9453 | UUUUUUUUUUUUUUUUUUU | 9498 | UUCUUAUCUGUCUAUCCCU |
| 9364 | ACUGUAGGGGUAGGCAUCU | 9409 | GGCCCUAAACAACACUCCA | 9454 | UUUUUUUUUUUUUUUUUUU | 9499 | UCUUAUCUGUCUAUCCCUU |
| 9365 | CUGUAGGGGUAGGCAUCUU | 9410 | GCCCUAAACAACACUCCAU | 9455 | UUUUUUUUUUUUUUUUUUU | 9500 | CUUAUCUGUCUAUCCCUUA |
| 9366 | UGUAGGGGUAGGCAUCUUU | 9411 | CCCUAAACAACACUCCAUA | 9456 | UUUUUUUUUUUUUUUUUUU | 9501 | UUAUCUGUCUAUCCCUUAG |
| 9367 | GUAGGGGUAGGCAUCUUUU | 9412 | CCUAAACAACACUCCAUAA | 9457 | UUUUUUUUUUUUUUUUUUU | 9502 | UAUCUGUCUAUCCCUUAGA |
| 9368 | UAGGGGUAGGCAUCUUUUU | 9413 | CUAAACAACACUCCAUAAC | 9458 | UUUUUUUUUUUUUUUUUUU | 9503 | AUCUGUCUAUCCCUUAGAC |
| 9369 | AGGGGUAGGCAUCUUUUUA | 9414 | UAAACAACACUCCAUAACA | 9459 | UUUUUUUUUUUUUUUUUUU | 9504 | UCUGUCUAUCCCUUAGACU |
| 9370 | GGGGUAGGCAUCUUUUUAC | 9415 | AAACAACACUCCAUAACAU | 9460 | UUUUUUUUUUUUUUUUUUU | 9505 | CUGUCUAUCCCUUAGACUC |
| 9371 | GGGUAGGCAUCUUUUUACU | 9416 | AACAACACUCCAUAACAUU | 9461 | UUUUUUUUUUUUUUUUUUU | 9506 | UGUCUAUCCCUUAGACUCC |
| 9372 | GGUAGGCAUCUUUUUACUC | 9417 | ACAACACUCCAUAACAUUU | 9462 | UUUUUUUUUUUUUUUUUUU | 9507 | GUCUAUCCCUUAGACUCCU |
| 9373 | GUAGGCAUCUUUUUACUCC | 9418 | CAACACUCCAUAACAUUUU | 9463 | UUUUUUUUUUUUUUUUUUU | 9508 | UCUAUCCCUUAGACUCCUU |
| 9374 | UAGGCAUCUUUUUACUCCC | 9419 | AACACUCCAUAACAUUUUU | 9464 | UUUUUUUUUUUUUUUUUUU | 9509 | CUAUCCCUUAGACUCCUUC |
| 9375 | AGGCAUCUUUUUACUCCCC | 9420 | ACACUCCAUAACAUUUUUU | 9465 | UUUUUUUUUUUUUUUUUUU | 9510 | UAUCCCUUAGACUCCUUCU |
| 9376 | GGCAUCUUUUUACUCCCCG | 9421 | CACUCCAUAACAUUUUUUU | 9466 | UUUUUUUUUUUUUUUUUUU | 9511 | AUCCCUUAGACUCCUUCUU |
| 9377 | GCAUCUUUUUACUCCCCGC | 9422 | ACUCCAUAACAUUUUUUUU | 9467 | UUUUUUUUUUUUUUUUUUU | 9512 | UCCCUUAGACUCCUUCUUU |
| 9378 | CAUCUUUUUACUCCCCGCU | 9423 | CUCCAUAACAUUUUUUUUU | 9468 | UUUUUUUUUUUUUUUUUUU | 9513 | CCCUUAGACUCCUUCUUUG |
| 9379 | AUCUUUUUACUCCCCGCUC | 9424 | UCCAUAACAUUUUUUUUUU | 9469 | UUUUUUUUUUUUUUUUUUU | 9514 | CCUUAGACUCCUUCUUUGG |
| 9380 | UCUUUUUACUCCCCGCUCG | 9425 | CCAUAACAUUUUUUUUUUU | 9470 | UUUUUUUUUUUUUUUUUUU | 9515 | CUUAGACUCCUUCUUUGGU |
| 9381 | CUUUUUACUCCCCGCUCGG | 9426 | CAUAACAUUUUUUUUUUUU | 9471 | UUUUUUUUUUUUUUUUUUU | 9516 | UUAGACUCCUUCUUUGGUG |
| 9382 | UUUUUACUCCCCGCUCGGU | 9427 | AUAACAUUUUUUUUUUUUU | 9472 | UUUUUUUUUUUUUUUUUUU | 9517 | UAGACUCCUUCUUUGGUGG |
| 9383 | UUUUACUCCCCGCUCGGUA | 9428 | UAACAUUUUUUUUUUUUUU | 9473 | UUUUUUUUUUUUUUUUUUU | 9518 | AGACUCCUUCUUUGGUGGC |
| 9384 | UUUACUCCCCGCUCGGUAG | 9429 | AACAUUUUUUUUUUUUUUU | 9474 | UUUUUUUUUUUUUUUUUUU | 9519 | GACUCCUUCUUUGGUGGCU |
| 9385 | UUACUCCCCGCUCGGUAGA | 9430 | ACAUUUUUUUUUUUUUUUU | 9475 | UUUUUUUUUUUUUUUUUUU | 9520 | ACUCCUUCUUUGGUGGCUC |
| 9386 | UACUCCCCGCUCGGUAGAC | 9431 | CAUUUUUUUUUUUUUUUUU | 9476 | UUUUUUUUUUUUUUUUUUU | 9521 | CUCCUUCUUUGGUGGCUCC |
| 9387 | ACUCCCCGCUCGGUAGACG | 9432 | AUUUUUUUUUUUUUUUUUU | 9477 | UUUUUUUUUUUUUUUUUUU | 9522 | UCCUUCUUUGGUGGCUCCA |
| 9388 | CUCCCCGCUCGGUAGACGA | 9433 | UUUUUUUUUUUUUUUUUUU | 9478 | UUUUUUUUUUUUUUUUUUC | 9523 | CCUUCUUUGGUGGCUCCAU |
| 9389 | UCCCCGCUCGGUAGACGAG | 9434 | UUUUUUUUUUUUUUUUUUU | 9479 | UUUUUUUUUUUUUUUUUCU | 9524 | CUUCUUUGGUGGCUCCAUC |
| 9390 | CCCCGCUCGGUAGACGAGC | 9435 | UUUUUUUUUUUUUUUUUUU | 9480 | UUUUUUUUUUUUUUUUCUU | 9525 | UUCUUUGGUGGCUCCAUCU |
| 9391 | CCCGCUCGGUAGACGAGCG | 9436 | UUUUUUUUUUUUUUUUUUU | 9481 | UUUUUUUUUUUUUUUUCUUU | 9526 | UCUUUGGUGGCUCCAUCUU |
| 9392 | CCGCUCGGUAGACGAGCGG | 9437 | UUUUUUUUUUUUUUUUUUU | 9482 | UUUUUUUUUUUUUUUCUUUC | 9527 | CUUUGGUGGCUCCAUCUUA |
| 9393 | CGCUCGGUAGACGAGCGGC | 9438 | UUUUUUUUUUUUUUUUUUU | 9483 | UUUUUUUUUUUUUUCUUUCU | 9528 | UUUGGUGGCUCCAUCUUAG |
| 9394 | GCUCGGUAGACGAGCGGCC | 9439 | UUUUUUUUUUUUUUUUUUU | 9484 | UUUUUUUUUUUUUCUUUCUU | 9529 | UUGGUGGCUCCAUCUUAGC |
| 9395 | CUCGGUAGACGAGCGGCCC | 9440 | UUUUUUUUUUUUUUUUUUU | 9485 | UUUUUUUUUUUUCUUUCUUA | 9530 | UGGUGGCUCCAUCUUAGCC |
| 9396 | UCGGUAGACGAGCGGCCCU | 9441 | UUUUUUUUUUUUUUUUUUU | 9486 | UUUUUUUUUUUCUUUCUUAU | 9531 | GGUGGCUCCAUCUUAGCCC |
| 9397 | CGGUAGACGAGCGGCCCUA | 9442 | UUUUUUUUUUUUUUUUUUU | 9487 | UUUUUUUUUUCUUUCUUAUC | 9532 | GUGGCUCCAUCUUAGCCCU |
| 9398 | GGUAGACGAGCGGCCCUAA | 9443 | UUUUUUUUUUUUUUUUUUU | 9488 | UUUUUUUUUCUUUCUUAUCU | 9533 | UGGCUCCAUCUUAGCCCUA |
| 9399 | GUAGACGAGCGGCCCUAAA | 9444 | UUUUUUUUUUUUUUUUUUU | 9489 | UUUUUUUCUUUCUUAUCUG | 9534 | GGCUCCAUCUUAGCCCUAG |
| 9400 | UAGACGAGCGGCCCUAAAC | 9445 | UUUUUUUUUUUUUUUUUUU | 9490 | UUUUUUCUUUCUUAUCUGU | 9535 | GCUCCAUCUUAGCCCUAGU |
| 9401 | AGACGAGCGGCCCUAAACA | 9446 | UUUUUUUUUUUUUUUUUUU | 9491 | UUUUUCUUUCUUAUCUGUC | 9536 | CUCCAUCUUAGCCCUAGUC |
| 9402 | GACGAGCGGCCCUAAACAA | 9447 | UUUUUUUUUUUUUUUUUUU | 9492 | UUUUCUUUCUUAUCUGUCU | 9537 | UCCAUCUUAGCCCUAGUCA |
| 9403 | ACGAGCGGCCCUAAACAAC | 9448 | UUUUUUUUUUUUUUUUUUU | 9493 | UUUCUUUCUUAUCUGUCUA | 9538 | CCAUCUUAGCCCUAGUCAC |
| 9404 | CGAGCGGCCCUAAACAACA | 9449 | UUUUUUUUUUUUUUUUUUU | 9494 | UUCUUUCUUAUCUGUCUAU | 9539 | CAUCUUAGCCCUAGUCACG |
| 9405 | GAGCGGCCCUAAACAACAC | 9450 | UUUUUUUUUUUUUUUUUUU | 9495 | UCUUUCUUAUCUGUCUAUC | 9540 | AUCUUAGCCCUAGUCACGG |

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| | | | |
|---|---|---|---|
| 9541 | UCUUAGCCCUAGUCACGGC | 9586 | UGACUGCAGAGAGUGCUGA |
| 9542 | CUUAGCCCUAGUCACGGCU | 9587 | GACUGCAGAGAGUGCUGAU |
| 9543 | UUAGCCCUAGUCACGGCUA | 9588 | ACUGCAGAGAGUGCUGAUA |
| 9544 | UAGCCCUAGUCACGGCUAG | 9589 | CUGCAGAGAGUGCUGAUAC |
| 9545 | AGCCCUAGUCACGGCUAGC | 9590 | UGCAGAGAGUGCUGAUACU |
| 9546 | GCCCUAGUCACGGCUAGCU | 9591 | GCAGAGAGUGCUGAUACUG |
| 9547 | CCCUAGUCACGGCUAGCUG | 9592 | CAGAGAGUGCUGAUACUGG |
| 9548 | CCUAGUCACGGCUAGCUGU | 9593 | AGAGAGUGCUGAUACUGGC |
| 9549 | CUAGUCACGGCUAGCUGUG | 9594 | GAGAGUGCUGAUACUGGCC |
| 9550 | UAGUCACGGCUAGCUGUGA | 9595 | AGAGUGCUGAUACUGGCCU |
| 9551 | AGUCACGGCUAGCUGUGAA | 9596 | GAGUGCUGAUACUGGCCUC |
| 9552 | GUCACGGCUAGCUGUGAAA | 9597 | AGUGCUGAUACUGGCCUCU |
| 9553 | UCACGGCUAGCUGUGAAAG | 9598 | GUGCUGAUACUGGCCUCUC |
| 9554 | CACGGCUAGCUGUGAAAGG | 9599 | UGCUGAUACUGGCCUCUCU |
| 9555 | ACGGCUAGCUGUGAAAGGU | 9600 | GCUGAUACUGGCCUCUCUG |
| 9556 | CGGCUAGCUGUGAAAGGUC | 9601 | CUGAUACUGGCCUCUCUGC |
| 9557 | GGCUAGCUGUGAAAGGUCC | 9602 | UGAUACUGGCCUCUCUGCA |
| 9558 | GCUAGCUGUGAAAGGUCCG | 9603 | GAUACUGGCCUCUCUGCAG |
| 9559 | CUAGCUGUGAAAGGUCCGU | 9604 | AUACUGGCCUCUCUGCAGU |
| 9560 | UAGCUGUGAAAGGUCCGUG | 9605 | UACUGGCCUCUCUGCAGUU |
| 9561 | AGCUGUGAAAGGUCCGUGA | 9606 | ACUGGCCUCUCUGCAGUUC |
| 9562 | GCUGUGAAAGGUCCGUGAG | 9607 | CUGGCCUCUCUGCAGUUCA |
| 9563 | CUGUGAAAGGUCCGUGAGC | 9608 | UGGCCUCUCUGCAGUUCAU |
| 9564 | UGUGAAAGGUCCGUGAGCC | 9609 | GGCCUCUCUGCAGUUCAUG |
| 9565 | GUGAAAGGUCCGUGAGCCG | 9610 | GCCUCUCUGCAGUUCAUGU |
| 9566 | UGAAAGGUCCGUGAGCCGC | | |
| 9567 | GAAAGGUCCGUGAGCCGCA | | |
| 9568 | AAAGGUCCGUGAGCCGCAU | | |
| 9569 | AAGGUCCGUGAGCCGCAUG | | |
| 9570 | AGGUCCGUGAGCCGCAUGA | | |
| 9571 | GGUCCGUGAGCCGCAUGAC | | |
| 9572 | GUCCGUGAGCCGCAUGACU | | |
| 9573 | UCCGUGAGCCGCAUGACUG | | |
| 9574 | CCGUGAGCCGCAUGACUGC | | |
| 9575 | CGUGAGCCGCAUGACUGCA | | |
| 9576 | GUGAGCCGCAUGACUGCAG | | |
| 9577 | UGAGCCGCAUGACUGCAGA | | |
| 9578 | GAGCCGCAUGACUGCAGAG | | |
| 9579 | AGCCGCAUGACUGCAGAGA | | |
| 9580 | GCCGCAUGACUGCAGAGAG | | |
| 9581 | CCGCAUGACUGCAGAGAGU | | |
| 9582 | CGCAUGACUGCAGAGAGUG | | |
| 9583 | GCAUGACUGCAGAGAGUGC | | |
| 9584 | CAUGACUGCAGAGAGUGCU | | |
| 9585 | AUGACUGCAGAGAGUGCUG | | |

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| Position | 5'-3' target or sense strand | Type | Net Therm | Therm of each end |
|---|---|---|---|---|
| 3454-3476 | GCCUCCUAGGGUGUAUAAU | F | -7.7 | ( -12.3, -4.6 ) |
| 3808-3830 | GGCCCAUUUCCUACUUGAA | F | -7.5 | ( -14.4, -6.9 ) |
| 8391-8413 | GGCCCUCUUACCAAUUCAA | C,F | -7.5 | ( -14.4, -6.9 ) |
| 5030-5052 | GGGCCUCACUCAUAUAGAU | C,F | -7.4 | ( -14.4, -7.0 ) |
| 188-210 | GGGUCCUUUCUUGGAUAAA | F | -7.4 | ( -12.3, -4.9 ) |
| 4263-4285 | GGUGCUUAUGACAUAAUAA | B,F | -7.3 | ( -12.2, -4.9 ) |
| 961-983 | GCCCUAACUCGAGUAUUGU | F | -6.7 | ( -13.2, -6.5 ) |
| 8821-8843 | CCUGGCUAGGCAACAUAAU | F | -6.7 | ( -11.3, -4.6 ) |
| 960-982 | UGCCCUAACUCGAGUAUUG | F | -6.6 | ( -12.7, -6.1 ) |
| 4261-4283 | GAGGUGCUUAUGACAUAAU | C,F | -6.5 | ( -11.1, -4.6 ) |
| 3809-3831 | GCCCAUUUCCUACUUGAAA | F | -6.3 | ( -13.2, -6.9 ) |
| 5695-5717 | CCGCCAUUGCUUCAUUGAU | F | -6.3 | ( -12.9, -6.6 ) |
| 8167-8189 | GCUCCUACGGAUUCCAAUA | B,F | -6.2 | ( -12.3, -6.1 ) |
| 3175-3197 | CUGGCACCUAUGUGUAUAA | B,C,F | -6.2 | ( -11.5, -5.3 ) |
| 7425-7447 | GGCGACAAUACGACAACAU | C,F | -6.1 | ( -12.6, -6.5 ) |
| 1616-1638 | GGCCUUGAACUGCAAUGAA | F | -6.1 | ( -13.2, -7.1 ) |
| 8366-8388 | CCUCACUGAGAGGCUUUAU | F | -6 | ( -10.4, -4.4 ) |
| 4260-4282 | GGAGGUGCUUAUGACAUAA | B,C,F | -6 | ( -12.1, -6.1 ) |
| 1593-1615 | GGCAGUUGGCACAUCAAUA | F | -6 | ( -12.1, -6.1 ) |
| 8551-8573 | GCGACGACUUAGUCGUUAU | C,F | -5.9 | ( -11.6, -5.7 ) |
| 3130-3152 | GAGGUCAUUACGUGCAAAU | C,F | -5.9 | ( -11.1, -5.2 ) |
| 5254-5276 | CGCACCCAAUCACCAAAUA | B,C,F | -5.8 | ( -10.7, -4.9 ) |
| 4126-4148 | UGGGCUUUGGUGCUUACAU | F | -5.8 | ( -12.7, -6.9 ) |
| 189-211 | GGUCCUUUCUUGGAUAAAC | F | -5.7 | ( -12.3, -6.6 ) |
| 4827-4849 | CCAGGCAUCUACAGAUUUG | F | -5.6 | ( -11.3, -5.7 ) |
| 8309-8331 | GGAGGCAAUUUACCAAUGU | B,C,F | -5.6 | ( -12.1, -6.5 ) |
| 5759-5781 | CCUCCUCUUCAACAUAUUG | F | -5.5 | ( -11.6, -6.1 ) |
| 4740-4762 | GACCCUACCUUUACCAUUG | F | -5.5 | ( -12.3, -6.8 ) |
| 7595-7617 | GUGCUGCUCAAUGUCUUAU | C,F | -5.5 | ( -11.0, -5.5 ) |
| 187-209 | CGGGUCCUUUCUUGGAUAA | C,F | -5.4 | ( -11.7, -6.3 ) |
| 5255-5277 | GCACCCAAUCACCAAAUAC | F | -5.4 | ( -12.2, -6.8 ) |
| 7597-7619 | GCUGCUCAAUGUCUUAUUC | F | -5.3 | ( -12.2, -6.9 ) |
| 9163-9185 | GUGGCAAGUACCUCUUCAA | C,F | -5.3 | ( -12.2, -6.9 ) |
| 5922-5944 | GGAGCUCUUGUAGCAUUCA | F | -5.2 | ( -12.3, -7.1 ) |
| 5757-5779 | ACCCUCCUCUUCAACAUAU | B,F | -5.2 | ( -10.9, -5.7 ) |
| 4656-4678 | GCUCUCAUGACUGGCUUUA | C,F | -5.2 | ( -11.1, -5.9 ) |
| 4828-4850 | CAGGCAUCUACAGAUUUGU | C,F | -5.2 | ( -11.5, -6.3 ) |
| 6298-6320 | AGGUGCUGAGCGACUUUAA | F | -5.1 | ( -9.8, -4.7 ) |
| 8392-8414 | GCCCUCUUACCAAUUCAAG | F | -5.1 | ( -13.2, -8.1 ) |
| 9200-9222 | GCUCAAACUCACUCCAAUA | B,F | -5.1 | ( -11.2, -6.1 ) |
| 1241-1263 | GACGCAAGACUGCAAUUGU | F | -5.1 | ( -11.6, -6.5 ) |
| 5253-5275 | ACGCACCCAAUCACCAAAU | F | -5 | ( -10.2, -5.2 ) |
| 5031-5053 | GGCCUCACUCAUAUAGAUG | F | -5 | ( -13.2, -8.2 ) |
| 1594-1616 | GCAGUUGGCACAUCAAUAG | F | -5 | ( -11.0, -6.0 ) |
| 4734-4756 | AGCCUUGACCCUACCUUUA | F | -5 | ( -10.9, -5.9 ) |
| 4992-5014 | UGCCAGGACCAUCUUGAAU | F | -4.9 | ( -11.5, -6.6 ) |
| 6603-6625 | GAGGAAUACGUGGAGAUAA | B,F | -4.9 | ( -11.2, -6.3 ) |
| 5227-5249 | GCGCUGUUCAGAAUGAAGU | C,F | -4.8 | ( -12.5, -7.7 ) |
| 6650-6672 | GGGUAUGACUACUGACAAU | C,F | -4.8 | ( -11.3, -6.5 ) |
| 2955-2977 | GCCGUCAUCUUACUCAUGU | C,F | -4.8 | ( -12.5, -7.7 ) |
| 3176-3198 | UGGCACCUAUGUGUAUAAC | F | -4.7 | ( -11.5, -6.8 ) |
| 1294-1316 | UGGCAUGGGAUAUGAUGAU | B,F | -4.7 | ( -11.5, -6.8 ) |
| 3455-3477 | CCUCCUAGGGUGUAUAAUC | F | -4.7 | ( -11.6, -6.9 ) |
| 8822-8844 | CUGGCUAGGCAACAUAAUC | F | -4.6 | ( -11.5, -6.9 ) |
| 7738-7760 | GCCAAAGGCAGAAGAAAGU | C,F | -4.6 | ( -10.9, -6.3 ) |

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| | | | | |
|---|---|---|---|---|
| 9182-9204 | CUGGGCAGUAAGAACAAAG | B,F | -4.6 | ( -11.3, -6.7 ) |
| 9184-9206 | GGGCAGUAAGAACAAAGCU | F | -4.6 | ( -13.2, -8.6 ) |
| 7737-7759 | UGCCAAAGGCAGAAGAAAG | F | -4.6 | ( -11.5, -6.9 ) |
| 8476-8498 | CCCUCACUUGCUACAUCAA | B,F | -4.5 | ( -11.6, -7.1 ) |
| 7404-7426 | UCCUCAACUUCCGGCAUUA | F | -4.5 | ( -10.6, -6.1 ) |
| 8302-8324 | GUACGGAGGAGGCAAUUUA | C,F | -4.5 | ( -9.4, -4.9 ) |
| 8824-8846 | GGCUAGGCAACAUAAUCAU | C,F | -4.5 | ( -11.3, -6.8 ) |
| 3148-3170 | UGGCCAUCAUCAAGUUAGG | B,F | -4.5 | ( -12.7, -8.2 ) |
| 6656-6678 | GACUACUGACAAUCUUAAA | F | -4.5 | ( -9.2, -4.7 ) |
| 4262-4284 | AGGUGCUUAUGACAUAAUA | F | -4.5 | ( -9.8, -5.3 ) |
| 9033-9055 | UCUCCAGGUGAAAUCAAUA | F | -4.5 | ( -10.6, -6.1 ) |
| 9034-9056 | CUCCAGGUGAAAUCAAUAG | F | -4.4 | ( -10.4, -6.0 ) |
| 8823-8845 | UGGCUAGGCAACAUAAUCA | F | -4.4 | ( -11.5, -7.1 ) |
| 1660-1682 | GGCUCUUCUAUCAGCACAA | C,F | -4.3 | ( -12.3, -8.0 ) |
| 9154-9176 | CUGCCAUAUGUGGCAAGUA | F | -4.3 | ( -11.5, -7.2 ) |
| 1185-1207 | GGGUCUGUCUUUCUUGUUG | F | -4.3 | ( -12.3, -8.0 ) |
| 5027-5049 | UACGGGCCUCACUCAUAUA | F | -4.3 | ( -9.8, -5.5 ) |
| 1661-1683 | GCUCUUCUAUCAGCACAAA | C,F | -4.3 | ( -11.1, -6.8 ) |
| 8820-8842 | UCCUGGCUAGGCAACAUAA | F | -4.3 | ( -10.4, -6.1 ) |
| 3131-3153 | AGGUCAUUACGUGCAAAUG | F | -4.3 | ( -10.0, -5.7 ) |
| 2983-3005 | ACCCGACUCUGGUAUUUGA | F | -4.3 | ( -11.2, -6.9 ) |
| 4522-4544 | GCCACUCAAAGAAGAAGUG | F | -4.2 | ( -12.2, -8.0 ) |
| 2361-2383 | GUCCUUCCGUGUUCUUUCA | C,F | -4.2 | ( -11.1, -6.9 ) |
| 5923-5945 | GAGCUCUUGUAGCAUUCAA | C,F | -4.2 | ( -11.1, -6.9 ) |
| 9183-9205 | UGGGCAGUAAGAACAAAGC | F | -4.1 | ( -12.7, -8.6 ) |
| 2827-2849 | UGACUCUGUCGCCAUAUUA | F | -4.1 | ( -9.4, -5.3 ) |
| 3129-3151 | GGAGGUCAUUACGUGCAAA | C,F | -4.1 | ( -12.1, -8.0 ) |
| 8829-8851 | GGCAACAUAAUCAUGUUUG | B,F | -4.1 | ( -10.9, -6.8 ) |
| 7069-7091 | GGGUUGAGUCAGAGAACAA | B,F | -4.1 | ( -10.9, -6.8 ) |
| 5257-5279 | ACCCAAUCACCAAAUACAU | F | -4.1 | ( -11.0, -6.9 ) |
| 5256-5278 | CACCCAAUCACCAAAUACA | C,F | -4.1 | ( -11.5, -7.4 ) |
| 2194-2216 | AUCCUUGUACCAUCAAUUA | F | -4 | ( -8.9, -4.9 ) |
| 1617-1639 | GCCUUGAACUGCAAUGAAA | C,F | -4 | ( -10.9, -6.9 ) |
| 6217-6239 | GACUGCAUCAGUGGAUAAG | F | -4 | ( -10.0, -6.0 ) |
| 7986-8008 | GACAGUGUAACACCAAUAG | B,F | -4 | ( -10.0, -6.0 ) |
| 1624-1646 | ACUGCAAUGAAAGCCUUAA | B,F | -4 | ( -9.9, -5.9 ) |
| 5168-5190 | GUGUUUGAUCCGCCUUAAA | B,F | -4 | ( -8.7, -4.7 ) |
| 1299-1321 | UGGGAUAUGAUGAUGAACU | B,F | -3.9 | ( -11.6, -7.7 ) |
| 6559-6581 | UUCCUGCGCCGAACUAUAA | F | -3.9 | ( -9.2, -5.3 ) |
| 3634-3656 | UCCAGAUGUAUACCAAUGU | B,F | -3.9 | ( -10.4, -6.5 ) |
| 7887-7909 | UCAGCCAAAUCCAAGUUUG | F | -3.8 | ( -10.6, -6.8 ) |
| 4521-4543 | UGCCACUCAAAGAAGAAGU | F | -3.8 | ( -11.5, -7.7 ) |
| 1853-1875 | CCCGGUAUAUUGCUUCACU | C,F | -3.8 | ( -12.7, -8.9 ) |
| 4741-4763 | ACCCUACCUUUACCAUUGA | F | -3.8 | ( -10.9, -7.1 ) |
| 1942-1964 | CGGAUGUCUUCGUCCUUAA | B,C,F | -3.8 | ( -9.7, -5.9 ) |
| 4519-4541 | UCUGCCACUCAAAGAAGAA | F | -3.7 | ( -10.6, -6.9 ) |
| 1203-1225 | GGUCAACUGUUUACCUUCU | C,F | -3.7 | ( -11.2, -7.5 ) |
| 6865-6887 | UCACUGAUCCCUCCCAUAU | F | -3.7 | ( -9.4, -5.7 ) |
| 3627-3649 | CCUGUCAUCCAGAUGUAUA | F | -3.7 | ( -10.3, -6.6 ) |
| 6300-6322 | GUGCUGAGCGACUUUAAGA | F | -3.7 | ( -11.0, -7.3 ) |
| 1625-1647 | CUGCAAUGAAAGCCUUAAC | B,F | -3.7 | ( -10.3, -6.6 ) |
| 2547-2569 | UGGAUGAUGUUACUCAUAU | F | -3.7 | ( -9.4, -5.7 ) |
| 3625-3647 | GUCCUGUCAUCCAGAUGUA | C,F | -3.7 | ( -11.1, -7.4 ) |
| 8307-8329 | GAGGAGGCAAUUUACCAAU | C,F | -3.7 | ( -11.2, -7.5 ) |
| 7888-7910 | CAGCCAAAUCCAAGUUUGG | F | -3.7 | ( -11.5, -7.8 ) |
| 1980-2002 | GGCAAUUGGUUCGGUUGUA | C,F | -3.7 | ( -10.9, -7.2 ) |

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| | | | | |
|---|---|---|---|---|
| 2546-2568 | GUGGAUGAUGUUACUCAUA | F | -3.7 | ( -11.2, -7.5 ) |
| 5593-5615 | AGACCAACUGGCAGAAACU | F | -3.7 | ( -10.0, -6.3 ) |
| 1990-2012 | UCGGUUGUACCUGGAUGAA | F | -3.7 | ( -10.8, -7.1 ) |
| 8948-8970 | AGCCUGCUACUCCAUAGAA | F | -3.6 | ( -10.9, -7.3 ) |
| 6867-6889 | ACUGAUCCCUCCCAUAUAA | F | -3.6 | ( -8.9, -5.3 ) |
| 8673-8695 | UACGACUUGGAGCUUAUAA | B,F | -3.6 | ( -8.9, -5.3 ) |
| 2584-2606 | UGGAGAACCUCGUAAUACU | F | -3.6 | ( -10.4, -6.8 ) |
| 8803-8825 | GACACACUCCAGUCAAUUC | B,F | -3.6 | ( -10.1, -6.5 ) |
| 6083-6105 | AUGGAUGAACCGGCUAAUA | B,F | -3.6 | ( -8.9, -5.3 ) |
| 6866-6888 | CACUGAUCCCUCCCAUAUA | F | -3.6 | ( -9.1, -5.5 ) |
| 2656-2678 | UCUGCUUUGCGUGGUAUCU | F | -3.6 | ( -10.6, -7.0 ) |
| 7346-7368 | CACCGAAUCAACCCUAUCU | C,F | -3.6 | ( -10.6, -7.0 ) |
| 5156-5178 | CCAGAUGUGGAAGUGUUUG | B,F | -3.6 | ( -10.4, -6.8 ) |
| 8168-8190 | CUCCUACGGAUUCCAAUAC | F | -3.6 | ( -10.4, -6.8 ) |
| 6649-6671 | CGGGUAUGACUACUGACAA | F | -3.5 | ( -11.7, -8.2 ) |
| 6770-6792 | GGAGGUAUCAUUCAGAGUA | B,C,F | -3.5 | ( -12.1, -8.6 ) |
| 5696-5718 | CGCCAUUGCUUCAUUGAUG | F | -3.5 | ( -11.8, -8.3 ) |
| 5627-5649 | GAAGCACAUGUGGAAUUUC | F | -3.5 | ( -10.0, -6.5 ) |
| 5415-5437 | CCGGCAAUUAUACCUGACA | C,F | -3.5 | ( -12.9, -9.4 ) |
| 7155-7177 | GCAGAAAUUCUGCGGAAGU | F | -3.5 | ( -11.2, -7.7 ) |
| 8553-8575 | GACGACUUAGUCGUUAUCU | F | -3.5 | ( -10.5, -7.0 ) |
| 3626-3648 | UCCUGUCAUCCAGAUGUAU | F | -3.5 | ( -10.4, -6.9 ) |
| 9608-9630 | UGCAGAGAGUGCUGAUACU | F | -3.5 | ( -10.3, -6.8 ) |
| 6655-6677 | UGACUACUGACAAUCUUAA | B,F | -3.5 | ( -9.4, -5.9 ) |
| 2413-2435 | ACCUCCACCAGAACAUUGU | F | -3.5 | ( -10.0, -6.5 ) |
| 2954-2976 | UGCCGUCAUCUUACUCAUG | B,F | -3.5 | ( -11.8, -8.3 ) |
| 81-103 | AGCCAUGGCGUUAGUAUGA | F | -3.5 | ( -11.0, -7.5 ) |
| 4520-4542 | CUGCCACUCAAAGAAGAAG | F | -3.5 | ( -11.5, -8.0 ) |
| 2188-2210 | GGCACUAUCCUUGUACCAU | F | -3.4 | ( -12.2, -8.8 ) |
| 3810-3832 | CCCAUUUCCUACUUGAAAG | F | -3.4 | ( -10.3, -6.9 ) |
| 1458-1480 | GUAGUGCUGCUGCUAUUUG | F | -3.4 | ( -9.1, -5.7 ) |
| 6084-6106 | UGGAUGAACCGGCUAAUAG | B,F | -3.4 | ( -9.4, -6.0 ) |
| 3047-3069 | UCAAGCCAGUUUGCUUAAA | F | -3.4 | ( -8.1, -4.7 ) |
| 2431-2453 | UGGACGUGCAGUACUUGUA | F | -3.4 | ( -10.6, -7.2 ) |
| 5629-5651 | AGCACAUGUGGAAUUUCAU | B,F | -3.4 | ( -10.0, -6.6 ) |
| 1943-1965 | GGAUGUCUUCGUCCUUAAC | F | -3.4 | ( -10.0, -6.6 ) |
| 7736-7758 | UUGCCAAAGGCAGAAGAAA | F | -3.4 | ( -10.3, -6.9 ) |
| 9165-9187 | GGCAAGUACCUCUUCAACU | F | -3.4 | ( -10.9, -7.5 ) |
| 7688-7710 | GUUGCUACGCCAUCACAAU | F | -3.4 | ( -9.9, -6.5 ) |
| 2828-2850 | GACUCUGUCGCCAUAUUAC | F | -3.4 | ( -10.2, -6.8 ) |
| 2588-2610 | GAACCUCGUAAUACUCAAU | B,C,F | -3.4 | ( -10.0, -6.6 ) |
| 1250-1272 | CUGCAAUUGUUCUAUCUAU | B,C,F | -3.3 | ( -10.3, -7.0 ) |
| 6216-6238 | CGACUGCAUCAGUGGAUAA | F | -3.3 | ( -9.6, -6.3 ) |
| 7481-7503 | CGACGUUGAGUCCUAUUCU | F | -3.3 | ( -9.9, -6.6 ) |
| 1288-1310 | AUCGCAUGGCAUGGGAUAU | F | -3.3 | ( -9.3, -6.0 ) |
| 3456-3478 | CUCCUAGGGUGUAUAAUCA | C,F | -3.3 | ( -10.4, -7.1 ) |
| 80-102 | UAGCCAUGGCGUUAGUAUG | F | -3.3 | ( -10.7, -7.4 ) |
| 8312-8334 | GGCAAUUUACCAAUGUUGU | B,F | -3.3 | ( -10.9, -7.6 ) |
| 850-872 | CUGGUUGCUCUUUCUCUAU | F | -3.3 | ( -10.3, -7.0 ) |
| 8970-8992 | CUGGAUCUACCUCCAAUCA | B,F | -3.3 | ( -10.4, -7.1 ) |
| 697-719 | UGGGUAAGGUCAUCGAUAC | F | -3.3 | ( -11.5, -8.2 ) |
| 7743-7765 | AGGCAGAAGAAAGUCACAU | A,B,F | -3.3 | ( -11.0, -7.7 ) |
| 8367-8389 | CUCACUGAGAGGCUUUAUG | F | -3.3 | ( -9.4, -6.1 ) |
| 4128-4150 | GGCUUUGGUGCUUACAUGU | F | -3.2 | ( -10.9, -7.7 ) |
| 3132-3154 | GGUCAUUACGUGCAAAUGG | B,F | -3.2 | ( -11.2, -8.0 ) |
| 3048-3070 | CAAGCCAGUUUGCUUAAAG | F | -3.2 | ( -9.1, -5.9 ) |

**FIG. 8 (page 411 of 479)**

| | | | | |
|---|---|---|---|---|
| 3174-3196 | ACUGGCACCUAUGUGUAUA | F | -3.2 | ( -9.8, -6.6 ) |
| 8924-8946 | GGCUCUUAACUGUGAGAUC | B,F | -3.2 | ( -12.3, -9.1 ) |
| 5888-5910 | GGACAUUCUUGCAGGGUAU | C,F | -3.2 | ( -11.2, -8.0 ) |
| 7979-8001 | UCUGGAAGACAGUGUAACA | F | -3.2 | ( -10.4, -7.2 ) |
| 8303-8325 | UACGGAGGAGGCAAUUUAC | F | -3.2 | ( -9.8, -6.6 ) |
| 1930-1952 | GUGCAAAUGAUACGGAUGU | C,F | -3.2 | ( -11.1, -7.9 ) |
| 3177-3199 | GGCACCUAUGUGUAUAACC | F | -3.2 | ( -12.2, -9.0 ) |
| 1300-1322 | GGGAUAUGAUGAUGAACUG | F | -3.2 | ( -11.2, -8.0 ) |
| 7594-7616 | UGUGCUGCUCAAUGUCUUA | F | -3.2 | ( -10.5, -7.3 ) |
| 8308-8330 | AGGAGGCAAUUUACCAAUG | F | -3.1 | ( -9.9, -6.8 ) |
| 8925-8947 | GCUCUUAACUGUGAGAUCU | C,F | -3.1 | ( -11.1, -8.0 ) |
| 6563-6585 | UGCGCCGAACUAUAAGUUC | F | -3.1 | ( -11.9, -8.8 ) |
| 8915-8937 | GCUUGAACAGGCUCUUAAC | B,F | -3.1 | ( -9.7, -6.6 ) |
| 3178-3200 | GCACCUAUGUGUAUAACCA | C,F | -3.1 | ( -12.2, -9.1 ) |
| 8978-9000 | ACCUCCAAUCAUUCAAAGA | F | -3.1 | ( -10.0, -6.9 ) |
| 1291-1313 | GCAUGGCAUGGGAUAUGAU | F | -3.1 | ( -9.9, -6.8 ) |
| 5080-5102 | GGGAGAACUUUCCUUACCU | C,F | -3.1 | ( -12.1, -9.0 ) |
| 2540-2562 | CUGCUUGUGGAUGAUGUUA | F | -3.1 | ( -10.3, -7.2 ) |
| 2202-2224 | ACCAUCAAUUACACCAUAU | F | -3.1 | ( -8.8, -5.7 ) |
| 4888-4910 | UCCUCUGUGAGUGCUAUGA | F | -3.1 | ( -10.6, -7.5 ) |
| 8473-8495 | ACACCCUCACUUGCUACAU | B,F | -3 | ( -9.9, -6.9 ) |
| 6276-6298 | GACAUCUGGGACUGGAUAU | F | -3 | ( -9.0, -6.0 ) |
| 8913-8935 | CAGCUUGAACAGGCUCUUA | F | -3 | ( -10.3, -7.3 ) |
| 8311-8333 | AGGCAAUUUACCAAUGUUG | F | -3 | ( -11.0, -8.0 ) |
| 4829-4851 | AGGCAUCUACAGAUUUGUG | F | -3 | ( -11.0, -8.0 ) |
| 8306-8328 | GGAGGAGGCAAUUUACCAA | C,F | -3 | ( -12.1, -9.1 ) |
| 1673-1695 | GCACAAAUUCAACUCUUCA | B,F | -3 | ( -11.1, -8.1 ) |
| 2542-2564 | GCUUGUGGAUGAUGUUACU | C,F | -3 | ( -9.7, -6.7 ) |
| 9181-9203 | ACUGGGCAGUAAGAACAAA | B,F | -3 | ( -9.8, -6.8 ) |
| 21-43 | GACACUCCACCAUGAAUCA | F | -3 | ( -10.1, -7.1 ) |
| 5925-5947 | GCUCUUGUAGCAUUCAAGA | B,F | -3 | ( -11.1, -8.1 ) |
| 3933-3955 | GUGGAGAACCUAGAGACAA | F | -3 | ( -11.2, -8.2 ) |
| 7709-7731 | GGUGUAUUCCACCACUUCA | F | -3 | ( -11.1, -8.1 ) |
| 1248-1270 | GACUGCAAUUGUUCUAUCU | B,C,F | -3 | ( -10.0, -7.0 ) |
| 8552-8574 | CGACGACUUAGUCGUUAUC | F | -3 | ( -9.9, -6.9 ) |
| 5167-5189 | AGUGUUUGAUCCGCCUUAA | B,F | -2.9 | ( -8.8, -5.9 ) |
| 4657-4679 | CUCUCAUGACUGGCUUUAC | F | -2.9 | ( -9.5, -6.6 ) |
| 1928-1950 | GGGUGCAAAUGAUACGGAU | C,F | -2.9 | ( -12.1, -9.2 ) |
| 2646-2668 | CUCGUGUUCUUCUGCUUUG | F | -2.9 | ( -9.6, -6.7 ) |
| 8923-8945 | AGGCUCUUAACUGUGAGAU | F | -2.9 | ( -10.9, -8.0 ) |
| 8862-8884 | GCGAGGAUGAUACUGAUGA | C,F | -2.9 | ( -11.4, -8.5 ) |
| 7070-7092 | GGUUGAGUCAGAGAACAAA | C,F | -2.9 | ( -9.7, -6.8 ) |
| 2548-2570 | GGAUGAUGUUACUCAUAUC | F | -2.9 | ( -10.0, -7.1 ) |
| 849-871 | CCUGGUUGCUCUUUCUCUA | C,F | -2.9 | ( -11.3, -8.4 ) |
| 4715-4737 | CACUCAGACAGUCGAUUUC | F | -2.9 | ( -9.4, -6.5 ) |
| 7690-7712 | UGCUACGCCAUCACAAUCU | F | -2.9 | ( -9.5, -6.6 ) |
| 9032-9054 | CUCUCCAGGUGAAAUCAAU | B,C,F | -2.9 | ( -9.5, -6.6 ) |
| 8731-8753 | CUGGAAAGAGGGUCUACUA | F | -2.8 | ( -10.4, -7.6 ) |
| 3147-3169 | AUGGCCAUCAUCAAGUUAG | B,F | -2.8 | ( -10.0, -7.2 ) |
| 8561-8583 | AGUCGUUAUCUGUGAAAGU | F | -2.8 | ( -9.1, -6.3 ) |
| 1662-1684 | CUCUUCUAUCAGCACAAAU | F | -2.8 | ( -8.0, -5.2 ) |
| 8169-8191 | UCCUACGGAUUCCAAUACU | F | -2.8 | ( -9.6, -6.8 ) |
| 6771-6793 | GAGGUAUCAUUCAGAGUAG | F | -2.8 | ( -11.1, -8.3 ) |
| 7347-7369 | ACCGAAUCAACCCUAUCUA | F | -2.8 | ( -10.3, -7.5 ) |
| 3141-3163 | GUGCAAAUGGCCAUCAUCA | F | -2.8 | ( -11.1, -8.3 ) |
| 846-868 | CUUCCUGGUUGCUCUUUCU | C,F | -2.8 | ( -9.2, -6.4 ) |

**FIG. 8 (page 412 of 479)**

| | | | | |
|---|---|---|---|---|
| 7985-8007 | AGACAGUGUAACACCAAUA | B,F | -2.8 | ( -8.9, -6.1 ) |
| 1295-1317 | GGCAUGGGAUAUGAUGAUG | F | -2.8 | ( -11.1, -8.3 ) |
| 428-450 | GAUCGUUGGUGGAGUUUAC | B,F | -2.8 | ( -9.4, -6.6 ) |
| 8979-9001 | CCUCCAAUCAUUCAAAGAC | B,F | -2.8 | ( -11.6, -8.8 ) |
| 1929-1951 | GGUGCAAAUGAUACGGAUG | F | -2.8 | ( -12.2, -9.4 ) |
| 8977-8999 | UACCUCCAAUCAUUCAAAG | F | -2.8 | ( -9.5, -6.7 ) |
| 7068-7090 | AGGGUUGAGUCAGAGAACA | F | -2.7 | ( -10.9, -8.2 ) |
| 9164-9186 | UGGCAAGUACCUCUUCAAC | F | -2.7 | ( -11.5, -8.8 ) |
| 4159-4181 | GGGUUGAUCCUAAUAUCAG | F | -2.7 | ( -10.9, -8.2 ) |
| 6604-6626 | AGGAAUACGUGGAGAUAAG | F | -2.7 | ( -8.7, -6.0 ) |
| 8914-8936 | AGCUUGAACAGGCUCUUAA | F | -2.7 | ( -8.6, -5.9 ) |
| 79-101 | CUAGCCAUGGCGUUAGUAU | F | -2.7 | ( -9.5, -6.8 ) |
| 2802-2824 | GUUGUUCUUGUCGGGUUAA | F | -2.7 | ( -8.7, -6.0 ) |
| 852-874 | GGUUGCUCUUUCUCUAUCU | C,F | -2.7 | ( -9.7, -7.0 ) |
| 8008-8030 | CUACCAUCAUGGCCAAGAA | B,C,F | -2.6 | ( -9.5, -6.9 ) |
| 6637-6659 | UCCACUACGUAUCGGGUAU | F | -2.6 | ( -10.6, -8.0 ) |
| 2545-2567 | UGUGGAUGAUGUUACUCAU | F | -2.6 | ( -10.3, -7.7 ) |
| 8971-8993 | UGGAUCUACCUCCAAUCAU | F | -2.6 | ( -9.4, -6.8 ) |
| 7426-7448 | GCGACAAUACGACAACAUC | F | -2.6 | ( -11.6, -9.0 ) |
| 198-220 | UUGGAUAAACCCGCUCAAU | F | -2.6 | ( -9.2, -6.6 ) |
| 2956-2978 | CCGUCAUCUUACUCAUGUG | F | -2.6 | ( -10.8, -8.2 ) |
| 344-366 | GAGCACGAAUCCUAAACCU | C,F | -2.6 | ( -11.2, -8.6 ) |
| 6658-6680 | CUACUGACAAUCUUAAAUG | B,F | -2.6 | ( -8.3, -5.7 ) |
| 8976-8998 | CUACCUCCAAUCAUUCAAA | C,F | -2.6 | ( -9.5, -6.9 ) |
| 5516-5538 | UGAGCAGUUCAAGCAGAAG | F | -2.6 | ( -10.6, -8.0 ) |
| 8393-8415 | CCCUCUUACCAAUUCAAGG | F | -2.6 | ( -11.6, -9.0 ) |
| 7696-7718 | GCCAUCACAAUCUGGUGUA | C,F | -2.6 | ( -11.1, -8.5 ) |
| 199-221 | UGGAUAAACCCGCUCAAUG | F | -2.6 | ( -9.4, -6.8 ) |
| 6767-6789 | GGAGGAGGUAUCAUUCAGA | C,F | -2.6 | ( -12.1, -9.5 ) |
| 3910-3932 | CUAAGGCGGUGGACUUUAU | C,F | -2.6 | ( -7.0, -4.4 ) |
| 8475-8497 | ACCCUCACUUGCUACAUCA | F | -2.6 | ( -10.9, -8.3 ) |
| 4408-4430 | CUGUGUCCCAUCCUAACAU | B,C,F | -2.6 | ( -9.1, -6.5 ) |
| 2538-2560 | UCCUGCUUGUGGAUGAUGU | F | -2.5 | ( -10.4, -7.9 ) |
| 7345-7367 | UCACCGAAUCAACCCUAUC | F | -2.5 | ( -10.6, -8.1 ) |
| 2582-2604 | UUUGGAGAACCUCGUAAUA | F | -2.5 | ( -7.8, -5.3 ) |
| 4258-4280 | CAGGAGGUGCUUAUGACAU | F | -2.5 | ( -10.4, -7.9 ) |
| 7697-7719 | CCAUCACAAUCUGGUGUAU | C,F | -2.5 | ( -9.4, -6.9 ) |
| 1535-1557 | GCUUGUUGGUCUCCUUACA | C,F | -2.5 | ( -9.7, -7.2 ) |
| 8368-8390 | UCACUGAGAGGCUUUAUGU | F | -2.5 | ( -9.4, -6.9 ) |
| 696-718 | UUGGGUAAGGUCAUCGAUA | F | -2.5 | ( -10.2, -7.7 ) |
| 9028-9050 | GUUACUCUCCAGGUGAAAU | B,F | -2.5 | ( -7.9, -5.4 ) |
| 4259-4281 | AGGAGGUGCUUAUGACAUA | F | -2.5 | ( -9.9, -7.4 ) |
| 9199-9221 | AGCUCAAACUCACUCCAAU | B,F | -2.5 | ( -10.0, -7.5 ) |
| 950-972 | CACCAAUGAUUGCCCUAAC | F | -2.5 | ( -10.3, -7.8 ) |
| 962-984 | CCCUAACUCGAGUAUUGUG | F | -2.5 | ( -10.5, -8.0 ) |
| 190-212 | GUCCUUUCUUGGAUAAACC | F | -2.5 | ( -11.1, -8.6 ) |
| 8166-8188 | AGCUCCUACGGAUUCCAAU | B,F | -2.5 | ( -10.0, -7.5 ) |
| 8674-8696 | ACGACUUGGAGCUUAUAAC | F | -2.5 | ( -9.3, -6.8 ) |
| 211-233 | CUCAAUGCCUGGAGAUUUG | F | -2.4 | ( -8.1, -5.7 ) |
| 2583-2605 | UUGGAGAACCUCGUAAUAC | F | -2.4 | ( -9.2, -6.8 ) |
| 856-878 | GCUCUUUCUCUAUCUUCCU | F | -2.4 | ( -11.1, -8.7 ) |
| 5416-5438 | CGGCAAUUAUACCUGACAG | F | -2.4 | ( -11.8, -9.4 ) |
| 8681-8703 | GGAGCUUAUAACAUCAUGC | F | -2.4 | ( -12.3, -9.9 ) |
| 5760-5782 | CUCCUCUUCAACAUAUUGG | F | -2.4 | ( -10.4, -8.0 ) |
| 9606-9628 | ACUGCAGAGAGUGCUGAUA | F | -2.4 | ( -9.9, -7.5 ) |
| 4742-4764 | CCCUACCUUUACCAUUGAG | B,F | -2.4 | ( -10.5, -8.1 ) |

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| | | | | |
|---|---|---|---|---|
| 1249-1271 | ACUGCAAUUGUUCUAUCUA | F | -2.4 | ( -9.9, -7.5 ) |
| 5644-5666 | UCAUCAGUGGGAUACAAUA | F | -2.4 | ( -8.5, -6.1 ) |
| 2195-2217 | UCCUUGUACCAUCAAUUAC | B,F | -2.4 | ( -9.2, -6.8 ) |
| 6648-6670 | UCGGGUAUGACUACUGACA | B,F | -2.4 | ( -11.8, -9.4 ) |
| 49-71 | GAGGAACUACUGUCUUCAC | F | -2.4 | ( -11.2, -8.8 ) |
| 6875-6897 | CUCCCAUAUAACAGCAGAG | F | -2.4 | ( -11.6, -9.2 ) |
| 341-363 | CAUGAGCACGAAUCCUAAA | F | -2.4 | ( -8.3, -5.9 ) |
| 9155-9177 | UGCCAUAUGUGGCAAGUAC | F | -2.4 | ( -11.5, -9.1 ) |
| 8675-8697 | CGACUUGGAGCUUAUAACA | B,F | -2.4 | ( -9.6, -7.2 ) |
| 8679-8701 | UUGGAGCUUAUAACAUCAU | F | -2.4 | ( -9.2, -6.8 ) |
| 2803-2825 | UUGUUCUUGUCGGGUUAAU | F | -2.4 | ( -6.8, -4.4 ) |
| 8562-8584 | GUCGUUAUCUGUGAAAGUG | B,F | -2.4 | ( -10.4, -8.0 ) |
| 8875-8897 | UGAUGACCCAUUUCUUUAG | F | -2.4 | ( -8.3, -5.9 ) |
| 6602-6624 | AGAGGAAUACGUGGAGAUA | F | -2.4 | ( -9.9, -7.5 ) |
| 7746-7768 | CAGAAGAAAGUCACAUUUG | F | -2.4 | ( -8.1, -5.7 ) |
| 949-971 | UCACCAAUGAUUGCCCUAA | F | -2.4 | ( -10.6, -8.2 ) |
| 3139-3161 | ACGUGCAAAUGGCCAUCAU | F | -2.3 | ( -9.1, -6.8 ) |
| 3525-3547 | GUGUCAACUGCUACCCAAA | F | -2.3 | ( -10.1, -7.8 ) |
| 48-70 | UGAGGAACUACUGUCUUCA | F | -2.3 | ( -10.4, -8.1 ) |
| 434-456 | UGGUGGAGUUUACUUGUUG | F | -2.3 | ( -10.3, -8.0 ) |
| 2953-2975 | AUGCCGUCAUCUUACUCAU | F | -2.3 | ( -10.0, -7.7 ) |
| 5476-5498 | CUCAGCACUUACCGUACAU | C,F | -2.3 | ( -9.2, -6.9 ) |
| 8874-8896 | CUGAUGACCCAUUUCUUUA | B,F | -2.3 | ( -8.2, -5.9 ) |
| 8682-8704 | GAGCUUAUAACAUCAUGCU | C,F | -2.3 | ( -11.1, -8.8 ) |
| 6870-6892 | GAUCCCUCCCAUAUAACAG | F | -2.3 | ( -10.3, -8.0 ) |
| 8477-8499 | CCUCACUUGCUACAUCAAG | F | -2.3 | ( -10.4, -8.1 ) |
| 4503-4525 | GGAAGACAUCUCAUCUUCU | F | -2.3 | ( -9.8, -7.5 ) |
| 8676-8698 | GACUUGGAGCUUAUAACAU | F | -2.3 | ( -8.8, -6.5 ) |
| 3635-3657 | CCAGAUGUAUACCAAUGUG | F | -2.2 | ( -10.4, -8.2 ) |
| 432-454 | GUUGGUGGAGUUUACUUGU | F | -2.2 | ( -9.7, -7.5 ) |
| 3628-3650 | CUGUCAUCCAGAUGUAUAC | F | -2.2 | ( -9.4, -7.2 ) |
| 2163-2185 | AUGGUCGACUACCCGUAUA | F | -2.2 | ( -8.8, -6.6 ) |
| 3050-3072 | AGCCAGUUUGCUUAAAGUC | B,F | -2.2 | ( -11.0, -8.8 ) |
| 6443-6465 | GAUCACUGGACAUGUCAAA | B,C,F | -2.2 | ( -9.1, -6.9 ) |
| 9162-9184 | UGUGGCAAGUACCUCUUCA | B,F | -2.2 | ( -10.3, -8.1 ) |
| 7735-7757 | CUUGCCAAAGGCAGAAGAA | F | -2.2 | ( -9.1, -6.9 ) |
| 435-457 | GGUGGAGUUUACUUGUUGC | F | -2.2 | ( -12.1, -9.9 ) |
| 703-725 | AGGUCAUCGAUACCCUUAC | B,F | -2.2 | ( -10.0, -7.8 ) |
| 5032-5054 | GCCUCACUCAUAUAGAUGC | F | -2.1 | ( -12.3, -10.2 ) |
| 8737-8759 | AGAGGGUCUACUACCUUAC | B,F | -2.1 | ( -9.9, -7.8 ) |
| 3633-3655 | AUCCAGAUGUAUACCAAUG | F | -2.1 | ( -8.9, -6.8 ) |
| 2804-2826 | UGUUCUUGUCGGGUUAAUG | F | -2.1 | ( -8.2, -6.1 ) |
| 7071-7093 | GUUGAGUCAGAGAACAAAG | F | -2.1 | ( -8.8, -6.7 ) |
| 4502-4524 | GGGAAGACAUCUCAUCUUC | F | -2.1 | ( -11.0, -8.9 ) |
| 3142-3164 | UGCAAAUGGCCAUCAUCAA | F | -2.1 | ( -9.2, -7.1 ) |
| 1564-1586 | AGCAGAACAUCCAACUGAU | B,F | -2.1 | ( -9.8, -7.7 ) |
| 9201-9223 | CUCAAACUCACUCCAAUAG | F | -2.1 | ( -8.1, -6.0 ) |
| 4679-4701 | CGACUUCGACUCUGUGAUA | F | -2.1 | ( -9.6, -7.5 ) |
| 1941-1963 | ACGGAUGUCUUCGUCCUUA | F | -2.1 | ( -10.3, -8.2 ) |
| 1618-1640 | CCUUGAACUGCAAUGAAAG | F | -2.1 | ( -9.0, -6.9 ) |
| 1565-1587 | GCAGAACAUCCAACUGAUC | B,F | -2.1 | ( -11.2, -9.1 ) |
| 8969-8991 | ACUGGAUCUACCUCCAAUC | F | -2.1 | ( -9.8, -7.7 ) |
| 1297-1319 | CAUGGGAUAUGAUGAUGAA | C,F | -2.1 | ( -9.2, -7.1 ) |
| 8680-8702 | UGGAGCUUAUAACAUCAUG | F | -2.1 | ( -10.4, -8.3 ) |

**FIG. 8 (page 414 of 479)**

| Position | 5'-3' target or sense strand | Net Therm | Therm of each end |
|---|---|---|---|
| 4264-4286 | GCGCCUAUGACAUCAUAAU | -9.1 | ( -13.7, -4.6 ) |
| 4263-4285 | GGCGCCUAUGACAUCAUAA | -7.6 | ( -13.7, -6.1 ) |
| 1750-1772 | GGCCCAUCACUUACAAUGA | -7.3 | ( -14.4, -7.1 ) |
| 9222-9244 | GCGUCCCAGUUGGAUUUAU | -7.2 | ( -11.6, -4.4 ) |
| 8217-8239 | GCCUGGAAAGCGAAGAAAU | -6.7 | ( -12.1, -5.4 ) |
| 1444-1466 | GGGCUAAGGUUCUGAUUGU | -6.7 | ( -13.2, -6.5 ) |
| 4266-4288 | GCCUAUGACAUCAUAAUAU | -6.7 | ( -11.3, -4.6 ) |
| 3131-3153 | GGGUCAUUAUGUCCAAAUG | -6.6 | ( -12.3, -5.7 ) |
| 4828-4850 | UGGGCAUUUACAGGUUUGU | -6.4 | ( -12.7, -6.3 ) |
| 4265-4287 | CGCCUAUGACAUCAUAAUA | -6.4 | ( -11.7, -5.3 ) |
| 7884-7906 | UCGGCCAGAUCUAAAUUUG | -6.3 | ( -12.0, -5.7 ) |
| 4521-4543 | UGCCAUUCCAAGAAGAAAU | -6.1 | ( -11.5, -5.4 ) |
| 9320-9342 | GUGCCUACUCCUACUUUCU | -5.8 | ( -12.2, -6.4 ) |
| 3625-3647 | GCCCAAUCACCCAAAUGUA | -5.8 | ( -13.2, -7.4 ) |
| 1992-2014 | GGCUGUACAUGGAUGAAUA | -5.8 | ( -12.1, -6.3 ) |
| 9221-9243 | UGCGUCCCAGUUGGAUUUA | -5.8 | ( -10.7, -4.9 ) |
| 5648-5670 | CAGCGGGAUACAAUAUUUA | -5.7 | ( -10.6, -4.9 ) |
| 1443-1465 | UGGGCUAAGGUUCUGAUUG | -5.6 | ( -12.7, -7.1 ) |
| 2982-3004 | CACCCAGAGCUAAUCUUUA | -5.6 | ( -11.5, -5.9 ) |
| 3173-3195 | GACAGGUACGUACGUUUAU | -5.6 | ( -10.0, -4.4 ) |
| 8218-8240 | CCUGGAAAGCGAAGAAAUG | -5.6 | ( -11.3, -5.7 ) |
| 8619-8641 | GAGGCUAUGACUAGAUACU | -5.5 | ( -12.3, -6.8 ) |
| 4522-4544 | GCCAUUCCAAGAAGAAAUG | -5.4 | ( -11.1, -5.7 ) |
| 1248-1270 | GACUGCAAUUGCUCAAUAU | -5.4 | ( -10.0, -4.6 ) |
| 2196-2218 | CCCUGCACUGUCAACUUUA | -5.4 | ( -11.3, -5.9 ) |
| 1250-1272 | CUGCAAUUGCUCAAUAUAU | -5.3 | ( -10.3, -5.0 ) |
| 9160-9182 | GUGGCAAGUACCUCUUCAA | -5.3 | ( -12.2, -6.9 ) |
| 5649-5671 | AGCGGGAUACAAUAUUUAG | -5.3 | ( -11.2, -5.9 ) |
| 6656-6678 | GACCACUGACAACGUAAAG | -5.3 | ( -11.2, -5.9 ) |
| 7823-7845 | GUCCACAGUUAAGGCUAAA | -5.3 | ( -11.2, -5.9 ) |
| 5512-5534 | UCGCCGAACAAUUCAAACA | -5.2 | ( -12.0, -6.8 ) |
| 4829-4851 | GGGCAUUUACAGGUUUGUG | -5.2 | ( -13.2, -8.0 ) |
| 4441-4463 | UGUCCAGCACUGGAGAAAU | -5.2 | ( -10.6, -5.4 ) |
| 4656-4678 | GCUCUAAUGACGGGCUUUA | -5.2 | ( -11.1, -5.9 ) |
| 188-210 | GGGUCCUUUCUUGGAUCAA | -5.2 | ( -12.3, -7.1 ) |
| 8922-8944 | GCCCUAGAUUGUCAGAUCU | -5.2 | ( -13.2, -8.0 ) |
| 1993-2015 | GCUGUACAUGGAUGAAUAG | -5.1 | ( -11.1, -6.0 ) |
| 4222-4244 | CCACCUAUGGCAAGUUUCU | -5.1 | ( -11.5, -6.4 ) |
| 2863-2885 | GGCUCAUAUGGUGGUUACA | -5.1 | ( -12.3, -7.2 ) |
| 7885-7907 | CGGCCAGAUCUAAAUUUGG | -5.1 | ( -12.9, -7.8 ) |
| 1247-1269 | GGACUGCAAUUGCUCAAUA | -5 | ( -11.1, -6.1 ) |
| 1751-1773 | GCCCAUCACUUACAAUGAG | -5 | ( -13.2, -8.2 ) |
| 2469-2491 | GUCUCCUUUGCAAUCAAAU | -5 | ( -10.2, -5.2 ) |
| 1991-2013 | UGGCUGUACAUGGAUGAAU | -4.9 | ( -11.5, -6.6 ) |
| 2470-2492 | UCUCCUUUGCAAUCAAAUG | -4.9 | ( -10.6, -5.7 ) |
| 5624-5646 | GGCGAAGCAUAUGUGGAAU | -4.9 | ( -12.6, -7.7 ) |

FIG. 9 (page 415 of 479)

| | | | |
|---|---|---|---|
| 2197-2219 | CCUGCACUGUCAACUUUAC | -4.9 | ( -11.5, -6.6 ) |
| 1789-1811 | GGCCUUAUUGUUGGCACUA | -4.8 | ( -13.2, -8.4 ) |
| 3048-3070 | CAGGCUGGUAUAACCAAAG | -4.8 | ( -11.5, -6.7 ) |
| 3259-3281 | CCGUCGUCUUCUCUGAUAU | -4.8 | ( -10.8, -6.0 ) |
| 8473-8495 | CCCUCACAUGUUACUUGAA | -4.7 | ( -11.6, -6.9 ) |
| 1294-1316 | UGGCUUGGGAUAUGAUGAU | -4.7 | ( -11.5, -6.8 ) |
| 8306-8328 | GGAGUCAAUCUACCAAUGU | -4.6 | ( -11.1, -6.5 ) |
| 8216-8238 | UGCCUGGAAAGCGAAGAAA | -4.6 | ( -11.5, -6.9 ) |
| 6655-6677 | UGACCACUGACAACGUAAA | -4.6 | ( -10.6, -6.0 ) |
| 3049-3071 | AGGCUGGUAUAACCAAAGU | -4.6 | ( -10.9, -6.3 ) |
| 4520-4542 | CUGCCAUUCCAAGAAGAAA | -4.6 | ( -11.5, -6.9 ) |
| 5510-5532 | GCUCGCCGAACAAUUCAAA | -4.5 | ( -11.4, -6.9 ) |
| 9030-9052 | UCUCCAGGUGAGAUCAAUA | -4.5 | ( -10.6, -6.1 ) |
| 5713-5735 | UGGCAUUCACAGCCUCUAU | -4.5 | ( -11.5, -7.0 ) |
| 5650-5672 | GCGGGAUACAAUAUUUAGC | -4.5 | ( -13.5, -9.0 ) |
| 6784-6806 | UGGUCGGGCUCAAUCAAUA | -4.5 | ( -10.6, -6.1 ) |
| 8821-8843 | GGCUAGGCAACAUCAUCAU | -4.5 | ( -11.3, -6.8 ) |
| 5932-5954 | UGGCCUUUAAGGUCAUGAG | -4.5 | ( -12.7, -8.2 ) |
| 8548-8570 | GAGACGACCUUGUCGUUAU | -4.5 | ( -10.2, -5.7 ) |
| 6266-6288 | GUGGCUAAGAGAUGUUUGG | -4.4 | ( -12.2, -7.8 ) |
| 9031-9053 | CUCCAGGUGAGAUCAAUAG | -4.4 | ( -10.4, -6.0 ) |
| 1249-1271 | ACUGCAAUUGCUCAAUAUA | -4.4 | ( -9.9, -5.5 ) |
| 7128-7150 | GAGGAUGAGAGGGAAGUAU | -4.4 | ( -11.2, -6.8 ) |
| 7983-8005 | GACACUGAGACACCAAUUG | -4.4 | ( -10.1, -5.7 ) |
| 2983-3005 | ACCCAGAGCUAAUCUUUAC | -4.4 | ( -11.0, -6.6 ) |
| 6563-6585 | GGCGCCAAAUUAUUCUAGG | -4.3 | ( -13.7, -9.4 ) |
| 8901-8923 | GCUCAGGAACAACUUGAAA | -4.3 | ( -11.2, -6.9 ) |
| 1288-1310 | ACCGUAUGGCUUGGGAUAU | -4.2 | ( -10.2, -6.0 ) |
| 3633-3655 | ACCCAAAUGUACACCAAUG | -4.2 | ( -11.0, -6.8 ) |
| 5168-5190 | GUGUCUCAUACGGCUAAAG | -4.2 | ( -10.1, -5.9 ) |
| 8296-8318 | UCCGUGUUGAGGAGUCAAU | -4.2 | ( -10.8, -6.6 ) |
| 8463-8485 | UGCGGUAAUACCCUCACAU | -4.1 | ( -11.8, -7.7 ) |
| 3050-3072 | GGCUGGUAUAACCAAAGUG | -4.1 | ( -12.1, -8.0 ) |
| 8825-8847 | AGGCAACAUCAUCAUGUAU | -4.1 | ( -11.0, -6.9 ) |
| 6296-6318 | CACGGUGUUGACUGAUUUC | -4.1 | ( -10.6, -6.5 ) |
| 2864-2886 | GCUCAUAUGGUGGUUACAA | -4 | ( -11.2, -7.2 ) |
| 990-1012 | GCGGACAUGAUCAUGCAUA | -4 | ( -12.6, -8.6 ) |
| 7824-7846 | UCCACAGUUAAGGCUAAAC | -4 | ( -10.6, -6.6 ) |
| 3632-3654 | CACCCAAAUGUACACCAAU | -4 | ( -11.5, -7.5 ) |
| 5513-5535 | CGCCGAACAAUUCAAACAG | -4 | ( -12.0, -8.0 ) |
| 4645-4667 | UAGCAACGGACGCUCUAAU | -4 | ( -9.5, -5.5 ) |
| 7825-7847 | CCACAGUUAAGGCUAAACU | -4 | ( -10.3, -6.3 ) |
| 9223-9245 | CGUCCCAGUUGGAUUUAUC | -3.9 | ( -10.8, -6.9 ) |
| 8618-8640 | GGAGGCUAUGACUAGAUAC | -3.9 | ( -12.1, -8.2 ) |
| 5931-5953 | GUGGCCUUUAAGGUCAUGA | -3.9 | ( -12.2, -8.3 ) |
| 5151-5173 | UGGGACCAAAUGUGGAAGU | -3.9 | ( -11.6, -7.7 ) |
| 1299-1321 | UGGGAUAUGAUGAUGAACU | -3.9 | ( -11.6, -7.7 ) |

| | | | |
|---|---|---|---|
| 5875-5897 | GGAAGGUGCUUGUGGAUAU | -3.8 | ( -9.8, -6.0 ) |
| 7670-7692 | UGCACUGAGCAACUCUUUG | -3.8 | ( -10.5, -6.7 ) |
| 6696-6718 | CCCGAAUUCUUCACAGAAG | -3.8 | ( -11.8, -8.0 ) |
| 8867-8889 | GAUCCUGAUGACUCAUUUC | -3.8 | ( -10.3, -6.5 ) |
| 6265-6287 | CGUGGCUAAGAGAUGUUUG | -3.8 | ( -10.6, -6.8 ) |
| 2830-2852 | CCUUGUCACCGCACUAUAA | -3.7 | ( -9.0, -5.3 ) |
| 4519-4541 | UCUGCCAUUCCAAGAAGAA | -3.7 | ( -10.6, -6.9 ) |
| 3260-3282 | CGUCGUCUUCUCUGAUAUG | -3.7 | ( -9.9, -6.2 ) |
| 6298-6320 | CGGUGUUGACUGAUUUCAA | -3.7 | ( -10.6, -6.9 ) |
| 8304-8326 | GAGGAGUCAAUCUACCAAU | -3.7 | ( -11.2, -7.5 ) |
| 3174-3196 | ACAGGUACGUACGUUUAUG | -3.7 | ( -9.8, -6.1 ) |
| 5645-5667 | CAUCAGCGGGAUACAAUAU | -3.7 | ( -8.3, -4.6 ) |
| 2546-2568 | GUGGAUGAUGCUGCUGAUA | -3.7 | ( -11.2, -7.5 ) |
| 3634-3656 | CCCAAAUGUACACCAAUGU | -3.7 | ( -10.2, -6.5 ) |
| 6657-6679 | ACCACUGACAACGUAAAGU | -3.6 | ( -9.9, -6.3 ) |
| 7335-7357 | ACGGUUGUCCUGUCAGAAU | -3.6 | ( -10.2, -6.6 ) |
| 7694-7716 | UCACCACAACUUGGUCUAU | -3.6 | ( -10.6, -7.0 ) |
| 8800-8822 | GACACACUCCAGUCAAUUC | -3.6 | ( -10.1, -6.5 ) |
| 9343-9365 | GGGUAGGCAUCUAUCUACU | -3.5 | ( -11.3, -7.8 ) |
| 189-211 | GGUCCUUUCUUGGAUCAAC | -3.5 | ( -12.3, -8.8 ) |
| 9197-9219 | GCUCAAACUCACUCCAAUC | -3.5 | ( -11.2, -7.7 ) |
| 2853-2875 | UUCCUCGCUAGGCUCAUAU | -3.5 | ( -9.2, -5.7 ) |
| 3047-3069 | CCAGGCUGGUAUAACCAAA | -3.5 | ( -11.3, -7.8 ) |
| 8392-8414 | CCCUGACUAAUUCUAAAGG | -3.5 | ( -11.3, -7.8 ) |
| 4072-4094 | AUGCAGCCCAAGGGUAUAA | -3.5 | ( -8.8, -5.3 ) |
| 5627-5649 | GAAGCAUAUGUGGAAUUUC | -3.5 | ( -10.0, -6.5 ) |
| 5153-5175 | GGACCAAAUGUGGAAGUGU | -3.5 | ( -12.3, -8.8 ) |
| 8550-8572 | GACGACCUUGUCGUUAUCU | -3.5 | ( -10.5, -7.0 ) |
| 8826-8848 | GGCAACAUCAUCAUGUAUG | -3.5 | ( -10.9, -7.4 ) |
| 81-103 | AGCCAUGGCGUUAGUAUGA | -3.5 | ( -11.0, -7.5 ) |
| 9567-9589 | UGCAGAGAGUGCUGAUACU | -3.5 | ( -10.3, -6.8 ) |
| 3172-3194 | UGACAGGUACGUACGUUUA | -3.4 | ( -9.4, -6.0 ) |
| 7706-7728 | GGUCUAUGCUACAACAUCU | -3.4 | ( -11.1, -7.7 ) |
| 1671-1693 | GUGCACAAGUUCAACUCAU | -3.4 | ( -11.1, -7.7 ) |
| 1673-1695 | GCACAAGUUCAACUCAUCU | -3.4 | ( -11.1, -7.7 ) |
| 1246-1268 | AGGACUGCAAUUGCUCAAU | -3.4 | ( -10.0, -6.6 ) |
| 5511-5533 | CUCGCCGAACAAUUCAAAC | -3.4 | ( -10.8, -7.4 ) |
| 9162-9184 | GGCAAGUACCUCUUCAACU | -3.4 | ( -10.9, -7.5 ) |
| 8970-8992 | GACCUACCUCAGAUCAUUC | -3.4 | ( -11.1, -7.7 ) |
| 9321-9343 | UGCCUACUCCUACUUUCUG | -3.4 | ( -11.5, -8.1 ) |
| 8616-8638 | ACGGAGGCUAUGACUAGAU | -3.3 | ( -10.3, -7.0 ) |
| 8824-8846 | UAGGCAACAUCAUCAUGUA | -3.3 | ( -10.7, -7.4 ) |
| 80-102 | UAGCCAUGGCGUUAGUAUG | -3.3 | ( -10.7, -7.4 ) |
| 1445-1467 | GGCUAAGGUUCUGAUUGUG | -3.3 | ( -11.3, -8.0 ) |
| 6297-6319 | ACGGUGUUGACUGAUUUCA | -3.3 | ( -10.2, -6.9 ) |
| 4689-4711 | UCAGUGAUCGACUGCAAUA | -3.3 | ( -9.4, -6.1 ) |
| 697-719 | UGGGUAAGGUCAUCGAUAC | -3.3 | ( -11.5, -8.2 ) |

**FIG. 9 (page 417 of 479)**

| | | | |
|---|---|---|---|
| 2425-2447 | ACGUCGUGGACGUACAAUA | -3.2 | ( -9.3, -6.1 ) |
| 1944-1966 | GACGUGCUGCUUCUUAACA | -3.2 | ( -10.4, -7.2 ) |
| 3132-3154 | GGUCAUUAUGUCCAAAUGG | -3.2 | ( -11.2, -8.0 ) |
| 6564-6586 | GCGCCAAAUUAUUCUAGGG | -3.2 | ( -13.7, -10.5 ) |
| 8820-8842 | UGGCUAGGCAACAUCAUCA | -3.2 | ( -11.5, -8.3 ) |
| 5514-5536 | GCCGAACAAUUCAAACAGA | -3.2 | ( -12.6, -9.4 ) |
| 4574-4596 | ACUCAAUGCUGUAGCAUAU | -3.2 | ( -8.9, -5.7 ) |
| 1300-1322 | GGGAUAUGAUGAUGAACUG | -3.2 | ( -11.2, -8.0 ) |
| 1990-2012 | UUGGCUGUACAUGGAUGAA | -3.2 | ( -10.3, -7.1 ) |
| 7337-7359 | GGUUGUCCUGUCAGAAUCU | -3.1 | ( -9.7, -6.6 ) |
| 7695-7717 | CACCACAACUUGGUCUAUG | -3.1 | ( -10.3, -7.2 ) |
| 8215-8237 | AUGCCUGGAAAGCGAAGAA | -3.1 | ( -10.0, -6.9 ) |
| 8900-8922 | AGCUCAGGAACAACUUGAA | -3.1 | ( -10.0, -6.9 ) |
| 8225-8247 | AGCGAAGAAAUGCCCUAUG | -3.1 | ( -10.3, -7.2 ) |
| 5509-5531 | AGCUCGCCGAACAAUUCAA | -3.1 | ( -10.0, -6.9 ) |
| 5703-5725 | GCAUCACUGAUGGCAUUCA | -3.1 | ( -10.2, -7.1 ) |
| 8066-8088 | AGCUCGCCUUAUCGUAUUC | -3.1 | ( -10.0, -6.9 ) |
| 8617-8639 | CGGAGGCUAUGACUAGAUA | -3.1 | ( -10.6, -7.5 ) |
| 9224-9246 | GUCCCAGUUGGAUUUAUCC | -3.1 | ( -12.3, -9.2 ) |
| 3532-3554 | CCGCAACACAAUCUUUCCU | -3.1 | ( -11.8, -8.7 ) |
| 8305-8327 | AGGAGUCAAUCUACCAAUG | -3.1 | ( -9.9, -6.8 ) |
| 3530-3552 | CACCGCAACACAAUCUUUC | -3.1 | ( -10.6, -7.5 ) |
| 6276-6298 | GAUGUUUGGGAUUGGAUAU | -3 | ( -9.0, -6.0 ) |
| 4827-4849 | AUGGGCAUUUACAGGUUUG | -3 | ( -9.8, -6.8 ) |
| 8298-8320 | CGUGUUGAGGAGUCAAUCU | -3 | ( -9.6, -6.6 ) |
| 6299-6321 | GGUGUUGACUGAUUUCAAG | -3 | ( -11.1, -8.1 ) |
| 4600-4622 | GCCUUGAUGUAUCCGUCAU | -3 | ( -10.9, -7.9 ) |
| 1947-1969 | GUGCUGCUUCUUAACAACA | -3 | ( -11.0, -8.0 ) |
| 2862-2884 | AGGCUCAUAUGGUGGUUAC | -3 | ( -10.9, -7.9 ) |
| 8923-8945 | CCCUAGAUUGUCAGAUCUA | -3 | ( -10.5, -7.5 ) |
| 8921-8943 | AGCCCUAGAUUGUCAGAUC | -3 | ( -12.1, -9.1 ) |
| 4221-4243 | UCCACCUAUGGCAAGUUUC | -3 | ( -10.6, -7.6 ) |
| 5167-5189 | AGUGUCUCAUACGGCUAAA | -2.9 | ( -8.8, -5.9 ) |
| 3141-3163 | GUCCAAAUGGCUCUCAUGA | -2.9 | ( -11.2, -8.3 ) |
| 2497-2519 | UCCUGUUGCUCUUCCUUCU | -2.9 | ( -10.4, -7.5 ) |
| 8278-8300 | CGGUCACUGAGAAUGACAU | -2.9 | ( -10.8, -7.9 ) |
| 7596-7618 | UGCUCGAUGUCCUACACAU | -2.9 | ( -10.6, -7.7 ) |
| 9029-9051 | CUCUCCAGGUGAGAUCAAU | -2.9 | ( -9.5, -6.6 ) |
| 6787-6809 | UCGGGCUCAAUCAAUACCU | -2.8 | ( -11.8, -9.0 ) |
| 2988-3010 | GAGCUAAUCUUUACCAUCA | -2.8 | ( -11.1, -8.3 ) |
| 8472-8494 | ACCCUCACAUGUUACUUGA | -2.8 | ( -10.9, -8.1 ) |
| 991-1013 | CGGACAUGAUCAUGCAUAC | -2.8 | ( -10.8, -8.0 ) |
| 3175-3197 | CAGGUACGUACGUUUAUGA | -2.8 | ( -10.3, -7.5 ) |
| 8471-8493 | UACCCUCACAUGUUACUUG | -2.7 | ( -10.7, -8.0 ) |
| 9161-9183 | UGGCAAGUACCUCUUCAAC | -2.7 | ( -11.5, -8.8 ) |
| 6966-6988 | CCUUCCUUGAAGGCAACAU | -2.7 | ( -9.2, -6.5 ) |
| 3531-3553 | ACCGCAACACAAUCUUUCC | -2.7 | ( -11.4, -8.7 ) |

**FIG. 9 (page 418 of 479)**

| | | | |
|---|---|---|---|
| 2310-2332 | AGGGACAGAUCAGAGCUUA | -2.7 | ( -11.1, -8.4 ) |
| 1240-1262 | CAGUACAGGACUGCAAUUG | -2.7 | ( -8.4, -5.7 ) |
| 4411-4433 | UGCCACAUCCAAACAUCGA | -2.7 | ( -11.5, -8.8 ) |
| 7881-7903 | CAUUCGGCCAGAUCUAAAU | -2.7 | ( -7.1, -4.4 ) |
| 79-101 | CUAGCCAUGGCGUUAGUAU | -2.7 | ( -9.5, -6.8 ) |
| 967-989 | ACGCAAGCAUUGUGUAUGA | -2.7 | ( -10.2, -7.5 ) |
| 5758-5780 | CCCUCCUGUUUAACAUCCU | -2.7 | ( -11.6, -8.9 ) |
| 5161-5183 | UGUGGAAGUGUCUCAUACG | -2.7 | ( -10.3, -7.6 ) |
| 7704-7726 | UUGGUCUAUGCUACAACAU | -2.6 | ( -9.1, -6.5 ) |
| 2545-2567 | UGUGGAUGAUGCUGCUGAU | -2.6 | ( -10.3, -7.7 ) |
| 2392-2414 | CUCUGUCCACUGGUUUGAU | -2.6 | ( -9.2, -6.6 ) |
| 2398-2420 | CCACUGGUUUGAUCCAUCU | -2.6 | ( -10.3, -7.7 ) |
| 904-926 | CAGCUUCCGCUUAUGAAGU | -2.6 | ( -10.3, -7.7 ) |
| 198-220 | UUGGAUCAACCCGCUCAAU | -2.6 | ( -9.2, -6.6 ) |
| 7930-7952 | UAUCCAGCAAGGCCGUUAA | -2.6 | ( -8.6, -6.0 ) |
| 344-366 | GAGCACGAAUCCUAAACCU | -2.6 | ( -11.2, -8.6 ) |
| 2837-2859 | ACCGCACUAUAAGCUGUUC | -2.6 | ( -11.4, -8.8 ) |
| 1949-1971 | GCUGCUUCUUAACAACACG | -2.6 | ( -12.2, -9.6 ) |
| 4956-4978 | UUGCGGGCUUACCUAAACA | -2.6 | ( -9.4, -6.8 ) |
| 1295-1317 | GGCUUGGGAUAUGAUGAUG | -2.6 | ( -10.9, -8.3 ) |
| 8670-8692 | UACGACUUGGAGUUGAUAA | -2.6 | ( -8.9, -6.3 ) |
| 8972-8994 | CCUACCUCAGAUCAUUCAA | -2.6 | ( -9.5, -6.9 ) |
| 3569-3591 | CGUGUGUUGGACUGUCUAU | -2.6 | ( -9.6, -7.0 ) |
| 8671-8693 | ACGACUUGGAGUUGAUAAC | -2.5 | ( -9.3, -6.8 ) |
| 8868-8890 | AUCCUGAUGACUCAUUUCU | -2.5 | ( -8.9, -6.4 ) |
| 2468-2490 | UGUCUCCUUUGCAAUCAAA | -2.5 | ( -9.4, -6.9 ) |
| 696-718 | UUGGGUAAGGUCAUCGAUA | -2.5 | ( -10.2, -7.7 ) |
| 6790-6812 | GGCUCAAUCAAUACCUGGU | -2.5 | ( -12.3, -9.8 ) |
| 9196-9218 | AGCUCAAACUCACUCCAAU | -2.5 | ( -10.0, -7.5 ) |
| 8365-8387 | UCACAGAGCGGCUUUACAU | -2.5 | ( -9.4, -6.9 ) |
| 4678-4700 | GCGAUUUCGACUCAGUGAU | -2.5 | ( -10.4, -7.9 ) |
| 211-233 | CUCAAUGCCUGGAGAUUUG | -2.4 | ( -8.1, -5.7 ) |
| 9565-9587 | ACUGCAGAGAGUGCUGAUA | -2.4 | ( -9.9, -7.5 ) |
| 8621-8643 | GGCUAUGACUAGAUACUCU | -2.4 | ( -11.3, -8.9 ) |
| 5644-5666 | UCAUCAGCGGGAUACAAUA | -2.4 | ( -8.5, -6.1 ) |
| 8894-8916 | CCUUCUAGCUCAGGAACAA | -2.4 | ( -9.2, -6.8 ) |
| 49-71 | GAGGAACUACUGUCUUCAC | -2.4 | ( -11.2, -8.8 ) |
| 341-363 | CAUGAGCACGAAUCCUAAA | -2.4 | ( -8.3, -5.9 ) |
| 8672-8694 | CGACUUGGAGUUGAUAACA | -2.4 | ( -9.6, -7.2 ) |
| 2477-2499 | UGCAAUCAAAUGGGAGUAU | -2.4 | ( -9.2, -6.8 ) |
| 2471-2493 | CUCCUUUGCAAUCAAAUGG | -2.4 | ( -10.4, -8.0 ) |
| 9322-9344 | GCCUACUCCUACUUUCUGU | -2.4 | ( -11.3, -8.9 ) |
| 8676-8698 | UUGGAGUUGAUAACAUCAU | -2.4 | ( -9.2, -6.8 ) |
| 7822-7844 | CGUCCACAGUUAAGGCUAA | -2.4 | ( -10.8, -8.4 ) |
| 989-1011 | AGCGGACAUGAUCAUGCAU | -2.4 | ( -11.2, -8.8 ) |
| 9191-9213 | GACCAAGCUCAAACUCACU | -2.3 | ( -11.2, -8.9 ) |
| 1238-1260 | GACAGUACAGGACUGCAAU | -2.3 | ( -10.0, -7.7 ) |

**FIG. 9 (page 419 of 479)**

| | | | |
|---|---|---|---|
| 48-70 | UGAGGAACUACUGUCUUCA | -2.3 | ( -10.4, -8.1 ) |
| 1945-1967 | ACGUGCUGCUUCUUAACAA | -2.3 | ( -9.1, -6.8 ) |
| 8673-8695 | GACUUGGAGUUGAUAACAU | -2.3 | ( -8.8, -6.5 ) |
| 4690-4712 | CAGUGAUCGACUGCAAUAC | -2.3 | ( -9.1, -6.8 ) |
| 2984-3006 | CCCAGAGCUAAUCUUUACC | -2.3 | ( -11.3, -9.0 ) |
| 2979-3001 | AUCCACCCAGAGCUAAUCU | -2.3 | ( -8.9, -6.6 ) |
| 6658-6680 | CCACUGACAACGUAAAGUG | -2.3 | ( -10.3, -8.0 ) |
| 4572-4594 | GGACUCAAUGCUGUAGCAU | -2.3 | ( -11.1, -8.8 ) |
| 8474-8496 | CCUCACAUGUUACUUGAAG | -2.3 | ( -10.4, -8.1 ) |
| 2432-2454 | GGACGUACAAUACCUGUAC | -2.3 | ( -11.4, -9.1 ) |
| 1245-1267 | CAGGACUGCAAUUGCUCAA | -2.3 | ( -10.4, -8.1 ) |
| 5651-5673 | CGGGAUACAAUAUUUAGCA | -2.3 | ( -11.8, -9.5 ) |
| 7886-7908 | GGCCAGAUCUAAAUUUGGC | -2.3 | ( -13.2, -10.9 ) |
| 4156-4178 | AUGGUAUCGACCCUAACAU | -2.3 | ( -8.8, -6.5 ) |
| 3140-3162 | UGUCCAAAUGGCUCUCAUG | -2.3 | ( -10.6, -8.3 ) |
| 2861-2883 | UAGGCUCAUAUGGUGGUUA | -2.3 | ( -10.7, -8.4 ) |
| 2396-2418 | GUCCACUGGUUUGAUCCAU | -2.3 | ( -11.2, -8.9 ) |
| 2431-2453 | UGGACGUACAAUACCUGUA | -2.2 | ( -10.6, -8.4 ) |
| 2200-2222 | GCACUGUCAACUUUACCAU | -2.2 | ( -11.0, -8.8 ) |
| 8549-8571 | AGACGACCUUGUCGUUAUC | -2.2 | ( -9.1, -6.9 ) |
| 9225-9247 | UCCCAGUUGGAUUUAUCCA | -2.2 | ( -11.6, -9.4 ) |
| 5629-5651 | AGCAUAUGUGGAAUUUCAU | -2.2 | ( -8.8, -6.6 ) |
| 4267-4289 | CCUAUGACAUCAUAAUAUG | -2.2 | ( -8.4, -6.2 ) |
| 9159-9181 | UGUGGCAAGUACCUCUUCA | -2.2 | ( -10.3, -8.1 ) |
| 5395-5417 | GGAUCAUCUUGUCCGGAAA | -2.2 | ( -10.3, -8.1 ) |
| 6443-6465 | GAUCACCGGACAUGUGAAA | -2.2 | ( -9.1, -6.9 ) |
| 2829-2851 | ACCUUGUCACCGCACUAUA | -2.2 | ( -8.6, -6.4 ) |
| 8279-8301 | GGUCACUGAGAAUGACAUC | -2.2 | ( -11.2, -9.0 ) |
| 6486-6508 | CCUAGGACCUGUAGUAACA | -2.2 | ( -9.4, -7.2 ) |
| 1788-1810 | AGGCCUUAUUGUUGGCACU | -2.2 | ( -12.1, -9.9 ) |
| 5396-5418 | GAUCAUCUUGUCCGGAAAG | -2.2 | ( -9.1, -6.9 ) |
| 5971-5993 | AGGACCUGGUUAACCUACU | -2.2 | ( -10.0, -7.8 ) |
| 5010-5032 | UUCUGGGAGAGCGUCUUUA | -2.2 | ( -8.1, -5.9 ) |
| 1334-1356 | CCUAGUGGUAUCGCAGUUA | -2.2 | ( -9.4, -7.2 ) |
| 992-1014 | GGACAUGAUCAUGCAUACC | -2.1 | ( -11.2, -9.1 ) |
| 3142-3164 | UCCAAAUGGCUCUCAUGAA | -2.1 | ( -9.2, -7.1 ) |
| 1575-1597 | CAGCUUGUAAACACCAACG | -2.1 | ( -10.3, -8.2 ) |
| 4692-4714 | GUGAUCGACUGCAAUACAU | -2.1 | ( -9.0, -6.9 ) |
| 3937-3959 | AGUCUAUGGAAACCACUAU | -2.1 | ( -8.9, -6.8 ) |
| 8677-8699 | UGGAGUUGAUAACAUCAUG | -2.1 | ( -10.4, -8.3 ) |
| 2552-2574 | GAUGCUGCUGAUAGCUCAA | -2.1 | ( -10.2, -8.1 ) |
| 8465-8487 | CGGUAAUACCCUCACAUGU | -2.1 | ( -9.8, -7.7 ) |
| 1441-1463 | ACUGGGCUAAGGUUCUGAU | -2.1 | ( -9.8, -7.7 ) |
| 4082-4104 | AGGGUAUAAGGUGCUUGUC | -2.1 | ( -10.9, -8.8 ) |
| 1251-1273 | UGCAAUUGCUCAAUAUAUC | -2.1 | ( -9.2, -7.1 ) |
| 1363-1385 | CACAAGCUGUCGUGGAUAU | -2 | ( -8.0, -6.0 ) |
| 2831-2853 | CUUGUCACCGCACUAUAAG | -2 | ( -8.0, -6.0 ) |

**FIG. 9 (page 420 of 479)**

| | | | |
|---|---|---|---|
| 1414-1436 | GCCUUGCCUACUAUUCCAU | -2 | ( -10.9, -8.9 ) |
| 1946-1968 | CGUGCUGCUUCUUAACAAC | -2 | ( -10.7, -8.7 ) |
| 2465-2487 | GGUUGUCUCCUUUGCAAUC | -2 | ( -9.7, -7.7 ) |
| 3460-3482 | UUGGCUGCAUCAUCACUAG | -2 | ( -10.3, -8.3 ) |
| 8164-8186 | CUUCAUACGGAUUCCAAUA | -2 | ( -8.1, -6.1 ) |
| 8798-8820 | UAGACACACUCCAGUCAAU | -2 | ( -8.6, -6.6 ) |
| 7795-7817 | ACGUGCUCAAGGAGAUGAA | -2 | ( -9.1, -7.1 ) |
| 2811-2833 | GUAGGUCUGAUACUCUUGA | -2 | ( -10.1, -8.1 ) |
| 4071-4093 | UAUGCAGCCCAAGGGUAUA | -2 | ( -8.6, -6.6 ) |
| 8553-8575 | GACCUUGUCGUUAUCUGUG | -2 | ( -11.1, -9.1 ) |
| 3261-3283 | GUCGUCUUCUCUGAUAUGG | -2 | ( -10.4, -8.4 ) |
| 427-449 | AGAUCGUCGGUGGAGUUUA | -2 | ( -8.0, -6.0 ) |
| 352-374 | AUCCUAAACCUCAAAGAAA | -2 | ( -8.9, -6.9 ) |
| 4155-4177 | CAUGGUAUCGACCCUAACA | -2 | ( -9.2, -7.2 ) |
| 3938-3960 | GUCUAUGGAAACCACUAUG | -2 | ( -9.2, -7.2 ) |
| 8075-8097 | UAUCGUAUUCCCAGAUUUG | -2 | ( -7.7, -5.7 ) |
| 343-365 | UGAGCACGAAUCCUAAACC | -2 | ( -10.6, -8.6 ) |
| 5751-5773 | CAACAUACCCUCCUGUUUA | -2 | ( -8.0, -6.0 ) |
| 2839-2861 | CGCACUAUAAGCUGUUCCU | -2 | ( -10.7, -8.7 ) |
| 5259-5281 | CCCAUAACCAAAUACAUCA | -2 | ( -10.3, -8.3 ) |
| 9032-9054 | UCCAGGUGAGAUCAAUAGG | -2 | ( -10.4, -8.4 ) |

| Position | 5'-3' target or sense strand | Type | Net therm | Therm of each end |
|---|---|---|---|---|
| 188-210 | GGGUCCUUUCUUGGAUAAA | F | -7.4 | ( -12.3, -4.9 ) |
| 394-416 | GCCCACAGGACGUCAAGUU | C,F | -6.9 | ( -13.2, -6.3 ) |
| 210-232 | GCUCAAUGCCUGGAGAUUU | F | -5.8 | ( -11.2, -5.4 ) |
| 313-335 | GCCCCGGGAGGUCUCGUAG | F | -5.8 | ( -14.4, -8.6 ) |
| 677-699 | CCGGCGUAGGUCGCGCAAU | F | -5.2 | ( -12.9, -7.7 ) |
| 180-202 | GGACGACCGGGUCCUUUCU | B,F | -5 | ( -11.4, -6.4 ) |
| 680-702 | GCGUAGGUCGCGCAAUUUG | F | -4.9 | ( -10.6, -5.7 ) |
| 41-63 | UCCCCUGUGAGGAACUACU | F | -4.9 | ( -12.7, -7.8 ) |
| 126-148 | CUCCCGGGAGAGCCAUAGU | F | -4.8 | ( -11.6, -6.8 ) |
| 266-288 | GGGUCGCGAAAGGCCUUGU | C,F | -4.8 | ( -12.3, -7.5 ) |
| 229-251 | GGGCGUGCCCCCGCAAGAC | F | -4.7 | ( -13.5, -8.8 ) |
| 686-708 | GUCGCGCAAUUUGGGUAAG | F | -4.4 | ( -11.6, -7.2 ) |
| 125-147 | CCUCCCGGGAGAGCCAUAG | F | -4.4 | ( -11.6, -7.2 ) |
| 335-357 | GUGCACCAUGAGCACGAAU | F | -4.3 | ( -11.1, -6.8 ) |
| 209-231 | CGCUCAAUGCCUGGAGAUU | F | -4.2 | ( -10.8, -6.6 ) |
| 181-203 | GACGACCGGGUCCUUUCUU | F | -4.1 | ( -10.5, -6.4 ) |
| 314-336 | CCCCGGGAGGUCUCGUAGA | F | -4.1 | ( -12.7, -8.6 ) |
| 42-64 | CCCCUGUGAGGAACUACUG | F | -4.1 | ( -12.5, -8.4 ) |
| 75-97 | GCGUCUAGCCAUGGCGUUA | B,F | -4.1 | ( -11.6, -7.5 ) |
| 156-178 | CCGGUGAGUACACCGGAAU | B,C,F | -4 | ( -11.7, -7.7 ) |
| 821-843 | CGGCGUGAACUAUGCAACA | B,F | -4 | ( -12.0, -8.0 ) |
| 354-376 | CCUAAACCUCAAAGAAAAA | F | -3.9 | ( -8.2, -4.3 ) |
| 353-375 | UCCUAAACCUCAAAGAAAA | B,F | -3.9 | ( -9.6, -5.7 ) |
| 794-816 | GGCGCAUGGCGUCCGGGUU | F | -3.9 | ( -13.7, -9.8 ) |
| 312-334 | UGCCCCGGGAGGUCUCGUA | F | -3.8 | ( -12.7, -8.9 ) |
| 208-230 | CCGCUCAAUGCCUGGAGAU | F | -3.7 | ( -11.7, -8.0 ) |
| 688-710 | CGCGCAAUUUGGGUAAGGU | C,F | -3.6 | ( -12.2, -8.6 ) |
| 150-172 | GCGGAACCGGUGAGUACAC | F | -3.5 | ( -12.6, -9.1 ) |
| 81-103 | AGCCAUGGCGUUAGUAUGA | F | -3.5 | ( -11.0, -7.5 ) |
| 315-337 | CCCGGGAGGUCUCGUAGAC | F | -3.5 | ( -12.7, -9.2 ) |
| 267-289 | GGUCGCGAAAGGCCUUGUG | F | -3.4 | ( -11.4, -8.0 ) |
| 337-359 | GCACCAUGAGCACGAAUCC | F | -3.4 | ( -12.2, -8.8 ) |
| 127-149 | UCCCGGGAGAGCCAUAGUG | F | -3.4 | ( -11.8, -8.4 ) |
| 80-102 | UAGCCAUGGCGUUAGUAUG | F | -3.3 | ( -10.7, -7.4 ) |
| 676-698 | CCCGGCGUAGGUCGCGCAA | F | -3.3 | ( -12.7, -9.4 ) |
| 149-171 | UGCGGAACCGGUGAGUACA | F | -3.3 | ( -11.8, -8.5 ) |
| 697-719 | UGGGUAAGGUCAUCGAUAC | F | -3.3 | ( -11.5, -8.2 ) |
| 124-146 | CCCUCCCGGGAGAGCCAUA | F | -3.2 | ( -11.6, -8.4 ) |
| 311-333 | GUGCCCCGGGAGGUCUCGU | B,F | -3.1 | ( -12.2, -9.1 ) |
| 178-200 | CAGGACGACCGGGUCCUUU | F | -3.1 | ( -10.4, -7.3 ) |
| 685-707 | GGUCGCGCAAUUUGGGUAA | B,C,F | -3 | ( -11.4, -8.4 ) |
| 787-809 | GGGCCCUGGCGCAUGGCGU | B,F | -3 | ( -14.4, -11.4 ) |
| 360-382 | CCUCAAAGAAAAACCAAAC | B,F | -3 | ( -10.4, -7.4 ) |
| 82-104 | GCCAUGGCGUUAGUAUGAG | B,F | -2.9 | ( -11.1, -8.2 ) |
| 687-709 | UCGCGCAAUUUGGGUAAGG | F | -2.9 | ( -11.1, -8.2 ) |

| Position | 5'-3' target or sense strand | Type | Net therm | Therm of each end |
|---|---|---|---|---|
| 8388-8410 | GGGGGCCCUCUUACCAAUU | F | -9 | ( -14.2, -5.2 ) |
| 679-701 | GGCGUAGGUCGCGCAAUUU | F | -8.5 | ( -12.5, -4.0 ) |
| 7878-7900 | CCCCCACAUUCAGCCAAAU | C,F | -8.4 | ( -13.6, -5.2 ) |
| 9405-9427 | AGGCCAUUUCCUGUUUUUU | F | -8.3 | ( -12.1, -3.8 ) |
| 5407-5429 | CCGGGAAGCCGGCAAUUAU | F | -8.1 | ( -12.7, -4.6 ) |
| 6397-6419 | GGCGAGGAGACGGCAUUAU | C,F | -8 | ( -12.6, -4.6 ) |
| 3453-3475 | GGCCUCCUAGGGUGUAUAA | B,F | -7.9 | ( -13.2, -5.3 ) |
| 8389-8411 | GGGGCCCUCUUACCAAUUC | F | -7.9 | ( -14.4, -6.5 ) |
| 6688-6710 | UCCCAUCGCCCGAAUUUUU | B,F | -7.8 | ( -11.6, -3.8 ) |
| 6803-6825 | CCCGGUGGGGUCGCAAUUA | B,F | -7.8 | ( -12.7, -4.9 ) |
| 9056-9078 | GGCCGCAUGCCUCAGAAAA | F | -7.8 | ( -13.5, -5.7 ) |
| 3715-3737 | GCGGCUCCUCGGACCUUUA | F | -7.8 | ( -13.7, -5.9 ) |
| 9395-9417 | CCGGCCUCUUAGGCCAUUU | C,F | -7.7 | ( -12.9, -5.2 ) |
| 3454-3476 | GCCUCCUAGGGUGUAUAAU | F | -7.7 | ( -12.3, -4.6 ) |
| 9306-9328 | CCCCGCUGGUUCUGGUUUU | C,F | -7.6 | ( -12.7, -5.1 ) |
| 8017-8039 | UGGCCAAGAACGAGGUUUU | B,F | -7.6 | ( -12.7, -5.1 ) |
| 1969-1991 | GGCCACCGCUGGGCAAUUG | B,F | -7.5 | ( -13.2, -5.7 ) |
| 3808-3830 | GGCCCAUUUCCUACUUGAA | F | -7.5 | ( -14.4, -6.9 ) |
| 8391-8413 | GGCCCUCUUACCAAUUCAA | C,F | -7.5 | ( -14.4, -6.9 ) |
| 9057-9079 | GCCGCAUGCCUCAGAAAAC | F | -7.5 | ( -13.7, -6.2 ) |
| 9307-9329 | CCCGCUGGUUCUGGUUUUG | F | -7.4 | ( -12.9, -5.5 ) |
| 4449-4471 | ACCGGAGAGAUCCCUUUUU | F | -7.4 | ( -11.2, -3.8 ) |
| 1408-1430 | UGGCGGGCAUAGCGUAUUU | F | -7.4 | ( -11.8, -4.4 ) |
| 188-210 | GGGUCCUUUCUUGGAUAAA | F | -7.4 | ( -12.3, -4.9 ) |
| 5030-5052 | GGGCCUCACUCAUAUAGAU | C,F | -7.4 | ( -14.4, -7.0 ) |
| 589-611 | GGCCCCUCUAUGGCAAUGA | C,F | -7.3 | ( -14.4, -7.1 ) |
| 4994-5016 | CCAGGACCAUCUUGAAUUU | C,F | -7.3 | ( -11.3, -4.0 ) |
| 4263-4285 | GGUGCUUAUGACAUAAUAA | B,F | -7.3 | ( -12.2, -4.9 ) |
| 8390-8412 | GGGCCCUCUUACCAAUUCA | C,F | -7.3 | ( -14.4, -7.1 ) |
| 5560-5582 | CCCGCCAAGCAGAGGUUAU | F | -7.2 | ( -12.9, -5.7 ) |
| 6511-6533 | GUGGGACGUUCCCCAUUAA | B,C,F | -7.2 | ( -12.1, -4.9 ) |
| 7312-7334 | UGCCUCCGCCUCGGAAAAA | F | -7.2 | ( -11.5, -4.3 ) |
| 1717-1739 | GCCGACGCCUUACCGAUUU | C,F | -7.2 | ( -12.6, -5.4 ) |
| 7374-7396 | GCCGAGCUUGCCACCAAAA | F | -7.1 | ( -12.6, -5.5 ) |
| 1410-1432 | GCGGGCAUAGCGUAUUUCU | F | -7.1 | ( -13.5, -6.4 ) |
| 2947-2969 | GGCGCGAUGCCGUCAUCUU | F | -7.1 | ( -13.7, -6.6 ) |
| 4450-4472 | CCGGAGAGAUCCCUUUUUA | B,C,F | -7.1 | ( -11.8, -4.7 ) |
| 1409-1431 | GGCGGGCAUAGCGUAUUUC | F | -7 | ( -13.5, -6.5 ) |
| 5758-5780 | CCCUCCUCUUCAACAUAUU | B,C,F | -7 | ( -11.6, -4.6 ) |
| 7642-7664 | GCGCUGCGGAAGAACAAAA | C,F | -7 | ( -12.5, -5.5 ) |
| 2870-2892 | GUGGUGGCUUCAGUAUUUU | C,F | -7 | ( -11.0, -4.0 ) |
| 9305-9327 | GCCCCGCUGGUUCUGGUUU | F | -6.9 | ( -14.4, -7.5 ) |
| 394-416 | GCCCACAGGACGUCAAGUU | C,F | -6.9 | ( -13.2, -6.3 ) |
| 5406-5428 | UCCGGGAAGCCGGCAAUUA | F | -6.9 | ( -11.8, -4.9 ) |
| 9404-9426 | UAGGCCAUUUCCUGUUUUU | F | -6.9 | ( -10.7, -3.8 ) |
| 8018-8040 | GGCCAAGAACGAGGUUUUC | F | -6.9 | ( -13.2, -6.3 ) |
| 1968-1990 | AGGCCACCGCUGGGCAAUU | F | -6.9 | ( -12.1, -5.2 ) |
| 678-700 | CGGCGUAGGUCGCGCAAUU | C,F | -6.8 | ( -12.0, -5.2 ) |
| 7313-7335 | GCCUCCGCCUCGGAAAAAG | F | -6.8 | ( -12.3, -5.5 ) |

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| | | | | |
|---|---|---|---|---|
| 1718-1740 | CCGACGCCUUACCGAUUUU | C,F | -6.8 | ( -10.8, -4.0 ) |
| 5200-5222 | GGCCAACACCCCUGCUAUA | F | -6.8 | ( -13.2, -6.4 ) |
| 8657-8679 | CCCCCCACAACCAGAAUAC | B,F | -6.8 | ( -13.6, -6.8 ) |
| 4993-5015 | GCCAGGACCAUCUUGAAUU | C,F | -6.7 | ( -12.1, -5.4 ) |
| 961-983 | GCCCUAACUCGAGUAUUGU | F | -6.7 | ( -13.2, -6.5 ) |
| 4819-4841 | GGGGGAAGCCAGGCAUCUA | B,F | -6.7 | ( -14.2, -7.5 ) |
| 4826-4848 | GCCAGGCAUCUACAGAUUU | B,F | -6.7 | ( -12.1, -5.4 ) |
| 4501-4523 | GGGGAAGACAUCUCAUCUU | C,F | -6.7 | ( -13.3, -6.6 ) |
| 8821-8843 | CCUGGCUAGGCAACAUAAU | F | -6.7 | ( -11.3, -4.6 ) |
| 7145-7167 | CUCCGUACCCGCAGAAAUU | F | -6.6 | ( -10.6, -4.0 ) |
| 7877-7899 | GCCCCCACAUUCAGCCAAA | C,F | -6.6 | ( -14.4, -7.8 ) |
| 960-982 | UGCCCUAACUCGAGUAUUG | F | -6.6 | ( -12.7, -6.1 ) |
| 4261-4283 | GAGGUGCUUAUGACAUAAU | C,F | -6.5 | ( -11.1, -4.6 ) |
| 4500-4522 | GGGGGAAGACAUCUCAUCU | F | -6.5 | ( -14.2, -7.7 ) |
| 7573-7595 | GGGCCGACACGGAAGAUGU | F | -6.5 | ( -14.4, -7.9 ) |
| 7311-7333 | GUGCCUCCGCCUCGGAAAA | F | -6.5 | ( -12.2, -5.7 ) |
| 5408-5430 | CGGGAAGCCGGCAAUUAUA | F | -6.5 | ( -11.8, -5.3 ) |
| 5343-5365 | GCUGCUCUGGCCGCGUAUU | F | -6.5 | ( -12.2, -5.7 ) |
| 5225-5247 | GGGCGCUGUUCAGAAUGAA | C,F | -6.4 | ( -13.5, -7.1 ) |
| 9396-9418 | CGGCCUCUUAGGCCAUUUC | F | -6.4 | ( -12.9, -6.5 ) |
| 1746-1768 | UGGGGUCCUAUCAGUUAUG | F | -6.4 | ( -12.5, -6.1 ) |
| 4995-5017 | CAGGACCAUCUUGAAUUUU | F | -6.4 | ( -10.4, -4.0 ) |
| 4264-4286 | GUGCUUAUGACAUAAUAAU | C,F | -6.4 | ( -11.0, -4.6 ) |
| 5199-5221 | GGGCCAACACCCCUGCUAU | F | -6.4 | ( -14.4, -8.0 ) |
| 9144-9166 | GGAGGCAGGGCUGCCAUAU | B,F | -6.4 | ( -12.1, -5.7 ) |
| 2284-2306 | GGGGCGAACGCUGUGAUCU | F | -6.4 | ( -14.4, -8.0 ) |
| 3378-3400 | GGGCCAGCCGACGGAAUGG | F | -6.4 | ( -14.4, -8.0 ) |
| 5695-5717 | CCGCCAUUGCUUCAUUGAU | F | -6.3 | ( -12.9, -6.6 ) |
| 6299-6321 | GGUGCUGAGCGACUUUAAG | B,F | -6.3 | ( -12.2, -5.9 ) |
| 4179-4201 | ACCGGGGUGAGAACAAUUA | F | -6.3 | ( -11.2, -4.9 ) |
| 7643-7665 | CGCUGCGGAAGAACAAAAA | C,F | -6.3 | ( -10.6, -4.3 ) |
| 6686-6708 | GAUCCCAUCGCCCGAAUUU | B,F | -6.3 | ( -10.3, -4.0 ) |
| 3809-3831 | GCCCAUUUCCUACUUGAAA | F | -6.3 | ( -13.2, -6.9 ) |
| 1851-1873 | GGCCCGGUAUAUUGCUUCA | C,F | -6.3 | ( -14.4, -8.1 ) |
| 4358-4380 | GGGGGCGAGACUGGUUGUG | F | -6.2 | ( -14.2, -8.0 ) |
| 6630-6652 | GGGGACUUCCACUACGUAU | F | -6.2 | ( -13.3, -7.1 ) |
| 4178-4200 | GACCGGGGUGAGAACAAUU | F | -6.2 | ( -11.4, -5.2 ) |
| 2467-2489 | UCGCGUCCUGGGCCAUUAA | B,F | -6.2 | ( -11.1, -4.9 ) |
| 7572-7594 | GGGGCCGACACGGAAGAUG | F | -6.2 | ( -14.4, -8.2 ) |
| 3175-3197 | CUGGCACCUAUGUGUAUAA | B,C,F | -6.2 | ( -11.5, -5.3 ) |
| 9266-9288 | CAGCGGGGGAGACAUUUAU | B,C,F | -6.2 | ( -10.6, -4.4 ) |
| 8167-8189 | GCUCCUACGGAUUCCAAUA | B,F | -6.2 | ( -12.3, -6.1 ) |
| 590-612 | GCCCCUCUAUGGCAAUGAG | F | -6.2 | ( -14.4, -8.2 ) |
| 5405-5427 | GUCCGGGAAGCCGGCAAUU | F | -6.2 | ( -11.4, -5.2 ) |
| 3106-3128 | GCGCGCUAGCGCGGAAGAU | F | -6.2 | ( -12.8, -6.6 ) |
| 912-934 | GCCUACCAAGUGCGCAAUU | B,F | -6.1 | ( -11.3, -5.2 ) |
| 1616-1638 | GGCCUUGAACUGCAAUGAA | F | -6.1 | ( -13.2, -7.1 ) |
| 6073-6095 | GGGCAGUGCAAUGGAUGAA | C,F | -6.1 | ( -13.2, -7.1 ) |
| 7425-7447 | GGCGACAAUACGACAACAU | C,F | -6.1 | ( -12.6, -6.5 ) |
| 4908-4930 | GCGGGCUGUGCUUGGUAUG | F | -6.1 | ( -13.5, -7.4 ) |

| | | | | |
|---|---|---|---|---|
| 6166-6188 | CCCGCGUCACUGCCAUACU | F | -6.1 | ( -12.9, -6.8 ) |
| 9145-9167 | GAGGCAGGGCUGCCAUAUG | F | -6.1 | ( -12.3, -6.2 ) |
| 6687-6709 | AUCCCAUCGCCCGAAUUUU | F | -6.1 | ( -10.1, -4.0 ) |
| 5561-5583 | CCGCCAAGCAGAGGUUAUC | F | -6 | ( -12.9, -6.9 ) |
| 2133-2155 | GGCUCCGGUCCCUGGAUUA | F | -6 | ( -12.3, -6.3 ) |
| 3487-3509 | GCCGGGACAAAAACCAAGU | C,F | -6 | ( -13.5, -7.5 ) |
| 9268-9290 | GCGGGGGAGACAUUUAUCA | B,C,F | -6 | ( -13.5, -7.5 ) |
| 7644-7666 | GCUGCGGAAGAACAAAAAC | F | -6 | ( -12.2, -6.2 ) |
| 8658-8680 | CCCCCACAACCAGAAUACG | F | -6 | ( -13.6, -7.6 ) |
| 1593-1615 | GGCAGUUGGCACAUCAAUA | F | -6 | ( -12.1, -6.1 ) |
| 5912-5934 | GGGCGUGGCGGGAGCUCUU | F | -6 | ( -13.5, -7.5 ) |
| 7745-7767 | GCAGAAGAAAGUCACAUUU | C,F | -6 | ( -11.2, -5.2 ) |
| 1789-1811 | GCCCCUACUGCUGGCACUA | F | -6 | ( -14.4, -8.4 ) |
| 8346-8368 | GCCCGCGUGGCCAUCAAGU | B,F | -6 | ( -13.5, -7.5 ) |
| 4934-4956 | GCCCGCCGAGACUACAGUU | F | -6 | ( -13.5, -7.5 ) |
| 3805-3827 | CCCGGCCCAUUUCCUACUU | C,F | -6 | ( -12.7, -6.7 ) |
| 7879-7901 | CCCCACAUUCAGCCAAAUC | F | -6 | ( -12.5, -6.5 ) |
| 6802-6824 | ACCCGGUGGGGUCGCAAUU | F | -6 | ( -11.2, -5.2 ) |
| 724-746 | GCGGCUUCGCCGACCUCAU | F | -6 | ( -13.7, -7.7 ) |
| 8366-8388 | CCUCACUGAGAGGCUUUAU | F | -6 | ( -10.4, -4.4 ) |
| 4260-4282 | GGAGGUGCUUAUGACAUAA | B,C,F | -6 | ( -12.1, -6.1 ) |
| 1183-1205 | GCGGGUCUGUCUUUCUUGU | C,F | -6 | ( -13.5, -7.5 ) |
| 4180-4202 | CCGGGGUGAGAACAAUUAC | B,F | -5.9 | ( -12.7, -6.8 ) |
| 588-610 | UGGCCCCUCUAUGGCAAUG | F | -5.9 | ( -12.7, -6.8 ) |
| 5812-5834 | GUGCCGCUACCGCCUUUGU | F | -5.9 | ( -12.2, -6.3 ) |
| 5879-5901 | GGUCCUCGUGGACAUUCUU | B,F | -5.9 | ( -12.3, -6.4 ) |
| 2869-2891 | UGUGGUGGCUUCAGUAUUU | B,F | -5.9 | ( -10.3, -4.4 ) |
| 9626-9648 | UGGCCUCUCUGCAGAUCAU | F | -5.9 | ( -12.7, -6.8 ) |
| 7596-7618 | UGCUGCUCAAUGUCUUAUU | F | -5.9 | ( -10.3, -4.4 ) |
| 8551-8573 | GCGACGACUUAGUCGUUAU | C,F | -5.9 | ( -11.6, -5.7 ) |
| 7571-7593 | UGGGGCCGACACGGAAGAU | F | -5.9 | ( -12.5, -6.6 ) |
| 6072-6094 | GGGGCAGUGCAAUGGAUGA | F | -5.9 | ( -14.4, -8.5 ) |
| 3130-3152 | GAGGUCAUUACGUGCAAAU | C,F | -5.9 | ( -11.1, -5.2 ) |
| 5693-5715 | CCCCGCCAUUGCUUCAUUG | B,F | -5.9 | ( -12.7, -6.8 ) |
| 8120-8142 | GGCCCUGUACGACGUGGUU | F | -5.8 | ( -14.4, -8.6 ) |
| 3167-3189 | GGCGCUUACUGGCACCUAU | C,F | -5.8 | ( -13.7, -7.9 ) |
| 1615-1637 | CGGCCUUGAACUGCAAUGA | B,C,F | -5.8 | ( -12.9, -7.1 ) |
| 4861-4883 | GCCCCUCCGGCAUGUUCGA | F | -5.8 | ( -14.4, -8.6 ) |
| 8656-8678 | ACCCCCCACAACCAGAAUA | F | -5.8 | ( -12.1, -6.3 ) |
| 2946-2968 | GGGCGCGAUGCCGUCAUCU | F | -5.8 | ( -13.5, -7.7 ) |
| 8860-8882 | GGGCGAGGAUGAUACUGAU | C,F | -5.8 | ( -13.5, -7.7 ) |
| 1407-1429 | CUGGCGGGCAUAGCGUAUU | C,F | -5.8 | ( -11.5, -5.7 ) |
| 5254-5276 | CGCACCCAAUCACCAAAUA | B,C,F | -5.8 | ( -10.7, -4.9 ) |
| 8310-8332 | GAGGCAAUUUACCAAUGUU | C,F | -5.8 | ( -12.3, -6.5 ) |
| 9002-9024 | UGGCCUCAGCGCAUUUUCA | B,F | -5.8 | ( -12.7, -6.9 ) |
| 2618-2640 | GGCCGGGACGCACGGUCUU | F | -5.8 | ( -13.5, -7.7 ) |
| 5694-5716 | CCCGCCAUUGCUUCAUUGA | F | -5.8 | ( -12.9, -7.1 ) |
| 4126-4148 | UGGGCUUUGGUGCUUACAU | F | -5.8 | ( -12.7, -6.9 ) |
| 2476-2498 | GGGCCAUUAAGUGGGAGUA | C,F | -5.8 | ( -14.4, -8.6 ) |
| 6592-6614 | GGGUGUCUGCAGAGGAAUA | B,F | -5.8 | ( -12.1, -6.3 ) |

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| | | | | |
|---|---|---|---|---|
| 3359-3381 | GGGCCAGGAGAUACUGCUU | F | -5.8 | ( -14.4, -8.6 ) |
| 4177-4199 | GGACCGGGGUGAGAACAAU | B,C,F | -5.8 | ( -12.3, -6.5 ) |
| 9304-9326 | GGCCCCGCUGGUUCUGGUU | F | -5.8 | ( -14.4, -8.6 ) |
| 2982-3004 | CACCCGACUCUGGUAUUUG | B,F | -5.8 | ( -11.5, -5.7 ) |
| 210-232 | GCUCAAUGCCUGGAGAUUU | F | -5.8 | ( -11.2, -5.4 ) |
| 9055-9077 | UGGCCGCAUGCCUCAGAAA | F | -5.8 | ( -12.7, -6.9 ) |
| 6764-6786 | GCGGGAGGAGGUAUCAUUC | F | -5.8 | ( -13.5, -7.7 ) |
| 313-335 | GCCCCGGGAGGUCUCGUAG | F | -5.8 | ( -14.4, -8.6 ) |
| 4158-4180 | GGGGUUGAUCCUAAUAUCA | F | -5.7 | ( -13.2, -7.5 ) |
| 7469-7491 | CCCCCCCGACUCCGACGUU | F | -5.7 | ( -13.6, -7.9 ) |
| 189-211 | GGUCCUUUCUUGGAUAAAC | F | -5.7 | ( -12.3, -6.6 ) |
| 4936-4958 | CCGCCGAGACUACAGUUAG | F | -5.7 | ( -12.9, -7.2 ) |
| 8365-8387 | CCCUCACUGAGAGGCUUUA | C,F | -5.7 | ( -11.6, -5.9 ) |
| 8655-8677 | GACCCCCCACAACCAGAAU | F | -5.7 | ( -12.3, -6.6 ) |
| 6396-6418 | UGGCGAGGAGACGGCAUUA | F | -5.7 | ( -11.8, -6.1 ) |
| 3743-3765 | GAGGCACGCCGAUGUCAUU | F | -5.7 | ( -12.3, -6.6 ) |
| 8437-8459 | GCCGCGCGAGCGGCGUACU | F | -5.7 | ( -13.7, -8.0 ) |
| 7373-7395 | GGCCGAGCUUGCCACCAAA | C,F | -5.7 | ( -13.5, -7.8 ) |
| 1457-1479 | GGUAGUGCUGCUGCUAUUU | F | -5.7 | ( -10.1, -4.4 ) |
| 4935-4957 | CCCGCCGAGACUACAGUUA | C,F | -5.7 | ( -12.9, -7.2 ) |
| 2872-2894 | GGUGGCUUCAGUAUUUUCU | C,F | -5.7 | ( -12.1, -6.4 ) |
| 4827-4849 | CCAGGCAUCUACAGAUUUG | F | -5.6 | ( -11.3, -5.7 ) |
| 5224-5246 | UGGGCGCUGUUCAGAAUGA | F | -5.6 | ( -12.7, -7.1 ) |
| 4448-4470 | CACCGGAGAGAUCCCUUUU | F | -5.6 | ( -10.6, -5.0 ) |
| 8309-8331 | GGAGGCAAUUUACCAAUGU | B,C,F | -5.6 | ( -12.1, -6.5 ) |
| 7744-7766 | GGCAGAAGAAAGUCACAUU | B,C,F | -5.6 | ( -12.1, -6.5 ) |
| 3377-3399 | UGGGCCAGCCGACGGAAUG | F | -5.6 | ( -12.7, -7.1 ) |
| 454-476 | CGCGCAGGGGCCCUAGAUU | F | -5.6 | ( -12.2, -6.6 ) |
| 3592-3614 | GGGCCGGAACGAGGACCAU | F | -5.6 | ( -14.4, -8.8 ) |
| 5226-5248 | GGCGCUGUUCAGAAUGAAG | F | -5.6 | ( -13.7, -8.1 ) |
| 4480-4502 | UCCCCCUCGAGGUGAUCAA | B,F | -5.6 | ( -12.7, -7.1 ) |
| 1745-1767 | CUGGGGUCCUAUCAGUUAU | C,F | -5.6 | ( -11.3, -5.7 ) |
| 1979-2001 | GGGCAAUUGGUUCGGUUGU | F | -5.6 | ( -13.2, -7.6 ) |
| 2282-2304 | GCGGGGCGAACGCUGUGAU | C,F | -5.6 | ( -13.5, -7.9 ) |
| 7595-7617 | GUGCUGCUCAAUGUCUUAU | C,F | -5.5 | ( -11.0, -5.5 ) |
| 4481-4503 | CCCCCUCGAGGUGAUCAAG | F | -5.5 | ( -13.6, -8.1 ) |
| 2948-2970 | GCGCGAUGCCGUCAUCUUA | F | -5.5 | ( -12.8, -7.3 ) |
| 2536-2558 | GCUCCUGCUUGUGGAUGAU | C,F | -5.5 | ( -12.3, -6.8 ) |
| 9058-9080 | CCGCAUGCCUCAGAAAACU | C,F | -5.5 | ( -11.8, -6.3 ) |
| 18-40 | GGCGACACUCCACCAUGAA | F | -5.5 | ( -12.6, -7.1 ) |
| 6111-6133 | UCCCGGGGGAACCAUGUUU | F | -5.5 | ( -11.8, -6.3 ) |
| 6165-6187 | GCCCGCGUCACUGCCAUAC | F | -5.5 | ( -13.5, -8.0 ) |
| 5692-5714 | ACCCCGCCAUUGCUUCAUU | B,F | -5.5 | ( -12.1, -6.6 ) |
| 4586-4608 | GGCCUACUACCGCGGUCUU | F | -5.5 | ( -13.2, -7.7 ) |
| 5850-5872 | GCCGCCAUCGGCAGCGUUG | F | -5.5 | ( -13.7, -8.2 ) |
| 2981-3003 | ACACCCGACUCUGGUAUUU | F | -5.5 | ( -9.9, -4.4 ) |
| 7424-7446 | GGGCGACAAUACGACAACA | C,F | -5.5 | ( -13.5, -8.0 ) |
| 7911-7933 | GGGGCAAAAGACGUCCGUU | F | -5.5 | ( -14.4, -8.9 ) |
| 2134-2156 | GCUCCGGUCCCUGGAUUAC | F | -5.5 | ( -12.3, -6.8 ) |
| 4116-4138 | GCUGCAACGCUGGGCUUUG | F | -5.5 | ( -12.2, -6.7 ) |

**FIG. 11 (page 426 of 479)**

| | | | | |
|---|---|---|---|---|
| 158-180 | GGUGAGUACACCGGAAUUG | F | -5.5 | ( -11.2, -5.7 ) |
| 4253-4275 | GUGCUCAGGAGGUGCUUAU | C,F | -5.5 | ( -11.0, -5.5 ) |
| 5811-5833 | GGUGCCGCUACCGCCUUUG | F | -5.5 | ( -12.2, -6.7 ) |
| 1444-1466 | GGGCGAAGGUCCUGGUAGU | C,F | -5.5 | ( -13.5, -8.0 ) |
| 5759-5781 | CCUCCUCUUCAACAUAUUG | F | -5.5 | ( -11.6, -6.1 ) |
| 4151-4173 | GGCCCAUGGGGUUGAUCCU | B,F | -5.5 | ( -14.4, -8.9 ) |
| 2825-2847 | GCUGACUCUGUCGCCAUAU | F | -5.5 | ( -11.2, -5.7 ) |
| 3452-3474 | AGGCCUCCUAGGGUGUAUA | F | -5.5 | ( -12.1, -6.6 ) |
| 5352-5374 | GCCGCGUAUUGCCUGUCAA | C,F | -5.5 | ( -13.7, -8.2 ) |
| 4740-4762 | GACCCUACCUUUACCAUUG | F | -5.5 | ( -12.3, -6.8 ) |
| 7479-7501 | UCCGACGUUGAGUCCUAUU | F | -5.4 | ( -10.9, -5.5 ) |
| 3451-3473 | GAGGCCUCCUAGGGUGUAU | B,C,F | -5.4 | ( -12.3, -6.9 ) |
| 4909-4931 | CGGGCUGUGCUUGGUAUGA | F | -5.4 | ( -12.9, -7.5 ) |
| 7471-7493 | CCCCCGACUCCGACGUUGA | F | -5.4 | ( -13.6, -8.2 ) |
| 187-209 | CGGGUCCUUUCUUGGAUAA | C,F | -5.4 | ( -11.7, -6.3 ) |
| 15-37 | GGGGGCGACACUCCACCAU | C,F | -5.4 | ( -14.2, -8.8 ) |
| 5029-5051 | CGGGCCUCACUCAUAUAGA | B,F | -5.4 | ( -12.9, -7.5 ) |
| 393-415 | CGCCCACAGGACGUCAAGU | F | -5.4 | ( -12.9, -7.5 ) |
| 1184-1206 | CGGGUCUGUCUUUCUUGUU | F | -5.4 | ( -11.7, -6.3 ) |
| 7470-7492 | CCCCCCGACUCCGACGUUG | F | -5.4 | ( -13.6, -8.2 ) |
| 8446-8468 | GCGGCGUACUGACAACUAG | B,F | -5.4 | ( -13.7, -8.3 ) |
| 4157-4179 | UGGGGUUGAUCCUAAUAUC | B,F | -5.4 | ( -12.5, -7.1 ) |
| 5255-5277 | GCACCCAAUCACCAAAUAC | F | -5.4 | ( -12.2, -6.8 ) |
| 6695-6717 | GCCCGAAUUUUUCACAGAA | C,F | -5.4 | ( -13.5, -8.1 ) |
| 6743-6765 | GCCCCCUUGCAAGCCCUUG | F | -5.4 | ( -14.4, -9.0 ) |
| 1476-1498 | GCCGGCGUCGACGCGGAAA | F | -5.4 | ( -13.5, -8.1 ) |
| 3312-3334 | GCCGCGUGCGGUGACAUCA | F | -5.4 | ( -13.7, -8.3 ) |
| 6629-6651 | GGGGGACUUCCACUACGUA | F | -5.4 | ( -14.2, -8.8 ) |
| 2619-2641 | GCCGGGACGCACGGUCUUG | F | -5.4 | ( -13.5, -8.1 ) |
| 455-477 | GCGCAGGGGCCCUAGAUUG | F | -5.4 | ( -12.5, -7.1 ) |
| 6398-6420 | GCGAGGAGACGGCAUUAUG | F | -5.3 | ( -11.4, -6.1 ) |
| 4991-5013 | GUGCCAGGACCAUCUUGAA | F | -5.3 | ( -12.2, -6.9 ) |
| 4619-4641 | CCCGACCAGCGGCGAUGUU | F | -5.3 | ( -11.8, -6.5 ) |
| 2285-2307 | GGGCGAACGCUGUGAUCUG | F | -5.3 | ( -13.5, -8.2 ) |
| 9163-9185 | GUGGCAAGUACCUCUUCAA | C,F | -5.3 | ( -12.2, -6.9 ) |
| 7597-7619 | GCUGCUCAAUGUCUUAUUC | F | -5.3 | ( -12.2, -6.9 ) |
| 8101-8123 | UGCGCGUGUGCGAGAAGAU | F | -5.3 | ( -11.9, -6.6 ) |
| 1477-1499 | CCGGCGUCGACGCGGAAAC | F | -5.3 | ( -12.9, -7.6 ) |
| 1845-1867 | GUGUGUGGCCCGGUAUAUU | F | -5.3 | ( -9.9, -4.6 ) |
| 452-474 | GCCGCGCAGGGGCCCUAGA | F | -5.3 | ( -13.7, -8.4 ) |
| 2945-2967 | GGGGCGCGAUGCCGUCAUC | F | -5.3 | ( -14.4, -9.1 ) |
| 6256-6278 | GCUCCGGUUCCUGGCUAAG | F | -5.3 | ( -12.3, -7.0 ) |
| 7415-7437 | CGGCAUUACGGGCGACAAU | F | -5.3 | ( -11.8, -6.5 ) |
| 5727-5749 | GCCGUCACCAGCCCACUAA | C,F | -5.3 | ( -12.5, -7.2 ) |
| 3168-3190 | GCGCUUACUGGCACCUAUG | F | -5.3 | ( -12.5, -7.2 ) |
| 5703-5725 | GCUUCAUUGAUGGCUUUUA | C,F | -5.3 | ( -10.0, -4.7 ) |
| 5922-5944 | GGAGCUCUUGUAGCAUUCA | F | -5.2 | ( -12.3, -7.1 ) |
| 3032-3054 | ACCCCUUUGGAUUCUUCAA | F | -5.2 | ( -12.1, -6.9 ) |
| 4828-4850 | CAGGCAUCUACAGAUUUGU | C,F | -5.2 | ( -11.5, -6.3 ) |
| 157-179 | CGGUGAGUACACCGGAAUU | F | -5.2 | ( -10.6, -5.4 ) |

**FIG. 11 (page 427 of 479)**

| | | | | |
|---|---|---|---|---|
| 2620-2642 | CCGGGACGCACGGUCUUGU | C,F | -5.2 | ( -12.7, -7.5 ) |
| 6349-6371 | UGCCUGGGAUUCCCUUUGU | F | -5.2 | ( -11.5, -6.3 ) |
| 6696-6718 | CCCGAAUUUUUCACAGAAU | C,F | -5.2 | ( -11.8, -6.6 ) |
| 9000-9022 | CAUGGCCUCAGCGCAUUUU | C,F | -5.2 | ( -9.2, -4.0 ) |
| 6297-6319 | GAGGUGCUGAGCGACUUUA | C,F | -5.2 | ( -11.1, -5.9 ) |
| 16-38 | GGGGCGACACUCCACCAUG | F | -5.2 | ( -14.4, -9.2 ) |
| 4156-4178 | AUGGGGUUGAUCCUAAUAU | F | -5.2 | ( -9.8, -4.6 ) |
| 7165-7187 | UGCGGAAGUCUCGGAGAUU | F | -5.2 | ( -11.8, -6.6 ) |
| 3313-3335 | CCGCGUGCGGUGACAUCAU | F | -5.2 | ( -12.0, -6.8 ) |
| 6564-6586 | GCGCCGAACUAUAAGUUCG | F | -5.2 | ( -13.7, -8.5 ) |
| 6763-6785 | UGCGGGAGGAGGUAUCAUU | F | -5.2 | ( -11.8, -6.6 ) |
| 2037-2059 | GCGCCCCCUUGUGUCAUCG | B,F | -5.2 | ( -13.7, -8.5 ) |
| 17-39 | GGGCGACACUCCACCAUGA | C,F | -5.2 | ( -13.5, -8.3 ) |
| 7375-7397 | CCGAGCUUGCCACCAAAAG | F | -5.2 | ( -10.7, -5.5 ) |
| 5757-5779 | ACCCUCCUCUUCAACAUAU | B,F | -5.2 | ( -10.9, -5.7 ) |
| 677-699 | CCGGCGUAGGUCGCGCAAU | F | -5.2 | ( -12.9, -7.7 ) |
| 1079-1101 | GGCCACCAGGGACGGCAAA | F | -5.2 | ( -13.2, -8.0 ) |
| 4656-4678 | GCUCUCAUGACUGGCUUUA | C,F | -5.2 | ( -11.1, -5.9 ) |
| 1592-1614 | CGGCAGUUGGCACAUCAAU | B,F | -5.2 | ( -11.8, -6.6 ) |
| 7144-7166 | UCUCCGUACCCGCAGAAAU | F | -5.2 | ( -10.6, -5.4 ) |
| 1081-1103 | CCACCAGGGACGGCAAACU | C,F | -5.2 | ( -11.5, -6.3 ) |
| 6916-6938 | GAGGGUCACCCCCUUCUAU | B,F | -5.2 | ( -12.2, -7.0 ) |
| 461-483 | GGGCCCUAGAUUGGGUGUG | F | -5.1 | ( -14.4, -9.3 ) |
| 9200-9222 | GCUCAAACUCACUCCAAUA | B,F | -5.1 | ( -11.2, -6.1 ) |
| 4357-4379 | CGGGGGCGAGACUGGUUGU | F | -5.1 | ( -12.7, -7.6 ) |
| 4499-4521 | GGGGGGAAGACAUCUCAUC | A,B,F | -5.1 | ( -14.2, -9.1 ) |
| 8946-8968 | GGAGCCUGCUACUCCAUAG | F | -5.1 | ( -12.3, -7.2 ) |
| 1109-1131 | GCAGCUUCGACGUCAUAUC | F | -5.1 | ( -12.2, -7.1 ) |
| 8392-8414 | GCCCUCUUACCAAUUCAAG | F | -5.1 | ( -13.2, -8.1 ) |
| 8550-8572 | GGCGACGACUUAGUCGUUA | C,F | -5.1 | ( -12.6, -7.5 ) |
| 6445-6467 | UCACUGGACAUGUCAAAAA | B,F | -5.1 | ( -9.4, -4.3 ) |
| 3668-3690 | GGGCUGGCCCGCUCCUCAA | F | -5.1 | ( -13.2, -8.1 ) |
| 7641-7663 | UGCGCUGCGGAAGAACAAA | F | -5.1 | ( -11.9, -6.8 ) |
| 6112-6134 | CCCGGGGGAACCAUGUUUC | F | -5.1 | ( -12.7, -7.6 ) |
| 5751-5773 | GGCCAAACCCUCCUCUUCA | F | -5.1 | ( -13.2, -8.1 ) |
| 6110-6132 | CUCCCGGGGGAACCAUGUU | F | -5.1 | ( -11.6, -6.5 ) |
| 3716-3738 | CGGCUCCUCGGACCUUUAC | F | -5.1 | ( -11.7, -6.6 ) |
| 6298-6320 | AGGUGCUGAGCGACUUUAA | F | -5.1 | ( -9.8, -4.7 ) |
| 3481-3503 | UGACUGGCCGGGACAAAAA | F | -5.1 | ( -9.4, -4.3 ) |
| 2468-2490 | CGCGUCCUGGGCCAUUAAG | F | -5.1 | ( -11.0, -5.9 ) |
| 1241-1263 | GACGCAAGACUGCAAUUGU | F | -5.1 | ( -11.6, -6.5 ) |
| 6370-6392 | CCUGCCAGCGCGGGUAUAG | F | -5.1 | ( -11.5, -6.4 ) |
| 7337-7359 | GGUGGUCCUCACCGAAUCA | F | -5 | ( -12.1, -7.1 ) |
| 8191-8213 | CAGGACAGCGGGUUGAAUU | F | -5 | ( -10.4, -5.4 ) |
| 1271-1293 | CGGCCAUAUAACGGGUCAU | C,F | -5 | ( -12.9, -7.9 ) |
| 3108-3130 | GCGCUAGCGCGGAAGAUAG | F | -5 | ( -12.5, -7.5 ) |
| 1716-1738 | UGCCGACGCCUUACCGAUU | F | -5 | ( -11.8, -6.8 ) |
| 2539-2561 | CCUGCUUGUGGAUGAUGUU | F | -5 | ( -11.5, -6.5 ) |
| 1533-1555 | GGGCUUGUUGGUCUCCUUA | F | -5 | ( -13.2, -8.2 ) |
| 180-202 | GGACGACCGGGUCCUUUCU | B,F | -5 | ( -11.4, -6.4 ) |

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| | | | | |
|---|---|---|---|---|
| 7416-7438 | GGCAUUACGGGCGACAAUA | F | -5 | ( -11.1, -6.1 ) |
| 7942-7964 | AGGCCGUAGCCCACAUCAA | B,F | -5 | ( -12.1, -7.1 ) |
| 8387-8409 | UGGGGGCCCUCUUACCAAU | F | -5 | ( -12.5, -7.5 ) |
| 7912-7934 | GGGCAAAAGACGUCCGUUG | F | -5 | ( -13.2, -8.2 ) |
| 4266-4288 | GCUUAUGACAUAAUAAUUU | C,F | -5 | ( -9.0, -4.0 ) |
| 3908-3930 | GGCUAAGGCGGUGGACUUU | F | -5 | ( -11.3, -6.3 ) |
| 7944-7966 | GCCGUAGCCCACAUCAACU | F | -5 | ( -12.5, -7.5 ) |
| 5031-5053 | GGCCUCACUCAUAUAGAUG | F | -5 | ( -13.2, -8.2 ) |
| 5342-5364 | GGCUGCUCUGGCCGCGUAU | F | -5 | ( -12.1, -7.1 ) |
| 19-41 | GCGACACUCCACCAUGAAU | F | -5 | ( -11.6, -6.6 ) |
| 453-475 | CCGCGCAGGGGCCCUAGAU | F | -5 | ( -12.0, -7.0 ) |
| 6512-6534 | UGGGACGUUCCCCAUUAAC | F | -5 | ( -11.6, -6.6 ) |
| 4127-4149 | GGGCUUUGGUGCUUACAUG | F | -5 | ( -13.2, -8.2 ) |
| 4734-4756 | AGCCUUGACCCUACCUUUA | F | -5 | ( -10.9, -5.9 ) |
| 4910-4932 | GGGCUGUGCUUGGUAUGAG | F | -5 | ( -13.2, -8.2 ) |
| 3594-3616 | GCCGGAACGAGGACCAUCG | F | -5 | ( -13.5, -8.5 ) |
| 3310-3332 | CCGCCGCGUGCGGUGACAU | B,F | -5 | ( -12.9, -7.9 ) |
| 2411-2433 | CCACCUCCACCAGAACAUU | F | -5 | ( -11.5, -6.5 ) |
| 1555-1577 | CAGGCGCCAAGCAGAACAU | C,F | -5 | ( -11.5, -6.5 ) |
| 5253-5275 | ACGCACCCAAUCACCAAAU | F | -5 | ( -10.2, -5.2 ) |
| 1594-1616 | GCAGUUGGCACAUCAAUAG | F | -5 | ( -11.0, -6.0 ) |
| 9265-9287 | ACAGCGGGGGAGACAUUUA | F | -5 | ( -9.9, -4.9 ) |
| 5625-5647 | GCGAAGCACAUGUGGAAUU | C,F | -4.9 | ( -10.3, -5.4 ) |
| 680-702 | GCGUAGGUCGCGCAAUUUG | F | -4.9 | ( -10.6, -5.7 ) |
| 41-63 | UCCCCUGUGAGGAACUACU | F | -4.9 | ( -12.7, -7.8 ) |
| 3420-3442 | GCGCCCAUCACGGCGUACG | F | -4.9 | ( -13.7, -8.8 ) |
| 1744-1766 | GCUGGGGUCCUAUCAGUUA | F | -4.9 | ( -12.1, -7.2 ) |
| 5072-5094 | GCAGAGUGGGGAGAACUUU | B,F | -4.9 | ( -11.2, -6.3 ) |
| 3806-3828 | CCGGCCCAUUUCCUACUUG | F | -4.9 | ( -12.9, -8.0 ) |
| 6603-6625 | GAGGAAUACGUGGAGAUAA | B,F | -4.9 | ( -11.2, -6.3 ) |
| 2083-2105 | GCCCCACUGAUUGUUUCCG | F | -4.9 | ( -14.4, -9.5 ) |
| 6804-6826 | CCGGUGGGGUCGCAAUUAC | F | -4.9 | ( -11.7, -6.8 ) |
| 4859-4881 | GCGCCCCUCCGGCAUGUUC | B,F | -4.9 | ( -13.7, -8.8 ) |
| 4992-5014 | UGCCAGGACCAUCUUGAAU | F | -4.9 | ( -11.5, -6.6 ) |
| 6066-6088 | GGCGAGGGGGCAGUGCAAU | F | -4.9 | ( -12.6, -7.7 ) |
| 1181-1203 | GUGCGGGUCUGUCUUUCUU | C,F | -4.9 | ( -11.3, -6.4 ) |
| 235-257 | GCCCCCGCAAGACUGCUAG | F | -4.9 | ( -14.4, -9.5 ) |
| 2469-2491 | GCGUCCUGGGCCAUUAAGU | F | -4.9 | ( -11.6, -6.7 ) |
| 7187-7209 | CCGGGCCCUGCCCGUUUGG | F | -4.9 | ( -12.7, -7.8 ) |
| 4858-4880 | AGCGCCCCUCCGGCAUGUU | F | -4.9 | ( -11.4, -6.5 ) |
| 5624-5646 | GGCGAAGCACAUGUGGAAU | F | -4.9 | ( -12.6, -7.7 ) |
| 1108-1130 | CGCAGCUUCGACGUCAUAU | B,F | -4.9 | ( -10.6, -5.7 ) |
| 2203-2225 | CCAUCAAUUACACCAUAUU | B,C,F | -4.8 | ( -9.4, -4.6 ) |
| 6513-6535 | GGGACGUUCCCCAUUAACG | F | -4.8 | ( -12.3, -7.5 ) |
| 6650-6672 | GGGUAUGACUACUGACAAU | C,F | -4.8 | ( -11.3, -6.5 ) |
| 5227-5249 | GCGCUGUUCAGAAUGAAGU | C,F | -4.8 | ( -12.5, -7.7 ) |
| 6561-6583 | CCUGCGCCGAACUAUAAGU | C,F | -4.8 | ( -11.5, -6.7 ) |
| 126-148 | CUCCCGGGAGAGCCAUAGU | F | -4.8 | ( -11.6, -6.8 ) |
| 6542-6564 | GGGCCCCUGUACUCCCCUU | C,F | -4.8 | ( -14.4, -9.6 ) |
| 5143-5165 | CCCCAUCGUGGGACCAGAU | F | -4.8 | ( -12.5, -7.7 ) |

**FIG. 11 (page 429 of 479)**

| | | | | |
|---|---|---|---|---|
| 1080-1102 | GCCACCAGGGACGGCAAAC | F | -4.8 | ( -12.2, -7.4 ) |
| 6555-6577 | CCCCUUCCUGCGCCGAACU | F | -4.8 | ( -12.5, -7.7 ) |
| 4562-4584 | GGUCGCAUUGGGCAUCAAU | F | -4.8 | ( -11.4, -6.6 ) |
| 3515-3537 | GGUCCAGAUCGUGUCAACU | B,F | -4.8 | ( -12.3, -7.5 ) |
| 2826-2848 | CUGACUCUGUCGCCAUAUU | C,F | -4.8 | ( -9.4, -4.6 ) |
| 9270-9292 | GGGGGAGACAUUUAUCACA | C,F | -4.8 | ( -14.2, -9.4 ) |
| 266-288 | GGGUCGCGAAAGGCCUUGU | C,F | -4.8 | ( -12.3, -7.5 ) |
| 3807-3829 | CGGCCCAUUUCCUACUUGA | C,F | -4.8 | ( -12.9, -8.1 ) |
| 8121-8143 | GCCCUGUACGACGUGGUUA | F | -4.8 | ( -13.2, -8.4 ) |
| 2955-2977 | GCCGUCAUCUUACUCAUGU | C,F | -4.8 | ( -12.5, -7.7 ) |
| 6071-6093 | GGGGGCAGUGCAAUGGAUG | B,F | -4.8 | ( -14.2, -9.4 ) |
| 2360-2382 | GGUCCUUCCGUGUUCUUUC | B,F | -4.8 | ( -12.3, -7.5 ) |
| 6348-6370 | CUGCCUGGGAUUCCCUUUG | B,F | -4.8 | ( -11.5, -6.7 ) |
| 7377-7399 | GAGCUUGCCACCAAAAGUU | C,F | -4.8 | ( -11.1, -6.3 ) |
| 8947-8969 | GAGCCUGCUACUCCAUAGA | C,F | -4.8 | ( -12.3, -7.5 ) |
| 8301-8323 | CGUACGGAGGAGGCAAUUU | F | -4.8 | ( -8.8, -4.0 ) |
| 2694-2716 | GGAGCGGUCUACGCCUUCU | C,F | -4.8 | ( -12.3, -7.5 ) |
| 5028-5050 | ACGGGCCUCACUCAUAUAG | F | -4.8 | ( -11.2, -6.4 ) |
| 7637-7659 | CCCGUGCGCUGCGGAAGAA | C,F | -4.8 | ( -11.7, -6.9 ) |
| 2317-2339 | GGUCCGAGCUCAGCCCAUU | B,C,F | -4.8 | ( -12.3, -7.5 ) |
| 4563-4585 | GUCGCAUUGGGCAUCAAUG | F | -4.8 | ( -11.6, -6.8 ) |
| 2131-2153 | GCGGCUCCGGUCCCUGGAU | F | -4.8 | ( -13.7, -8.9 ) |
| 1823-1845 | UGGCAUUGUGCCCGCAAAG | F | -4.8 | ( -11.5, -6.7 ) |
| 7003-7025 | CCCCUGACGCCGAGCUCAU | F | -4.8 | ( -12.5, -7.7 ) |
| 1843-1865 | GCGUGUGUGGCCCGGUAUA | B,F | -4.7 | ( -11.3, -6.6 ) |
| 1294-1316 | UGGCAUGGGAUAUGAUGAU | B,F | -4.7 | ( -11.5, -6.8 ) |
| 3549-3571 | CUGGCAACGUGCAUCAAUG | F | -4.7 | ( -11.5, -6.8 ) |
| 5919-5941 | GCGGGAGCUCUUGUAGCAU | F | -4.7 | ( -13.5, -8.8 ) |
| 9153-9175 | GCUGCCAUAUGUGGCAAGU | C,F | -4.7 | ( -12.2, -7.5 ) |
| 2451-2473 | GGGGUAGGGUCAAGCAUCG | F | -4.7 | ( -13.2, -8.5 ) |
| 8828-8850 | AGGCAACAUAAUCAUGUUU | F | -4.7 | ( -11.0, -6.3 ) |
| 5371-5393 | CAGGCUGCGUGGUCAUAGU | B,C,F | -4.7 | ( -11.5, -6.8 ) |
| 4097-4119 | GGUGCUCAACCCCUCUGUU | F | -4.7 | ( -12.2, -7.5 ) |
| 3455-3477 | CCUCCUAGGGUGUAUAAUC | F | -4.7 | ( -11.6, -6.9 ) |
| 8648-8670 | CCCCGGGGACCCCCCACAA | F | -4.7 | ( -12.7, -8.0 ) |
| 6761-6783 | GCUGCGGGAGGAGGUAUCA | F | -4.7 | ( -12.2, -7.5 ) |
| 6765-6787 | CGGGAGGAGGUAUCAUUCA | F | -4.7 | ( -11.8, -7.1 ) |
| 3107-3129 | CGCGCUAGCGCGGAAGAUA | F | -4.7 | ( -12.2, -7.5 ) |
| 1852-1874 | GCCCGGUAUAUUGCUUCAC | F | -4.7 | ( -13.5, -8.8 ) |
| 8190-8212 | CCAGGACAGCGGGUUGAAU | B,F | -4.7 | ( -11.3, -6.6 ) |
| 3488-3510 | CCGGGACAAAAACCAAGUG | F | -4.7 | ( -12.7, -8.0 ) |
| 5078-5100 | UGGGGAGAACUUUCCUUAC | F | -4.7 | ( -12.5, -7.8 ) |
| 2794-2816 | GUGGCGGCGUUGUUCUUGU | C,F | -4.7 | ( -12.2, -7.5 ) |
| 1522-1544 | GCACCACGGCUGGGCUUGU | F | -4.7 | ( -12.2, -7.5 ) |
| 7166-7188 | GCGGAAGUCUCGGAGAUUC | F | -4.7 | ( -12.6, -7.9 ) |
| 229-251 | GGGCGUGCCCCCGCAAGAC | F | -4.7 | ( -13.5, -8.8 ) |
| 6722-6744 | GGUGCGCCUACAUAGGUUU | C,F | -4.7 | ( -12.2, -7.5 ) |
| 8240-8262 | CCCGAUGGGGUUCUCGUAU | F | -4.7 | ( -11.8, -7.1 ) |
| 7943-7965 | GGCCGUAGCCCACAUCAAC | B,F | -4.7 | ( -13.5, -8.8 ) |
| 3835-3857 | CGGGGGGUCCGCUGUUGUG | F | -4.7 | ( -12.7, -8.0 ) |

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| | | | | |
|---|---|---|---|---|
| 1832-1854 | GCCCGCAAAGAGCGUGUGU | F | -4.7 | ( -13.5, -8.8 ) |
| 3176-3198 | UGGCACCUAUGUGUAUAAC | F | -4.7 | ( -11.5, -6.8 ) |
| 7414-7436 | CCGGCAUUACGGGCGACAA | F | -4.7 | ( -12.9, -8.2 ) |
| 4265-4287 | UGCUUAUGACAUAAUAAUU | F | -4.7 | ( -9.1, -4.4 ) |
| 3548-3570 | CCUGGCAACGUGCAUCAAU | F | -4.7 | ( -11.3, -6.6 ) |
| 3862-3884 | GACACGCCGUGGGCCUAUU | C,F | -4.6 | ( -10.1, -5.5 ) |
| 1289-1311 | UCGCAUGGCAUGGGAUAUG | B,F | -4.6 | ( -10.8, -6.2 ) |
| 6067-6089 | GCGAGGGGGCAGUGCAAUG | F | -4.6 | ( -11.4, -6.8 ) |
| 6544-6566 | GCCCCUGUACUCCCCUUCC | F | -4.6 | ( -14.4, -9.8 ) |
| 9184-9206 | GGGCAGUAAGAACAAAGCU | F | -4.6 | ( -13.2, -8.6 ) |
| 5388-5410 | GUGGGCAGGAUUGUCUUGU | B,C,F | -4.6 | ( -12.1, -7.5 ) |
| 5684-5706 | GCCUGGUAACCCCGCCAUU | F | -4.6 | ( -12.1, -7.5 ) |
| 1844-1866 | CGUGUGUGGCCCGGUAUAU | F | -4.6 | ( -9.6, -5.0 ) |
| 7738-7760 | GCCAAAGGCAGAAGAAAGU | C,F | -4.6 | ( -10.9, -6.3 ) |
| 4551-4573 | GCCGCGAAGCUGGUCGCAU | F | -4.6 | ( -13.7, -9.1 ) |
| 8102-8124 | GCGCGUGUGCGAGAAGAUG | F | -4.6 | ( -12.8, -8.2 ) |
| 1614-1636 | ACGGCCUUGAACUGCAAUG | F | -4.6 | ( -11.4, -6.8 ) |
| 1743-1765 | GGCUGGGGUCCUAUCAGUU | F | -4.6 | ( -12.1, -7.5 ) |
| 8300-8322 | CCGUACGGAGGAGGCAAUU | F | -4.6 | ( -9.8, -5.2 ) |
| 5805-5827 | GCCCCCGGUGCCGCUACCG | F | -4.6 | ( -14.4, -9.8 ) |
| 228-250 | UGGGCGUGCCCCCGCAAGA | F | -4.6 | ( -12.7, -8.1 ) |
| 8822-8844 | CUGGCUAGGCAACAUAAUC | F | -4.6 | ( -11.5, -6.9 ) |
| 7737-7759 | UGCCAAAGGCAGAAGAAAG | F | -4.6 | ( -11.5, -6.9 ) |
| 7379-7401 | GCUUGCCACCAAAAGUUUU | B,F | -4.6 | ( -9.7, -5.1 ) |
| 6543-6565 | GGCCCCUGUACUCCCCUUC | F | -4.6 | ( -14.4, -9.8 ) |
| 620-642 | GGCGGGAUGGCUCCUGUCU | F | -4.6 | ( -13.5, -8.9 ) |
| 1648-1670 | GCUGGUUAGCAGGGCUCUU | F | -4.6 | ( -12.1, -7.5 ) |
| 3784-3806 | GCAGGGGUAGCCUGCUUUC | B,F | -4.6 | ( -12.1, -7.5 ) |
| 2318-2340 | GUCCGAGCUCAGCCCAUUG | F | -4.6 | ( -11.4, -6.8 ) |
| 3358-3380 | GGGGCCAGGAGAUACUGCU | B,C,F | -4.6 | ( -14.4, -9.8 ) |
| 7472-7494 | CCCCGACUCCGACGUUGAG | F | -4.6 | ( -12.7, -8.1 ) |
| 9182-9204 | CUGGGCAGUAAGAACAAAG | B,F | -4.6 | ( -11.3, -6.7 ) |
| 2078-2100 | GCUCUGCCCCACUGAUUGU | F | -4.6 | ( -11.1, -6.5 ) |
| 9225-9247 | GCUGGCCGGCUGGACUUGU | F | -4.6 | ( -12.1, -7.5 ) |
| 3165-3187 | GGGGCGCUUACUGGCACCU | B,C,F | -4.6 | ( -14.4, -9.8 ) |
| 959-981 | UUGCCCUAACUCGAGUAUU | B,F | -4.6 | ( -10.3, -5.7 ) |
| 8784-8806 | GCCGCGUGGGAGACAGCAA | B,F | -4.6 | ( -13.7, -9.1 ) |
| 8824-8846 | GGCUAGGCAACAUAAUCAU | C,F | -4.5 | ( -11.3, -6.8 ) |
| 4262-4284 | AGGUGCUUAUGACAUAAUA | F | -4.5 | ( -9.8, -5.3 ) |
| 4997-5019 | GGACCAUCUUGAAUUUUGG | B,F | -4.5 | ( -12.3, -7.8 ) |
| 7376-7398 | CGAGCUUGCCACCAAAAGU | F | -4.5 | ( -10.8, -6.3 ) |
| 7404-7426 | UCCUCAACUUCCGGCAUUA | F | -4.5 | ( -10.6, -6.1 ) |
| 3148-3170 | UGGCCAUCAUCAAGUUAGG | B,F | -4.5 | ( -12.7, -8.2 ) |
| 4254-4276 | UGCUCAGGAGGUGCUUAUG | F | -4.5 | ( -10.6, -6.1 ) |
| 9553-9575 | GCUCCAUCUUAGCCCUAGU | C,F | -4.5 | ( -12.3, -7.8 ) |
| 480-502 | CGCGCGACGAGGAAGACUU | C,F | -4.5 | ( -12.2, -7.7 ) |
| 3486-3508 | GGCCGGGACAAAAACCAAG | F | -4.5 | ( -13.5, -9.0 ) |
| 8302-8324 | GUACGGAGGAGGCAAUUUA | C,F | -4.5 | ( -9.4, -4.9 ) |
| 3714-3736 | UGCGGCUCCUCGGACCUUU | F | -4.5 | ( -11.8, -7.3 ) |
| 822-844 | GGCGUGAACUAUGCAACAG | F | -4.5 | ( -12.5, -8.0 ) |

| | | | | |
|---|---|---|---|---|
| 6716-6738 | GGACGGGGUGCGCCUACAU | F | -4.5 | ( -11.4, -6.9 ) |
| 8476-8498 | CCCUCACUUGCUACAUCAA | B,F | -4.5 | ( -11.6, -7.1 ) |
| 7821-7843 | GCGGCGUCAAAAGUGAAGG | B,F | -4.5 | ( -13.7, -9.2 ) |
| 6656-6678 | GACUACUGACAAUCUUAAA | F | -4.5 | ( -9.2, -4.7 ) |
| 6164-6186 | CGCCCGCGUCACUGCCAUA | F | -4.5 | ( -12.9, -8.4 ) |
| 9397-9419 | GGCCUCUUAGGCCAUUUCC | F | -4.5 | ( -13.2, -8.7 ) |
| 4996-5018 | AGGACCAUCUUGAAUUUUG | F | -4.5 | ( -10.0, -5.5 ) |
| 460-482 | GGGGCCCUAGAUUGGGUGU | B,F | -4.5 | ( -14.4, -9.9 ) |
| 3961-3983 | CCCCGGUGUUCACGGACAA | C,F | -4.5 | ( -12.7, -8.2 ) |
| 7517-7539 | GGGGGAGCCUGGGGAUCCG | B,F | -4.5 | ( -14.2, -9.7 ) |
| 7640-7662 | GUGCGCUGCGGAAGAACAA | F | -4.5 | ( -11.3, -6.8 ) |
| 3896-3918 | CACCCGUGGAGUGGCUAAG | F | -4.5 | ( -11.5, -7.0 ) |
| 6341-6363 | GCCACAACUGCCUGGGAUU | F | -4.5 | ( -12.2, -7.7 ) |
| 9033-9055 | UCUCCAGGUGAAAUCAAUA | F | -4.5 | ( -10.6, -6.1 ) |
| 7574-7596 | GGCCGACACGGAAGAUGUC | F | -4.5 | ( -13.5, -9.0 ) |
| 9339-9361 | GCUGCAGGGGUAGGCAUCU | F | -4.5 | ( -12.2, -7.7 ) |
| 5685-5707 | CCUGGUAACCCCGCCAUUG | F | -4.5 | ( -11.3, -6.8 ) |
| 8019-8041 | GCCAAGAACGAGGUUUUCU | F | -4.5 | ( -10.9, -6.4 ) |
| 4322-4344 | GGGCAUCGGCACUGUCCUU | F | -4.5 | ( -13.2, -8.7 ) |
| 6723-6745 | GUGCGCCUACAUAGGUUUG | F | -4.5 | ( -11.3, -6.8 ) |
| 7869-7891 | AGCCUGACGCCCCCACAUU | F | -4.4 | ( -10.9, -6.5 ) |
| 2357-2379 | GCAGGUCCUUCCGUGUUCU | C,F | -4.4 | ( -12.1, -7.7 ) |
| 1719-1741 | CGACGCCUUACCGAUUUUG | F | -4.4 | ( -9.9, -5.5 ) |
| 8054-8076 | GGGGGGUCGUAAGCCAGCU | B,C,F | -4.4 | ( -14.2, -9.8 ) |
| 9003-9025 | GGCCUCAGCGCAUUUUCAC | F | -4.4 | ( -13.2, -8.8 ) |
| 7636-7658 | CCCCGUGCGCUGCGGAAGA | B,F | -4.4 | ( -12.7, -8.3 ) |
| 1876-1898 | GCCCCGUGGUGGUGGGAAC | B,F | -4.4 | ( -14.4, -10.0 ) |
| 5921-5943 | GGGAGCUCUUGUAGCAUUC | F | -4.4 | ( -12.1, -7.7 ) |
| 4031-4053 | UCCCACCGGCAGCGGUAAG | F | -4.4 | ( -11.6, -7.2 ) |
| 1099-1121 | UCCCCACAACGCAGCUUCG | F | -4.4 | ( -12.7, -8.3 ) |
| 902-924 | GCCCGCUUCAGCCUACCAA | C,F | -4.4 | ( -13.5, -9.1 ) |
| 686-708 | GUCGCGCAAUUUGGGUAAG | F | -4.4 | ( -11.6, -7.2 ) |
| 6322-6344 | GGCUGAAAGCCAAGCUCAU | F | -4.4 | ( -12.1, -7.7 ) |
| 3673-3695 | GGCCCGCUCCUCAAGGUUC | F | -4.4 | ( -14.4, -10.0 ) |
| 8823-8845 | UGGCUAGGCAACAUAAUCA | F | -4.4 | ( -11.5, -7.1 ) |
| 7870-7892 | GCCUGACGCCCCCACAUUC | B,F | -4.4 | ( -12.1, -7.7 ) |
| 9034-9056 | CUCCAGGUGAAAUCAAUAG | F | -4.4 | ( -10.4, -6.0 ) |
| 125-147 | CCUCCCGGGAGAGCCAUAG | F | -4.4 | ( -11.6, -7.2 ) |
| 4860-4882 | CGCCCCUCCGGCAUGUUCG | F | -4.4 | ( -12.9, -8.5 ) |
| 4627-4649 | GCGGCGAUGUUGUCGUCGU | B,C,F | -4.4 | ( -13.7, -9.3 ) |
| 3033-3055 | CCCCUUUGGAUUCUUCAAG | B,F | -4.4 | ( -12.5, -8.1 ) |
| 3242-3264 | GGCCGUGGCUGUGGAACCA | C,F | -4.4 | ( -13.5, -9.1 ) |
| 3079-3101 | UGCGCGUUCAAGGCCUUCU | F | -4.4 | ( -11.9, -7.5 ) |
| 5913-5935 | GGCGUGGCGGGAGCUCUUG | F | -4.4 | ( -12.5, -8.1 ) |
| 3624-3646 | GGUCCUGUCAUCCAGAUGU | C,F | -4.4 | ( -12.3, -7.9 ) |
| 6560-6582 | UCCUGCGCCGAACUAUAAG | F | -4.4 | ( -10.4, -6.0 ) |
| 3379-3401 | GGCCAGCCGACGGAAUGGU | C,F | -4.4 | ( -13.2, -8.8 ) |
| 3029-3051 | CGGACCCCUUUGGAUUCUU | C,F | -4.4 | ( -10.8, -6.4 ) |
| 6296-6318 | CGAGGUGCUGAGCGACUUU | F | -4.4 | ( -10.7, -6.3 ) |
| 5602-5624 | GGCAGAAACUCGAGGUCUU | C,F | -4.4 | ( -12.1, -7.7 ) |

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| | | | | |
|---|---|---|---|---|
| 4825-4847 | AGCCAGGCAUCUACAGAUU | B,F | -4.4 | ( -11.0, -6.6 ) |
| 8611-8633 | GAGCCUUCACGGAGGCUAU | B,F | -4.3 | ( -12.3, -8.0 ) |
| 3419-3441 | GGCGCCCAUCACGGCGUAC | F | -4.3 | ( -13.7, -9.4 ) |
| 4106-4128 | CCCCUCUGUUGCUGCAACG | B,F | -4.3 | ( -12.5, -8.2 ) |
| 5152-5174 | GGGACCAGAUGUGGAAGUG | F | -4.3 | ( -12.3, -8.0 ) |
| 6593-6615 | GGUGUCUGCAGAGGAAUAC | F | -4.3 | ( -11.1, -6.8 ) |
| 4735-4757 | GCCUUGACCCUACCUUUAC | B,F | -4.3 | ( -10.9, -6.6 ) |
| 2080-2102 | UCUGCCCCACUGAUUGUUU | F | -4.3 | ( -10.6, -6.3 ) |
| 1663-1685 | UCUUCUAUCAGCACAAAUU | F | -4.3 | ( -8.3, -4.0 ) |
| 4553-4575 | CGCGAAGCUGGUCGCAUUG | F | -4.3 | ( -11.1, -6.8 ) |
| 4498-4520 | AGGGGGGAAGACAUCUCAU | B,F | -4.3 | ( -12.0, -7.7 ) |
| 1591-1613 | ACGGCAGUUGGCACAUCAA | B,F | -4.3 | ( -11.4, -7.1 ) |
| 5079-5101 | GGGGAGAACUUUCCUUACC | F | -4.3 | ( -13.3, -9.0 ) |
| 5562-5584 | CGCCAAGCAGAGGUUAUCA | F | -4.3 | ( -11.8, -7.5 ) |
| 8354-8376 | GGCCAUCAAGUCCCUCACU | F | -4.3 | ( -13.2, -8.9 ) |
| 6719-6741 | CGGGGUGCGCCUACAUAGG | B,F | -4.3 | ( -12.7, -8.4 ) |
| 7224-7246 | CCCCCGCUAGUAGAGACGU | F | -4.3 | ( -13.6, -9.3 ) |
| 7800-7822 | GUGCUCAAGGAGGUCAAAG | F | -4.3 | ( -11.0, -6.7 ) |
| 1661-1683 | GCUCUUCUAUCAGCACAAA | C,F | -4.3 | ( -11.1, -6.8 ) |
| 3131-3153 | AGGUCAUUACGUGCAAAUG | F | -4.3 | ( -10.0, -5.7 ) |
| 5623-5645 | GGGCGAAGCACAUGUGGAA | C,F | -4.3 | ( -13.5, -9.2 ) |
| 1185-1207 | GGGUCUGUCUUUCUUGUUG | F | -4.3 | ( -12.3, -8.0 ) |
| 5027-5049 | UACGGGCCUCACUCAUAUA | F | -4.3 | ( -9.8, -5.5 ) |
| 4124-4146 | GCUGGGCUUUGGUGCUUAC | F | -4.3 | ( -12.1, -7.8 ) |
| 3028-3050 | UCGGACCCCUUUGGAUUCU | F | -4.3 | ( -10.9, -6.6 ) |
| 1558-1580 | GCGCCAAGCAGAACAUCCA | C,F | -4.3 | ( -13.7, -9.4 ) |
| 2983-3005 | ACCCGACUCUGGUAUUUGA | F | -4.3 | ( -11.2, -6.9 ) |
| 4552-4574 | CCGCGAAGCUGGUCGCAUU | C,F | -4.3 | ( -12.0, -7.7 ) |
| 1229-1251 | GCGCCACUGGACGACGCAA | F | -4.3 | ( -13.7, -9.4 ) |
| 335-357 | GUGCACCAUGAGCACGAAU | F | -4.3 | ( -11.1, -6.8 ) |
| 7146-7168 | UCCGUACCCGCAGAAAUUC | F | -4.3 | ( -10.8, -6.5 ) |
| 5626-5648 | CGAAGCACAUGUGGAAUUU | C,F | -4.3 | ( -8.3, -4.0 ) |
| 9394-9416 | UCCGGCCUCUUAGGCCAUU | F | -4.3 | ( -11.8, -7.5 ) |
| 8861-8883 | GGCGAGGAUGAUACUGAUG | F | -4.3 | ( -12.6, -8.3 ) |
| 6622-6644 | GGCGGGUGGGGGACUUCCA | B,F | -4.3 | ( -13.5, -9.2 ) |
| 8245-8267 | UGGGGUUCUCGUAUGAUAC | B,F | -4.3 | ( -12.5, -8.2 ) |
| 8820-8842 | UCCUGGCUAGGCAACAUAA | F | -4.3 | ( -10.4, -6.1 ) |
| 7645-7667 | CUGCGGAAGAACAAAAACU | C,F | -4.3 | ( -10.6, -6.3 ) |
| 6725-6747 | GCGCCUACAUAGGUUUGCG | F | -4.3 | ( -13.7, -9.4 ) |
| 8622-8644 | GAGGCUAUGACCAGGUACU | C,F | -4.3 | ( -12.3, -8.0 ) |
| 4818-4840 | AGGGGGAAGCCAGGCAUCU | F | -4.3 | ( -12.0, -7.7 ) |
| 9267-9289 | AGCGGGGGAGACAUUUAUC | F | -4.3 | ( -11.2, -6.9 ) |
| 8730-8752 | GCUGGAAAGAGGGUCUACU | C,F | -4.3 | ( -12.1, -7.8 ) |
| 1660-1682 | GGCUCUUCUAUCAGCACAA | C,F | -4.3 | ( -12.3, -8.0 ) |
| 9154-9176 | CUGCCAUAUGUGGCAAGUA | F | -4.3 | ( -11.5, -7.2 ) |
| 6065-6087 | GGGCGAGGGGGCAGUGCAA | F | -4.3 | ( -13.5, -9.2 ) |
| 1742-1764 | GGGCUGGGGUCCUAUCAGU | B,C,F | -4.3 | ( -13.2, -8.9 ) |
| 6562-6584 | CUGCGCCGAACUAUAAGUU | C,F | -4.3 | ( -10.6, -6.3 ) |
| 3567-3589 | GGGGUAUGCUGGACUGUCU | C,F | -4.3 | ( -13.2, -8.9 ) |
| 8654-8676 | GGACCCCCCACAACCAGAA | C,F | -4.2 | ( -12.3, -8.1 ) |

| | | | | |
|---|---|---|---|---|
| 4733-4755 | CAGCCUUGACCCUACCUUU | F | -4.2 | ( -11.5, -7.3 ) |
| 3834-3856 | UCGGGGGGUCCGCUGUUGU | F | -4.2 | ( -11.8, -7.6 ) |
| 1445-1467 | GGCGAAGGUCCUGGUAGUG | F | -4.2 | ( -12.6, -8.4 ) |
| 4954-4976 | GGCUACGAGCGUACAUGAA | B,F | -4.2 | ( -11.3, -7.1 ) |
| 2361-2383 | GUCCUUCCGUGUUCUUUCA | C,F | -4.2 | ( -11.1, -6.9 ) |
| 1172-1194 | GGGGGACCUGUGCGGGUCU | F | -4.2 | ( -14.2, -10.0 ) |
| 1822-1844 | GUGGCAUUGUGCCCGCAAA | C,F | -4.2 | ( -12.2, -8.0 ) |
| 1240-1262 | CGACGCAAGACUGCAAUUG | B,F | -4.2 | ( -9.9, -5.7 ) |
| 6427-6449 | GCCACUGUGGAGCUGAGAU | F | -4.2 | ( -12.2, -8.0 ) |
| 1824-1846 | GGCAUUGUGCCCGCAAAGA | F | -4.2 | ( -11.1, -6.9 ) |
| 3031-3053 | GACCCCUUUGGAUUCUUCA | F | -4.2 | ( -12.3, -8.1 ) |
| 5923-5945 | GAGCUCUUGUAGCAUUCAA | C,F | -4.2 | ( -11.1, -6.9 ) |
| 9598-9620 | GCCGCAUGACUGCAGAGAG | B,F | -4.2 | ( -13.7, -9.5 ) |
| 4447-4469 | CCACCGGAGAGAUCCCUUU | B,C,F | -4.2 | ( -11.5, -7.3 ) |
| 5223-5245 | CUGGGCGCUGUUCAGAAUG | B,F | -4.2 | ( -11.3, -7.1 ) |
| 3963-3985 | CCGGUGUUCACGGACAACU | C,F | -4.2 | ( -11.7, -7.5 ) |
| 209-231 | CGCUCAAUGCCUGGAGAUU | F | -4.2 | ( -10.8, -6.6 ) |
| 6027-6049 | GUGGUCUGCGCAGCAAUAC | F | -4.2 | ( -11.0, -6.8 ) |
| 9564-9586 | GCCCUAGUCACGGCUAGCU | B,C,F | -4.2 | ( -13.2, -9.0 ) |
| 1349-1371 | GCUGCUCCGGAUCCCACAA | B,F | -4.2 | ( -12.2, -8.0 ) |
| 5344-5366 | CUGCUCUGGCCGCGUAUUG | F | -4.2 | ( -10.3, -6.1 ) |
| 8827-8849 | UAGGCAACAUAAUCAUGUU | F | -4.2 | ( -10.7, -6.5 ) |
| 1877-1899 | CCCCGUGGUGGUGGGAACG | F | -4.2 | ( -12.7, -8.5 ) |
| 6628-6650 | UGGGGGACUUCCACUACGU | F | -4.2 | ( -12.5, -8.3 ) |
| 904-926 | CCGCUUCAGCCUACCAAGU | F | -4.2 | ( -11.7, -7.5 ) |
| 4522-4544 | GCCACUCAAAGAAGAAGUG | F | -4.2 | ( -12.2, -8.0 ) |
| 1406-1428 | CCUGGCGGGCAUAGCGUAU | F | -4.2 | ( -11.3, -7.1 ) |
| 2638-2660 | UGUCCUUCCUCGUGUUCUU | F | -4.2 | ( -10.6, -6.4 ) |
| 6026-6048 | UGUGGUCUGCGCAGCAAUA | F | -4.2 | ( -10.3, -6.1 ) |
| 6720-6742 | GGGGUGCGCCUACAUAGGU | F | -4.2 | ( -13.2, -9.0 ) |
| 7423-7445 | CGGGCGACAAUACGACAAC | B,F | -4.2 | ( -12.9, -8.7 ) |
| 1970-1992 | GCCACCGCUGGGCAAUUGG | F | -4.2 | ( -12.2, -8.0 ) |
| 2164-2186 | UGGUCGACUACCCGUAUAG | B,F | -4.2 | ( -10.6, -6.4 ) |
| 9271-9293 | GGGGAGACAUUUAUCACAG | F | -4.2 | ( -13.3, -9.1 ) |
| 4032-4054 | CCCACCGGCAGCGGUAAGA | C,F | -4.2 | ( -11.5, -7.3 ) |
| 6631-6653 | GGGACUUCCACUACGUAUC | F | -4.1 | ( -12.3, -8.2 ) |
| 7950-7972 | GCCCACAUCAACUCCGUGU | B,C,F | -4.1 | ( -13.2, -9.1 ) |
| 181-203 | GACGACCGGGUCCUUUCUU | F | -4.1 | ( -10.5, -6.4 ) |
| 412-434 | UCCCGGGUGGCGGUCAGAU | F | -4.1 | ( -11.8, -7.7 ) |
| 2062-2084 | UGGGCAACAACACCUUGCU | F | -4.1 | ( -12.7, -8.6 ) |
| 8364-8386 | UCCCUCACUGAGAGGCUUU | F | -4.1 | ( -11.6, -7.5 ) |
| 2477-2499 | GGCCAUUAAGUGGGAGUAC | F | -4.1 | ( -13.2, -9.1 ) |
| 3360-3382 | GGCCAGGAGAUACUGCUUG | F | -4.1 | ( -13.2, -9.1 ) |
| 1239-1261 | ACGACGCAAGACUGCAAUU | F | -4.1 | ( -9.3, -5.2 ) |
| 2055-2077 | GGAGGGGUGGGCAACAACA | F | -4.1 | ( -12.1, -8.0 ) |
| 3340-3362 | UGCCCGUCUCUGCCCGUAG | F | -4.1 | ( -12.7, -8.6 ) |
| 5256-5278 | CACCCAAUCACCAAAUACA | C,F | -4.1 | ( -11.5, -7.4 ) |
| 3672-3694 | UGGCCCGCUCCUCAAGGUU | F | -4.1 | ( -12.7, -8.6 ) |
| 4203-4225 | GGCAGCCCCAUCACGUACU | C,F | -4.1 | ( -12.1, -8.0 ) |
| 186-208 | CCGGGUCCUUUCUUGGAUA | B,C,F | -4.1 | ( -12.7, -8.6 ) |

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| | | | | |
|---|---|---|---|---|
| 8347-8369 | CCCGCGUGGCCAUCAAGUC | F | -4.1 | ( -12.9, -8.8 ) |
| 8246-8268 | GGGGUUCUCGUAUGAUACC | F | -4.1 | ( -13.2, -9.1 ) |
| 3623-3645 | GGGUCCUGUCAUCCAGAUG | B,F | -4.1 | ( -12.3, -8.2 ) |
| 2863-2885 | GGUGCAUGUGGUGGCUUCA | F | -4.1 | ( -12.2, -8.1 ) |
| 1013-1035 | GGGGUGUGUCCCUUGCGUU | F | -4.1 | ( -13.2, -9.1 ) |
| 314-336 | CCCCGGGAGGUCUCGUAGA | F | -4.1 | ( -12.7, -8.6 ) |
| 5534-5556 | GGCCCUCGGCCUCCUGCAG | B,F | -4.1 | ( -14.4, -10.3 ) |
| 8903-8925 | AGCCAGGGAUCAGCUUGAA | F | -4.1 | ( -11.0, -6.9 ) |
| 2695-2717 | GAGCGGUCUACGCCUUCUA | C,F | -4.1 | ( -11.4, -7.3 ) |
| 9118-9140 | GCGUCCGCGCUAGGCUUCU | B,F | -4.1 | ( -11.6, -7.5 ) |
| 9183-9205 | UGGGCAGUAAGAACAAAGC | F | -4.1 | ( -12.7, -8.6 ) |
| 8829-8851 | GGCAACAUAAUCAUGUUUG | B,F | -4.1 | ( -10.9, -6.8 ) |
| 2873-2895 | GUGGCUUCAGUAUUUUCUG | F | -4.1 | ( -12.2, -8.1 ) |
| 9054-9076 | GUGGCCGCAUGCCUCAGAA | C,F | -4.1 | ( -12.2, -8.1 ) |
| 550-572 | GGCCCGAGGGCAGGACCUG | F | -4.1 | ( -14.4, -10.3 ) |
| 9146-9168 | AGGCAGGGCUGCCAUAUGU | F | -4.1 | ( -11.0, -6.9 ) |
| 2053-2075 | UCGGAGGGGUGGGCAACAA | B,F | -4.1 | ( -10.9, -6.8 ) |
| 6490-6512 | GGACCUGCAGGAACAUGUG | B,F | -4.1 | ( -12.3, -8.2 ) |
| 1231-1253 | GCCACUGGACGACGCAAGA | F | -4.1 | ( -12.2, -8.1 ) |
| 5702-5724 | UGCUUCAUUGAUGGCUUUU | F | -4.1 | ( -9.1, -5.0 ) |
| 9364-9386 | UCCCCAACCGAUGAAGGUU | F | -4.1 | ( -12.7, -8.6 ) |
| 1272-1294 | GGCCAUAUAACGGGUCAUC | F | -4.1 | ( -13.2, -9.1 ) |
| 6350-6372 | GCCUGGGAUUCCCUUUGUG | F | -4.1 | ( -12.1, -8.0 ) |
| 2410-2432 | UCCACCUCCACCAGAACAU | B,F | -4.1 | ( -10.6, -6.5 ) |
| 1319-1341 | GUCCCCUACGGCAGCGUUG | F | -4.1 | ( -12.3, -8.2 ) |
| 5351-5373 | GGCCGCGUAUUGCCUGUCA | C,F | -4.1 | ( -13.5, -9.4 ) |
| 1180-1202 | UGUGCGGGUCUGUCUUUCU | F | -4.1 | ( -10.5, -6.4 ) |
| 4820-4842 | GGGGAAGCCAGGCAUCUAC | F | -4.1 | ( -13.3, -9.2 ) |
| 3998-4020 | GCCCCAGAGCUUCCAGGUG | F | -4.1 | ( -14.4, -10.3 ) |
| 2789-2811 | GUCGUGUGGCGGCGUUGUU | F | -4.1 | ( -10.4, -6.3 ) |
| 3785-3807 | CAGGGGUAGCCUGCUUUCG | F | -4.1 | ( -11.3, -7.2 ) |
| 8122-8144 | CCCUGUACGACGUGGUUAG | F | -4.1 | ( -11.3, -7.2 ) |
| 416-438 | GGGUGGCGGUCAGAUCGUU | C,F | -4.1 | ( -12.1, -8.0 ) |
| 42-64 | CCCCUGUGAGGAACUACUG | F | -4.1 | ( -12.5, -8.4 ) |
| 5257-5279 | ACCCAAUCACCAAAUACAU | F | -4.1 | ( -11.0, -6.9 ) |
| 732-754 | GCCGACCUCAUGGGGUACA | C,F | -4.1 | ( -12.6, -8.5 ) |
| 6697-6719 | CCGAAUUUUUCACAGAAUU | C,F | -4.1 | ( -9.5, -5.4 ) |
| 2827-2849 | UGACUCUGUCGCCAUAUUA | F | -4.1 | ( -9.4, -5.3 ) |
| 7069-7091 | GGGUUGAGUCAGAGAACAA | B,F | -4.1 | ( -10.9, -6.8 ) |
| 75-97 | GCGUCUAGCCAUGGCGUUA | B,F | -4.1 | ( -11.6, -7.5 ) |
| 5920-5942 | CGGGAGCUCUUGUAGCAUU | C,F | -4.1 | ( -11.8, -7.7 ) |
| 3129-3151 | GGAGGUCAUUACGUGCAAA | C,F | -4.1 | ( -12.1, -8.0 ) |
| 4125-4147 | CUGGGCUUUGGUGCUUACA | F | -4.1 | ( -11.3, -7.2 ) |
| 6379-6401 | GCGGGUAUAGGGGGGUCUG | F | -4.1 | ( -13.5, -9.4 ) |
| 8649-8671 | CCCGGGGACCCCCCACAAC | F | -4 | ( -12.7, -8.7 ) |
| 1617-1639 | GCCUUGAACUGCAAUGAAA | C,F | -4 | ( -10.9, -6.9 ) |
| 6113-6135 | CCGGGGGAACCAUGUUUCC | F | -4 | ( -12.7, -8.7 ) |
| 7986-8008 | GACAGUGUAACACCAAUAG | B,F | -4 | ( -10.0, -6.0 ) |
| 3962-3984 | CCCGGUGUUCACGGACAAC | F | -4 | ( -12.7, -8.7 ) |
| 6717-6739 | GACGGGGUGCGCCUACAUA | F | -4 | ( -11.4, -7.4 ) |

**FIG. 11 (page 435 of 479)**

| | | | | |
|---|---|---|---|---|
| 8999-9021 | CCAUGGCCUCAGCGCAUUU | F | -4 | ( -9.2, -5.2 ) |
| 1456-1478 | UGGUAGUGCUGCUGCUAUU | F | -4 | ( -9.5, -5.5 ) |
| 1523-1545 | CACCACGGCUGGGCUUGUU | C,F | -4 | ( -10.3, -6.3 ) |
| 5168-5190 | GUGUUUGAUCCGCCUUAAA | B,F | -4 | ( -8.7, -4.7 ) |
| 8445-8467 | AGCGGCGUACUGACAACUA | F | -4 | ( -11.2, -7.2 ) |
| 5966-5988 | CACGGAGGACCUGGUCAAU | F | -4 | ( -10.6, -6.6 ) |
| 2194-2216 | AUCCUUGUACCAUCAAUUA | F | -4 | ( -8.9, -4.9 ) |
| 4714-4736 | UCACUCAGACAGUCGAUUU | F | -4 | ( -9.4, -5.4 ) |
| 2871-2893 | UGGUGGCUUCAGUAUUUUC | F | -4 | ( -10.3, -6.3 ) |
| 1532-1554 | UGGGCUUGUUGGUCUCCUU | F | -4 | ( -12.7, -8.7 ) |
| 5918-5940 | GGCGGGAGCUCUUGUAGCA | C,F | -4 | ( -13.5, -9.5 ) |
| 4451-4473 | CGGAGAGAUCCCUUUUUAC | F | -4 | ( -10.6, -6.6 ) |
| 8718-8740 | GCCCACGACGGCGCUGGAA | F | -4 | ( -13.2, -9.2 ) |
| 2132-2154 | CGGCUCCGGUCCCUGGAUU | C,F | -4 | ( -11.7, -7.7 ) |
| 8144-8166 | GCUCCCCCUGGCCGUGAUG | B,F | -4 | ( -12.3, -8.3 ) |
| 1624-1646 | ACUGCAAUGAAAGCCUUAA | B,F | -4 | ( -9.9, -5.9 ) |
| 9223-9245 | CCGCUGGCCGGCUGGACUU | F | -4 | ( -11.7, -7.7 ) |
| 3166-3188 | GGGCGCUUACUGGCACCUA | F | -4 | ( -13.5, -9.5 ) |
| 6217-6239 | GACUGCAUCAGUGGAUAAG | F | -4 | ( -10.0, -6.0 ) |
| 4675-4697 | CCGGCGACUUCGACUCUGU | B,C,F | -4 | ( -12.9, -8.9 ) |
| 1747-1769 | GGGGUCCUAUCAGUUAUGC | F | -4 | ( -13.2, -9.2 ) |
| 7223-7245 | CCCCCCGCUAGUAGAGACG | B,F | -4 | ( -13.6, -9.6 ) |
| 6718-6740 | ACGGGGUGCGCCUACAUAG | F | -4 | ( -11.2, -7.2 ) |
| 156-178 | CCGGUGAGUACACCGGAAU | B,C,F | -4 | ( -11.7, -7.7 ) |
| 557-579 | GGGCAGGACCUGGGCUCAG | B,F | -4 | ( -13.2, -9.2 ) |
| 6389-6411 | GGGGGUCUGGCGAGGAGAC | F | -4 | ( -14.2, -10.2 ) |
| 5749-5771 | CUGGCCAAACCCUCCUCUU | B,F | -4 | ( -11.5, -7.5 ) |
| 5752-5774 | GCCAAACCCUCCUCUUCAA | C,F | -4 | ( -10.9, -6.9 ) |
| 5968-5990 | CGGAGGACCUGGUCAAUCU | B,C,F | -4 | ( -10.6, -6.6 ) |
| 6766-6788 | GGGAGGAGGUAUCAUUCAG | F | -4 | ( -12.1, -8.1 ) |
| 7726-7748 | CACGCAGUGCUUGCCAAAG | F | -4 | ( -10.7, -6.7 ) |
| 481-503 | GCGCGACGAGGAAGACUUC | F | -4 | ( -12.8, -8.8 ) |
| 3669-3691 | GGCUGGCCCGCUCCUCAAG | F | -4 | ( -12.1, -8.1 ) |
| 821-843 | CGGCGUGAACUAUGCAACA | B,F | -4 | ( -12.0, -8.0 ) |
| 1411-1433 | CGGGCAUAGCGUAUUUCUC | F | -4 | ( -12.9, -8.9 ) |
| 4907-4929 | CGCGGGCUGUGCUUGGUAU | B,C,F | -4 | ( -12.0, -8.0 ) |
| 6689-6711 | CCCAUCGCCCGAAUUUUUC | F | -4 | ( -10.3, -6.3 ) |
| 5583-5605 | CCUGCUGUCCAGACCAACU | F | -4 | ( -11.5, -7.5 ) |
| 3341-3363 | GCCCGUCUCUGCCCGUAGG | F | -4 | ( -13.5, -9.5 ) |
| 8345-8367 | AGCCCGCGUGGCCAUCAAG | B,F | -4 | ( -12.1, -8.1 ) |
| 2082-2104 | UGCCCCACUGAUUGUUUCC | F | -4 | ( -12.7, -8.7 ) |
| 7482-7504 | GACGUUGAGUCCUAUUCUU | C,F | -4 | ( -10.4, -6.4 ) |
| 6744-6766 | CCCCCUUGCAAGCCCUUGC | F | -3.9 | ( -13.6, -9.7 ) |
| 5077-5099 | GUGGGGAGAACUUUCCUUA | B,C,F | -3.9 | ( -12.1, -8.2 ) |
| 1710-1732 | GCCAGCUGCCGACGCCUUA | F | -3.9 | ( -12.1, -8.2 ) |
| 392-414 | UCGCCCACAGGACGUCAAG | F | -3.9 | ( -12.0, -8.1 ) |
| 1435-1457 | UGGGGAACUGGGCGAAGGU | F | -3.9 | ( -12.5, -8.6 ) |
| 1242-1264 | ACGCAAGACUGCAAUUGUU | F | -3.9 | ( -10.2, -6.3 ) |
| 7924-7946 | UCCGUUGCCAUGCCAGAAA | F | -3.9 | ( -10.8, -6.9 ) |
| 733-755 | CCGACCUCAUGGGGUACAU | C,F | -3.9 | ( -10.8, -6.9 ) |

**FIG. 11 (page 436 of 479)**

| | | | | |
|---|---|---|---|---|
| 2697-2719 | GCGGUCUACGCCUUCUACG | B,F | -3.9 | ( -12.5, -8.6 ) |
| 7480-7502 | CCGACGUUGAGUCCUAUUC | F | -3.9 | ( -10.8, -6.9 ) |
| 5969-5991 | GGAGGACCUGGUCAAUCUG | F | -3.9 | ( -12.1, -8.2 ) |
| 8161-8183 | UGGGAAGCUCCUACGGAUU | B,F | -3.9 | ( -11.6, -7.7 ) |
| 3480-3502 | CUGACUGGCCGGGACAAAA | F | -3.9 | ( -9.4, -5.5 ) |
| 5389-5411 | UGGGCAGGAUUGUCUUGUC | F | -3.9 | ( -12.7, -8.8 ) |
| 1100-1122 | CCCCACAACGCAGCUUCGA | F | -3.9 | ( -12.5, -8.6 ) |
| 7338-7360 | GUGGUCCUCACCGAAUCAA | C,F | -3.9 | ( -11.0, -7.1 ) |
| 1321-1343 | CCCCUACGGCAGCGUUGGU | F | -3.9 | ( -12.5, -8.6 ) |
| 9083-9105 | CCCGCCCUUGCGAGCUUGG | F | -3.9 | ( -12.9, -9.0 ) |
| 354-376 | CCUAAACCUCAAAGAAAAA | F | -3.9 | ( -8.2, -4.3 ) |
| 3634-3656 | UCCAGAUGUAUACCAAUGU | B,F | -3.9 | ( -10.4, -6.5 ) |
| 1741-1763 | AGGGCUGGGGUCCUAUCAG | F | -3.9 | ( -12.1, -8.2 ) |
| 417-439 | GGUGGCGGUCAGAUCGUUG | F | -3.9 | ( -12.1, -8.2 ) |
| 7590-7612 | GUCGUGUGCUGCUCAAUGU | C,F | -3.9 | ( -10.4, -6.5 ) |
| 1401-1423 | GGAGUCCUGGCGGGCAUAG | F | -3.9 | ( -11.1, -7.2 ) |
| 1178-1200 | CCUGUGCGGGUCUGUCUUU | B,F | -3.9 | ( -10.3, -6.4 ) |
| 2081-2103 | CUGCCCCACUGAUUGUUUC | F | -3.9 | ( -11.5, -7.6 ) |
| 6109-6131 | CCUCCCGGGGGAACCAUGU | F | -3.9 | ( -11.6, -7.7 ) |
| 1908-1930 | GGCGCGCCUACCUACAGCU | C,F | -3.9 | ( -13.7, -9.8 ) |
| 4618-4640 | UCCCGACCAGCGGCGAUGU | B,F | -3.9 | ( -11.8, -7.9 ) |
| 414-436 | CCGGGUGGCGGUCAGAUCG | F | -3.9 | ( -12.7, -8.8 ) |
| 4395-4417 | CCGGGCUCCGUCACUGUGU | F | -3.9 | ( -12.7, -8.8 ) |
| 3080-3102 | GCGCGUUCAAGGCCUUCUC | F | -3.9 | ( -12.8, -8.9 ) |
| 3300-3322 | GGGGCAGAUACCGCCGCGU | C,F | -3.9 | ( -14.4, -10.5 ) |
| 8444-8466 | GAGCGGCGUACUGACAACU | C,F | -3.9 | ( -11.4, -7.5 ) |
| 479-501 | GCGCGCGACGAGGAAGACU | F | -3.9 | ( -12.8, -8.9 ) |
| 8411-8433 | GGGGGAAAACUGCGGCUAC | F | -3.9 | ( -14.2, -10.3 ) |
| 6745-6767 | CCCCUUGCAAGCCCUUGCU | C,F | -3.9 | ( -12.5, -8.6 ) |
| 4155-4177 | CAUGGGGUUGAUCCUAAUA | F | -3.9 | ( -9.2, -5.3 ) |
| 4042-4064 | GCGGUAAGAGCACCAAGGU | B,F | -3.9 | ( -12.5, -8.6 ) |
| 6559-6581 | UUCCUGCGCCGAACUAUAA | F | -3.9 | ( -9.2, -5.3 ) |
| 4887-4909 | GUCCUCUGUGAGUGCUAUG | F | -3.9 | ( -11.1, -7.2 ) |
| 353-375 | UCCUAAACCUCAAAGAAAA | B,F | -3.9 | ( -9.6, -5.7 ) |
| 903-925 | CCCGCUUCAGCCUACCAAG | F | -3.9 | ( -12.9, -9.0 ) |
| 1173-1195 | GGGGACCUGUGCGGGUCUG | F | -3.9 | ( -13.3, -9.4 ) |
| 1299-1321 | UGGGAUAUGAUGAUGAACU | B,F | -3.9 | ( -11.6, -7.7 ) |
| 794-816 | GGCGCAUGGCGUCCGGGUU | F | -3.9 | ( -13.7, -9.8 ) |
| 2355-2377 | UGGCAGGUCCUUCCGUGUU | F | -3.9 | ( -11.5, -7.6 ) |
| Jun-28 | CCCCCUGAUGGGGGCGACA | F | -3.9 | ( -13.6, -9.7 ) |
| 8728-8750 | GCGCUGGAAAGAGGGUCUA | C,F | -3.9 | ( -12.5, -8.6 ) |
| 1924-1946 | GCUGGGGUGCAAAUGAUAC | B,F | -3.9 | ( -12.1, -8.2 ) |
| 6918-6940 | GGGUCACCCCCUUCUAUGG | B,F | -3.9 | ( -12.3, -8.4 ) |
| 9147-9169 | GGCAGGGCUGCCAUAUGUG | B,F | -3.9 | ( -12.1, -8.2 ) |
| 2358-2380 | CAGGUCCUUCCGUGUUCUU | F | -3.9 | ( -10.3, -6.4 ) |
| 5151-5173 | UGGGACCAGAUGUGGAAGU | F | -3.9 | ( -11.6, -7.7 ) |
| 3478-3500 | GCCUGACUGGCCGGGACAA | B,F | -3.9 | ( -12.1, -8.2 ) |
| 5247-5269 | ACCCUGACGCACCCAAUCA | F | -3.8 | ( -10.9, -7.1 ) |
| 8496-8518 | GCCCGGGCAGCCUGUCGAG | F | -3.8 | ( -13.5, -9.7 ) |
| 4521-4543 | UGCCACUCAAAGAAGAAGU | F | -3.8 | ( -11.5, -7.7 ) |

| | | | | |
|---|---|---|---|---|
| 8198-8220 | GCGGGUUGAAUUCCUCGUG | B,F | -3.8 | ( -13.5, -9.7 ) |
| 3895-3917 | GCACCCGUGGAGUGGCUAA | F | -3.8 | ( -12.2, -8.4 ) |
| 1740-1762 | CAGGGCUGGGGUCCUAUCA | F | -3.8 | ( -11.3, -7.5 ) |
| 7646-7668 | UGCGGAAGAACAAAAACUG | F | -3.8 | ( -11.8, -8.0 ) |
| 7887-7909 | UCAGCCAAAUCCAAGUUUG | F | -3.8 | ( -10.6, -6.8 ) |
| 2031-2053 | UGCGGAGCGCCCCCUUGUG | F | -3.8 | ( -11.8, -8.0 ) |
| 8239-8261 | CCCCGAUGGGGUUCUCGUA | B,F | -3.8 | ( -12.7, -8.9 ) |
| 6953-6975 | CCAGCUGUCCGCUCCAUCU | F | -3.8 | ( -11.5, -7.7 ) |
| 6395-6417 | CUGGCGAGGAGACGGCAUU | C,F | -3.8 | ( -11.5, -7.7 ) |
| 7799-7821 | CGUGCUCAAGGAGGUCAAA | B,F | -3.8 | ( -10.7, -6.9 ) |
| 3482-3504 | GACUGGCCGGGACAAAAAC | F | -3.8 | ( -10.0, -6.2 ) |
| 6028-6050 | UGGUCUGCGCAGCAAUACU | F | -3.8 | ( -10.6, -6.8 ) |
| 3021-3043 | GCCAUCUUCGGACCCCUUU | F | -3.8 | ( -11.1, -7.3 ) |
| 5813-5835 | UGCCGCUACCGCCUUUGUG | F | -3.8 | ( -11.8, -8.0 ) |
| 5252-5274 | GACGCACCCAAUCACCAAA | C,F | -3.8 | ( -11.6, -7.8 ) |
| 6369-6391 | UCCUGCCAGCGCGGGUAUA | F | -3.8 | ( -10.4, -6.6 ) |
| 5851-5873 | CCGCCAUCGGCAGCGUUGG | F | -3.8 | ( -12.9, -9.1 ) |
| 5246-5268 | CACCCUGACGCACCCAAUC | F | -3.8 | ( -11.5, -7.7 ) |
| 7570-7592 | GUGGGGCCGACACGGAAGA | B,C,F | -3.8 | ( -12.1, -8.3 ) |
| 1853-1875 | CCCGGUAUAUUGCUUCACU | C,F | -3.8 | ( -12.7, -8.9 ) |
| 765-787 | GCCCCUCUUGGAGGCGCUG | F | -3.8 | ( -14.4, -10.6 ) |
| 312-334 | UGCCCCGGGAGGUCUCGUA | F | -3.8 | ( -12.7, -8.9 ) |
| 4741-4763 | ACCCUACCUUUACCAUUGA | F | -3.8 | ( -10.9, -7.1 ) |
| 1942-1964 | CGGAUGUCUUCGUCCUUAA | B,C,F | -3.8 | ( -9.7, -5.9 ) |
| 4252-4274 | GGUGCUCAGGAGGUGCUUA | F | -3.8 | ( -12.2, -8.4 ) |
| 7004-7026 | CCCUGACGCCGAGCUCAUA | F | -3.8 | ( -11.3, -7.5 ) |
| 5916-5938 | GUGGCGGGAGCUCUUGUAG | F | -3.8 | ( -12.2, -8.4 ) |
| 6545-6567 | CCCCUGUACUCCCCUUCCU | C,F | -3.8 | ( -12.5, -8.7 ) |
| 5914-5936 | GCGUGGCGGGAGCUCUUGU | F | -3.8 | ( -11.3, -7.5 ) |
| 5750-5772 | UGGCCAAACCCUCCUCUUC | F | -3.8 | ( -12.7, -8.9 ) |
| 8549-8571 | UGGCGACGACUUAGUCGUU | F | -3.8 | ( -11.8, -8.0 ) |
| 4666-4688 | CUGGCUUUACCGGCGACUU | B,F | -3.8 | ( -11.5, -7.7 ) |
| 4937-4959 | CGCCGAGACUACAGUUAGG | F | -3.8 | ( -12.0, -8.2 ) |
| 6924-6946 | CCCCCUUCUAUGGCCAGCU | B,C,F | -3.8 | ( -13.6, -9.8 ) |
| 5409-5431 | GGGAAGCCGGCAAUUAUAC | F | -3.8 | ( -11.0, -7.2 ) |
| 7868-7890 | CAGCCUGACGCCCCCACAU | F | -3.8 | ( -11.5, -7.7 ) |
| 2030-2052 | GUGCGGAGCGCCCCCUUGU | F | -3.8 | ( -11.3, -7.5 ) |
| 6762-6784 | CUGCGGGAGGAGGUAUCAU | F | -3.8 | ( -10.6, -6.8 ) |
| 2796-2818 | GGCGGCGUUGUUCUUGUCG | F | -3.8 | ( -13.5, -9.7 ) |
| 2032-2054 | GCGGAGCGCCCCCUUGUGU | F | -3.8 | ( -12.6, -8.8 ) |
| 2621-2643 | CGGGACGCACGGUCUUGUG | F | -3.8 | ( -11.8, -8.0 ) |
| 1433-1455 | GGUGGGGAACUGGGCGAAG | F | -3.8 | ( -12.1, -8.3 ) |
| 1967-1989 | CAGGCCACCGCUGGGCAAU | F | -3.8 | ( -11.5, -7.7 ) |
| 3591-3613 | GGGGCCGGAACGAGGACCA | C,F | -3.8 | ( -14.4, -10.6 ) |
| 3907-3929 | UGGCUAAGGCGGUGGACUU | F | -3.8 | ( -11.5, -7.7 ) |
| 1203-1225 | GGUCAACUGUUUACCUUCU | C,F | -3.7 | ( -11.2, -7.5 ) |
| 1182-1204 | UGCGGGUCUGUCUUUCUUG | F | -3.7 | ( -11.8, -8.1 ) |
| 6510-6532 | AGUGGGACGUUCCCCAUUA | F | -3.7 | ( -9.8, -6.1 ) |
| 9222-9244 | GCCGCUGGCCGGCUGGACU | F | -3.7 | ( -13.7, -10.0 ) |
| 4857-4879 | GAGCGCCCCUCCGGCAUGU | C,F | -3.7 | ( -11.4, -7.7 ) |

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| | | | | |
|---|---|---|---|---|
| 6295-6317 | GCGAGGUGCUGAGCGACUU | C,F | -3.7 | ( -11.4, -7.7 ) |
| 1990-2012 | UCGGUUGUACCUGGAUGAA | F | -3.7 | ( -10.8, -7.1 ) |
| 6300-6322 | GUGCUGAGCGACUUUAAGA | F | -3.7 | ( -11.0, -7.3 ) |
| 2528-2550 | GCGCGUCUGCUCCUGCUUG | F | -3.7 | ( -12.8, -9.1 ) |
| 4078-4100 | CCCAGGGCUACAAGGUGUU | C,F | -3.7 | ( -11.3, -7.6 ) |
| 1625-1647 | CUGCAAUGAAAGCCUUAAC | B,F | -3.7 | ( -10.3, -6.6 ) |
| 8307-8329 | GAGGAGGCAAUUUACCAAU | C,F | -3.7 | ( -11.2, -7.5 ) |
| 8858-8880 | GUGGGCGAGGAUGAUACUG | F | -3.7 | ( -12.1, -8.4 ) |
| 4154-4176 | CCAUGGGGUUGAUCCUAAU | C,F | -3.7 | ( -9.2, -5.5 ) |
| 5509-5531 | UGCUCGCUGAGCAGUUCAA | B,F | -3.7 | ( -10.6, -6.9 ) |
| 8972-8994 | GGAUCUACCUCCAAUCAUU | C,F | -3.7 | ( -10.3, -6.6 ) |
| 4519-4541 | UCUGCCACUCAAAGAAGAA | F | -3.7 | ( -10.6, -6.9 ) |
| 8802-8824 | AGACACACUCCAGUCAAUU | B,F | -3.7 | ( -8.9, -5.2 ) |
| 5558-5580 | GUCCCGCCAAGCAGAGGUU | C,F | -3.7 | ( -12.3, -8.6 ) |
| 6214-6236 | GGCGACUGCAUCAGUGGAU | B,C,F | -3.7 | ( -12.6, -8.9 ) |
| 1925-1947 | CUGGGGUGCAAAUGAUACG | F | -3.7 | ( -11.3, -7.6 ) |
| 6865-6887 | UCACUGAUCCCUCCCAUAU | F | -3.7 | ( -9.4, -5.7 ) |
| 4181-4203 | CGGGGUGAGAACAAUUACC | F | -3.7 | ( -12.7, -9.0 ) |
| 6917-6939 | AGGGUCACCCCCUUCUAUG | F | -3.7 | ( -10.9, -7.2 ) |
| 6625-6647 | GGGUGGGGGACUUCCACUA | C,F | -3.7 | ( -12.1, -8.4 ) |
| 3625-3647 | GUCCUGUCAUCCAGAUGUA | C,F | -3.7 | ( -11.1, -7.4 ) |
| 8727-8749 | GGCGCUGGAAAGAGGGUCU | C,F | -3.7 | ( -13.7, -10.0 ) |
| 3252-3274 | GUGGAACCAGUCGUCUUCU | F | -3.7 | ( -11.2, -7.5 ) |
| 2546-2568 | GUGGAUGAUGUUACUCAUA | F | -3.7 | ( -11.2, -7.5 ) |
| 9111-9133 | GCCCGGAGCGUCCGCGCUA | F | -3.7 | ( -13.5, -9.8 ) |
| 8720-8742 | CCACGACGGCGCUGGAAAG | F | -3.7 | ( -10.6, -6.9 ) |
| 4678-4700 | GCGACUUCGACUCUGUGAU | C,F | -3.7 | ( -11.6, -7.9 ) |
| 3627-3649 | CCUGUCAUCCAGAUGUAUA | F | -3.7 | ( -10.3, -6.6 ) |
| 9081-9103 | GUCCCGCCCUUGCGAGCUU | C,F | -3.7 | ( -12.3, -8.6 ) |
| 1557-1579 | GGCGCCAAGCAGAACAUCC | B,F | -3.7 | ( -13.7, -10.0 ) |
| 6004-6026 | CGCCUGGAGCCCUUGUAGU | F | -3.7 | ( -11.7, -8.0 ) |
| 4219-4241 | ACUCCACCUACGGCAAGUU | F | -3.7 | ( -10.0, -6.3 ) |
| 5593-5615 | AGACCAACUGGCAGAAACU | F | -3.7 | ( -10.0, -6.3 ) |
| 9269-9291 | CGGGGGAGACAUUUAUCAC | F | -3.7 | ( -12.7, -9.0 ) |
| 2547-2569 | UGGAUGAUGUUACUCAUAU | F | -3.7 | ( -9.4, -5.7 ) |
| 7888-7910 | CAGCCAAAUCCAAGUUUGG | F | -3.7 | ( -11.5, -7.8 ) |
| 8514-8536 | GCCGCAGGGCUCCAGGACU | B,F | -3.7 | ( -13.7, -10.0 ) |
| 2950-2972 | GCGAUGCCGUCAUCUUACU | C,F | -3.7 | ( -10.4, -6.7 ) |
| 8612-8634 | AGCCUUCACGGAGGCUAUG | F | -3.7 | ( -10.9, -7.2 ) |
| 1980-2002 | GGCAAUUGGUUCGGUUGUA | C,F | -3.7 | ( -10.9, -7.2 ) |
| 1711-1733 | CCAGCUGCCGACGCCUUAC | F | -3.7 | ( -11.5, -7.8 ) |
| 9001-9023 | AUGGCCUCAGCGCAUUUUC | F | -3.7 | ( -10.0, -6.3 ) |
| 5201-5223 | GCCAACACCCCUGCUAUAC | F | -3.7 | ( -10.9, -7.2 ) |
| 9084-9106 | CCGCCCUUGCGAGCUUGGA | F | -3.7 | ( -12.9, -9.2 ) |
| 704-726 | GGUCAUCGAUACCCUUACG | B,F | -3.7 | ( -11.2, -7.5 ) |
| 6828-6850 | GAGCCCGAACCGGACGUAG | F | -3.7 | ( -12.3, -8.6 ) |
| 2430-2452 | GUGGACGUGCAGUACUUGU | F | -3.7 | ( -11.2, -7.5 ) |
| 4255-4277 | GCUCAGGAGGUGCUUAUGA | F | -3.7 | ( -11.2, -7.5 ) |
| 3352-3374 | CCCGUAGGGGCCAGGAGAU | F | -3.7 | ( -11.7, -8.0 ) |
| 4452-4474 | GGAGAGAUCCCUUUUUACG | F | -3.7 | ( -11.2, -7.5 ) |

| | | | | |
|---|---|---|---|---|
| 4182-4204 | GGGGUGAGAACAAUUACCA | C,F | -3.7 | ( -13.2, -9.5 ) |
| 208-230 | CCGCUCAAUGCCUGGAGAU | F | -3.7 | ( -11.7, -8.0 ) |
| 5332-5354 | GCGGCGUCCUGGCUGCUCU | C,F | -3.7 | ( -13.7, -10.0 ) |
| 2359-2381 | AGGUCCUUCCGUGUUCUUU | F | -3.6 | ( -10.0, -6.4 ) |
| 8948-8970 | AGCCUGCUACUCCAUAGAA | F | -3.6 | ( -10.9, -7.3 ) |
| 413-435 | CCCGGGUGGCGGUCAGAUC | F | -3.6 | ( -12.7, -9.1 ) |
| 4597-4619 | GCGGUCUUGACGUGUCUGU | C,F | -3.6 | ( -12.5, -8.9 ) |
| 3318-3340 | UGCGGUGACAUCAUCAACG | F | -3.6 | ( -11.8, -8.2 ) |
| 7346-7368 | CACCGAAUCAACCCUAUCU | C,F | -3.6 | ( -10.6, -7.0 ) |
| 1320-1342 | UCCCCUACGGCAGCGUUGG | F | -3.6 | ( -12.7, -9.1 ) |
| 3864-3886 | CACGCCGUGGGCCUAUUCA | B,F | -3.6 | ( -10.7, -7.1 ) |
| 3616-3638 | CACCCAAGGGUCCUGUCAU | F | -3.6 | ( -11.5, -7.9 ) |
| 6062-6084 | CCCGGGCGAGGGGGCAGUG | F | -3.6 | ( -12.7, -9.1 ) |
| 3105-3127 | UGCGCGCUAGCGCGGAAGA | F | -3.6 | ( -11.9, -8.3 ) |
| 2530-2552 | GCGUCUGCUCCUGCUUGUG | F | -3.6 | ( -11.6, -8.0 ) |
| 6002-6024 | CUCGCCUGGAGCCCUUGUA | C,F | -3.6 | ( -10.8, -7.2 ) |
| 1091-1113 | CGGCAAACUCCCCACAACG | B,F | -3.6 | ( -11.8, -8.2 ) |
| 2414-2436 | CCUCCACCAGAACAUUGUG | B,F | -3.6 | ( -11.6, -8.0 ) |
| 7405-7427 | CCUCAACUUCCGGCAUUAC | F | -3.6 | ( -10.4, -6.8 ) |
| 6867-6889 | ACUGAUCCCUCCCAUAUAA | F | -3.6 | ( -8.9, -5.3 ) |
| 3479-3501 | CCUGACUGGCCGGGACAAA | F | -3.6 | ( -10.4, -6.8 ) |
| 1833-1855 | CCCGCAAAGAGCGUGUGUG | F | -3.6 | ( -12.9, -9.3 ) |
| 7372-7394 | UGGCCGAGCUUGCCACCAA | F | -3.6 | ( -12.7, -9.1 ) |
| 8438-8460 | CCGCGCGAGCGGCGUACUG | F | -3.6 | ( -12.0, -8.4 ) |
| 4152-4174 | GCCCAUGGGGUUGAUCCUA | F | -3.6 | ( -13.2, -9.6 ) |
| 6657-6679 | ACUACUGACAAUCUUAAAU | F | -3.6 | ( -8.0, -4.4 ) |
| 2283-2305 | CGGGGCGAACGCUGUGAUC | F | -3.6 | ( -12.7, -9.1 ) |
| 5154-5176 | GACCAGAUGUGGAAGUGUU | C,F | -3.6 | ( -11.2, -7.6 ) |
| 230-252 | GGCGUGCCCCCGCAAGACU | F | -3.6 | ( -12.5, -8.9 ) |
| 2688-2710 | GUGCCCGGAGCGGUCUACG | F | -3.6 | ( -12.2, -8.6 ) |
| 1978-2000 | UGGGCAAUUGGUUCGGUUG | F | -3.6 | ( -12.7, -9.1 ) |
| 6520-6542 | UCCCCAUUAACGCCUACAC | F | -3.6 | ( -12.7, -9.1 ) |
| 2656-2678 | UCUGCUUUGCGUGGUAUCU | F | -3.6 | ( -10.6, -7.0 ) |
| 1849-1871 | GUGGCCCGGUAUAUUGCUU | C,F | -3.6 | ( -12.2, -8.6 ) |
| 8168-8190 | CUCCUACGGAUUCCAAUAC | F | -3.6 | ( -10.4, -6.8 ) |
| 9398-9420 | GCCUCUUAGGCCAUUUCCU | F | -3.6 | ( -12.3, -8.7 ) |
| 6003-6025 | UCGCCUGGAGCCCUUGUAG | F | -3.6 | ( -12.0, -8.4 ) |
| 6837-6859 | CCGGACGUAGCCGUGUUGA | B,F | -3.6 | ( -11.8, -8.2 ) |
| 6388-6410 | GGGGGGUCUGGCGAGGAGA | B,F | -3.6 | ( -14.2, -10.6 ) |
| 1737-1759 | GCCCAGGGCUGGGGUCCUA | C,F | -3.6 | ( -13.2, -9.6 ) |
| 8673-8695 | UACGACUUGGAGCUUAUAA | B,F | -3.6 | ( -8.9, -5.3 ) |
| 5290-5312 | CGGCCGACCUGGAGGUCGU | C,F | -3.6 | ( -12.9, -9.3 ) |
| 2584-2606 | UGGAGAACCUCGUAAUACU | F | -3.6 | ( -10.4, -6.8 ) |
| 5156-5178 | CCAGAUGUGGAAGUGUUUG | B,F | -3.6 | ( -10.4, -6.8 ) |
| 688-710 | CGCGCAAUUUGGGUAAGGU | C,F | -3.6 | ( -12.2, -8.6 ) |
| 3485-3507 | UGGCCGGGACAAAAACCAA | F | -3.6 | ( -12.7, -9.1 ) |
| 8659-8681 | CCCCACAACCAGAAUACGA | F | -3.6 | ( -12.5, -8.9 ) |
| 6390-6412 | GGGGUCUGGCGAGGAGACG | F | -3.6 | ( -13.2, -9.6 ) |
| 8651-8673 | CGGGGACCCCCCACAACCA | F | -3.6 | ( -12.7, -9.1 ) |
| 8803-8825 | GACACACUCCAGUCAAUUC | B,F | -3.6 | ( -10.1, -6.5 ) |

| | | | | |
|---|---|---|---|---|
| 6866-6888 | CACUGAUCCCUCCCAUAUA | F | -3.6 | ( -9.1, -5.5 ) |
| 2527-2549 | CGCGCGUCUGCUCCUGCUU | F | -3.6 | ( -12.2, -8.6 ) |
| 7380-7402 | CUUGCCACCAAAAGUUUUG | F | -3.6 | ( -9.1, -5.5 ) |
| 3020-3042 | GGCCAUCUUCGGACCCCUU | F | -3.6 | ( -13.2, -9.6 ) |
| 3316-3338 | CGUGCGGUGACAUCAUCAA | C,F | -3.6 | ( -10.7, -7.1 ) |
| 6554-6576 | UCCCCUUCCUGCGCCGAAC | F | -3.6 | ( -12.7, -9.1 ) |
| 6083-6105 | AUGGAUGAACCGGCUAAUA | B,F | -3.6 | ( -8.9, -5.3 ) |
| 1922-1944 | CAGCUGGGGUGCAAAUGAU | B,C,F | -3.5 | ( -10.3, -6.8 ) |
| 6694-6716 | CGCCCGAAUUUUUCACAGA | C,F | -3.5 | ( -12.9, -9.4 ) |
| 4360-4382 | GGGCGAGACUGGUUGUGCU | C,F | -3.5 | ( -13.5, -10.0 ) |
| 1400-1422 | GGGAGUCCUGGCGGGCAUA | F | -3.5 | ( -12.1, -8.6 ) |
| 9608-9630 | UGCAGAGAGUGCUGAUACU | F | -3.5 | ( -10.3, -6.8 ) |
| 3593-3615 | GGCCGGAACGAGGACCAUC | F | -3.5 | ( -13.5, -10.0 ) |
| 2077-2099 | UGCUCUGCCCCACUGAUUG | F | -3.5 | ( -10.6, -7.1 ) |
| 8410-8432 | GGGGGGAAAACUGCGGCUA | B,C,F | -3.5 | ( -14.2, -10.7 ) |
| 415-437 | CGGGUGGCGGUCAGAUCGU | F | -3.5 | ( -11.7, -8.2 ) |
| 8521-8543 | GGCUCCAGGACUGCACCAU | C,F | -3.5 | ( -12.3, -8.8 ) |
| 5627-5649 | GAAGCACAUGUGGAAUUUC | F | -3.5 | ( -10.0, -6.5 ) |
| 2413-2435 | ACCUCCACCAGAACAUUGU | F | -3.5 | ( -10.0, -6.5 ) |
| 3049-3071 | AAGCCAGUUUGCUUAAAGU | F | -3.5 | ( -9.8, -6.3 ) |
| 6770-6792 | GGAGGUAUCAUUCAGAGUA | B,C,F | -3.5 | ( -12.1, -8.6 ) |
| 2686-2708 | GGGUGCCCGGAGCGGUCUA | F | -3.5 | ( -12.1, -8.6 ) |
| 4033-4055 | CCACCGGCAGCGGUAAGAG | F | -3.5 | ( -11.5, -8.0 ) |
| 6627-6649 | GUGGGGGACUUCCACUACG | F | -3.5 | ( -12.1, -8.6 ) |
| 6721-6743 | GGGUGCGCCUACAUAGGUU | C,F | -3.5 | ( -12.1, -8.6 ) |
| 4251-4273 | GGGUGCUCAGGAGGUGCUU | F | -3.5 | ( -12.1, -8.6 ) |
| 6649-6671 | CGGGUAUGACUACUGACAA | F | -3.5 | ( -11.7, -8.2 ) |
| 5591-5613 | CCAGACCAACUGGCAGAAA | F | -3.5 | ( -10.4, -6.9 ) |
| 2412-2434 | CACCUCCACCAGAACAUUG | F | -3.5 | ( -10.3, -6.8 ) |
| 3674-3696 | GCCCGCUCCUCAAGGUUCC | F | -3.5 | ( -13.5, -10.0 ) |
| 8448-8470 | GGCGUACUGACAACUAGCU | C,F | -3.5 | ( -12.5, -9.0 ) |
| 5415-5437 | CCGGCAAUUAUACCUGACA | C,F | -3.5 | ( -12.9, -9.4 ) |
| 2622-2644 | GGGACGCACGGUCUUGUGU | F | -3.5 | ( -12.3, -8.8 ) |
| 5189-5211 | CACCCUCCAUGGGCCAACA | C,F | -3.5 | ( -11.5, -8.0 ) |
| 2035-2057 | GAGCGCCCCCUUGUGUCAU | F | -3.5 | ( -11.4, -7.9 ) |
| 150-172 | GCGGAACCGGUGAGUACAC | F | -3.5 | ( -12.6, -9.1 ) |
| 6809-6831 | GGGGUCGCAAUUACCUUGC | F | -3.5 | ( -13.2, -9.7 ) |
| 6676-6698 | GCCCGUGCCAGAUCCCAUC | F | -3.5 | ( -13.5, -10.0 ) |
| 8857-8879 | UGUGGGCGAGGAUGAUACU | F | -3.5 | ( -10.3, -6.8 ) |
| 2056-2078 | GAGGGGUGGGCAACAACAC | F | -3.5 | ( -12.2, -8.7 ) |
| 5848-5870 | GCGCCGCCAUCGGCAGCGU | C,F | -3.5 | ( -13.7, -10.2 ) |
| 2792-2814 | GUGUGGCGGCGUUGUUCUU | F | -3.5 | ( -9.9, -6.4 ) |
| 4081-4103 | AGGGCUACAAGGUGUUGGU | F | -3.5 | ( -12.1, -8.6 ) |
| 5696-5718 | CGCCAUUGCUUCAUUGAUG | F | -3.5 | ( -11.8, -8.3 ) |
| 6206-6228 | GCUCCUGAGGCGACUGCAU | B,F | -3.5 | ( -12.3, -8.8 ) |
| 4629-4651 | GGCGAUGUUGUCGUCGUGU | F | -3.5 | ( -12.6, -9.1 ) |
| 4561-4583 | UGGUCGCAUUGGGCAUCAA | F | -3.5 | ( -10.6, -7.1 ) |
| 2954-2976 | UGCCGUCAUCUUACUCAUG | B,F | -3.5 | ( -11.8, -8.3 ) |
| 81-103 | AGCCAUGGCGUUAGUAUGA | F | -3.5 | ( -11.0, -7.5 ) |
| 4520-4542 | CUGCCACUCAAAGAAGAAG | F | -3.5 | ( -11.5, -8.0 ) |

**FIG. 11 (page 441 of 479)**

| | | | | |
|---|---|---|---|---|
| 236-258 | CCCCCGCAAGACUGCUAGC | F | -3.5 | ( -13.6, -10.1 ) |
| 5414-5436 | GCCGGCAAUUAUACCUGAC | B,F | -3.5 | ( -13.5, -10.0 ) |
| 619-641 | GGGCGGGAUGGCUCCUGUC | F | -3.5 | ( -13.5, -10.0 ) |
| 1357-1379 | GGAUCCCACAAGCCAUCAU | C,F | -3.5 | ( -10.3, -6.8 ) |
| 8553-8575 | GACGACUUAGUCGUUAUCU | F | -3.5 | ( -10.5, -7.0 ) |
| 582-604 | UACCCUUGGCCCCUCUAUG | F | -3.5 | ( -10.7, -7.2 ) |
| 4482-4504 | CCCCUCGAGGUGAUCAAGG | F | -3.5 | ( -12.5, -9.0 ) |
| 5071-5093 | AGCAGAGUGGGGAGAACUU | B,F | -3.5 | ( -9.8, -6.3 ) |
| 6807-6829 | GUGGGGUCGCAAUUACCUU | F | -3.5 | ( -12.1, -8.6 ) |
| 2039-2061 | GCCCCCUUGUGUCAUCGGA | C,F | -3.5 | ( -14.4, -10.9 ) |
| 7663-7685 | UGCCCAUCAACGCACUGAG | F | -3.5 | ( -12.7, -9.2 ) |
| 8192-8214 | AGGACAGCGGGUUGAAUUC | F | -3.5 | ( -10.0, -6.5 ) |
| 2059-2081 | GGGUGGGCAACAACACCUU | C,F | -3.5 | ( -12.1, -8.6 ) |
| 315-337 | CCCGGGAGGUCUCGUAGAC | F | -3.5 | ( -12.7, -9.2 ) |
| 6808-6830 | UGGGGUCGCAAUUACCUUG | F | -3.5 | ( -12.5, -9.0 ) |
| 5381-5403 | GGUCAUAGUGGGCAGGAUU | F | -3.5 | ( -11.2, -7.7 ) |
| 5155-5177 | ACCAGAUGUGGAAGUGUUU | F | -3.5 | ( -9.8, -6.3 ) |
| 6655-6677 | UGACUACUGACAAUCUUAA | B,F | -3.5 | ( -9.4, -5.9 ) |
| 7319-7341 | GCCUCGGAAAAAGCGUACG | F | -3.5 | ( -12.3, -8.8 ) |
| 3550-3572 | UGGCAACGUGCAUCAAUGG | F | -3.5 | ( -11.5, -8.0 ) |
| 5153-5175 | GGACCAGAUGUGGAAGUGU | F | -3.5 | ( -12.3, -8.8 ) |
| 7155-7177 | GCAGAAAUUCUGCGGAAGU | F | -3.5 | ( -11.2, -7.7 ) |
| 3626-3648 | UCCUGUCAUCCAGAUGUAU | F | -3.5 | ( -10.4, -6.9 ) |
| 2529-2551 | CGCGUCUGCUCCUGCUUGU | C,F | -3.5 | ( -11.0, -7.5 ) |
| 3030-3052 | GGACCCCUUUGGAUUCUUC | F | -3.4 | ( -12.3, -8.9 ) |
| 1943-1965 | GGAUGUCUUCGUCCUUAAC | F | -3.4 | ( -10.0, -6.6 ) |
| 7688-7710 | GUUGCUACGCCAUCACAAU | F | -3.4 | ( -9.9, -6.5 ) |
| 5581-5603 | CCCCUGCUGUCCAGACCAA | B,C,F | -3.4 | ( -12.5, -9.1 ) |
| 1478-1500 | CGGCGUCGACGCGGAAACC | F | -3.4 | ( -12.0, -8.6 ) |
| 9010-9032 | GCGCAUUUUCACUCCACAG | B,F | -3.4 | ( -12.5, -9.1 ) |
| 7335-7357 | ACGGUGGUCCUCACCGAAU | F | -3.4 | ( -10.2, -6.8 ) |
| 2431-2453 | UGGACGUGCAGUACUUGUA | F | -3.4 | ( -10.6, -7.2 ) |
| 5726-5748 | UGCCGUCACCAGCCCACUA | F | -3.4 | ( -11.8, -8.4 ) |
| 9365-9387 | CCCCAACCGAUGAAGGUUG | F | -3.4 | ( -12.5, -9.1 ) |
| 9165-9187 | GGCAAGUACCUCUUCAACU | F | -3.4 | ( -10.9, -7.5 ) |
| 1790-1812 | CCCCUACUGCUGGCACUAC | F | -3.4 | ( -12.5, -9.1 ) |
| 3068-3090 | CCCCUACUUCGUGCGCGUU | F | -3.4 | ( -12.5, -9.1 ) |
| 742-764 | UGGGGUACAUACCGCUCGU | B,F | -3.4 | ( -12.5, -9.1 ) |
| 391-413 | GUCGCCCACAGGACGUCAA | C,F | -3.4 | ( -11.6, -8.2 ) |
| 1458-1480 | GUAGUGCUGCUGCUAUUUG | F | -3.4 | ( -9.1, -5.7 ) |
| 3507-3529 | GAGGGUGAGGUCCAGAUCG | F | -3.4 | ( -12.2, -8.8 ) |
| 2058-2080 | GGGGUGGGCAACAACACCU | B,C,F | -3.4 | ( -13.2, -9.8 ) |
| 5878-5900 | AGGUCCUCGUGGACAUUCU | B,F | -3.4 | ( -10.0, -6.6 ) |
| 2828-2850 | GACUCUGUCGCCAUAUUAC | F | -3.4 | ( -10.2, -6.8 ) |
| 2188-2210 | GGCACUAUCCUUGUACCAU | F | -3.4 | ( -12.2, -8.8 ) |
| 6084-6106 | UGGAUGAACCGGCUAAUAG | B,F | -3.4 | ( -9.4, -6.0 ) |
| 1174-1196 | GGGACCUGUGCGGGUCUGU | F | -3.4 | ( -12.3, -8.9 ) |
| 8719-8741 | CCCACGACGGCGCUGGAAA | F | -3.4 | ( -11.5, -8.1 ) |
| 725-747 | CGGCUUCGCCGACCUCAUG | F | -3.4 | ( -11.7, -8.3 ) |
| 6274-6296 | GGGACAUCUGGGACUGGAU | B,F | -3.4 | ( -12.3, -8.9 ) |

**FIG. 11 (page 442 of 479)**

| | | | | |
|---|---|---|---|---|
| 4242-4264 | GCCGACGGCGGGUGCUCAG | F | -3.4 | ( -12.6, -9.2 ) |
| 2787-2809 | GCGUCGUGUGGCGGCGUUG | F | -3.4 | ( -11.6, -8.2 ) |
| 6632-6654 | GGACUUCCACUACGUAUCG | F | -3.4 | ( -11.1, -7.7 ) |
| 267-289 | GGUCGCGAAAGGCCUUGUG | F | -3.4 | ( -11.4, -8.0 ) |
| 1799-1821 | CUGGCACUACCCUCCAAGA | F | -3.4 | ( -11.5, -8.1 ) |
| 337-359 | GCACCAUGAGCACGAAUCC | F | -3.4 | ( -12.2, -8.8 ) |
| 7045-7067 | AGGAGAUGGGCGGCAACAU | F | -3.4 | ( -9.9, -6.5 ) |
| 5629-5651 | AGCACAUGUGGAAUUUCAU | B,F | -3.4 | ( -10.0, -6.6 ) |
| 3745-3767 | GGCACGCCGAUGUCAUUCC | B,F | -3.4 | ( -12.2, -8.8 ) |
| 5669-5691 | GGGCCUGUCAACGCUGCCU | C,F | -3.4 | ( -14.4, -11.0 ) |
| 9004-9026 | GCCUCAGCGCAUUUUCACU | F | -3.4 | ( -12.3, -8.9 ) |
| 127-149 | UCCCGGGAGAGCCAUAGUG | F | -3.4 | ( -11.8, -8.4 ) |
| 1089-1111 | GACGGCAAACUCCCCACAA | F | -3.4 | ( -11.4, -8.0 ) |
| 3047-3069 | UCAAGCCAGUUUGCUUAAA | F | -3.4 | ( -8.1, -4.7 ) |
| 7736-7758 | UUGCCAAAGGCAGAAGAAA | F | -3.4 | ( -10.3, -6.9 ) |
| 8698-8720 | GCUCCUCCAACGUGUCAGU | C,F | -3.4 | ( -12.3, -8.9 ) |
| 1738-1760 | CCCAGGGCUGGGGUCCUAU | F | -3.4 | ( -11.3, -7.9 ) |
| 5814-5836 | GCCGCUACCGCCUUUGUGG | F | -3.4 | ( -13.7, -10.3 ) |
| 1709-1731 | GGCCAGCUGCCGACGCCUU | F | -3.4 | ( -13.2, -9.8 ) |
| 8613-8635 | GCCUUCACGGAGGCUAUGA | B,F | -3.4 | ( -10.9, -7.5 ) |
| 7903-7925 | UUGGCUAUGGGGCAAAAGA | F | -3.4 | ( -10.3, -6.9 ) |
| 2588-2610 | GAACCUCGUAAUACUCAAU | B,C,F | -3.4 | ( -10.0, -6.6 ) |
| 3810-3832 | CCCAUUUCCUACUUGAAAG | F | -3.4 | ( -10.3, -6.9 ) |
| 734-756 | CGACCUCAUGGGGUACAUA | F | -3.4 | ( -10.8, -7.4 ) |
| 5559-5581 | UCCCGCCAAGCAGAGGUUA | F | -3.4 | ( -11.8, -8.4 ) |
| 2135-2157 | CUCCGGUCCCUGGAUUACA | F | -3.4 | ( -10.6, -7.2 ) |
| 1831-1853 | UGCCCGCAAAGAGCGUGUG | F | -3.4 | ( -12.7, -9.3 ) |
| 5915-5937 | CGUGGCGGGAGCUCUUGUA | C,F | -3.4 | ( -10.6, -7.2 ) |
| 2193-2215 | UAUCCUUGUACCAUCAAUU | F | -3.4 | ( -8.6, -5.2 ) |
| 1250-1272 | CUGCAAUUGUUCUAUCUAU | B,C,F | -3.3 | ( -10.3, -7.0 ) |
| 5810-5832 | CGGUGCCGCUACCGCCUUU | C,F | -3.3 | ( -10.6, -7.3 ) |
| 581-603 | GUACCCUUGGCCCCUCUAU | F | -3.3 | ( -10.3, -7.0 ) |
| 6074-6096 | GGCAGUGCAAUGGAUGAAC | F | -3.3 | ( -12.1, -8.8 ) |
| 80-102 | UAGCCAUGGCGUUAGUAUG | F | -3.3 | ( -10.7, -7.4 ) |
| 8312-8334 | GGCAAUUUACCAAUGUUGU | B,F | -3.3 | ( -10.9, -7.6 ) |
| 850-872 | CUGGUUGCUCUUUCUCUAU | F | -3.3 | ( -10.3, -7.0 ) |
| 802-824 | GCGUCCGGGUUCUGGAAGA | C,F | -3.3 | ( -11.6, -8.3 ) |
| 8904-8926 | GCCAGGGAUCAGCUUGAAC | B,F | -3.3 | ( -12.1, -8.8 ) |
| 621-643 | GCGGGAUGGCUCCUGUCUC | F | -3.3 | ( -13.5, -10.2 ) |
| 3718-3740 | GCUCCUCGGACCUUUACCU | C,F | -3.3 | ( -12.3, -9.0 ) |
| 3744-3766 | AGGCACGCCGAUGUCAUUC | F | -3.3 | ( -11.0, -7.7 ) |
| 8906-8928 | CAGGGAUCAGCUUGAACAG | F | -3.3 | ( -11.3, -8.0 ) |
| 1399-1421 | GGGGAGUCCUGGCGGGCAU | C,F | -3.3 | ( -13.3, -10.0 ) |
| 7481-7503 | CGACGUUGAGUCCUAUUCU | F | -3.3 | ( -9.9, -6.6 ) |
| 1011-1033 | CCGGGGUGUGUCCCUUGCG | F | -3.3 | ( -12.7, -9.4 ) |
| 3355-3377 | GUAGGGGCCAGGAGAUACU | C,F | -3.3 | ( -10.1, -6.8 ) |
| 3556-3578 | CGUGCAUCAAUGGGGUAUG | B,F | -3.3 | ( -10.7, -7.4 ) |
| 8601-8623 | GCGAGCCUGAGAGCCUUCA | C,F | -3.3 | ( -11.4, -8.1 ) |
| 4013-4035 | GGUGGCCCACCUGCAUGCU | B,F | -3.3 | ( -12.1, -8.8 ) |
| 6216-6238 | CGACUGCAUCAGUGGAUAA | F | -3.3 | ( -9.6, -6.3 ) |

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| | | | | |
|---|---|---|---|---|
| 6724-6746 | UGCGCCUACAUAGGUUUGC | F | -3.3 | ( -11.9, -8.6 ) |
| 3547-3569 | UCCUGGCAACGUGCAUCAA | F | -3.3 | ( -10.4, -7.1 ) |
| 3861-3883 | GGACACGCCGUGGGCCUAU | F | -3.3 | ( -11.2, -7.9 ) |
| 9360-9382 | CUCCUCCCCAACCGAUGAA | C,F | -3.3 | ( -10.4, -7.1 ) |
| 7871-7893 | CCUGACGCCCCCACAUUCA | F | -3.3 | ( -10.4, -7.1 ) |
| 853-875 | GUUGCUCUUUCUCUAUCUU | C,F | -3.3 | ( -9.9, -6.6 ) |
| 2918-2940 | GUGGGUUCCCCCCCUCAAC | F | -3.3 | ( -12.1, -8.8 ) |
| 1069-1091 | CCCCCACGGUGGCCACCAG | B,F | -3.3 | ( -13.6, -10.3 ) |
| 676-698 | CCCGGCGUAGGUCGCGCAA | F | -3.3 | ( -12.7, -9.4 ) |
| 5876-5898 | GAAGGUCCUCGUGGACAUU | F | -3.3 | ( -9.8, -6.5 ) |
| 6959-6981 | GUCCGCUCCAUCUCUCAAG | F | -3.3 | ( -11.4, -8.1 ) |
| 2919-2941 | UGGGUUCCCCCCCUCAACG | F | -3.3 | ( -11.5, -8.2 ) |
| 7143-7165 | GUCUCCGUACCCGCAGAAA | F | -3.3 | ( -10.2, -6.9 ) |
| 2949-2971 | CGCGAUGCCGUCAUCUUAC | F | -3.3 | ( -11.1, -7.8 ) |
| 149-171 | UGCGGAACCGGUGAGUACA | F | -3.3 | ( -11.8, -8.5 ) |
| 8949-8971 | GCCUGCUACUCCAUAGAAC | B,F | -3.3 | ( -12.1, -8.8 ) |
| 4359-4381 | GGGGCGAGACUGGUUGUGC | F | -3.3 | ( -14.4, -11.1 ) |
| 462-484 | GGCCCUAGAUUGGGUGUGC | F | -3.3 | ( -14.4, -11.1 ) |
| 9059-9081 | CGCAUGCCUCAGAAAACUU | F | -3.3 | ( -9.6, -6.3 ) |
| 7923-7945 | GUCCGUUGCCAUGCCAGAA | F | -3.3 | ( -11.4, -8.1 ) |
| 2356-2378 | GGCAGGUCCUUCCGUGUUC | F | -3.3 | ( -12.1, -8.8 ) |
| 1288-1310 | AUCGCAUGGCAUGGGAUAU | F | -3.3 | ( -9.3, -6.0 ) |
| 7231-7253 | UAGUAGAGACGUGGAAAAA | F | -3.3 | ( -7.6, -4.3 ) |
| 2722-2744 | GGCCUCUCCUCCUGCUCCU | C,F | -3.3 | ( -13.2, -9.9 ) |
| 8859-8881 | UGGGCGAGGAUGAUACUGA | F | -3.3 | ( -12.7, -9.4 ) |
| 3865-3887 | ACGCCGUGGGCCUAUUCAG | F | -3.3 | ( -11.4, -8.1 ) |
| 8970-8992 | CUGGAUCUACCUCCAAUCA | B,F | -3.3 | ( -10.4, -7.1 ) |
| 2732-2754 | CCUGCUCCUGCUGGCGUUG | F | -3.3 | ( -11.5, -8.2 ) |
| 697-719 | UGGGUAAGGUCAUCGAUAC | F | -3.3 | ( -11.5, -8.2 ) |
| 4077-4099 | GCCCAGGGCUACAAGGUGU | B,C,F | -3.3 | ( -13.2, -9.9 ) |
| 7743-7765 | AGGCAGAAGAAAGUCACAU | A,B,F | -3.3 | ( -11.0, -7.7 ) |
| 3717-3739 | GGCUCCUCGGACCUUUACC | F | -3.3 | ( -12.3, -9.0 ) |
| 2573-2595 | GGAGGCGGCUUUGGAGAAC | F | -3.3 | ( -12.1, -8.8 ) |
| 4079-4101 | CCAGGGCUACAAGGUGUUG | F | -3.3 | ( -11.3, -8.0 ) |
| 6581-6603 | CGCGCUGUGGAGGGUGUCU | F | -3.3 | ( -12.2, -8.9 ) |
| 4713-4735 | GUCACUCAGACAGUCGAUU | C,F | -3.3 | ( -10.1, -6.8 ) |
| 8367-8389 | CUCACUGAGAGGCUUUAUG | F | -3.3 | ( -9.4, -6.1 ) |
| 5510-5532 | GCUCGCUGAGCAGUUCAAG | F | -3.3 | ( -11.4, -8.1 ) |
| 801-823 | GGCGUCCGGGUUCUGGAAG | F | -3.3 | ( -12.5, -9.2 ) |
| 3456-3478 | CUCCUAGGGUGUAUAAUCA | C,F | -3.3 | ( -10.4, -7.1 ) |
| 9589-9611 | GGUCCGUGAGCCGCAUGAC | B,F | -3.3 | ( -12.3, -9.0 ) |
| 6742-6764 | CGCCCCCUUGCAAGCCCUU | F | -3.3 | ( -12.9, -9.6 ) |
| 4128-4150 | GGCUUUGGUGCUUACAUGU | F | -3.2 | ( -10.9, -7.7 ) |
| 1318-1340 | GGUCCCCUACGGCAGCGUU | F | -3.2 | ( -12.3, -9.1 ) |
| 9264-9286 | UACAGCGGGGGAGACAUUU | F | -3.2 | ( -8.4, -5.2 ) |
| 4176-4198 | AGGACCGGGGUGAGAACAA | F | -3.2 | ( -10.0, -6.8 ) |
| 3832-3854 | CCUCGGGGGGUCCGCUGUU | F | -3.2 | ( -10.7, -7.5 ) |
| 419-441 | UGGCGGUCAGAUCGUUGGU | F | -3.2 | ( -11.8, -8.6 ) |
| 6836-6858 | ACCGGACGUAGCCGUGUUG | B,F | -3.2 | ( -11.2, -8.0 ) |
| 4329-4351 | GGCACUGUCCUUGACCAAG | F | -3.2 | ( -12.2, -9.0 ) |

| | | | | |
|---|---|---|---|---|
| 124-146 | CCCUCCCGGGAGAGCCAUA | F | -3.2 | ( -11.6, -8.4 ) |
| 901-923 | UGCCCGCUUCAGCCUACCA | F | -3.2 | ( -12.7, -9.5 ) |
| 234-256 | UGCCCCCGCAAGACUGCUA | F | -3.2 | ( -12.7, -9.5 ) |
| 1026-1048 | UGCGUUCGCGAGGGUAACG | F | -3.2 | ( -10.7, -7.5 ) |
| 4207-4229 | GCCCCAUCACGUACUCCAC | B,F | -3.2 | ( -14.4, -11.2 ) |
| 8582-8604 | GGGGGUCCAGGAGGACGCG | F | -3.2 | ( -14.2, -11.0 ) |
| 2466-2488 | AUCGCGUCCUGGGCCAUUA | F | -3.2 | ( -9.3, -6.1 ) |
| 4248-4270 | GGCGGGUGCUCAGGAGGUG | F | -3.2 | ( -13.5, -10.3 ) |
| 8738-8760 | GAGGGUCUACUACCUUACC | B,F | -3.2 | ( -12.2, -9.0 ) |
| 7979-8001 | UCUGGAAGACAGUGUAACA | F | -3.2 | ( -10.4, -7.2 ) |
| 2645-2667 | CCUCGUGUUCUUCUGCUUU | F | -3.2 | ( -10.7, -7.5 ) |
| 420-442 | GGCGGUCAGAUCGUUGGUG | F | -3.2 | ( -13.5, -10.3 ) |
| 8412-8434 | GGGGAAAACUGCGGCUACC | F | -3.2 | ( -13.3, -10.1 ) |
| 7147-7169 | CCGUACCCGCAGAAAUUCU | F | -3.2 | ( -9.8, -6.6 ) |
| 1846-1868 | UGUGUGGCCCGGUAUAUUG | F | -3.2 | ( -9.3, -6.1 ) |
| 517-539 | GAGGUAGACGUCAGCCUAU | F | -3.2 | ( -11.1, -7.9 ) |
| 3928-3950 | UCCCUGUGGAGAACCUAGA | B,F | -3.2 | ( -11.6, -8.4 ) |
| 6591-6613 | AGGGUGUCUGCAGAGGAAU | F | -3.2 | ( -10.9, -7.7 ) |
| 1150-1172 | CCCUCUGCUCGGCCCUCUA | B,F | -3.2 | ( -11.6, -8.4 ) |
| 2038-2060 | CGCCCCCUUGUGUCAUCGG | F | -3.2 | ( -12.9, -9.7 ) |
| 9570-9592 | GUCACGGCUAGCUGUGAAA | B,C,F | -3.2 | ( -10.1, -6.9 ) |
| 8303-8325 | UACGGAGGAGGCAAUUUAC | F | -3.2 | ( -9.8, -6.6 ) |
| 1930-1952 | GUGCAAAUGAUACGGAUGU | C,F | -3.2 | ( -11.1, -7.9 ) |
| 5198-5220 | UGGGCCAACACCCCUGCUA | B,F | -3.2 | ( -12.7, -9.5 ) |
| 4074-4096 | GCAGCCCAGGGCUACAAGG | F | -3.2 | ( -12.2, -9.0 ) |
| 5222-5244 | ACUGGGCGCUGUUCAGAAU | F | -3.2 | ( -9.8, -6.6 ) |
| 6677-6699 | CCCGUGCCAGAUCCCAUCG | F | -3.2 | ( -11.7, -8.5 ) |
| 8924-8946 | GGCUCUUAACUGUGAGAUC | B,F | -3.2 | ( -12.3, -9.1 ) |
| 1878-1900 | CCCGUGGUGGUGGGAACGA | F | -3.2 | ( -11.7, -8.5 ) |
| 1739-1761 | CCAGGGCUGGGGUCCUAUC | F | -3.2 | ( -11.3, -8.1 ) |
| 3177-3199 | GGCACCUAUGUGUAUAACC | F | -3.2 | ( -12.2, -9.0 ) |
| 3132-3154 | GGUCAUUACGUGCAAAUGG | B,F | -3.2 | ( -11.2, -8.0 ) |
| 4621-4643 | CGACCAGCGGCGAUGUUGU | F | -3.2 | ( -10.8, -7.6 ) |
| 3048-3070 | CAAGCCAGUUUGCUUAAAG | F | -3.2 | ( -9.1, -5.9 ) |
| 1974-1996 | CCGCUGGGCAAUUGGUUCG | B,F | -3.2 | ( -11.7, -8.5 ) |
| 4030-4052 | CUCCCACCGGCAGCGGUAA | F | -3.2 | ( -11.6, -8.4 ) |
| 8057-8079 | GGGUCGUAAGCCAGCUCGU | F | -3.2 | ( -12.3, -9.1 ) |
| 935-957 | GGGGCUUUACCAUGUCACC | F | -3.2 | ( -14.4, -11.2 ) |
| 1300-1322 | GGGAUAUGAUGAUGAACUG | F | -3.2 | ( -11.2, -8.0 ) |
| 5312-5334 | GAGCACCUGGGUGCUCGUU | F | -3.2 | ( -11.2, -8.0 ) |
| 5142-5164 | CCCCCAUCGUGGGACCAGA | C,F | -3.2 | ( -13.6, -10.4 ) |
| 8442-8464 | GCGAGCGGCGUACUGACAA | F | -3.2 | ( -11.4, -8.2 ) |
| 5353-5375 | CCGCGUAUUGCCUGUCAAC | F | -3.2 | ( -12.0, -8.8 ) |
| 5691-5713 | AACCCCGCCAUUGCUUCAU | F | -3.2 | ( -9.8, -6.6 ) |
| 7594-7616 | UGUGCUGCUCAAUGUCUUA | F | -3.2 | ( -10.5, -7.3 ) |
| 3622-3644 | AGGGUCCUGUCAUCCAGAU | B,F | -3.2 | ( -10.9, -7.7 ) |
| 4587-4609 | GCCUACUACCGCGGUCUUG | F | -3.2 | ( -11.3, -8.1 ) |
| 1443-1465 | UGGGCGAAGGUCCUGGUAG | F | -3.2 | ( -12.7, -9.5 ) |
| 3174-3196 | ACUGGCACCUAUGUGUAUA | F | -3.2 | ( -9.8, -6.6 ) |
| 911-933 | AGCCUACCAAGUGCGCAAU | F | -3.2 | ( -10.9, -7.7 ) |

**FIG. 11 (page 445 of 479)**

| | | | | |
|---|---|---|---|---|
| 7005-7027 | CCUGACGCCGAGCUCAUAG | F | -3.2 | ( -10.4, -7.2 ) |
| 9112-9134 | CCCGGAGCGUCCGCGCUAG | F | -3.2 | ( -12.7, -9.5 ) |
| 2704-2726 | ACGCCUUCUACGGGAUGUG | F | -3.2 | ( -11.4, -8.2 ) |
| 3769-3791 | GCCGGCGAGGUGAUAGCAG | F | -3.2 | ( -13.5, -10.3 ) |
| 3516-3538 | GUCCAGAUCGUGUCAACUG | F | -3.2 | ( -11.2, -8.0 ) |
| 4134-4156 | GGUGCUUACAUGUCCAAGG | F | -3.2 | ( -12.2, -9.0 ) |
| 2486-2508 | GUGGGAGUACGUCGUUCUC | B,F | -3.2 | ( -12.1, -8.9 ) |
| 1919-1941 | CUACAGCUGGGGUGCAAAU | F | -3.2 | ( -8.4, -5.2 ) |
| 5888-5910 | GGACAUUCUUGCAGGGUAU | C,F | -3.2 | ( -11.2, -8.0 ) |
| 8243-8265 | GAUGGGGUUCUCGUAUGAU | F | -3.2 | ( -10.0, -6.8 ) |
| 3271-3293 | CCCGAAUGGAGACCAAGCU | C,F | -3.2 | ( -11.8, -8.6 ) |
| 4677-4699 | GGCGACUUCGACUCUGUGA | F | -3.2 | ( -12.6, -9.4 ) |
| 7963-7985 | CCGUGUGGAAAGACCUUCU | C,F | -3.1 | ( -10.6, -7.5 ) |
| 735-757 | GACCUCAUGGGGUACAUAC | F | -3.1 | ( -11.1, -8.0 ) |
| 6806-6828 | GGUGGGGUCGCAAUUACCU | F | -3.1 | ( -12.1, -9.0 ) |
| 8912-8934 | UCAGCUUGAACAGGCUCUU | B,F | -3.1 | ( -10.6, -7.5 ) |
| 5245-5267 | UCACCCUGACGCACCCAAU | F | -3.1 | ( -10.6, -7.5 ) |
| 3361-3383 | GCCAGGAGAUACUGCUUGG | F | -3.1 | ( -12.1, -9.0 ) |
| 6108-6130 | GCCUCCCGGGGGAACCAUG | F | -3.1 | ( -12.3, -9.2 ) |
| 1830-1852 | GUGCCCGCAAAGAGCGUGU | C,F | -3.1 | ( -12.2, -9.1 ) |
| 3670-3692 | GCUGGCCCGCUCCUCAAGG | F | -3.1 | ( -12.1, -9.0 ) |
| 8299-8321 | UCCGUACGGAGGAGGCAAU | B,F | -3.1 | ( -10.8, -7.7 ) |
| 7520-7542 | GGAGCCUGGGGAUCCGGAU | F | -3.1 | ( -12.3, -9.2 ) |
| 8978-9000 | ACCUCCAAUCAUUCAAAGA | F | -3.1 | ( -10.0, -6.9 ) |
| 9359-9381 | CCUCCUCCCCAACCGAUGA | B,F | -3.1 | ( -11.6, -8.5 ) |
| 2060-2082 | GGUGGGCAACAACACCUUG | F | -3.1 | ( -12.1, -9.0 ) |
| 9403-9425 | UUAGGCCAUUUCCUGUUUU | F | -3.1 | ( -8.2, -5.1 ) |
| 2336-2358 | GCUGCUGUCCACCACACAG | F | -3.1 | ( -12.2, -9.1 ) |
| 478-500 | UGCGCGCGACGAGGAAGAC | F | -3.1 | ( -11.9, -8.8 ) |
| 3836-3858 | GGGGGGUCCGCUGUUGUGC | F | -3.1 | ( -14.2, -11.1 ) |
| 6563-6585 | UGCGCCGAACUAUAAGUUC | F | -3.1 | ( -11.9, -8.8 ) |
| 1283-1305 | GGGUCAUCGCAUGGCAUGG | F | -3.1 | ( -12.3, -9.2 ) |
| 2354-2376 | GUGGCAGGUCCUUCCGUGU | B,F | -3.1 | ( -12.2, -9.1 ) |
| 8522-8544 | GCUCCAGGACUGCACCAUG | F | -3.1 | ( -12.3, -9.2 ) |
| 4739-4761 | UGACCCUACCUUUACCAUU | F | -3.1 | ( -10.6, -7.5 ) |
| 1291-1313 | GCAUGGCAUGGGAUAUGAU | F | -3.1 | ( -9.9, -6.8 ) |
| 6070-6092 | AGGGGGCAGUGCAAUGGAU | F | -3.1 | ( -12.0, -8.9 ) |
| 4888-4910 | UCCUCUGUGAGUGCUAUGA | F | -3.1 | ( -10.6, -7.5 ) |
| 4655-4677 | UGCUCUCAUGACUGGCUUU | B,F | -3.1 | ( -10.6, -7.5 ) |
| 6371-6393 | CUGCCAGCGCGGGUAUAGG | F | -3.1 | ( -11.5, -8.4 ) |
| 1798-1820 | GCUGGCACUACCCUCCAAG | F | -3.1 | ( -12.1, -9.0 ) |
| 6582-6604 | GCGCUGUGGAGGGUGUCUG | F | -3.1 | ( -12.5, -9.4 ) |
| 6265-6287 | CCUGGCUAAGGGACAUCUG | F | -3.1 | ( -11.3, -8.2 ) |
| 9308-9330 | CCGCUGGUUCUGGUUUUGC | F | -3.1 | ( -11.7, -8.6 ) |
| 311-333 | GUGCCCCGGGAGGUCUCGU | B,F | -3.1 | ( -12.2, -9.1 ) |
| 6966-6988 | CCAUCUCUCAAGGCAACUU | C,F | -3.1 | ( -9.4, -6.3 ) |
| 5080-5102 | GGGAGAACUUUCCUUACCU | C,F | -3.1 | ( -12.1, -9.0 ) |
| 178-200 | CAGGACGACCGGGUCCUUU | F | -3.1 | ( -10.4, -7.3 ) |
| 3909-3931 | GCUAAGGCGGUGGACUUUA | F | -3.1 | ( -9.0, -5.9 ) |
| 2202-2224 | ACCAUCAAUUACACCAUAU | F | -3.1 | ( -8.8, -5.7 ) |

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| | | | | |
|---|---|---|---|---|
| 4303-4325 | CGGAUGCCACAUCCAUCUU | B,F | -3.1 | ( -9.7, -6.6 ) |
| 8162-8184 | GGGAAGCUCCUACGGAUUC | F | -3.1 | ( -11.0, -7.9 ) |
| 8308-8330 | AGGAGGCAAUUUACCAAUG | F | -3.1 | ( -9.9, -6.8 ) |
| 7225-7247 | CCCCGCUAGUAGAGACGUG | F | -3.1 | ( -12.7, -9.6 ) |
| 8915-8937 | GCUUGAACAGGCUCUUAAC | B,F | -3.1 | ( -9.7, -6.6 ) |
| 5447-5469 | CCAGGAGUUCGAUGAGAUG | B,F | -3.1 | ( -11.3, -8.2 ) |
| 3885-3907 | GCCGCGGUGUGCACCCGUG | F | -3.1 | ( -13.7, -10.6 ) |
| 8905-8927 | CCAGGGAUCAGCUUGAACA | C,F | -3.1 | ( -11.3, -8.2 ) |
| 2311-2333 | GGGACAGGUCCGAGCUCAG | B,F | -3.1 | ( -12.3, -9.2 ) |
| 1328-1350 | GGCAGCGUUGGUGGUAGCU | F | -3.1 | ( -12.1, -9.0 ) |
| 1534-1556 | GGCUUGUUGGUCUCCUUAC | F | -3.1 | ( -10.9, -7.8 ) |
| 3221-3243 | GCACAACGGCCUGCGAGAU | F | -3.1 | ( -11.1, -8.0 ) |
| 8055-8077 | GGGGGUCGUAAGCCAGCUC | F | -3.1 | ( -14.2, -11.1 ) |
| 1554-1576 | CCAGGCGCCAAGCAGAACA | B,C,F | -3.1 | ( -11.3, -8.2 ) |
| 4595-4617 | CCGCGGUCUUGACGUGUCU | B,C,F | -3.1 | ( -12.0, -8.9 ) |
| 2758-2780 | GGGCAUACGCACUGGACAC | F | -3.1 | ( -13.2, -10.1 ) |
| 3178-3200 | GCACCUAUGUGUAUAACCA | C,F | -3.1 | ( -12.2, -9.1 ) |
| 5314-5336 | GCACCUGGGUGCUCGUUGG | B,F | -3.1 | ( -12.2, -9.1 ) |
| 2540-2562 | CUGCUUGUGGAUGAUGUUA | F | -3.1 | ( -10.3, -7.2 ) |
| 3319-3341 | GCGGUGACAUCAUCAACGG | F | -3.1 | ( -12.5, -9.4 ) |
| 7820-7842 | AGCGGCGUCAAAAGUGAAG | F | -3.1 | ( -11.2, -8.1 ) |
| 8925-8947 | GCUCUUAACUGUGAGAUCU | C,F | -3.1 | ( -11.1, -8.0 ) |
| 9596-9618 | GAGCCGCAUGACUGCAGAG | F | -3.1 | ( -12.3, -9.2 ) |
| 418-440 | GUGGCGGUCAGAUCGUUGG | F | -3.1 | ( -12.2, -9.1 ) |
| 4039-4061 | GCAGCGGUAAGAGCACCAA | C,F | -3.1 | ( -12.2, -9.1 ) |
| 986-1008 | GGCGGCCGAUGCCAUCCUG | B,F | -3.1 | ( -13.5, -10.4 ) |
| 6368-6390 | GUCCUGCCAGCGCGGGUAU | F | -3.1 | ( -11.1, -8.0 ) |
| 9363-9385 | CUCCCCAACCGAUGAAGGU | F | -3 | ( -11.6, -8.6 ) |
| 506-528 | GUCGCAACCUCGAGGUAGA | C,F | -3 | ( -11.6, -8.6 ) |
| 8100-8122 | GUGCGCGUGUGCGAGAAGA | C,F | -3 | ( -11.3, -8.3 ) |
| 9110-9132 | GGCCCGGAGCGUCCGCGCU | F | -3 | ( -14.4, -11.4 ) |
| 8306-8328 | GGAGGAGGCAAUUUACCAA | C,F | -3 | ( -12.1, -9.1 ) |
| 5354-5376 | CGCGUAUUGCCUGUCAACA | F | -3 | ( -11.0, -8.0 ) |
| 9233-9255 | GCUGGACUUGUCCGGUUGG | F | -3 | ( -12.1, -9.1 ) |
| 2777-2799 | GGAGGUGGCCGCGUCGUGU | F | -3 | ( -12.1, -9.1 ) |
| 4988-5010 | CGUGUGCCAGGACCAUCUU | F | -3 | ( -9.6, -6.6 ) |
| 685-707 | GGUCGCGCAAUUUGGGUAA | B,C,F | -3 | ( -11.4, -8.4 ) |
| 1788-1810 | CGCCCCUACUGCUGGCACU | B,C,F | -3 | ( -12.9, -9.9 ) |
| 7709-7731 | GGUGUAUUCCACCACUUCA | F | -3 | ( -11.1, -8.1 ) |
| 3917-3939 | GGUGGACUUUAUCCCUGUG | F | -3 | ( -12.1, -9.1 ) |
| 2526-2548 | GCGCGCGUCUGCUCCUGCU | C,F | -3 | ( -12.8, -9.8 ) |
| 2795-2817 | UGGCGGCGUUGUUCUUGUC | F | -3 | ( -11.8, -8.8 ) |
| 6329-6351 | AGCCAAGCUCAUGCCACAA | B,F | -3 | ( -11.0, -8.0 ) |
| 8220-8242 | GCGUGGAAGUCCAAGAAGA | B,C,F | -3 | ( -11.3, -8.3 ) |
| 1228-1250 | GGCGCCACUGGACGACGCA | B,F | -3 | ( -13.7, -10.7 ) |
| 5925-5947 | GCUCUUGUAGCAUUCAAGA | B,F | -3 | ( -11.1, -8.1 ) |
| 6960-6982 | UCCGCUCCAUCUCUCAAGG | F | -3 | ( -12.0, -9.0 ) |
| 5728-5750 | CCGUCACCAGCCCACUAAC | F | -3 | ( -10.8, -7.8 ) |
| 8552-8574 | CGACGACUUAGUCGUUAUC | F | -3 | ( -9.9, -6.9 ) |
| 6438-6460 | GCUGAGAUCACUGGACAUG | B,F | -3 | ( -11.2, -8.2 ) |

| | | | | |
|---|---|---|---|---|
| 8473-8495 | ACACCCUCACUUGCUACAU | B,F | -3 | ( -9.9, -6.9 ) |
| 5880-5902 | GUCCUCGUGGACAUUCUUG | F | -3 | ( -11.1, -8.1 ) |
| 3311-3333 | CGCCGCGUGCGGUGACAUC | F | -3 | ( -12.0, -9.0 ) |
| 7422-7444 | ACGGGCGACAAUACGACAA | F | -3 | ( -11.2, -8.2 ) |
| 8650-8672 | CCGGGGACCCCCCACAACC | F | -3 | ( -12.7, -9.7 ) |
| 477-499 | GUGCGCGCGACGAGGAAGA | C,F | -3 | ( -11.3, -8.3 ) |
| 4204-4226 | GCAGCCCCAUCACGUACUC | F | -3 | ( -12.2, -9.2 ) |
| 4072-4094 | ACGCAGCCCAGGGCUACAA | F | -3 | ( -10.2, -7.2 ) |
| 2920-2942 | GGGUUCCCCCCCUCAACGU | F | -3 | ( -10.9, -7.9 ) |
| 7013-7035 | CGAGCUCAUAGAGGCUAAC | F | -3 | ( -10.8, -7.8 ) |
| 6463-6485 | ACGGGACGAUGAGGAUCGU | B,F | -3 | ( -11.2, -8.2 ) |
| 1720-1742 | GACGCCUUACCGAUUUUGC | F | -3 | ( -11.6, -8.6 ) |
| 8652-8674 | GGGGACCCCCCACAACCAG | F | -3 | ( -13.3, -10.3 ) |
| 3897-3919 | ACCCGUGGAGUGGCUAAGG | F | -3 | ( -11.2, -8.2 ) |
| 2040-2062 | CCCCCUUGUGUCAUCGGAG | F | -3 | ( -13.6, -10.6 ) |
| 3315-3337 | GCGUGCGGUGACAUCAUCA | F | -3 | ( -11.3, -8.3 ) |
| 8311-8333 | AGGCAAUUUACCAAUGUUG | F | -3 | ( -11.0, -8.0 ) |
| 815-837 | GGAAGACGGCGUGAACUAU | F | -3 | ( -9.8, -6.8 ) |
| 4985-5007 | UCCCGUGUGCCAGGACCAU | F | -3 | ( -11.8, -8.8 ) |
| 8467-8489 | GUGGUAACACCCUCACUUG | F | -3 | ( -11.0, -8.0 ) |
| 8913-8935 | CAGCUUGAACAGGCUCUUA | F | -3 | ( -10.3, -7.3 ) |
| 4856-4878 | GGAGCGCCCCUCCGGCAUG | F | -3 | ( -12.3, -9.3 ) |
| 9152-9174 | GGCUGCCAUAUGUGGCAAG | F | -3 | ( -12.1, -9.1 ) |
| 8098-8120 | GCGUGCGCGUGUGCGAGAA | C,F | -3 | ( -11.3, -8.3 ) |
| 9181-9203 | ACUGGGCAGUAAGAACAAA | B,F | -3 | ( -9.8, -6.8 ) |
| 21-43 | GACACUCCACCAUGAAUCA | F | -3 | ( -10.1, -7.1 ) |
| 787-809 | GGGCCCUGGCGCAUGGCGU | B,F | -3 | ( -14.4, -11.4 ) |
| 2577-2599 | GCGGCUUUGGAGAACCUCG | F | -3 | ( -13.7, -10.7 ) |
| 2165-2187 | GGUCGACUACCCGUAUAGG | F | -3 | ( -11.4, -8.4 ) |
| 9625-9647 | CUGGCCUCUCUGCAGAUCA | B,F | -3 | ( -11.5, -8.5 ) |
| 7066-7088 | CCAGGGUUGAGUCAGAGAA | B,C,F | -3 | ( -11.3, -8.3 ) |
| 6276-6298 | GACAUCUGGGACUGGAUAU | F | -3 | ( -9.0, -6.0 ) |
| 9232-9254 | GGCUGGACUUGUCCGGUUG | F | -3 | ( -12.1, -9.1 ) |
| 4829-4851 | AGGCAUCUACAGAUUUGUG | F | -3 | ( -11.0, -8.0 ) |
| 6801-6823 | UACCCGGUGGGGUCGCAAU | F | -3 | ( -10.7, -7.7 ) |
| 1673-1695 | GCACAAAUUCAACUCUUCA | B,F | -3 | ( -11.1, -8.1 ) |
| 2542-2564 | GCUUGUGGAUGAUGUUACU | C,F | -3 | ( -9.7, -6.7 ) |
| 2687-2709 | GGUGCCCGGAGCGGUCUAC | F | -3 | ( -12.2, -9.2 ) |
| 8110-8132 | GCGAGAAGAUGGCCCUGUA | C,F | -3 | ( -11.4, -8.4 ) |
| 2864-2886 | GUGCAUGUGGUGGCUUCAG | F | -3 | ( -11.1, -8.1 ) |
| 7142-7164 | GGUCUCCGUACCCGCAGAA | B,C,F | -3 | ( -11.1, -8.1 ) |
| 7314-7336 | CCUCCGCCUCGGAAAAAGC | F | -3 | ( -11.6, -8.6 ) |
| 360-382 | CCUCAAAGAAAAACCAAAC | B,F | -3 | ( -10.4, -7.4 ) |
| 3506-3528 | GGAGGGUGAGGUCCAGAUC | F | -3 | ( -12.1, -9.1 ) |
| 8238-8260 | ACCCCGAUGGGGUUCUCGU | F | -3 | ( -12.1, -9.1 ) |
| 913-935 | CCUACCAAGUGCGCAAUUC | F | -3 | ( -9.5, -6.5 ) |
| 2984-3006 | CCCGACUCUGGUAUUUGAC | B,F | -3 | ( -11.8, -8.8 ) |
| 4098-4120 | GUGCUCAACCCCUCUGUUG | F | -3 | ( -11.0, -8.0 ) |
| 1692-1714 | GGCUGUCCUGAGAGGUUGG | B,F | -3 | ( -12.1, -9.1 ) |
| 7523-7545 | GCCUGGGGAUCCGGAUCUC | B,F | -3 | ( -12.1, -9.1 ) |

**FIG. 11 (page 448 of 479)**

| | | | | |
|---|---|---|---|---|
| 3933-3955 | GUGGAGAACCUAGAGACAA | F | -3 | ( -11.2, -8.2 ) |
| 931-953 | CCUCGGGGCUUUACCAUGU | C,F | -3 | ( -10.7, -7.7 ) |
| 5291-5313 | GGCCGACCUGGAGGUCGUC | F | -3 | ( -13.5, -10.5 ) |
| 6590-6612 | GAGGGUGUCUGCAGAGGAA | C,F | -3 | ( -12.2, -9.2 ) |
| 1014-1036 | GGGUGUGUCCCUUGCGUUC | F | -3 | ( -12.1, -9.1 ) |
| 6215-6237 | GCGACUGCAUCAGUGGAUA | C,F | -3 | ( -11.6, -8.6 ) |
| 4905-4927 | GACGCGGGCUGUGCUUGGU | C,F | -3 | ( -11.6, -8.6 ) |
| 1248-1270 | GACUGCAAUUGUUCUAUCU | B,C,F | -3 | ( -10.0, -7.0 ) |
| 1366-1388 | AAGCCAUCAUGGACAUGAU | F | -3 | ( -9.8, -6.8 ) |
| 6626-6648 | GGUGGGGGACUUCCACUAC | F | -3 | ( -12.1, -9.1 ) |
| 4676-4698 | CGGCGACUUCGACUCUGUG | F | -2.9 | ( -12.0, -9.1 ) |
| 2034-2056 | GGAGCGCCCCCUUGUGUCA | F | -2.9 | ( -12.3, -9.4 ) |
| 7575-7597 | GCCGACACGGAAGAUGUCG | F | -2.9 | ( -12.6, -9.7 ) |
| 2893-2915 | CCAGAGUAGAAGCGCAACU | B,C,F | -2.9 | ( -10.4, -7.5 ) |
| 5150-5172 | GUGGGACCAGAUGUGGAAG | F | -2.9 | ( -12.1, -9.2 ) |
| 7732-7754 | GUGCUUGCCAAAGGCAGAA | B,C,F | -2.9 | ( -11.0, -8.1 ) |
| 8923-8945 | AGGCUCUUAACUGUGAGAU | F | -2.9 | ( -10.9, -8.0 ) |
| 2259-2281 | CUGGAAGCGGCCUGCAACU | F | -2.9 | ( -10.4, -7.5 ) |
| 6810-6832 | GGGUCGCAAUUACCUUGCG | F | -2.9 | ( -12.3, -9.4 ) |
| 82-104 | GCCAUGGCGUUAGUAUGAG | B,F | -2.9 | ( -11.1, -8.2 ) |
| 6556-6578 | CCCUUCCUGCGCCGAACUA | F | -2.9 | ( -10.1, -7.2 ) |
| 4979-5001 | GGGGCUUCCCGUGUGCCAG | F | -2.9 | ( -14.4, -11.5 ) |
| 5666-5688 | GGCGGGCCUGUCAACGCUG | F | -2.9 | ( -13.5, -10.6 ) |
| 6323-6345 | GCUGAAAGCCAAGCUCAUG | F | -2.9 | ( -11.2, -8.3 ) |
| 8151-8173 | CUGGCCGUGAUGGGAAGCU | C,F | -2.9 | ( -11.5, -8.6 ) |
| 6107-6129 | CGCCUCCCGGGGGAACCAU | F | -2.9 | ( -11.7, -8.8 ) |
| 6012-6034 | GCCCUUGUAGUCGGUGUGG | B,F | -2.9 | ( -13.2, -10.3 ) |
| 549-571 | CGGCCCGAGGGCAGGACCU | F | -2.9 | ( -12.9, -10.0 ) |
| 936-958 | GGGCUUUACCAUGUCACCA | F | -2.9 | ( -13.2, -10.3 ) |
| 7473-7495 | CCCGACUCCGACGUUGAGU | F | -2.9 | ( -11.8, -8.9 ) |
| 687-709 | UCGCGCAAUUUGGGUAAGG | F | -2.9 | ( -11.1, -8.2 ) |
| 2548-2570 | GGAUGAUGUUACUCAUAUC | F | -2.9 | ( -10.0, -7.1 ) |
| 9151-9173 | GGGCUGCCAUAUGUGGCAA | B,C,F | -2.9 | ( -13.2, -10.3 ) |
| 8548-8570 | GUGGCGACGACUUAGUCGU | C,F | -2.9 | ( -12.2, -9.3 ) |
| 7317-7339 | CCGCCUCGGAAAAAGCGUA | C,F | -2.9 | ( -12.9, -10.0 ) |
| 7690-7712 | UGCUACGCCAUCACAAUCU | F | -2.9 | ( -9.5, -6.6 ) |
| 618-640 | UGGGCGGGAUGGCUCCUGU | F | -2.9 | ( -12.7, -9.8 ) |
| 5849-5871 | CGCCGCCAUCGGCAGCGUU | F | -2.9 | ( -12.0, -9.1 ) |
| 4657-4679 | CUCUCAUGACUGGCUUUAC | F | -2.9 | ( -9.5, -6.6 ) |
| 8255-8277 | GUAUGAUACCCGCUGUUUU | F | -2.9 | ( -8.0, -5.1 ) |
| 6693-6715 | UCGCCCGAAUUUUUCACAG | B,F | -2.9 | ( -12.0, -9.1 ) |
| 5292-5314 | GCCGACCUGGAGGUCGUCA | F | -2.9 | ( -12.6, -9.7 ) |
| 8785-8807 | CCGCGUGGGAGACAGCAAG | F | -2.9 | ( -12.0, -9.1 ) |
| 2797-2819 | GCGGCGUUGUUCUUGUCGG | F | -2.9 | ( -13.7, -10.8 ) |
| 5404-5426 | UGUCCGGGAAGCCGGCAAU | F | -2.9 | ( -10.6, -7.7 ) |
| 7522-7544 | AGCCUGGGGAUCCGGAUCU | F | -2.9 | ( -10.9, -8.0 ) |
| 1971-1993 | CCACCGCUGGGCAAUUGGU | F | -2.9 | ( -11.5, -8.6 ) |
| 925-947 | GCAAUUCCUCGGGGCUUUA | F | -2.9 | ( -8.8, -5.9 ) |
| 7282-7304 | GCCCGCUACCACCUCCACG | F | -2.9 | ( -13.5, -10.6 ) |
| 2079-2101 | CUCUGCCCCACUGAUUGUU | C,F | -2.9 | ( -9.2, -6.3 ) |

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| | | | | |
|---|---|---|---|---|
| 8544-8566 | GUGUGUGGCGACGACUUAG | F | -2.9 | ( -9.9, -7.0 ) |
| 1690-1712 | CAGGCUGUCCUGAGAGGUU | F | -2.9 | ( -11.5, -8.6 ) |
| 2257-2279 | GGCUGGAAGCGGCCUGCAA | B,F | -2.9 | ( -12.1, -9.2 ) |
| 1434-1456 | GUGGGGAACUGGGCGAAGG | F | -2.9 | ( -12.1, -9.2 ) |
| 849-871 | CCUGGUUGCUCUUUCUCUA | C,F | -2.9 | ( -11.3, -8.4 ) |
| 9599-9621 | CCGCAUGACUGCAGAGAGU | C,F | -2.9 | ( -11.8, -8.9 ) |
| 3351-3373 | GCCCGUAGGGGCCAGGAGA | F | -2.9 | ( -13.5, -10.6 ) |
| 3431-3453 | GGCGUACGCCCAGCAGACG | F | -2.9 | ( -12.5, -9.6 ) |
| 3218-3240 | GGCGCACAACGGCCUGCGA | F | -2.9 | ( -13.7, -10.8 ) |
| 3217-3239 | GGGCGCACAACGGCCUGCG | F | -2.9 | ( -13.5, -10.6 ) |
| 4987-5009 | CCGUGUGCCAGGACCAUCU | C,F | -2.9 | ( -10.6, -7.7 ) |
| 3513-3535 | GAGGUCCAGAUCGUGUCAA | C,F | -2.9 | ( -11.1, -8.2 ) |
| 4490-4512 | GGUGAUCAAGGGGGGAAGA | B,F | -2.9 | ( -11.2, -8.3 ) |
| 4075-4097 | CAGCCCAGGGCUACAAGGU | F | -2.9 | ( -11.5, -8.6 ) |
| 8520-8542 | GGGCUCCAGGACUGCACCA | B,F | -2.9 | ( -13.2, -10.3 ) |
| 5911-5933 | CGGGCGUGGCGGGAGCUCU | F | -2.9 | ( -12.9, -10.0 ) |
| 5167-5189 | AGUGUUUGAUCCGCCUUAA | B,F | -2.9 | ( -8.8, -5.9 ) |
| 8786-8808 | CGCGUGGGAGACAGCAAGA | F | -2.9 | ( -11.0, -8.1 ) |
| 1928-1950 | GGGUGCAAAUGAUACGGAU | C,F | -2.9 | ( -12.1, -9.2 ) |
| 6638-6660 | CCACUACGUAUCGGGUAUG | F | -2.9 | ( -10.3, -7.4 ) |
| 3671-3693 | CUGGCCCGCUCCUCAAGGU | C,F | -2.9 | ( -11.5, -8.6 ) |
| 6106-6128 | UCGCCUCCCGGGGGAACCA | F | -2.9 | ( -12.0, -9.1 ) |
| 4715-4737 | CACUCAGACAGUCGAUUUC | F | -2.9 | ( -9.4, -6.5 ) |
| 7635-7657 | ACCCCGUGCGCUGCGGAAG | F | -2.9 | ( -12.1, -9.2 ) |
| 5136-5158 | GCCCCUCCCCCAUCGUGGG | B,F | -2.9 | ( -14.4, -11.5 ) |
| 2108-2130 | UCCGGAAGCCACAUACUCU | B,F | -2.9 | ( -11.8, -8.9 ) |
| 9052-9074 | GGGUGGCCGCAUGCCUCAG | B,F | -2.9 | ( -12.1, -9.2 ) |
| 1613-1635 | CACGGCCUUGAACUGCAAU | F | -2.9 | ( -10.6, -7.7 ) |
| 6675-6697 | UGCCCGUGCCAGAUCCCAU | B,F | -2.9 | ( -12.7, -9.8 ) |
| 9552-9574 | GGCUCCAUCUUAGCCCUAG | F | -2.9 | ( -12.3, -9.4 ) |
| 8862-8884 | GCGAGGAUGAUACUGAUGA | C,F | -2.9 | ( -11.4, -8.5 ) |
| 7070-7092 | GGUUGAGUCAGAGAACAAA | C,F | -2.9 | ( -9.7, -6.8 ) |
| 1061-1083 | GGCGGUGACCCCCACGGUG | F | -2.9 | ( -13.5, -10.6 ) |
| 6487-6509 | CUAGGACCUGCAGGAACAU | F | -2.9 | ( -9.4, -6.5 ) |
| 6446-6468 | CACUGGACAUGUCAAAAAC | F | -2.9 | ( -9.1, -6.2 ) |
| 6005-6027 | GCCUGGAGCCCUUGUAGUC | F | -2.9 | ( -12.1, -9.2 ) |
| 3929-3951 | CCCUGUGGAGAACCUAGAG | F | -2.9 | ( -11.3, -8.4 ) |
| 878-900 | GGCCCUGCUCUCUUGCCUG | F | -2.9 | ( -14.4, -11.5 ) |
| 2646-2668 | CUCGUGUUCUUCUGCUUUG | F | -2.9 | ( -9.6, -6.7 ) |
| 3997-4019 | UGCCCCAGAGCUUCCAGGU | F | -2.9 | ( -12.7, -9.8 ) |
| 7589-7611 | UGUCGUGUGCUGCUCAAUG | B,F | -2.9 | ( -9.7, -6.8 ) |
| 1496-1518 | CCACGUCACCGGGGGAAGU | F | -2.9 | ( -10.6, -7.7 ) |
| 4082-4104 | GGGCUACAAGGUGUUGGUG | B,F | -2.9 | ( -13.2, -10.3 ) |
| 942-964 | UACCAUGUCACCAAUGAUU | F | -2.9 | ( -9.5, -6.6 ) |
| 9032-9054 | CUCUCCAGGUGAAAUCAAU | B,C,F | -2.9 | ( -9.5, -6.6 ) |
| 8189-8211 | ACCAGGACAGCGGGUUGAA | F | -2.9 | ( -9.8, -6.9 ) |
| 39-61 | ACUCCCCUGUGAGGAACUA | F | -2.8 | ( -10.0, -7.2 ) |
| 8600-8622 | GGCGAGCCUGAGAGCCUUC | F | -2.8 | ( -12.6, -9.8 ) |
| 788-810 | GGCCCUGGCGCAUGGCGUC | F | -2.8 | ( -14.4, -11.6 ) |
| 4115-4137 | UGCUGCAACGCUGGGCUUU | F | -2.8 | ( -10.3, -7.5 ) |

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| | | | | |
|---|---|---|---|---|
| 6069-6091 | GAGGGGGCAGUGCAAUGGA | F | -2.8 | ( -12.2, -9.4 ) |
| 3141-3163 | GUGCAAAUGGCCAUCAUCA | F | -2.8 | ( -11.1, -8.3 ) |
| 129-151 | CCGGGAGAGCCAUAGUGGU | F | -2.8 | ( -12.7, -9.9 ) |
| 4620-4642 | CCGACCAGCGGCGAUGUUG | F | -2.8 | ( -10.8, -8.0 ) |
| 8045-8067 | GCCUGAGAAGGGGGGUCGU | B,F | -2.8 | ( -12.1, -9.3 ) |
| 9231-9253 | CGGCUGGACUUGUCCGGUU | C,F | -2.8 | ( -11.7, -8.9 ) |
| 9513-9535 | CCUUCUUUUUUCCUUUCUU | C,F | -2.8 | ( -9.2, -6.4 ) |
| 1929-1951 | GGUGCAAAUGAUACGGAUG | F | -2.8 | ( -12.2, -9.4 ) |
| 8097-8119 | GGCGUGCGCGUGUGCGAGA | F | -2.8 | ( -12.5, -9.7 ) |
| 8561-8583 | AGUCGUUAUCUGUGAAAGU | F | -2.8 | ( -9.1, -6.3 ) |
| 6558-6580 | CUUCCUGCGCCGAACUAUA | F | -2.8 | ( -9.2, -6.4 ) |
| 4396-4418 | CGGGCUCCGUCACUGUGUC | F | -2.8 | ( -12.9, -10.1 ) |
| 7985-8007 | AGACAGUGUAACACCAAUA | B,F | -2.8 | ( -8.9, -6.1 ) |
| 6011-6033 | AGCCCUUGUAGUCGGUGUG | F | -2.8 | ( -12.1, -9.3 ) |
| 2980-3002 | UACACCCGACUCUGGUAUU | F | -2.8 | ( -8.5, -5.7 ) |
| 7505-7527 | GCCCCCCCUGGAGGGGGAG | F | -2.8 | ( -14.4, -11.6 ) |
| 8065-8087 | AGCCAGCUCGUCUCAUCGU | B,F | -2.8 | ( -11.0, -8.2 ) |
| May-27 | GCCCCCUGAUGGGGGCGAC | B,F | -2.8 | ( -14.4, -11.6 ) |
| 5333-5355 | CGGCGUCCUGGCUGCUCUG | F | -2.8 | ( -12.0, -9.2 ) |
| 846-868 | CUUCCUGGUUGCUCUUUCU | C,F | -2.8 | ( -9.2, -6.4 ) |
| 5049-5071 | GCCCACUUUCUAUCCCAGA | F | -2.8 | ( -13.2, -10.4 ) |
| 4886-4908 | CGUCCUCUGUGAGUGCUAU | C,F | -2.8 | ( -10.8, -8.0 ) |
| 87-109 | GGCGUUAGUAUGAGUGUCG | F | -2.8 | ( -12.5, -9.7 ) |
| 3147-3169 | AUGGCCAUCAUCAAGUUAG | B,F | -2.8 | ( -10.0, -7.2 ) |
| 1238-1260 | GACGACGCAAGACUGCAAU | C,F | -2.8 | ( -10.5, -7.7 ) |
| 8119-8141 | UGGCCCUGUACGACGUGGU | B,F | -2.8 | ( -12.7, -9.9 ) |
| 7707-7729 | CUGGUGUAUUCCACCACUU | C,F | -2.8 | ( -10.3, -7.5 ) |
| 9572-9594 | CACGGCUAGCUGUGAAAGG | F | -2.8 | ( -10.6, -7.8 ) |
| 433-455 | UUGGUGGAGUUUACUUGUU | F | -2.8 | ( -9.1, -6.3 ) |
| 1921-1943 | ACAGCUGGGGUGCAAAUGA | F | -2.8 | ( -9.9, -7.1 ) |
| 7054-7076 | GCGGCAACAUCACCAGGGU | C,F | -2.8 | ( -13.7, -10.9 ) |
| 8848-8870 | CCCCCACACUGUGGGCGAG | F | -2.8 | ( -13.6, -10.8 ) |
| 1671-1693 | CAGCACAAAUUCAACUCUU | C,F | -2.8 | ( -10.3, -7.5 ) |
| 8440-8462 | GCGCGAGCGGCGUACUGAC | F | -2.8 | ( -12.8, -10.0 ) |
| 2813-2835 | CGGGUUAAUGGCGCUGACU | F | -2.8 | ( -11.7, -8.9 ) |
| 9512-9534 | UCCUUCUUUUUUCCUUUCU | F | -2.8 | ( -9.2, -6.4 ) |
| 8977-8999 | UACCUCCAAUCAUUCAAAG | F | -2.8 | ( -9.5, -6.7 ) |
| 9609-9631 | GCAGAGAGUGCUGAUACUG | F | -2.8 | ( -11.2, -8.4 ) |
| 8169-8191 | UCCUACGGAUUCCAAUACU | F | -2.8 | ( -9.6, -6.8 ) |
| 6771-6793 | GAGGUAUCAUUCAGAGUAG | F | -2.8 | ( -11.1, -8.3 ) |
| 9340-9362 | CUGCAGGGGUAGGCAUCUA | C,F | -2.8 | ( -10.3, -7.5 ) |
| 7347-7369 | ACCGAAUCAACCCUAUCUA | F | -2.8 | ( -10.3, -7.5 ) |
| 783-805 | GCCAGGGCCCUGGCGCAUG | F | -2.8 | ( -12.1, -9.3 ) |
| 428-450 | GAUCGUUGGUGGAGUUUAC | B,F | -2.8 | ( -9.4, -6.6 ) |
| 8979-9001 | CCUCCAAUCAUUCAAAGAC | B,F | -2.8 | ( -11.6, -8.8 ) |
| 6755-6777 | GCCCUUGCUGCGGGAGGAG | B,F | -2.8 | ( -13.2, -10.4 ) |
| 879-901 | GCCCUGCUCUCUUGCCUGA | C,F | -2.8 | ( -13.2, -10.4 ) |
| 9571-9593 | UCACGGCUAGCUGUGAAAG | F | -2.8 | ( -9.7, -6.9 ) |
| 1662-1684 | CUCUUCUAUCAGCACAAAU | F | -2.8 | ( -8.0, -5.2 ) |
| 4222-4244 | CCACCUACGGCAAGUUCCU | F | -2.8 | ( -11.5, -8.7 ) |

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| | | | | |
|---|---|---|---|---|
| 6167-6189 | CCGCGUCACUGCCAUACUC | F | -2.8 | ( -12.0, -9.2 ) |
| 8466-8488 | UGUGGUAACACCCUCACUU | F | -2.8 | ( -10.3, -7.5 ) |
| 3742-3764 | CGAGGCACGCCGAUGUCAU | B,F | -2.8 | ( -10.7, -7.9 ) |
| 8439-8461 | CGCGCGAGCGGCGUACUGA | F | -2.8 | ( -12.2, -9.4 ) |
| 8731-8753 | CUGGAAAGAGGGUCUACUA | F | -2.8 | ( -10.4, -7.6 ) |
| 9573-9595 | ACGGCUAGCUGUGAAAGGU | F | -2.8 | ( -11.4, -8.6 ) |
| 8598-8620 | GCGGCGAGCCUGAGAGCCU | F | -2.8 | ( -13.7, -10.9 ) |
| 2470-2492 | CGUCCUGGGCCAUUAAGUG | F | -2.8 | ( -10.8, -8.0 ) |
| 8721-8743 | CACGACGGCGCUGGAAAGA | F | -2.8 | ( -9.7, -6.9 ) |
| 1295-1317 | GGCAUGGGAUAUGAUGAUG | F | -2.8 | ( -11.1, -8.3 ) |
| 7818-7840 | GCAGCGGCGUCAAAAGUGA | B,C,F | -2.8 | ( -12.2, -9.4 ) |
| 7880-7902 | CCCACAUUCAGCCAAAUCC | F | -2.7 | ( -11.5, -8.8 ) |
| 7527-7549 | GGGGAUCCGGAUCUCAGCG | F | -2.7 | ( -13.3, -10.6 ) |
| 813-835 | CUGGAAGACGGCGUGAACU | F | -2.7 | ( -10.4, -7.7 ) |
| 4394-4416 | UCCGGGCUCCGUCACUGUG | F | -2.7 | ( -11.8, -9.1 ) |
| 1230-1252 | CGCCACUGGACGACGCAAG | F | -2.7 | ( -11.8, -9.1 ) |
| 1920-1942 | UACAGCUGGGGUGCAAAUG | F | -2.7 | ( -8.4, -5.7 ) |
| 7478-7500 | CUCCGACGUUGAGUCCUAU | B,C,F | -2.7 | ( -10.6, -7.9 ) |
| 3568-3590 | GGGUAUGCUGGACUGUCUA | F | -2.7 | ( -11.3, -8.6 ) |
| 2475-2497 | UGGGCCAUUAAGUGGGAGU | F | -2.7 | ( -12.7, -10.0 ) |
| 6604-6626 | AGGAAUACGUGGAGAUAAG | F | -2.7 | ( -8.7, -6.0 ) |
| 2617-2639 | UGGCCGGGACGCACGGUCU | F | -2.7 | ( -12.7, -10.0 ) |
| 8580-8602 | GCGGGGGUCCAGGAGGACG | F | -2.7 | ( -13.5, -10.8 ) |
| 8914-8936 | AGCUUGAACAGGCUCUUAA | F | -2.7 | ( -8.6, -5.9 ) |
| 4667-4689 | UGGCUUUACCGGCGACUUC | F | -2.7 | ( -11.5, -8.8 ) |
| 8228-8250 | GUCCAAGAAGACCCCGAUG | B,F | -2.7 | ( -11.2, -8.5 ) |
| 852-874 | GGUUGCUCUUUCUCUAUCU | C,F | -2.7 | ( -9.7, -7.0 ) |
| 5541-5563 | GGCCUCCUGCAGACCGCGU | F | -2.7 | ( -13.2, -10.5 ) |
| 4770-4792 | CUCCCCCAGGAUGCUGUCU | F | -2.7 | ( -11.6, -8.9 ) |
| 9228-9250 | GGCCGGCUGGACUUGUCCG | F | -2.7 | ( -13.5, -10.8 ) |
| 3505-3527 | UGGAGGGUGAGGUCCAGAU | F | -2.7 | ( -10.4, -7.7 ) |
| 5959-5981 | UCCCCUCCACGGAGGACCU | F | -2.7 | ( -12.7, -10.0 ) |
| 247-269 | CUGCUAGCCGAGUAGUGUU | B,F | -2.7 | ( -10.3, -7.6 ) |
| 6854-6876 | GACGUCCAUGCUCACUGAU | F | -2.7 | ( -10.4, -7.7 ) |
| 4391-4413 | CCCUCCGGGCUCCGUCACU | F | -2.7 | ( -11.6, -8.9 ) |
| 9226-9248 | CUGGCCGGCUGGACUUGUC | F | -2.7 | ( -11.5, -8.8 ) |
| 5647-5669 | UCAGUGGGAUACAAUACUU | B,F | -2.7 | ( -9.4, -6.7 ) |
| 1850-1872 | UGGCCCGGUAUAUUGCUUC | F | -2.7 | ( -12.7, -10.0 ) |
| 1806-1828 | UACCCUCCAAGACCUUGUG | F | -2.7 | ( -10.7, -8.0 ) |
| 7188-7210 | CGGGCCCUGCCCGUUUGGG | F | -2.7 | ( -12.9, -10.2 ) |
| 923-945 | GCGCAAUUCCUCGGGGCUU | F | -2.7 | ( -12.5, -9.8 ) |
| 4321-4343 | UGGGCAUCGGCACUGUCCU | F | -2.7 | ( -12.7, -10.0 ) |
| 7068-7090 | AGGGUUGAGUCAGAGAACA | F | -2.7 | ( -10.9, -8.2 ) |
| 1107-1129 | ACGCAGCUUCGACGUCAUA | B,F | -2.7 | ( -10.2, -7.5 ) |
| 2748-2770 | UUGCCUCAGCGGGCAUACG | F | -2.7 | ( -10.3, -7.6 ) |
| 1736-1758 | UGCCCAGGGCUGGGGUCCU | F | -2.7 | ( -12.7, -10.0 ) |
| 4159-4181 | GGGUUGAUCCUAAUAUCAG | F | -2.7 | ( -10.9, -8.2 ) |
| 9082-9104 | UCCCGCCCUUGCGAGCUUG | F | -2.7 | ( -11.8, -9.1 ) |
| 1090-1112 | ACGGCAAACUCCCCACAAC | F | -2.7 | ( -11.4, -8.7 ) |
| 7508-7530 | CCCCCUGGAGGGGGAGCCU | F | -2.7 | ( -13.6, -10.9 ) |

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| | | | | |
|---|---|---|---|---|
| 2136-2158 | UCCGGUCCCUGGAUUACAC | F | -2.7 | ( -11.8, -9.1 ) |
| 6447-6469 | ACUGGACAUGUCAAAAACG | F | -2.7 | ( -9.8, -7.1 ) |
| 3022-3044 | CCAUCUUCGGACCCCUUUG | F | -2.7 | ( -9.4, -6.7 ) |
| 8344-8366 | AAGCCCGCGUGGCCAUCAA | F | -2.7 | ( -9.8, -7.1 ) |
| 3149-3171 | GGCCAUCAUCAAGUUAGGG | F | -2.7 | ( -13.2, -10.5 ) |
| 4328-4350 | CGGCACUGUCCUUGACCAA | F | -2.7 | ( -11.8, -9.1 ) |
| 395-417 | CCCACAGGACGUCAAGUUC | F | -2.7 | ( -11.5, -8.8 ) |
| 6319-6341 | CCUGGCUGAAAGCCAAGCU | B,C,F | -2.7 | ( -11.3, -8.6 ) |
| 7904-7926 | UGGCUAUGGGGCAAAAGAC | F | -2.7 | ( -11.5, -8.8 ) |
| 8099-8121 | CGUGCGCGUGUGCGAGAAG | F | -2.7 | ( -10.7, -8.0 ) |
| 6184-6206 | UCAGCAGCCUCACUGUAAC | F | -2.7 | ( -10.6, -7.9 ) |
| 8096-8118 | GGGCGUGCGCGUGUGCGAG | F | -2.7 | ( -13.5, -10.8 ) |
| 6264-6286 | UCCUGGCUAAGGGACAUCU | F | -2.7 | ( -10.4, -7.7 ) |
| 1659-1681 | GGGCUCUUCUAUCAGCACA | B,C,F | -2.7 | ( -13.2, -10.5 ) |
| 4201-4223 | CUGGCAGCCCCAUCACGUA | B,F | -2.7 | ( -11.5, -8.8 ) |
| 79-101 | CUAGCCAUGGCGUUAGUAU | F | -2.7 | ( -9.5, -6.8 ) |
| 5207-5229 | ACCCCUGCUAUACAGACUG | F | -2.7 | ( -12.1, -9.4 ) |
| 2566-2588 | CCCAAGCGGAGGCGGCUUU | C,F | -2.7 | ( -10.2, -7.5 ) |
| 8353-8375 | UGGCCAUCAAGUCCCUCAC | F | -2.7 | ( -12.7, -10.0 ) |
| 6068-6090 | CGAGGGGGCAGUGCAAUGG | F | -2.7 | ( -10.7, -8.0 ) |
| 2155-2177 | CCAGGUGCAUGGUCGACUA | C,F | -2.7 | ( -11.3, -8.6 ) |
| 7403-7425 | CUCCUCAACUUCCGGCAUU | C,F | -2.7 | ( -10.4, -7.7 ) |
| 3241-3263 | UGGCCGUGGCUGUGGAACC | F | -2.7 | ( -12.7, -10.0 ) |
| 5012-5034 | UUGGGAGGGCGUCUUUACG | F | -2.7 | ( -10.2, -7.5 ) |
| 9164-9186 | UGGCAAGUACCUCUUCAAC | F | -2.7 | ( -11.5, -8.8 ) |
| 1926-1948 | UGGGGUGCAAAUGAUACGG | F | -2.7 | ( -12.5, -9.8 ) |
| 4866-4888 | UCCGGCAUGUUCGACUCGU | F | -2.7 | ( -11.8, -9.1 ) |
| 743-765 | GGGGUACAUACCGCUCGUC | F | -2.7 | ( -13.2, -10.5 ) |
| 9119-9141 | CGUCCGCGCUAGGCUUCUG | F | -2.7 | ( -10.8, -8.1 ) |
| 3681-3703 | CCUCAAGGUUCCCGCUCAU | C,F | -2.7 | ( -10.4, -7.7 ) |
| 8068-8090 | CAGCUCGUCUCAUCGUGUU | C,F | -2.7 | ( -10.3, -7.6 ) |
| 4585-4607 | UGGCCUACUACCGCGGUCU | F | -2.7 | ( -12.7, -10.0 ) |
| 1800-1822 | UGGCACUACCCUCCAAGAC | F | -2.7 | ( -11.5, -8.8 ) |
| 5350-5372 | UGGCCGCGUAUUGCCUGUC | F | -2.7 | ( -12.7, -10.0 ) |
| 3508-3530 | AGGGUGAGGUCCAGAUCGU | F | -2.7 | ( -10.9, -8.2 ) |
| 6029-6051 | GGUCUGCGCAGCAAUACUG | F | -2.7 | ( -11.1, -8.4 ) |
| 7336-7358 | CGGUGGUCCUCACCGAAUC | B,F | -2.7 | ( -10.6, -7.9 ) |
| 291-313 | GCCUGAUAGGGUGCUUGCG | F | -2.7 | ( -12.1, -9.4 ) |
| 2802-2824 | GUUGUUCUUGUCGGGUUAA | F | -2.7 | ( -8.7, -6.0 ) |
| 7398-7420 | GGCAGCUCCUCAACUUCCG | F | -2.6 | ( -12.1, -9.5 ) |
| 988-1010 | CGGCCGAUGCCAUCCUGCA | F | -2.6 | ( -12.9, -10.3 ) |
| 336-358 | UGCACCAUGAGCACGAAUC | F | -2.6 | ( -10.5, -7.9 ) |
| 8976-8998 | CUACCUCCAAUCAUUCAAA | C,F | -2.6 | ( -9.5, -6.9 ) |
| 881-903 | CCUGCUCUCUUGCCUGACU | C,F | -2.6 | ( -11.5, -8.9 ) |
| 199-221 | UGGAUAAACCCGCUCAAUG | F | -2.6 | ( -9.4, -6.8 ) |
| 6914-6936 | GAGAGGGUCACCCCCUUCU | C,F | -2.6 | ( -10.1, -7.5 ) |
| 7876-7898 | CGCCCCCACAUUCAGCCAA | B,C,F | -2.6 | ( -12.9, -10.3 ) |
| 3269-3291 | CUCCCGAAUGGAGACCAAG | F | -2.6 | ( -11.6, -9.0 ) |
| 1273-1295 | GCCAUAUAACGGGUCAUCG | F | -2.6 | ( -11.1, -8.5 ) |
| 4302-4324 | ACGGAUGCCACAUCCAUCU | F | -2.6 | ( -10.3, -7.7 ) |

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| | | | | |
|---|---|---|---|---|
| 3116-3138 | GCGGAAGAUAGCCGGAGGU | C,F | -2.6 | ( -12.6, -10.0 ) |
| 119-141 | ACCCCCCCUCCCGGGAGAG | F | -2.6 | ( -12.1, -9.5 ) |
| 6637-6659 | UCCACUACGUAUCGGGUAU | F | -2.6 | ( -10.6, -8.0 ) |
| 7230-7252 | CUAGUAGAGACGUGGAAAA | C,F | -2.6 | ( -8.3, -5.7 ) |
| 2578-2600 | CGGCUUUGGAGAACCUCGU | C,F | -2.6 | ( -11.7, -9.1 ) |
| 3246-3268 | GUGGCUGUGGAACCAGUCG | F | -2.6 | ( -12.2, -9.6 ) |
| 2956-2978 | CCGUCAUCUUACUCAUGUG | F | -2.6 | ( -10.8, -8.2 ) |
| 714-736 | ACCCUUACGUGCGGCUUCG | F | -2.6 | ( -10.9, -8.3 ) |
| 934-956 | CGGGGCUUUACCAUGUCAC | F | -2.6 | ( -12.7, -10.1 ) |
| 4821-4843 | GGGAAGCCAGGCAUCUACA | F | -2.6 | ( -11.0, -8.4 ) |
| 8036-8058 | CUGCGUUCAGCCUGAGAAG | F | -2.6 | ( -10.6, -8.0 ) |
| 6767-6789 | GGAGGAGGUAUCAUUCAGA | C,F | -2.6 | ( -12.1, -9.5 ) |
| 3910-3932 | CUAAGGCGGUGGACUUUAU | C,F | -2.6 | ( -7.0, -4.4 ) |
| 8475-8497 | ACCCUCACUUGCUACAUCA | F | -2.6 | ( -10.9, -8.3 ) |
| 456-478 | CGCAGGGGCCCUAGAUUGG | F | -2.6 | ( -10.6, -8.0 ) |
| 6900-6922 | GGGAGAAGGUUGGCGAGAG | F | -2.6 | ( -12.1, -9.5 ) |
| 6347-6369 | ACUGCCUGGGAUUCCCUUU | B,F | -2.6 | ( -9.9, -7.3 ) |
| 7698-7720 | CAUCACAAUCUGGUGUAUU | F | -2.6 | ( -8.3, -5.7 ) |
| 8603-8625 | GAGCCUGAGAGCCUUCACG | F | -2.6 | ( -12.3, -9.7 ) |
| 5206-5228 | CACCCCUGCUAUACAGACU | B,C,F | -2.6 | ( -11.5, -8.9 ) |
| 6846-6868 | GCCGUGUUGACGUCCAUGC | B,F | -2.6 | ( -12.5, -9.9 ) |
| 1015-1037 | GGUGUGUCCCUUGCGUUCG | F | -2.6 | ( -11.1, -8.5 ) |
| 4412-4434 | GUCCCAUCCUAACAUCGAG | F | -2.6 | ( -12.3, -9.7 ) |
| 4596-4618 | CGCGGUCUUGACGUGUCUG | F | -2.6 | ( -12.0, -9.4 ) |
| 3259-3281 | CAGUCGUCUUCUCCCGAAU | C,F | -2.6 | ( -9.4, -6.8 ) |
| 8237-8259 | GACCCCGAUGGGGUUCUCG | B,F | -2.6 | ( -12.3, -9.7 ) |
| 5370-5392 | ACAGGCUGCGUGGUCAUAG | B,F | -2.6 | ( -9.8, -7.2 ) |
| 1559-1581 | CGCCAAGCAGAACAUCCAA | F | -2.6 | ( -11.8, -9.2 ) |
| 5516-5538 | UGAGCAGUUCAAGCAGAAG | F | -2.6 | ( -10.6, -8.0 ) |
| 800-822 | UGGCGUCCGGGUUCUGGAA | B,F | -2.6 | ( -11.8, -9.2 ) |
| 9224-9246 | CGCUGGCCGGCUGGACUUG | F | -2.6 | ( -10.6, -8.0 ) |
| 8008-8030 | CUACCAUCAUGGCCAAGAA | B,C,F | -2.6 | ( -9.5, -6.9 ) |
| 8369-8391 | CACUGAGAGGCUUUAUGUU | F | -2.6 | ( -9.1, -6.5 ) |
| 4953-4975 | AGGCUACGAGCGUACAUGA | F | -2.6 | ( -10.9, -8.3 ) |
| 1426-1448 | UCUCCAUGGUGGGGAACUG | F | -2.6 | ( -10.6, -8.0 ) |
| 7426-7448 | GCGACAAUACGACAACAUC | F | -2.6 | ( -11.6, -9.0 ) |
| 4668-4690 | GGCUUUACCGGCGACUUCG | F | -2.6 | ( -10.9, -8.3 ) |
| 6915-6937 | AGAGGGUCACCCCCUUCUA | F | -2.6 | ( -9.9, -7.3 ) |
| 7164-7186 | CUGCGGAAGUCUCGGAGAU | C,F | -2.6 | ( -10.6, -8.0 ) |
| 344-366 | GAGCACGAAUCCUAAACCU | C,F | -2.6 | ( -11.2, -8.6 ) |
| 6658-6680 | CUACUGACAAUCUUAAAUG | B,F | -2.6 | ( -8.3, -5.7 ) |
| 8154-8176 | GCCGUGAUGGGAAGCUCCU | F | -2.6 | ( -12.5, -9.9 ) |
| 4408-4430 | CUGUGUCCCAUCCUAACAU | B,C,F | -2.6 | ( -9.1, -6.5 ) |
| 6685-6707 | AGAUCCCAUCGCCCGAAUU | F | -2.6 | ( -8.0, -5.4 ) |
| 177-199 | CCAGGACGACCGGGUCCUU | F | -2.6 | ( -11.3, -8.7 ) |
| 5355-5377 | GCGUAUUGCCUGUCAACAG | F | -2.6 | ( -10.6, -8.0 ) |
| 5967-5989 | ACGGAGGACCUGGUCAAUC | F | -2.6 | ( -10.3, -7.7 ) |
| 2575-2597 | AGGCGGCUUUGGAGAACCU | F | -2.6 | ( -11.2, -8.6 ) |
| 1110-1132 | CAGCUUCGACGUCAUAUCG | F | -2.6 | ( -10.3, -7.7 ) |
| 7696-7718 | GCCAUCACAAUCUGGUGUA | C,F | -2.6 | ( -11.1, -8.5 ) |

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| | | | | |
|---|---|---|---|---|
| 3833-3855 | CUCGGGGGGUCCGCUGUUG | F | -2.6 | ( -10.6, -8.0 ) |
| 3090-3112 | GGCCUUCUCCGGAUCUGCG | B,F | -2.6 | ( -13.2, -10.6 ) |
| 8971-8993 | UGGAUCUACCUCCAAUCAU | F | -2.6 | ( -9.4, -6.8 ) |
| 198-220 | UUGGAUAAACCCGCUCAAU | F | -2.6 | ( -9.2, -6.6 ) |
| 5535-5557 | GCCCUCGGCCUCCUGCAGA | F | -2.6 | ( -13.2, -10.6 ) |
| 4441-4463 | UGUCCACCACCGGAGAGAU | F | -2.6 | ( -10.6, -8.0 ) |
| 8902-8924 | UAGCCAGGGAUCAGCUUGA | B,F | -2.6 | ( -10.7, -8.1 ) |
| 5852-5874 | CGCCAUCGGCAGCGUUGGA | F | -2.6 | ( -11.8, -9.2 ) |
| 8393-8415 | CCCUCUUACCAAUUCAAGG | F | -2.6 | ( -11.6, -9.0 ) |
| 1138-1160 | UCGGGAGCGCCACCCUCUG | F | -2.6 | ( -11.8, -9.2 ) |
| 6275-6297 | GGACAUCUGGGACUGGAUA | F | -2.6 | ( -11.2, -8.6 ) |
| 891-913 | UGCCUGACUGUGCCCGCUU | F | -2.6 | ( -11.5, -8.9 ) |
| 2106-2128 | CAUCCGGAAGCCACAUACU | F | -2.6 | ( -9.4, -6.8 ) |
| 587-609 | UUGGCCCCUCUAUGGCAAU | F | -2.6 | ( -10.3, -7.7 ) |
| 8545-8567 | UGUGUGGCGACGACUUAGU | F | -2.6 | ( -9.3, -6.7 ) |
| 2545-2567 | UGUGGAUGAUGUUACUCAU | F | -2.6 | ( -10.3, -7.7 ) |
| 9086-9108 | GCCCUUGCGAGCUUGGAGA | C,F | -2.6 | ( -13.2, -10.6 ) |
| 7340-7362 | GGUCCUCACCGAAUCAACC | F | -2.6 | ( -12.3, -9.7 ) |
| 3725-3747 | GGACCUUUACCUGGUCACG | F | -2.6 | ( -12.3, -9.7 ) |
| 4100-4122 | GCUCAACCCCUCUGUUGCU | F | -2.6 | ( -11.2, -8.6 ) |
| 8027-8049 | CGAGGUUUUCUGCGUUCAG | B,F | -2.6 | ( -10.7, -8.1 ) |
| 4073-4095 | CGCAGCCCAGGGCUACAAG | B,F | -2.6 | ( -10.6, -8.0 ) |
| 9053-9075 | GGUGGCCGCAUGCCUCAGA | C,F | -2.6 | ( -12.1, -9.5 ) |
| 4863-4885 | CCCUCCGGCAUGUUCGACU | C,F | -2.5 | ( -11.6, -9.1 ) |
| Aug-30 | CCCUGAUGGGGGCGACACU | F | -2.5 | ( -11.3, -8.8 ) |
| 4649-4671 | GACCGAUGCUCUCAUGACU | C,F | -2.5 | ( -11.4, -8.9 ) |
| 1535-1557 | GCUUGUUGGUCUCCUUACA | C,F | -2.5 | ( -9.7, -7.2 ) |
| 4259-4281 | AGGAGGUGCUUAUGACAUA | F | -2.5 | ( -9.9, -7.4 ) |
| 4117-4139 | CUGCAACGCUGGGCUUUGG | F | -2.5 | ( -10.3, -7.8 ) |
| 7271-7293 | GGUCCAUGGCUGCCCGCUA | F | -2.5 | ( -12.3, -9.8 ) |
| 7623-7645 | GGCGCACUCGUCACCCCGU | B,F | -2.5 | ( -13.7, -11.2 ) |
| 1909-1931 | GCGCGCCUACCUACAGCUG | F | -2.5 | ( -12.8, -10.3 ) |
| 613-635 | GCGGGUGGGCGGGAUGGCU | F | -2.5 | ( -13.5, -11.0 ) |
| 179-201 | AGGACGACCGGGUCCUUUC | F | -2.5 | ( -10.0, -7.5 ) |
| 6351-6373 | CCUGGGAUUCCCUUUGUGU | F | -2.5 | ( -11.3, -8.8 ) |
| 43-65 | CCCUGUGAGGAACUACUGU | F | -2.5 | ( -11.3, -8.8 ) |
| 2582-2604 | UUUGGAGAACCUCGUAAUA | F | -2.5 | ( -7.8, -5.3 ) |
| 583-605 | ACCCUUGGCCCCUCUAUGG | F | -2.5 | ( -10.9, -8.4 ) |
| 3768-3790 | CGCCGGCGAGGUGAUAGCA | F | -2.5 | ( -12.0, -9.5 ) |
| 6940-6962 | GCUCCUCGGCCAGCCAGCU | B,F | -2.5 | ( -12.3, -9.8 ) |
| 950-972 | CACCAAUGAUUGCCCUAAC | F | -2.5 | ( -10.3, -7.8 ) |
| 3301-3323 | GGGCAGAUACCGCCGCGUG | F | -2.5 | ( -13.2, -10.7 ) |
| 6958-6980 | UGUCCGCUCCAUCUCUCAA | F | -2.5 | ( -10.6, -8.1 ) |
| 9220-9242 | CGGCCGCUGGCCGGCUGGA | F | -2.5 | ( -12.9, -10.4 ) |
| 3040-3062 | GGAUUCUUCAAGCCAGUUU | C,F | -2.5 | ( -8.8, -6.3 ) |
| 9120-9142 | GUCCGCGCUAGGCUUCUGU | C,F | -2.5 | ( -11.4, -8.9 ) |
| 8674-8696 | ACGACUUGGAGCUUAUAAC | F | -2.5 | ( -9.3, -6.8 ) |
| 9373-9395 | GAUGAAGGUUGGGGUAAAC | F | -2.5 | ( -9.1, -6.6 ) |
| 463-485 | GCCCUAGAUUGGGUGUGCG | F | -2.5 | ( -13.2, -10.7 ) |
| 3566-3588 | UGGGGUAUGCUGGACUGUC | B,F | -2.5 | ( -12.5, -10.0 ) |

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| | | | | |
|---|---|---|---|---|
| 8016-8038 | AUGGCCAAGAACGAGGUUU | F | -2.5 | ( -10.0, -7.5 ) |
| 8368-8390 | UCACUGAGAGGCUUUAUGU | F | -2.5 | ( -9.4, -6.9 ) |
| 795-817 | GCGCAUGGCGUCCGGGUUC | F | -2.5 | ( -12.5, -10.0 ) |
| 8787-8809 | GCGUGGGAGACAGCAAGAC | F | -2.5 | ( -11.3, -8.8 ) |
| 8166-8188 | AGCUCCUACGGAUUCCAAU | B,F | -2.5 | ( -10.0, -7.5 ) |
| 9085-9107 | CGCCCUUGCGAGCUUGGAG | F | -2.5 | ( -12.9, -10.4 ) |
| 9590-9612 | GUCCGUGAGCCGCAUGACU | F | -2.5 | ( -11.4, -8.9 ) |
| 6190-6212 | GCCUCACUGUAACCCAGCU | B,C,F | -2.5 | ( -12.3, -9.8 ) |
| 3169-3191 | CGCUUACUGGCACCUAUGU | F | -2.5 | ( -9.4, -6.9 ) |
| 7381-7403 | UUGCCACCAAAAGUUUUGG | F | -2.5 | ( -10.3, -7.8 ) |
| 6509-6531 | GAGUGGGACGUUCCCCAUU | F | -2.5 | ( -10.0, -7.5 ) |
| 190-212 | GUCCUUUCUUGGAUAAACC | F | -2.5 | ( -11.1, -8.6 ) |
| 2401-2423 | CCGGCCUCAUCCACCUCCA | B,C,F | -2.5 | ( -12.9, -10.4 ) |
| 123-145 | CCCCUCCCGGGAGAGCCAU | F | -2.5 | ( -12.5, -10.0 ) |
| 4258-4280 | CAGGAGGUGCUUAUGACAU | F | -2.5 | ( -10.4, -7.9 ) |
| 4029-4051 | GCUCCCACCGGCAGCGGUA | F | -2.5 | ( -12.3, -9.8 ) |
| 2076-2098 | UUGCUCUGCCCCACUGAUU | F | -2.5 | ( -9.1, -6.6 ) |
| 40-62 | CUCCCCUGUGAGGAACUAC | B,F | -2.5 | ( -11.6, -9.1 ) |
| 8363-8385 | GUCCCUCACUGAGAGGCUU | B,C,F | -2.5 | ( -12.3, -9.8 ) |
| 5372-5394 | AGGCUGCGUGGUCAUAGUG | F | -2.5 | ( -10.9, -8.4 ) |
| 6594-6616 | GUGUCUGCAGAGGAAUACG | F | -2.5 | ( -10.1, -7.6 ) |
| 7102-7124 | ACUCCUUCGAUCCGCUUGU | F | -2.5 | ( -10.0, -7.5 ) |
| 9372-9394 | CGAUGAAGGUUGGGGUAAA | C,F | -2.5 | ( -8.5, -6.0 ) |
| 9028-9050 | GUUACUCUCCAGGUGAAAU | B,F | -2.5 | ( -7.9, -5.4 ) |
| 2450-2472 | CGGGGUAGGGUCAAGCAUC | B,F | -2.5 | ( -12.7, -10.2 ) |
| 9199-9221 | AGCUCAAACUCACUCCAAU | B,F | -2.5 | ( -10.0, -7.5 ) |
| 77-99 | GUCUAGCCAUGGCGUUAGU | C,F | -2.5 | ( -9.2, -6.7 ) |
| 265-287 | UGGGUCGCGAAAGGCCUUG | F | -2.5 | ( -11.5, -9.0 ) |
| 7639-7661 | CGUGCGCUGCGGAAGAACA | F | -2.5 | ( -10.7, -8.2 ) |
| 962-984 | CCCUAACUCGAGUAUUGUG | F | -2.5 | ( -10.5, -8.0 ) |
| 7925-7947 | CCGUUGCCAUGCCAGAAAG | F | -2.5 | ( -9.4, -6.9 ) |
| 3317-3339 | GUGCGGUGACAUCAUCAAC | F | -2.5 | ( -11.3, -8.8 ) |
| 7345-7367 | UCACCGAAUCAACCCUAUC | F | -2.5 | ( -10.6, -8.1 ) |
| 4952-4974 | UAGGCUACGAGCGUACAUG | F | -2.5 | ( -10.7, -8.2 ) |
| 696-718 | UUGGGUAAGGUCAUCGAUA | F | -2.5 | ( -10.2, -7.7 ) |
| 3376-3398 | UUGGGCCAGCCGACGGAAU | F | -2.5 | ( -10.2, -7.7 ) |
| 8717-8739 | CGCCCACGACGGCGCUGGA | F | -2.5 | ( -12.9, -10.4 ) |
| 1012-1034 | CGGGGUGUGUCCCUUGCGU | C,F | -2.5 | ( -12.7, -10.2 ) |
| 8474-8496 | CACCCUCACUUGCUACAUC | B,F | -2.5 | ( -11.5, -9.0 ) |
| 120-142 | CCCCCCCUCCCGGGAGAGC | B,F | -2.5 | ( -13.6, -11.1 ) |
| 4771-4793 | UCCCCCAGGAUGCUGUCUC | F | -2.5 | ( -12.7, -10.2 ) |
| 2538-2560 | UCCUGCUUGUGGAUGAUGU | F | -2.5 | ( -10.4, -7.9 ) |
| 7697-7719 | CCAUCACAAUCUGGUGUAU | C,F | -2.5 | ( -9.4, -6.9 ) |
| 4392-4414 | CCUCCGGGCUCCGUCACUG | F | -2.5 | ( -11.6, -9.1 ) |
| 2239-2261 | UGGGAGGGGUCGAGCACAG | F | -2.5 | ( -11.6, -9.1 ) |
| 7067-7089 | CAGGGUUGAGUCAGAGAAC | F | -2.5 | ( -11.3, -8.8 ) |
| 503-525 | GCGGUCGCAACCUCGAGGU | B,C,F | -2.5 | ( -12.5, -10.0 ) |
| 7673-7695 | CGCACUGAGCAACUCGUUG | B,F | -2.5 | ( -10.7, -8.2 ) |
| 5739-5761 | CCACUAACCACUGGCCAAA | C,F | -2.5 | ( -10.3, -7.8 ) |
| 5987-6009 | GCUGCCCGCCAUCCUCUCG | F | -2.5 | ( -12.2, -9.7 ) |

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| | | | | |
|---|---|---|---|---|
| 4010-4032 | CCAGGUGGCCCACCUGCAU | F | -2.5 | ( -11.3, -8.8 ) |
| 6690-6712 | CCAUCGCCCGAAUUUUUCA | F | -2.5 | ( -9.4, -6.9 ) |
| 8873-8895 | ACUGAUGACCCAUUUCUUU | F | -2.5 | ( -8.9, -6.4 ) |
| 9361-9383 | UCCUCCCCAACCGAUGAAG | F | -2.5 | ( -10.6, -8.1 ) |
| 2823-2845 | GCGCUGACUCUGUCGCCAU | F | -2.5 | ( -12.5, -10.0 ) |
| 3509-3531 | GGGUGAGGUCCAGAUCGUG | B,F | -2.4 | ( -12.1, -9.7 ) |
| 8193-8215 | GGACAGCGGGUUGAAUUCC | B,F | -2.4 | ( -11.2, -8.8 ) |
| 2583-2605 | UUGGAGAACCUCGUAAUAC | F | -2.4 | ( -9.2, -6.8 ) |
| 6257-6279 | CUCCGGUUCCUGGCUAAGG | F | -2.4 | ( -10.6, -8.2 ) |
| 782-804 | UGCCAGGGCCCUGGCGCAU | F | -2.4 | ( -11.5, -9.1 ) |
| 8847-8869 | GCCCCCACACUGUGGGCGA | F | -2.4 | ( -14.4, -12.0 ) |
| 4742-4764 | CCCUACCUUUACCAUUGAG | B,F | -2.4 | ( -10.5, -8.1 ) |
| 6875-6897 | CUCCCAUAUAACAGCAGAG | F | -2.4 | ( -11.6, -9.2 ) |
| 7033-7055 | UCCUGUGGAGGCAGGAGAU | F | -2.4 | ( -10.4, -8.0 ) |
| 5141-5163 | UCCCCCAUCGUGGGACCAG | F | -2.4 | ( -12.7, -10.3 ) |
| 3058-3080 | UGCUUAAAGUCCCCUACUU | F | -2.4 | ( -9.1, -6.7 ) |
| 6602-6624 | AGAGGAAUACGUGGAGAUA | F | -2.4 | ( -9.9, -7.5 ) |
| 451-473 | UGCCGCGCAGGGGCCCUAG | F | -2.4 | ( -11.8, -9.4 ) |
| 6227-6249 | GUGGAUAAGCUCGGAGUGU | B,F | -2.4 | ( -11.2, -8.8 ) |
| 76-98 | CGUCUAGCCAUGGCGUUAG | F | -2.4 | ( -9.6, -7.2 ) |
| 8515-8537 | CCGCAGGGCUCCAGGACUG | F | -2.4 | ( -11.8, -9.4 ) |
| 1977-1999 | CUGGGCAAUUGGUUCGGUU | C,F | -2.4 | ( -11.3, -8.9 ) |
| 5612-5634 | CGAGGUCUUCUGGGCGAAG | F | -2.4 | ( -10.7, -8.3 ) |
| 4990-5012 | UGUGCCAGGACCAUCUUGA | F | -2.4 | ( -10.5, -8.1 ) |
| 1078-1100 | UGGCCACCAGGGACGGCAA | F | -2.4 | ( -12.7, -10.3 ) |
| 8056-8078 | GGGGUCGUAAGCCAGCUCG | F | -2.4 | ( -13.2, -10.8 ) |
| 2195-2217 | UCCUUGUACCAUCAAUUAC | B,F | -2.4 | ( -9.2, -6.8 ) |
| 5594-5616 | GACCAACUGGCAGAAACUC | B,F | -2.4 | ( -11.2, -8.8 ) |
| 8875-8897 | UGAUGACCCAUUUCUUUAG | F | -2.4 | ( -8.3, -5.9 ) |
| 7103-7125 | CUCCUUCGAUCCGCUUGUG | B,F | -2.4 | ( -10.4, -8.0 ) |
| 9262-9284 | GCUACAGCGGGGGAGACAU | F | -2.4 | ( -10.3, -7.9 ) |
| 7079-7101 | AGAGAACAAAGUGGUGAUU | F | -2.4 | ( -9.0, -6.6 ) |
| 1927-1949 | GGGGUGCAAAUGAUACGGA | C,F | -2.4 | ( -13.2, -10.8 ) |
| 2576-2598 | GGCGGCUUUGGAGAACCUC | B,F | -2.4 | ( -13.5, -11.1 ) |
| 6465-6487 | GGGACGAUGAGGAUCGUCG | F | -2.4 | ( -12.3, -9.9 ) |
| 3914-3936 | GGCGGUGGACUUUAUCCCU | B,F | -2.4 | ( -13.5, -11.1 ) |
| 7819-7841 | CAGCGGCGUCAAAAGUGAA | F | -2.4 | ( -10.6, -8.2 ) |
| 9606-9628 | ACUGCAGAGAGUGCUGAUA | F | -2.4 | ( -9.9, -7.5 ) |
| 4622-4644 | GACCAGCGGCGAUGUUGUC | F | -2.4 | ( -11.2, -8.8 ) |
| 4389-4411 | ACCCCUCCGGGCUCCGUCA | F | -2.4 | ( -12.1, -9.7 ) |
| 289-311 | CUGCCUGAUAGGGUGCUUG | B,F | -2.4 | ( -11.5, -9.1 ) |
| 1249-1271 | ACUGCAAUUGUUCUAUCUA | F | -2.4 | ( -9.9, -7.5 ) |
| 4867-4889 | CCGGCAUGUUCGACUCGUC | F | -2.4 | ( -12.9, -10.5 ) |
| 3484-3506 | CUGGCCGGGACAAAAACCA | B,C,F | -2.4 | ( -11.5, -9.1 ) |
| 9113-9135 | CCGGAGCGUCCGCGCUAGG | F | -2.4 | ( -11.8, -9.4 ) |
| 341-363 | CAUGAGCACGAAUCCUAAA | F | -2.4 | ( -8.3, -5.9 ) |
| 5910-5932 | GCGGGCGUGGCGGGAGCUC | F | -2.4 | ( -13.5, -11.1 ) |
| 211-233 | CUCAAUGCCUGGAGAUUUG | F | -2.4 | ( -8.1, -5.7 ) |
| 3124-3146 | UAGCCGGAGGUCAUUACGU | B,F | -2.4 | ( -10.7, -8.3 ) |
| 6169-6191 | GCGUCACUGCCAUACUCAG | F | -2.4 | ( -11.6, -9.2 ) |

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| | | | | |
|---|---|---|---|---|
| 6064-6086 | CGGGCGAGGGGGCAGUGCA | F | -2.4 | ( -12.9, -10.5 ) |
| 1911-1933 | GCGCCUACCUACAGCUGGG | F | -2.4 | ( -13.7, -11.3 ) |
| Jul-29 | CCCCUGAUGGGGGCGACAC | F | -2.4 | ( -12.5, -10.1 ) |
| 6648-6670 | UCGGGUAUGACUACUGACA | B,F | -2.4 | ( -11.8, -9.4 ) |
| 9362-9384 | CCUCCCCAACCGAUGAAGG | F | -2.4 | ( -11.6, -9.2 ) |
| 567-589 | UGGGCUCAGCCCGGGUACC | F | -2.4 | ( -12.7, -10.3 ) |
| 9155-9177 | UGCCAUAUGUGGCAAGUAC | F | -2.4 | ( -11.5, -9.1 ) |
| 7727-7749 | ACGCAGUGCUUGCCAAAGG | F | -2.4 | ( -10.2, -7.8 ) |
| 2637-2659 | GUGUCCUUCCUCGUGUUCU | F | -2.4 | ( -10.1, -7.7 ) |
| 3387-3409 | GACGGAAUGGUCUCCAAGG | F | -2.4 | ( -11.4, -9.0 ) |
| 6010-6032 | GAGCCCUUGUAGUCGGUGU | C,F | -2.4 | ( -12.3, -9.9 ) |
| 856-878 | GCUCUUUCUCUAUCUUCCU | F | -2.4 | ( -11.1, -8.7 ) |
| 128-150 | CCCGGGAGAGCCAUAGUGG | F | -2.4 | ( -12.7, -10.3 ) |
| 5760-5782 | CUCCUCUUCAACAUAUUGG | F | -2.4 | ( -10.4, -8.0 ) |
| 5965-5987 | CCACGGAGGACCUGGUCAA | C,F | -2.4 | ( -10.6, -8.2 ) |
| 5756-5778 | AACCCUCCUCUUCAACAUA | B,F | -2.4 | ( -9.8, -7.4 ) |
| 5644-5666 | UCAUCAGUGGGAUACAAUA | F | -2.4 | ( -8.5, -6.1 ) |
| 233-255 | GUGCCCCCGCAAGACUGCU | F | -2.4 | ( -12.2, -9.8 ) |
| 6557-6579 | CCUUCCUGCGCCGAACUAU | F | -2.4 | ( -9.2, -6.8 ) |
| 777-799 | GGCGCUGCCAGGGCCCUGG | B,F | -2.4 | ( -13.7, -11.3 ) |
| 2061-2083 | GUGGGCAACAACACCUUGC | F | -2.4 | ( -12.1, -9.7 ) |
| 8681-8703 | GGAGCUUAUAACAUCAUGC | F | -2.4 | ( -12.3, -9.9 ) |
| 8067-8089 | CCAGCUCGUCUCAUCGUGU | F | -2.4 | ( -11.5, -9.1 ) |
| 49-71 | GAGGAACUACUGUCUUCAC | F | -2.4 | ( -11.2, -8.8 ) |
| 2449-2471 | ACGGGGUAGGGUCAAGCAU | F | -2.4 | ( -11.2, -8.8 ) |
| 7051-7073 | UGGGCGGCAACAUCACCAG | B,F | -2.4 | ( -12.7, -10.3 ) |
| 8675-8697 | CGACUUGGAGCUUAUAACA | B,F | -2.4 | ( -9.6, -7.2 ) |
| 6342-6364 | CCACAACUGCCUGGGAUUC | F | -2.4 | ( -10.3, -7.9 ) |
| 2803-2825 | UUGUUCUUGUCGGGUUAAU | F | -2.4 | ( -6.8, -4.4 ) |
| 8562-8584 | GUCGUUAUCUGUGAAAGUG | B,F | -2.4 | ( -10.4, -8.0 ) |
| 989-1011 | GGCCGAUGCCAUCCUGCAC | F | -2.4 | ( -13.5, -11.1 ) |
| 6444-6466 | AUCACUGGACAUGUCAAAA | F | -2.4 | ( -7.9, -5.5 ) |
| 4390-4412 | CCCCUCCGGGCUCCGUCAC | B,F | -2.4 | ( -12.5, -10.1 ) |
| 4772-4794 | CCCCCAGGAUGCUGUCUCC | F | -2.4 | ( -13.6, -11.2 ) |
| 7310-7332 | UGUGCCUCCGCCUCGGAAA | F | -2.4 | ( -10.5, -8.1 ) |
| 5416-5438 | CGGCAAUUAUACCUGACAG | F | -2.4 | ( -11.8, -9.4 ) |
| 8543-8565 | CGUGUGUGGCGACGACUUA | F | -2.4 | ( -9.6, -7.2 ) |
| 1282-1304 | CGGGUCAUCGCAUGGCAUG | B,F | -2.4 | ( -11.7, -9.3 ) |
| 840-862 | GGGAACCUUCCUGGUUGCU | B,F | -2.4 | ( -11.0, -8.6 ) |
| 9078-9100 | GGGGUCCCGCCCUUGCGAG | F | -2.4 | ( -13.2, -10.8 ) |
| 7746-7768 | CAGAAGAAAGUCACAUUUG | F | -2.4 | ( -8.1, -5.7 ) |
| 949-971 | UCACCAAUGAUUGCCCUAA | F | -2.4 | ( -10.6, -8.2 ) |
| 8146-8168 | UCCCCCUGGCCGUGAUGGG | F | -2.4 | ( -12.7, -10.3 ) |
| 7044-7066 | CAGGAGAUGGGCGGCAACA | F | -2.4 | ( -10.4, -8.0 ) |
| 8436-8458 | UGCCGCGCGAGCGGCGUAC | F | -2.4 | ( -11.8, -9.4 ) |
| 933-955 | UCGGGGCUUUACCAUGUCA | F | -2.4 | ( -11.8, -9.4 ) |
| 3872-3894 | GGGCCUAUUCAGGGCCGCG | F | -2.4 | ( -14.4, -12.0 ) |
| 3261-3283 | GUCGUCUUCUCCCGAAUGG | B,F | -2.4 | ( -10.4, -8.0 ) |
| 8679-8701 | UUGGAGCUUAUAACAUCAU | F | -2.4 | ( -9.2, -6.8 ) |
| 8066-8088 | GCCAGCUCGUCUCAUCGUG | A,B,F | -2.4 | ( -12.1, -9.7 ) |

**FIG. 11 (page 458 of 479)**

| | | | | |
|---|---|---|---|---|
| 4148-4170 | CAAGGCCCAUGGGGUUGAU | C,F | -2.4 | ( -9.0, -6.6 ) |
| 8792-8814 | GGAGACAGCAAGACACACU | C,F | -2.4 | ( -11.2, -8.8 ) |
| 4628-4650 | CGGCGAUGUUGUCGUCGUG | F | -2.3 | ( -12.0, -9.7 ) |
| 7816-7838 | AAGCAGCGGCGUCAAAAGU | B,F | -2.3 | ( -8.6, -6.3 ) |
| 207-229 | CCCGCUCAAUGCCUGGAGA | A,B,C,F | -2.3 | ( -12.9, -10.6 ) |
| 48-70 | UGAGGAACUACUGUCUUCA | F | -2.3 | ( -10.4, -8.1 ) |
| 984-1006 | GAGGCGGCCGAUGCCAUCC | F | -2.3 | ( -12.3, -10.0 ) |
| 7402-7424 | GCUCCUCAACUUCCGGCAU | B,F | -2.3 | ( -12.3, -10.0 ) |
| 2953-2975 | AUGCCGUCAUCUUACUCAU | F | -2.3 | ( -10.0, -7.7 ) |
| 5476-5498 | CUCAGCACUUACCGUACAU | C,F | -2.3 | ( -9.2, -6.9 ) |
| 6416-6438 | GCACACUCGCUGCCACUGU | F | -2.3 | ( -11.1, -8.8 ) |
| 2036-2058 | AGCGCCCCCUUGUGUCAUC | F | -2.3 | ( -11.4, -9.1 ) |
| 8676-8698 | GACUUGGAGCUUAUAACAU | F | -2.3 | ( -8.8, -6.5 ) |
| 4016-4038 | GGCCCACCUGCAUGCUCCC | F | -2.3 | ( -14.4, -12.1 ) |
| 1153-1175 | UCUGCUCGGCCCUCUACGU | F | -2.3 | ( -10.6, -8.3 ) |
| 7250-7272 | GCCUGACUACGAACCACCU | B,F | -2.3 | ( -12.1, -9.8 ) |
| 3353-3375 | CCGUAGGGGCCAGGAGAUA | F | -2.3 | ( -9.8, -7.5 ) |
| 1636-1658 | GCCUUAACACCGGCUGGUU | B,F | -2.3 | ( -10.9, -8.6 ) |
| 9605-9627 | GACUGCAGAGAGUGCUGAU | F | -2.3 | ( -10.0, -7.7 ) |
| 8266-8288 | GCUGUUUUGACUCCACAGU | C,F | -2.3 | ( -11.1, -8.8 ) |
| 7153-7175 | CCGCAGAAAUUCUGCGGAA | C,F | -2.3 | ( -11.8, -9.5 ) |
| 5990-6012 | GCCCGCCAUCCUCUCGCCU | F | -2.3 | ( -13.5, -11.2 ) |
| 8682-8704 | GAGCUUAUAACAUCAUGCU | C,F | -2.3 | ( -11.1, -8.8 ) |
| 2788-2810 | CGUCGUGUGGCGGCGUUGU | F | -2.3 | ( -9.9, -7.6 ) |
| 6870-6892 | GAUCCCUCCCAUAUAACAG | F | -2.3 | ( -10.3, -8.0 ) |
| 4503-4525 | GGAAGACAUCUCAUCUUCU | F | -2.3 | ( -9.8, -7.5 ) |
| 1475-1497 | UGCCGGCGUCGACGCGGAA | F | -2.3 | ( -11.8, -9.5 ) |
| 6623-6645 | GCGGGUGGGGGACUUCCAC | F | -2.3 | ( -13.5, -11.2 ) |
| 5552-5574 | GACCGCGUCCCGCCAAGCA | B,F | -2.3 | ( -11.4, -9.1 ) |
| 8790-8812 | UGGGAGACAGCAAGACACA | F | -2.3 | ( -11.6, -9.3 ) |
| 6425-6447 | CUGCCACUGUGGAGCUGAG | F | -2.3 | ( -11.5, -9.2 ) |
| 3884-3906 | GGCCGCGGUGUGCACCCGU | F | -2.3 | ( -13.5, -11.2 ) |
| 6536-6558 | CACCACGGGCCCCUGUACU | B,F | -2.3 | ( -10.3, -8.0 ) |
| 1350-1372 | CUGCUCCGGAUCCCACAAG | F | -2.3 | ( -10.3, -8.0 ) |
| 3350-3372 | UGCCCGUAGGGGCCAGGAG | F | -2.3 | ( -12.7, -10.4 ) |
| 5584-5606 | CUGCUGUCCAGACCAACUG | F | -2.3 | ( -10.3, -8.0 ) |
| 6489-6511 | AGGACCUGCAGGAACAUGU | F | -2.3 | ( -10.0, -7.7 ) |
| 7902-7924 | UUUGGCUAUGGGGCAAAAG | F | -2.3 | ( -7.8, -5.5 ) |
| 7226-7248 | CCCGCUAGUAGAGACGUGG | F | -2.3 | ( -12.9, -10.6 ) |
| 2757-2779 | CGGGCAUACGCACUGGACA | F | -2.3 | ( -12.9, -10.6 ) |
| 9080-9102 | GGUCCCGCCCUUGCGAGCU | F | -2.3 | ( -12.3, -10.0 ) |
| 3783-3805 | AGCAGGGGUAGCCUGCUUU | F | -2.3 | ( -9.8, -7.5 ) |
| 2574-2596 | GAGGCGGCUUUGGAGAACC | F | -2.3 | ( -12.3, -10.0 ) |
| 3525-3547 | GUGUCAACUGCUACCCAAA | F | -2.3 | ( -10.1, -7.8 ) |
| 2567-2589 | CCAAGCGGAGGCGGCUUUG | F | -2.3 | ( -9.0, -6.7 ) |
| 5603-5625 | GCAGAAACUCGAGGUCUUC | F | -2.3 | ( -11.2, -8.9 ) |
| 985-1007 | AGGCGGCCGAUGCCAUCCU | F | -2.3 | ( -11.2, -8.9 ) |
| 5331-5353 | GGCGGCGUCCUGGCUGCUC | F | -2.3 | ( -13.5, -11.2 ) |
| 8401-8423 | CCAAUUCAAGGGGGGAAAA | B,F | -2.3 | ( -8.0, -5.7 ) |

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| | | | | |
|---|---|---|---|---|
| 4554-4576 | GCGAAGCUGGUCGCAUUGG | F | -2.3 | ( -10.3, -8.0 ) |
| 5782-5804 | GGUGGGUGGCUGCCCAGCU | F | -2.3 | ( -12.1, -9.8 ) |
| 1923-1945 | AGCUGGGGUGCAAAUGAUA | F | -2.3 | ( -9.8, -7.5 ) |
| 8048-8070 | UGAGAAGGGGGGUCGUAAG | F | -2.3 | ( -9.5, -7.2 ) |
| 3421-3443 | CGCCCAUCACGGCGUACGC | F | -2.3 | ( -12.9, -10.6 ) |
| 2002-2024 | GGAUGAACUCAACUGGAUU | F | -2.3 | ( -10.0, -7.7 ) |
| 1887-1909 | GUGGGAACGACCGACAGGU | C,F | -2.3 | ( -12.1, -9.8 ) |
| 8244-8266 | AUGGGGUUCUCGUAUGAUA | F | -2.3 | ( -9.8, -7.5 ) |
| 1368-1390 | GCCAUCAUGGACAUGAUCG | B,F | -2.3 | ( -11.1, -8.8 ) |
| 3409-3431 | GGAGGUUGCUGGCGCCCAU | C,F | -2.3 | ( -12.1, -9.8 ) |
| 8874-8896 | CUGAUGACCCAUUUCUUUA | B,F | -2.3 | ( -8.2, -5.9 ) |
| 2457-2479 | GGGUCAAGCAUCGCGUCCU | B,C,F | -2.3 | ( -12.3, -10.0 ) |
| 7318-7340 | CGCCUCGGAAAAAGCGUAC | F | -2.3 | ( -11.7, -9.4 ) |
| 8477-8499 | CCUCACUUGCUACAUCAAG | F | -2.3 | ( -10.4, -8.1 ) |
| 5248-5270 | CCCUGACGCACCCAAUCAC | B,F | -2.3 | ( -11.3, -9.0 ) |
| 2572-2594 | CGGAGGCGGCUUUGGAGAA | F | -2.3 | ( -10.6, -8.3 ) |
| 4782-4804 | GCUGUCUCCAGGACUCAAC | F | -2.3 | ( -11.1, -8.8 ) |
| 8035-8057 | UCUGCGUUCAGCCUGAGAA | F | -2.3 | ( -10.6, -8.3 ) |
| 2738-2760 | CCUGCUGGCGUUGCCUCAG | F | -2.3 | ( -11.5, -9.2 ) |
| 2478-2500 | GCCAUUAAGUGGGAGUACG | F | -2.3 | ( -11.1, -8.8 ) |
| 2432-2454 | GGACGUGCAGUACUUGUAC | F | -2.3 | ( -11.4, -9.1 ) |
| 2429-2451 | UGUGGACGUGCAGUACUUG | F | -2.3 | ( -10.3, -8.0 ) |
| 9221-9243 | GGCCGCUGGCCGGCUGGAC | F | -2.3 | ( -13.5, -11.2 ) |
| 1455-1477 | CUGGUAGUGCUGCUGCUAU | F | -2.3 | ( -10.3, -8.0 ) |
| 185-207 | ACCGGGUCCUUUCUUGGAU | F | -2.3 | ( -11.2, -8.9 ) |
| 7012-7034 | CCGAGCUCAUAGAGGCUAA | C,F | -2.3 | ( -10.7, -8.4 ) |
| 1715-1737 | CUGCCGACGCCUUACCGAU | F | -2.3 | ( -11.5, -9.2 ) |
| 3855-3877 | CCCGCGGGACACGCCGUGG | F | -2.3 | ( -12.9, -10.6 ) |
| 5590-5612 | UCCAGACCAACUGGCAGAA | F | -2.3 | ( -10.4, -8.1 ) |
| 8854-8876 | CACUGUGGGCGAGGAUGAU | B,F | -2.3 | ( -9.1, -6.8 ) |
| 640-662 | CCCGUGGCUCUCGGCCUAG | F | -2.3 | ( -11.7, -9.4 ) |
| 8241-8263 | CCGAUGGGGUUCUCGUAUG | F | -2.3 | ( -9.7, -7.4 ) |
| 3139-3161 | ACGUGCAAAUGGCCAUCAU | F | -2.3 | ( -9.1, -6.8 ) |
| 7378-7400 | AGCUUGCCACCAAAAGUUU | F | -2.3 | ( -8.6, -6.3 ) |
| 9343-9365 | CAGGGGUAGGCAUCUACCU | F | -2.3 | ( -11.3, -9.0 ) |
| 3667-3689 | UGGGCUGGCCCGCUCCUCA | F | -2.3 | ( -12.7, -10.4 ) |
| 6283-6305 | GGGACUGGAUAUGCGAGGU | C,F | -2.3 | ( -12.3, -10.0 ) |
| 434-456 | UGGUGGAGUUUACUUGUUG | F | -2.3 | ( -10.3, -8.0 ) |
| 8869-8891 | UGAUACUGAUGACCCAUUU | B,F | -2.3 | ( -7.5, -5.2 ) |
| 1495-1517 | CCCACGUCACCGGGGGAAG | B,F | -2.3 | ( -11.5, -9.2 ) |
| 2756-2778 | GCGGGCAUACGCACUGGAC | B,F | -2.3 | ( -13.5, -11.2 ) |
| 4769-4791 | GCUCCCCCAGGAUGCUGUC | F | -2.3 | ( -12.3, -10.0 ) |
| 7283-7305 | CCCGCUACCACCUCCACGG | F | -2.3 | ( -12.9, -10.6 ) |
| 1270-1292 | CCGGCCAUAUAACGGGUCA | C,F | -2.3 | ( -12.9, -10.6 ) |
| 1140-1162 | GGGAGCGCCACCCUCUGCU | C,F | -2.3 | ( -12.1, -9.8 ) |
| 1175-1197 | GGACCUGUGCGGGUCUGUC | F | -2.3 | ( -12.3, -10.0 ) |
| 3650-3672 | UGUGGACCAAGACCUUGUG | B,F | -2.3 | ( -10.3, -8.0 ) |
| 7232-7254 | AGUAGAGACGUGGAAAAAG | F | -2.3 | ( -7.8, -5.5 ) |
| 893-915 | CCUGACUGUGCCCGCUUCA | F | -2.3 | ( -10.4, -8.1 ) |
| 3114-3136 | GCGCGGAAGAUAGCCGGAG | B,F | -2.2 | ( -12.8, -10.6 ) |

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| | | | | |
|---|---|---|---|---|
| 184-206 | GACCGGGUCCUUUCUUGGA | F | -2.2 | ( -11.4, -9.2 ) |
| 6715-6737 | UGGACGGGGUGCGCCUACA | F | -2.2 | ( -10.6, -8.4 ) |
| 7910-7932 | UGGGGCAAAAGACGUCCGU | B,F | -2.2 | ( -12.5, -10.3 ) |
| 3628-3650 | CUGUCAUCCAGAUGUAUAC | F | -2.2 | ( -9.4, -7.2 ) |
| 2824-2846 | CGCUGACUCUGUCGCCAUA | C,F | -2.2 | ( -10.6, -8.4 ) |
| 9162-9184 | UGUGGCAAGUACCUCUUCA | B,F | -2.2 | ( -10.3, -8.1 ) |
| 3247-3269 | UGGCUGUGGAACCAGUCGU | F | -2.2 | ( -11.5, -9.3 ) |
| 5960-5982 | CCCCUCCACGGAGGACCUG | F | -2.2 | ( -12.5, -10.3 ) |
| 8599-8621 | CGGCGAGCCUGAGAGCCUU | C,F | -2.2 | ( -12.0, -9.8 ) |
| 334-356 | CGUGCACCAUGAGCACGAA | C,F | -2.2 | ( -10.7, -8.5 ) |
| 7735-7757 | CUUGCCAAAGGCAGAAGAA | F | -2.2 | ( -9.1, -6.9 ) |
| 1552-1574 | CACCAGGCGCCAAGCAGAA | B,F | -2.2 | ( -10.3, -8.1 ) |
| 838-860 | CAGGGAACCUUCCUGGUUG | B,F | -2.2 | ( -11.3, -9.1 ) |
| 6209-6231 | CCUGAGGCGACUGCAUCAG | F | -2.2 | ( -10.4, -8.2 ) |
| 2793-2815 | UGUGGCGGCGUUGUUCUUG | F | -2.2 | ( -10.3, -8.1 ) |
| 14-36 | UGGGGGCGACACUCCACCA | B,F | -2.2 | ( -12.5, -10.3 ) |
| 5208-5230 | CCCCUGCUAUACAGACUGG | B,F | -2.2 | ( -12.5, -10.3 ) |
| 7593-7615 | GUGUGCUGCUCAAUGUCUU | C,F | -2.2 | ( -9.9, -7.7 ) |
| 2639-2661 | GUCCUUCCUCGUGUUCUUC | F | -2.2 | ( -11.1, -8.9 ) |
| 819-841 | GACGGCGUGAACUAUGCAA | B,C,F | -2.2 | ( -11.4, -9.2 ) |
| 4781-4803 | UGCUGUCUCCAGGACUCAA | B,F | -2.2 | ( -10.3, -8.1 ) |
| 6830-6852 | GCCCGAACCGGACGUAGCC | B,F | -2.2 | ( -13.5, -11.3 ) |
| 5061-5083 | UCCCAGACAAAGCAGAGUG | B,F | -2.2 | ( -11.6, -9.4 ) |
| 6330-6352 | GCCAAGCUCAUGCCACAAC | B,F | -2.2 | ( -10.9, -8.7 ) |
| 4041-4063 | AGCGGUAAGAGCACCAAGG | F | -2.2 | ( -11.2, -9.0 ) |
| 8219-8241 | AGCGUGGAAGUCCAAGAAG | B,F | -2.2 | ( -10.2, -8.0 ) |
| 2154-2176 | CCCAGGUGCAUGGUCGACU | B,C,F | -2.2 | ( -11.3, -9.1 ) |
| 3906-3928 | GUGGCUAAGGCGGUGGACU | B,F | -2.2 | ( -12.2, -10.0 ) |
| 8791-8813 | GGGAGACAGCAAGACACAC | F | -2.2 | ( -12.1, -9.9 ) |
| 7052-7074 | GGGCGGCAACAUCACCAGG | F | -2.2 | ( -13.5, -11.3 ) |
| 3384-3406 | GCCGACGGAAUGGUCUCCA | B,C,F | -2.2 | ( -12.6, -10.4 ) |
| 2105-2127 | GCAUCCGGAAGCCACAUAC | B,F | -2.2 | ( -10.2, -8.0 ) |
| 5469-5491 | GAGUGCUCUCAGCACUUAC | B,F | -2.2 | ( -10.0, -7.8 ) |
| 4624-4646 | CCAGCGGCGAUGUUGUCGU | B,C,F | -2.2 | ( -11.5, -9.3 ) |
| 7615-7637 | CCUGGACAGGCGCACUCGU | F | -2.2 | ( -11.3, -9.1 ) |
| 8945-8967 | CGGAGCCUGCUACUCCAUA | B,F | -2.2 | ( -10.6, -8.4 ) |
| 1556-1578 | AGGCGCCAAGCAGAACAUC | F | -2.2 | ( -11.2, -9.0 ) |
| 2246-2268 | GGUCGAGCACAGGCUGGAA | F | -2.2 | ( -11.4, -9.2 ) |
| 6202-6224 | CCCAGCUCCUGAGGCGACU | B,C,F | -2.2 | ( -11.3, -9.1 ) |
| 435-457 | GGUGGAGUUUACUUGUUGC | F | -2.2 | ( -12.1, -9.9 ) |
| 3126-3148 | GCCGGAGGUCAUUACGUGC | B,F | -2.2 | ( -13.5, -11.3 ) |
| 9219-9241 | GCGGCCGCUGGCCGGCUGG | B,F | -2.2 | ( -13.7, -11.5 ) |
| 6255-6277 | UGCUCCGGUUCCUGGCUAA | B,F | -2.2 | ( -10.6, -8.4 ) |
| 698-720 | GGGUAAGGUCAUCGAUACC | F | -2.2 | ( -11.3, -9.1 ) |
| 2163-2185 | AUGGUCGACUACCCGUAUA | F | -2.2 | ( -8.8, -6.6 ) |
| 3299-3321 | GGGGGCAGAUACCGCCGCG | F | -2.2 | ( -14.2, -12.0 ) |
| 7100-7122 | GGACUCCUUCGAUCCGCUU | F | -2.2 | ( -11.1, -8.9 ) |
| 1842-1864 | AGCGUGUGUGGCCCGGUAU | F | -2.2 | ( -10.2, -8.0 ) |
| 7167-7189 | CGGAAGUCUCGGAGAUUCG | F | -2.2 | ( -9.5, -7.3 ) |
| 7672-7694 | ACGCACUGAGCAACUCGUU | B,F | -2.2 | ( -10.2, -8.0 ) |

**FIG. 11 (page 461 of 479)**

| | | | | |
|---|---|---|---|---|
| 7043-7065 | GCAGGAGAUGGGCGGCAAC | F | -2.2 | ( -12.1, -9.9 ) |
| 703-725 | AGGUCAUCGAUACCCUUAC | B,F | -2.2 | ( -10.0, -7.8 ) |
| 844-866 | ACCUUCCUGGUUGCUCUUU | B,F | -2.2 | ( -8.6, -6.4 ) |
| 432-454 | GUUGGUGGAGUUUACUUGU | F | -2.2 | ( -9.7, -7.5 ) |
| 359-381 | ACCUCAAAGAAAAACCAAA | B,F | -2.2 | ( -10.0, -7.8 ) |
| 7951-7973 | CCCACAUCAACUCCGUGUG | F | -2.2 | ( -11.5, -9.3 ) |
| 3863-3885 | ACACGCCGUGGGCCUAUUC | F | -2.2 | ( -9.1, -6.9 ) |
| 1360-1382 | UCCCACAAGCCAUCAUGGA | B,F | -2.2 | ( -11.6, -9.4 ) |
| 4105-4127 | ACCCCUCUGUUGCUGCAAC | B,F | -2.2 | ( -12.1, -9.9 ) |
| 616-638 | GGUGGGCGGGAUGGCUCCU | F | -2.2 | ( -12.1, -9.9 ) |
| 8435-8457 | GUGCCGCGCGAGCGGCGUA | F | -2.2 | ( -12.2, -10.0 ) |
| 5190-5212 | ACCCUCCAUGGGCCAACAC | F | -2.2 | ( -10.9, -8.7 ) |
| 1436-1458 | GGGGAACUGGGCGAAGGUC | F | -2.2 | ( -13.3, -11.1 ) |
| 3243-3265 | GCCGUGGCUGUGGAACCAG | F | -2.2 | ( -12.5, -10.3 ) |
| 1812-1834 | CCAAGACCUUGUGGCAUUG | F | -2.2 | ( -9.0, -6.8 ) |
| 6001-6023 | UCUCGCCUGGAGCCCUUGU | F | -2.2 | ( -9.7, -7.5 ) |
| 530-552 | GCCUAUCCCCAAGGCACGU | B,F | -2.2 | ( -11.3, -9.1 ) |
| 3067-3089 | UCCCCUACUUCGUGCGCGU | F | -2.2 | ( -12.7, -10.5 ) |
| 8897-8919 | CCUCAUAGCCAGGGAUCAG | F | -2.2 | ( -10.4, -8.2 ) |
| 4646-4668 | GUCGACCGAUGCUCUCAUG | F | -2.2 | ( -10.5, -8.3 ) |
| 1176-1198 | GACCUGUGCGGGUCUGUCU | F | -2.2 | ( -11.1, -8.9 ) |
| 1237-1259 | GGACGACGCAAGACUGCAA | C,F | -2.2 | ( -11.4, -9.2 ) |
| 6025-6047 | GUGUGGUCUGCGCAGCAAU | F | -2.2 | ( -9.9, -7.7 ) |
| 2286-2308 | GGCGAACGCUGUGAUCUGG | F | -2.2 | ( -12.6, -10.4 ) |
| 2258-2280 | GCUGGAAGCGGCCUGCAAC | F | -2.2 | ( -12.1, -9.9 ) |
| 3050-3072 | AGCCAGUUUGCUUAAAGUC | B,F | -2.2 | ( -11.0, -8.8 ) |
| 7046-7068 | GGAGAUGGGCGGCAACAUC | B,F | -2.2 | ( -11.2, -9.0 ) |
| 9313-9335 | GGUUCUGGUUUUGCCUACU | C,F | -2.2 | ( -10.0, -7.8 ) |
| 5620-5642 | UCUGGGCGAAGCACAUGUG | F | -2.2 | ( -10.4, -8.2 ) |
| 7554-7576 | UGGUCGACGGUCAGUAGUG | B,F | -2.2 | ( -10.6, -8.4 ) |
| 3635-3657 | CCAGAUGUAUACCAAUGUG | F | -2.2 | ( -10.4, -8.2 ) |
| 3605-3627 | GACCAUCGCAUCACCCAAG | F | -2.2 | ( -11.2, -9.0 ) |
| 4080-4102 | CAGGGCUACAAGGUGUUGG | F | -2.2 | ( -11.3, -9.1 ) |
| 2181-2203 | AGGCUUUGGCACUAUCCUU | F | -2.2 | ( -10.9, -8.7 ) |
| 8145-8167 | CUCCCCCUGGCCGUGAUGG | F | -2.2 | ( -11.6, -9.4 ) |
| 2917-2939 | UGUGGGUUCCCCCCCUCAA | F | -2.2 | ( -10.3, -8.1 ) |
| 7136-7158 | GCGGGAGGUCUCCGUACCC | B,F | -2.2 | ( -13.5, -11.3 ) |
| 7053-7075 | GGCGGCAACAUCACCAGGG | F | -2.2 | ( -13.5, -11.3 ) |
| 1035-1057 | GAGGGUAACGCCUCGAGGU | F | -2.2 | ( -12.2, -10.0 ) |
| 6443-6465 | GAUCACUGGACAUGUCAAA | B,C,F | -2.2 | ( -9.1, -6.9 ) |
| 4175-4197 | CAGGACCGGGGUGAGAACA | F | -2.2 | ( -10.4, -8.2 ) |
| 4123-4145 | CGCUGGGCUUUGGUGCUUA | B,C,F | -2.2 | ( -10.6, -8.4 ) |
| 551-573 | GCCCGAGGGCAGGACCUGG | F | -2.2 | ( -13.5, -11.3 ) |
| 2488-2510 | GGGAGUACGUCGUUCUCCU | C,F | -2.2 | ( -12.1, -9.9 ) |
| 3960-3982 | UCCCCGGUGUUCACGGACA | B,F | -2.1 | ( -12.7, -10.6 ) |
| 3270-3292 | UCCCGAAUGGAGACCAAGC | F | -2.1 | ( -11.8, -9.7 ) |
| 7241-7263 | GUGGAAAAAGCCUGACUAC | F | -2.1 | ( -11.2, -9.1 ) |
| 7662-7684 | CUGCCCAUCAACGCACUGA | B,C,F | -2.1 | ( -11.5, -9.4 ) |
| 483-505 | GCGACGAGGAAGACUUCCG | F | -2.1 | ( -11.6, -9.5 ) |
| 131-153 | GGGAGAGCCAUAGUGGUCU | C,F | -2.1 | ( -12.1, -10.0 ) |

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| | | | | |
|---|---|---|---|---|
| 1565-1587 | GCAGAACAUCCAACUGAUC | B,F | -2.1 | ( -11.2, -9.1 ) |
| 5019-5041 | GGCGUCUUUACGGGCCUCA | C,F | -2.1 | ( -12.5, -10.4 ) |
| 8143-8165 | AGCUCCCCCUGGCCGUGAU | B,F | -2.1 | ( -10.0, -7.9 ) |
| 2703-2725 | UACGCCUUCUACGGGAUGU | F | -2.1 | ( -10.0, -7.9 ) |
| 6760-6782 | UGCUGCGGGAGGAGGUAUC | F | -2.1 | ( -10.3, -8.2 ) |
| 7802-7824 | GCUCAAGGAGGUCAAAGCA | F | -2.1 | ( -11.2, -9.1 ) |
| 784-806 | CCAGGGCCCUGGCGCAUGG | F | -2.1 | ( -11.3, -9.2 ) |
| 591-613 | CCCCUCUAUGGCAAUGAGG | F | -2.1 | ( -12.5, -10.4 ) |
| 2804-2826 | UGUUCUUGUCGGGUUAAUG | F | -2.1 | ( -8.2, -6.1 ) |
| 1177-1199 | ACCUGUGCGGGUCUGUCUU | F | -2.1 | ( -9.8, -7.7 ) |
| 7525-7547 | CUGGGGAUCCGGAUCUCAG | F | -2.1 | ( -11.3, -9.2 ) |
| 3142-3164 | UGCAAAUGGCCAUCAUCAA | F | -2.1 | ( -9.2, -7.1 ) |
| 4855-4877 | GGGAGCGCCCCUCCGGCAU | F | -2.1 | ( -12.1, -10.0 ) |
| 3356-3378 | UAGGGGCCAGGAGAUACUG | F | -2.1 | ( -10.5, -8.4 ) |
| 176-198 | GCCAGGACGACCGGGUCCU | C,F | -2.1 | ( -12.1, -10.0 ) |
| 8149-8171 | CCCUGGCCGUGAUGGGAAG | F | -2.1 | ( -11.3, -9.2 ) |
| 4323-4345 | GGCAUCGGCACUGUCCUUG | F | -2.1 | ( -11.1, -9.0 ) |
| 892-914 | GCCUGACUGUGCCCGCUUC | F | -2.1 | ( -12.1, -10.0 ) |
| 1647-1669 | GGCUGGUUAGCAGGGCUCU | F | -2.1 | ( -12.1, -10.0 ) |
| 3510-3532 | GGUGAGGUCCAGAUCGUGU | F | -2.1 | ( -11.2, -9.1 ) |
| 6952-6974 | GCCAGCUGUCCGCUCCAUC | B,F | -2.1 | ( -12.1, -10.0 ) |
| 2265-2287 | GCGGCCUGCAACUGGACGC | B,F | -2.1 | ( -13.7, -11.6 ) |
| 4824-4846 | AAGCCAGGCAUCUACAGAU | F | -2.1 | ( -9.8, -7.7 ) |
| 8595-8617 | GACGCGGCGAGCCUGAGAG | F | -2.1 | ( -11.6, -9.5 ) |
| 1160-1182 | GGCCCUCUACGUGGGGGAC | F | -2.1 | ( -14.4, -12.3 ) |
| 4773-4795 | CCCCAGGAUGCUGUCUCCA | F | -2.1 | ( -12.5, -10.4 ) |
| 6899-6921 | CGGGAGAAGGUUGGCGAGA | F | -2.1 | ( -11.8, -9.7 ) |
| 2485-2507 | AGUGGGAGUACGUCGUUCU | B,F | -2.1 | ( -9.8, -7.7 ) |
| 3604-3626 | GGACCAUCGCAUCACCCAA | B,F | -2.1 | ( -12.3, -10.2 ) |
| 4442-4464 | GUCCACCACCGGAGAGAUC | F | -2.1 | ( -11.2, -9.1 ) |
| 9124-9146 | GCGCUAGGCUUCUGUCCAG | F | -2.1 | ( -12.5, -10.4 ) |
| 2319-2341 | UCCGAGCUCAGCCCAUUGC | F | -2.1 | ( -10.9, -8.8 ) |
| 2535-2557 | UGCUCCUGCUUGUGGAUGA | F | -2.1 | ( -10.6, -8.5 ) |
| 4202-4224 | UGGCAGCCCCAUCACGUAC | F | -2.1 | ( -11.5, -9.4 ) |
| 1941-1963 | ACGGAUGUCUUCGUCCUUA | F | -2.1 | ( -10.3, -8.2 ) |
| 7413-7435 | UCCGGCAUUACGGGCGACA | F | -2.1 | ( -11.8, -9.7 ) |
| 2537-2559 | CUCCUGCUUGUGGAUGAUG | F | -2.1 | ( -10.4, -8.3 ) |
| 8197-8219 | AGCGGGUUGAAUUCCUCGU | F | -2.1 | ( -11.2, -9.1 ) |
| 910-932 | CAGCCUACCAAGUGCGCAA | C,F | -2.1 | ( -11.5, -9.4 ) |
| 4851-4873 | CCGGGGGAGCGCCCCUCCG | B,F | -2.1 | ( -12.7, -10.6 ) |
| 8896-8918 | UCCUCAUAGCCAGGGAUCA | F | -2.1 | ( -10.6, -8.5 ) |
| 7034-7056 | CCUGUGGAGGCAGGAGAUG | F | -2.1 | ( -10.3, -8.2 ) |
| 5873-5895 | GGGGAAGGUCCUCGUGGAC | F | -2.1 | ( -13.3, -11.2 ) |
| 7691-7713 | GCUACGCCAUCACAAUCUG | F | -2.1 | ( -10.3, -8.2 ) |
| 5777-5799 | GGGGGGGUGGGUGGCUGCC | F | -2.1 | ( -14.2, -12.1 ) |
| 7118-7140 | UGUGGCAGAGGAGGAUGAG | F | -2.1 | ( -10.3, -8.2 ) |
| 7002-7024 | UCCCCUGACGCCGAGCUCA | F | -2.1 | ( -12.7, -10.6 ) |
| 900-922 | GUGCCCGCUUCAGCCUACC | F | -2.1 | ( -12.2, -10.1 ) |
| 3888-3910 | GCGGUGUGCACCCGUGGAG | F | -2.1 | ( -12.5, -10.4 ) |
| 6553-6575 | CUCCCCUUCCUGCGCCGAA | B,F | -2.1 | ( -11.6, -9.5 ) |

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| | | | | |
|---|---|---|---|---|
| 4153-4175 | CCCAUGGGGUUGAUCCUAA | C,F | -2.1 | ( -10.3, -8.2 ) |
| 8737-8759 | AGAGGGUCUACUACCUUAC | B,F | -2.1 | ( -9.9, -7.8 ) |
| 6317-6339 | GACCUGGCUGAAAGCCAAG | B,F | -2.1 | ( -11.1, -9.0 ) |
| 6826-6848 | GCGAGCCCGAACCGGACGU | C,F | -2.1 | ( -11.4, -9.3 ) |
| 7071-7093 | GUUGAGUCAGAGAACAAAG | F | -2.1 | ( -8.8, -6.7 ) |
| 6208-6230 | UCCUGAGGCGACUGCAUCA | F | -2.1 | ( -10.4, -8.3 ) |
| 1612-1634 | GCACGGCCUUGAACUGCAA | B,C,F | -2.1 | ( -11.3, -9.2 ) |
| 4502-4524 | GGGAAGACAUCUCAUCUUC | F | -2.1 | ( -11.0, -8.9 ) |
| 1564-1586 | AGCAGAACAUCCAACUGAU | B,F | -2.1 | ( -9.8, -7.7 ) |
| 8188-8210 | CACCAGGACAGCGGGUUGA | C,F | -2.1 | ( -10.3, -8.2 ) |
| 6262-6284 | GUUCCUGGCUAAGGGACAU | C,F | -2.1 | ( -10.0, -7.9 ) |
| 1618-1640 | CCUUGAACUGCAAUGAAAG | F | -2.1 | ( -9.0, -6.9 ) |
| 2320-2342 | CCGAGCUCAGCCCAUUGCU | F | -2.1 | ( -10.7, -8.6 ) |
| 1010-1032 | UCCGGGGUGUGUCCCUUGC | F | -2.1 | ( -11.8, -9.7 ) |
| 4816-4838 | GCAGGGGGAAGCCAGGCAU | C,F | -2.1 | ( -12.1, -10.0 ) |
| 6951-6973 | AGCCAGCUGUCCGCUCCAU | F | -2.1 | ( -11.0, -8.9 ) |
| 8148-8170 | CCCCUGGCCGUGAUGGGAA | F | -2.1 | ( -12.5, -10.4 ) |
| 990-1012 | GCCGAUGCCAUCCUGCACA | C,F | -2.1 | ( -12.6, -10.5 ) |
| 3633-3655 | AUCCAGAUGUAUACCAAUG | F | -2.1 | ( -8.9, -6.8 ) |
| 4324-4346 | GCAUCGGCACUGUCCUUGA | F | -2.1 | ( -10.2, -8.1 ) |
| 2657-2679 | CUGCUUUGCGUGGUAUCUG | F | -2.1 | ( -10.3, -8.2 ) |
| 5144-5166 | CCCAUCGUGGGACCAGAUG | F | -2.1 | ( -10.3, -8.2 ) |
| 6203-6225 | CCAGCUCCUGAGGCGACUG | F | -2.1 | ( -11.5, -9.4 ) |
| 5334-5356 | GGCGUCCUGGCUGCUCUGG | F | -2.1 | ( -12.5, -10.4 ) |
| 5622-5644 | UGGGCGAAGCACAUGUGGA | F | -2.1 | ( -12.7, -10.6 ) |
| 9607-9629 | CUGCAGAGAGUGCUGAUAC | B,F | -2.1 | ( -10.3, -8.2 ) |
| 2689-2711 | UGCCCGGAGCGGUCUACGC | F | -2.1 | ( -12.7, -10.6 ) |
| 8443-8465 | CGAGCGGCGUACUGACAAC | F | -2.1 | ( -10.8, -8.7 ) |
| 1297-1319 | CAUGGGAUAUGAUGAUGAA | C,F | -2.1 | ( -9.2, -7.1 ) |
| 1290-1312 | CGCAUGGCAUGGGAUAUGA | C,F | -2.1 | ( -9.6, -7.5 ) |
| 2162-2184 | CAUGGUCGACUACCCGUAU | F | -2.1 | ( -9.2, -7.1 ) |
| 5032-5054 | GCCUCACUCAUAUAGAUGC | F | -2.1 | ( -12.3, -10.2 ) |
| 122-144 | CCCCCUCCCGGGAGAGCCA | F | -2.1 | ( -13.6, -11.5 ) |
| 9201-9223 | CUCAAACUCACUCCAAUAG | F | -2.1 | ( -8.1, -6.0 ) |
| 4679-4701 | CGACUUCGACUCUGUGAUA | F | -2.1 | ( -9.6, -7.5 ) |
| 7014-7036 | GAGCUCAUAGAGGCUAACC | F | -2.1 | ( -11.1, -9.0 ) |
| 8969-8991 | ACUGGAUCUACCUCCAAUC | F | -2.1 | ( -9.8, -7.7 ) |
| 8680-8702 | UGGAGCUUAUAACAUCAUG | F | -2.1 | ( -10.4, -8.3 ) |
| 1244-1266 | GCAAGACUGCAAUUGUUCU | F | -2 | ( -9.7, -7.7 ) |
| 6587-6609 | GUGGAGGGUGUCUGCAGAG | F | -2 | ( -11.2, -9.2 ) |
| 8789-8811 | GUGGGAGACAGCAAGACAC | F | -2 | ( -12.1, -10.1 ) |
| 7514-7536 | GGAGGGGGAGCCUGGGGAU | F | -2 | ( -12.1, -10.1 ) |
| 8091-8113 | GACCUGGGCGUGCGCGUGU | F | -2 | ( -11.1, -9.1 ) |
| 7634-7656 | CACCCCGUGCGCUGCGGAA | F | -2 | ( -11.5, -9.5 ) |
| 1358-1380 | GAUCCCACAAGCCAUCAUG | F | -2 | ( -10.3, -8.3 ) |
| 6024-6046 | GGUGUGGUCUGCGCAGCAA | C,F | -2 | ( -11.1, -9.1 ) |
| 6947-6969 | GGCCAGCCAGCUGUCCGCU | F | -2 | ( -13.2, -11.2 ) |
| 4560-4582 | CUGGUCGCAUUGGGCAUCA | C,F | -2 | ( -10.3, -8.3 ) |
| 9563-9585 | AGCCCUAGUCACGGCUAGC | F | -2 | ( -12.1, -10.1 ) |
| 2571-2593 | GCGGAGGCGGCUUUGGAGA | B,F | -2 | ( -12.6, -10.6 ) |

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| | | | | |
|---|---|---|---|---|
| 3430-3452 | CGGCGUACGCCCAGCAGAC | B,F | -2 | ( -12.0, -10.0 ) |
| 2380-2402 | CGACCCUGCCAGCCUUGUC | B,F | -2 | ( -10.8, -8.8 ) |
| 7134-7156 | GAGCGGGAGGUCUCCGUAC | F | -2 | ( -11.4, -9.4 ) |
| 427-449 | AGAUCGUUGGUGGAGUUUA | F | -2 | ( -8.0, -6.0 ) |
| 1997-2019 | UACCUGGAUGAACUCAACU | F | -2 | ( -9.5, -7.5 ) |
| 2830-2852 | CUCUGUCGCCAUAUUACAA | B,F | -2 | ( -9.2, -7.2 ) |
| 5630-5652 | GCACAUGUGGAAUUUCAUC | B,F | -2 | ( -11.1, -9.1 ) |
| 762-784 | GGCGCCCCUCUUGGAGGCG | F | -2 | ( -13.7, -11.7 ) |
| 4674-4696 | ACCGGCGACUUCGACUCUG | F | -2 | ( -11.2, -9.2 ) |
| 6519-6541 | UUCCCCAUUAACGCCUACA | F | -2 | ( -10.4, -8.4 ) |
| 8602-8624 | CGAGCCUGAGAGCCUUCAC | F | -2 | ( -10.8, -8.8 ) |
| 4716-4738 | ACUCAGACAGUCGAUUUCA | F | -2 | ( -8.9, -6.9 ) |
| 7417-7439 | GCAUUACGGGCGACAAUAC | F | -2 | ( -8.8, -6.8 ) |
| 5390-5412 | GGGCAGGAUUGUCUUGUCC | F | -2 | ( -13.2, -11.2 ) |
| 6827-6849 | CGAGCCCGAACCGGACGUA | C,F | -2 | ( -10.8, -8.8 ) |
| 6082-6104 | AAUGGAUGAACCGGCUAAU | F | -2 | ( -7.5, -5.5 ) |
| 1992-2014 | GGUUGUACCUGGAUGAACU | C,F | -2 | ( -9.7, -7.7 ) |
| 7664-7686 | GCCCAUCAACGCACUGAGC | F | -2 | ( -13.2, -11.2 ) |
| 9173-9195 | CCUCUUCAACUGGGCAGUA | B,F | -2 | ( -10.4, -8.4 ) |
| 343-365 | UGAGCACGAAUCCUAAACC | B,F | -2 | ( -10.6, -8.6 ) |
| 9035-9057 | UCCAGGUGAAAUCAAUAGG | F | -2 | ( -10.4, -8.4 ) |
| 4564-4586 | UCGCAUUGGGCAUCAAUGC | F | -2 | ( -10.8, -8.8 ) |
| 4397-4419 | GGGCUCCGUCACUGUGUCC | F | -2 | ( -13.2, -11.2 ) |
| 3260-3282 | AGUCGUCUUCUCCCGAAUG | F | -2 | ( -9.1, -7.1 ) |
| 6378-6400 | CGCGGGUAUAGGGGGGUCU | C,F | -2 | ( -12.0, -10.0 ) |
| 7974-7996 | GACCUUCUGGAAGACAGUG | B,F | -2 | ( -11.1, -9.1 ) |
| 6963-6985 | GCUCCAUCUCUCAAGGCAA | F | -2 | ( -12.3, -10.3 ) |
| 8542-8564 | UCGUGUGUGGCGACGACUU | F | -2 | ( -9.7, -7.7 ) |
| 147-169 | UCUGCGGAACCGGUGAGUA | F | -2 | ( -10.6, -8.6 ) |
| 8147-8169 | CCCCCUGGCCGUGAUGGGA | F | -2 | ( -13.6, -11.6 ) |
| 5330-5352 | UGGCGGCGUCCUGGCUGCU | F | -2 | ( -11.8, -9.8 ) |
| 1626-1648 | UGCAAUGAAAGCCUUAACA | F | -2 | ( -9.2, -7.2 ) |
| 8218-8240 | AAGCGUGGAAGUCCAAGAA | F | -2 | ( -8.9, -6.9 ) |
| 1451-1473 | GGUCCUGGUAGUGCUGCUG | B,F | -2 | ( -12.3, -10.3 ) |
| 2404-2426 | GCCUCAUCCACCUCCACCA | C,F | -2 | ( -12.3, -10.3 ) |
| 5909-5931 | CGCGGGCGUGGCGGGAGCU | F | -2 | ( -12.0, -10.0 ) |
| 1412-1434 | GGGCAUAGCGUAUUUCUCC | F | -2 | ( -13.2, -11.2 ) |
| 5972-5994 | GGACCUGGUCAAUCUGCUG | B,F | -2 | ( -12.3, -10.3 ) |
| 8872-8894 | UACUGAUGACCCAUUUCUU | B,F | -2 | ( -8.4, -6.4 ) |
| 7961-7983 | CUCCGUGUGGAAAGACCUU | B,F | -2 | ( -10.6, -8.6 ) |
| 7678-7700 | UGAGCAACUCGUUGCUACG | F | -2 | ( -10.6, -8.6 ) |
| 3249-3271 | GCUGUGGAACCAGUCGUCU | F | -2 | ( -11.1, -9.1 ) |
| 9342-9364 | GCAGGGGUAGGCAUCUACC | F | -2 | ( -12.1, -10.1 ) |
| 2579-2601 | GGCUUUGGAGAACCUCGUA | F | -2 | ( -10.9, -8.9 ) |
| 9618-9640 | GCUGAUACUGGCCUCUCUG | F | -2 | ( -11.2, -9.2 ) |
| 2626-2648 | CGCACGGUCUUGUGUCCUU | B,C,F | -2 | ( -10.7, -8.7 ) |
| 7967-7989 | GUGGAAAGACCUUCUGGAA | F | -2 | ( -11.2, -9.2 ) |
| 1526-1548 | CACGGCUGGGCUUGUUGGU | F | -2 | ( -10.6, -8.6 ) |
| 7801-7823 | UGCUCAAGGAGGUCAAAGC | F | -2 | ( -10.6, -8.6 ) |
| 5517-5539 | GAGCAGUUCAAGCAGAAGG | F | -2 | ( -11.2, -9.2 ) |

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| | | | | |
|---|---|---|---|---|
| 1972-1994 | CACCGCUGGGCAAUUGGUU | F | -2 | ( -10.6, -8.6 ) |
| 4862-4884 | CCCCUCCGGCAUGUUCGAC | F | -2 | ( -12.5, -10.5 ) |
| 6895-6917 | CGGCCGGGAGAAGGUUGGC | F | -2 | ( -12.9, -10.9 ) |
| 803-825 | CGUCCGGGUUCUGGAAGAC | F | -2 | ( -10.8, -8.8 ) |
| 3737-3759 | GGUCACGAGGCACGCCGAU | F | -2 | ( -11.2, -9.2 ) |
| 2696-2718 | AGCGGUCUACGCCUUCUAC | F | -2 | ( -11.2, -9.2 ) |
| 814-836 | UGGAAGACGGCGUGAACUA | F | -2 | ( -9.2, -7.2 ) |
| 884-906 | GCUCUCUUGCCUGACUGUG | F | -2 | ( -11.1, -9.1 ) |
| 8922-8944 | CAGGCUCUUAACUGUGAGA | B,C,F | -2 | ( -11.5, -9.5 ) |
| 2063-2085 | GGGCAACAACACCUUGCUC | F | -2 | ( -13.2, -11.2 ) |
| 1488-1510 | GCGGAAACCCACGUCACCG | F | -2 | ( -12.6, -10.6 ) |
| 3309-3331 | ACCGCCGCGUGCGGUGACA | F | -2 | ( -11.4, -9.4 ) |
| 2644-2666 | UCCUCGUGUUCUUCUGCUU | F | -2 | ( -10.6, -8.6 ) |
| 6768-6790 | GAGGAGGUAUCAUUCAGAG | F | -2 | ( -11.2, -9.2 ) |
| 6838-6860 | CGGACGUAGCCGUGUUGAC | F | -2 | ( -10.8, -8.8 ) |
| 352-374 | AUCCUAAACCUCAAAGAAA | B,F | -2 | ( -8.9, -6.9 ) |
| 2329-2351 | GCCCAUUGCUGCUGUCCAC | B,F | -2 | ( -13.2, -11.2 ) |
| 7240-7262 | CGUGGAAAAAGCCUGACUA | B,C,F | -2 | ( -10.6, -8.6 ) |
| 6212-6234 | GAGGCGACUGCAUCAGUGG | F | -2 | ( -12.3, -10.3 ) |
| 6183-6205 | CUCAGCAGCCUCACUGUAA | B,F | -2 | ( -9.2, -7.2 ) |
| 2836-2858 | CGCCAUAUUACAAGCGCUA | C,F | -2 | ( -11.8, -9.8 ) |
| 7815-7837 | AAAGCAGCGGCGUCAAAAG | F | -2 | ( -7.5, -5.5 ) |
| 4732-4754 | UCAGCCUUGACCCUACCUU | F | -2 | ( -10.6, -8.6 ) |
| 1197-1219 | CUUGUUGGUCAACUGUUUA | F | -2 | ( -8.0, -6.0 ) |
| 3397-3419 | UCUCCAAGGGGUGGAGGUU | F | -2 | ( -10.6, -8.6 ) |
| 6985-7007 | GCACCGCCAACCAUGACUC | F | -2 | ( -12.2, -10.2 ) |
| 3713-3735 | CUGCGGCUCCUCGGACCUU | F | -2 | ( -10.6, -8.6 ) |
| 4801-4823 | GCCGGGGCAGGACUGGCAG | F | -2 | ( -13.5, -11.5 ) |
| 2501-2523 | UCUCCUGUUCCUCCUGCUU | F | -2 | ( -10.6, -8.6 ) |
| 9121-9143 | UCCGCGCUAGGCUUCUGUC | F | -2 | ( -12.0, -10.0 ) |
| 8772-8794 | CCCCUCGCGAGAGCCGCGU | C,F | -2 | ( -12.5, -10.5 ) |
| 1186-1208 | GGUCUGUCUUUCUUGUUGG | F | -2 | ( -11.1, -9.1 ) |
| 4247-4269 | CGGCGGGUGCUCAGGAGGU | B,F | -2 | ( -12.0, -10.0 ) |
| 1805-1827 | CUACCCUCCAAGACCUUGU | B,C,F | -2 | ( -9.5, -7.5 ) |
| 1654-1676 | UAGCAGGGCUCUUCUAUCA | F | -2 | ( -9.5, -7.5 ) |
| 8355-8377 | GCCAUCAAGUCCCUCACUG | F | -2 | ( -11.1, -9.1 ) |
| 8256-8278 | UAUGAUACCCGCUGUUUUG | F | -2 | ( -7.5, -5.5 ) |
| 5931-5953 | GUAGCAUUCAAGAUCAUGA | C,F | -2 | ( -10.3, -8.3 ) |
| 3098-3120 | CCGGAUCUGCGCGCUAGCG | F | -2 | ( -11.8, -9.8 ) |
| 3526-3548 | UGUCAACUGCUACCCAAAC | F | -2 | ( -9.4, -7.4 ) |
| 6237-6259 | UCGGAGUGUACCACUCCAU | F | -2 | ( -10.9, -8.9 ) |
| 6845-6867 | AGCCGUGUUGACGUCCAUG | F | -2 | ( -11.2, -9.2 ) |
| 1262-1284 | UAUCUAUCCCGGCCAUAUA | F | -2 | ( -7.5, -5.5 ) |
| 2874-2896 | UGGCUUCAGUAUUUUCUGA | F | -2 | ( -11.5, -9.5 ) |
| 1520-1542 | CCGCACCACGGCUGGGCUU | F | -2 | ( -11.8, -9.8 ) |
| 7055-7077 | CGGCAACAUCACCAGGGUU | F | -2 | ( -11.8, -9.8 ) |
| 7229-7251 | GCUAGUAGAGACGUGGAAA | F | -2 | ( -10.1, -8.1 ) |
| 2692-2714 | CCGGAGCGGUCUACGCCUU | C,F | -2 | ( -11.8, -9.8 ) |
| 9531-9553 | UUUCCUUCCUUCUUUAAUG | F | -2 | ( -8.1, -6.1 ) |
| 8086-8108 | UCCCCGACCUGGGCGUGCG | F | -2 | ( -12.7, -10.7 ) |

**FIG. 11 (page 466 of 479)**

| | | | | |
|---|---|---|---|---|
| 7521-7543 | GAGCCUGGGGAUCCGGAUC | F | -2 | ( -12.3, -10.3 ) |
| 2868-2890 | AUGUGGUGGCUUCAGUAUU | F | -2 | ( -7.7, -5.7 ) |
| 2187-2209 | UGGCACUAUCCUUGUACCA | F | -2 | ( -11.5, -9.5 ) |
| 6426-6448 | UGCCACUGUGGAGCUGAGA | F | -2 | ( -11.5, -9.5 ) |
| 9235-9257 | UGGACUUGUCCGGUUGGUU | F | -2 | ( -10.6, -8.6 ) |
| 2098-2120 | UCCGCAAGCAUCCGGAAGC | F | -2 | ( -12.0, -10.0 ) |
| 3837-3859 | GGGGGUCCGCUGUUGUGCC | F | -2 | ( -14.2, -12.2 ) |
| 4645-4667 | UGUCGACCGAUGCUCUCAU | F | -2 | ( -9.7, -7.7 ) |
| 2585-2607 | GGAGAACCUCGUAAUACUC | F | -2 | ( -11.2, -9.2 ) |
| 639-661 | CCCCGUGGCUCUCGGCCUA | C,F | -2 | ( -12.7, -10.7 ) |

FIG. 11 (page 467 of 479)

| Position | 5'-3' target or sense strand | Net Therm | Therm of each end |
|---|---|---|---|
| 5612-5634 | UGGCCCAAGGUAGAACAAU | -6.2 | ( -12.7, -6.5 ) |
| 8184-8206 | UGGCCCUUUAUGACAUUAC | -5.9 | ( -12.7, -6.8 ) |
| 2634-2656 | GCUGCAAUGGCUUCCUAUA | -5.8 | ( -12.2, -6.4 ) |
| 8367-8389 | GGACUGAGGAGUCCAUAUA | -5.6 | ( -11.1, -5.5 ) |
| 2503-2525 | GUGGGUAAUACUCUUAUUC | -5.2 | ( -12.1, -6.9 ) |
| 3282-3304 | GUCCGAUGGAGAAGAAAGU | -5.1 | ( -11.4, -6.3 ) |
| 2999-3021 | GGUGUGGUGUUUGACAUAA | -5 | ( -11.1, -6.1 ) |
| 8560-8582 | AGCCUUAGCGGCUUGUAAA | -4.9 | ( -10.9, -6.0 ) |
| 7718-7740 | GAGGAGAAGUUACCGAUUA | -4.9 | ( -11.2, -6.3 ) |
| 4053-4075 | GUGGAAAGAGCACCAAAGU | -4.9 | ( -11.2, -6.3 ) |
| 1293-1315 | UGGCAUGGGACAUGAUGAU | -4.7 | ( -11.5, -6.8 ) |
| 8689-8711 | GGCUAUGACCAGGUAUUCU | -4.7 | ( -11.3, -6.6 ) |
| 9040-9062 | CCUCCCAGCUAUAAUUGAA | -4.7 | ( -11.6, -6.9 ) |
| 6309-6331 | CCAUCCUAACAGACUUUAA | -4.7 | ( -9.4, -4.7 ) |
| 7720-7742 | GGAGAAGUUACCGAUUAAC | -4.6 | ( -11.2, -6.6 ) |
| 6662-6684 | GGACUCACCACUGAUAACU | -4.4 | ( -11.1, -6.7 ) |
| 9265-9287 | GCUCAAACUCACUCCAUUG | -4.4 | ( -11.2, -6.8 ) |
| 1202-1224 | GCCCAAAUGUUCAUUGUCU | -4.3 | ( -13.2, -8.9 ) |
| 6640-6662 | CGGGUCAUACCACUACAUA | -4.3 | ( -11.7, -7.4 ) |
| 6734-6756 | GUGCAGAUCCAUAGGUUUG | -4.3 | ( -11.1, -6.8 ) |
| 3819-3841 | GACCUCUUUCCACCUUGAA | -4.2 | ( -11.1, -6.9 ) |
| 6660-6682 | CAGGACUCACCACUGAUAA | -4.1 | ( -10.4, -6.3 ) |
| 5763-5785 | GCACCACUAUCCUUCUCAA | -4.1 | ( -12.2, -8.1 ) |
| 6669-6691 | CCACUGAUAACUUGAAAGU | -4 | ( -10.3, -6.3 ) |
| 3186-3208 | CUGGCACUUACAUCUAUGA | -4 | ( -11.5, -7.5 ) |
| 1298-1320 | UGGGACAUGAUGAUGAACU | -3.9 | ( -11.6, -7.7 ) |
| 4838-4860 | CUGGGCAUUUAUAGGUAUG | -3.9 | ( -11.3, -7.4 ) |
| 1945-1967 | GACAGAUGUCUUCCUAUUG | -3.9 | ( -10.0, -6.1 ) |
| 4231-4253 | CUCCACAUAUGGCAAAUUC | -3.9 | ( -10.4, -6.5 ) |
| 3288-3310 | UGGAGAAGAAAGUCAUUGU | -3.9 | ( -10.4, -6.5 ) |
| 5766-5788 | CCACUAUCCUUCUCAACAU | -3.8 | ( -10.3, -6.5 ) |
| 6339-6361 | CCUCCAAAUUAUUCCCAAA | -3.8 | ( -11.6, -7.8 ) |
| 6228-6250 | GACUCCACAACUGGAUUAC | -3.4 | ( -10.2, -6.8 ) |
| 4509-4531 | AGGGAGGAAGACAUCUGAU | -3.4 | ( -11.1, -7.7 ) |
| 5265-5287 | CACAUCCCGUGACGAAAUA | -3.3 | ( -8.2, -4.9 ) |
| 7774-7796 | GGUGUACUGUACCACAACA | -3.1 | ( -11.1, -8.0 ) |
| 2439-2461 | UCGUGGACGUACAAUUCAU | -3.1 | ( -9.7, -6.6 ) |
| 2317-2339 | GGACAGAGACAGAAGUCAA | -3 | ( -11.2, -8.2 ) |
| 6194-6216 | CUUGGCUCCCUUACCAUAA | -2.9 | ( -9.0, -6.1 ) |
| 5167-5189 | CGUCAUGUGGAAGUGUUUG | -2.9 | ( -9.7, -6.8 ) |
| 1762-1784 | UGAGGAUAAUGUCACCAAU | -2.9 | ( -10.4, -7.5 ) |
| 4874-4896 | GCCUCAGGAAUGUUUGACA | -2.9 | ( -12.3, -9.4 ) |
| 5269-5291 | UCCCGUGACGAAAUACAUC | -2.8 | ( -11.8, -9.0 ) |
| 7141-7163 | GCCUUCGAUACCAUCAGAA | -2.8 | ( -10.9, -8.1 ) |
| 4733-4755 | GUUGUAGACUUCAGUUUAG | -2.8 | ( -8.7, -5.9 ) |
| 5539-5561 | GUCCAAGAUCCAAGGCUUA | -2.8 | ( -11.2, -8.4 ) |
| 8743-8765 | UCUGGAGCUGAUAACAUCU | -2.7 | ( -10.4, -7.7 ) |
| 7855-7877 | CUACGACUCAGUCUUAAAG | -2.7 | ( -8.6, -5.9 ) |
| 7012-7034 | AGCCUAUGAUGUGGACAUG | -2.7 | ( -10.9, -8.2 ) |

FIG. 12 (page 468 of 479)

| | | | |
|---|---|---|---|
| 2498-2520 | UGGGAGUGGGUAAUACUCU | -2.7 | ( -11.6, -8.9 ) |
| 185-207 | CUGGGUCCUUUCUUGGAUA | -2.7 | ( -11.3, -8.6 ) |
| 8946-8968 | CACACUUCUUCUCCAUUCU | -2.7 | ( -9.3, -6.6 ) |
| 6227-6249 | AGACUCCACAACUGGAUUA | -2.6 | ( -8.9, -6.3 ) |
| 8991-9013 | ACCUCAACUUUGAGAUGUA | -2.6 | ( -10.0, -7.4 ) |
| 6095-6117 | UGGAUGAAUAGACUCAUUG | -2.6 | ( -9.4, -6.8 ) |
| 2330-2352 | AGUCAACUGUCUCCUUUGU | -2.6 | ( -8.9, -6.3 ) |
| 5870-5892 | GGCAGUAUAGGCUUAGGUA | -2.6 | ( -12.1, -9.5 ) |
| 8549-8571 | UGCUACGUGAAAGCCUUAG | -2.5 | ( -9.5, -7.0 ) |
| 9457-9479 | GCUACACUCCAUAGCUAAC | -2.5 | ( -10.3, -7.8 ) |
| 5065-5087 | CUUCCUUUCCCAAACAAAG | -2.5 | ( -9.2, -6.7 ) |
| 7749-7771 | ACUCCCUGUUGCGAUAUCA | -2.5 | ( -10.0, -7.5 ) |
| 4338-4360 | UCGGAACAGUCCUUGAUCA | -2.4 | ( -10.9, -8.5 ) |
| 5672-5694 | UACCUCGCAGGACUAUCAA | -2.4 | ( -9.5, -7.1 ) |
| 4522-4544 | UCUGAUCUUCUGCCAUUCA | -2.4 | ( -9.5, -7.1 ) |
| 2116-2138 | GCAUCCUGAUACCACUUAC | -2.4 | ( -10.2, -7.8 ) |
| 4514-4536 | GGAAGACAUCUGAUCUUCU | -2.3 | ( -9.8, -7.5 ) |
| 1247-1269 | GACUGCAAUUGCUCCAUCU | -2.3 | ( -10.0, -7.7 ) |
| 6659-6681 | ACAGGACUCACCACUGAUA | -2.3 | ( -9.8, -7.5 ) |
| 9259-9281 | GACCAAGCUCAAACUCACU | -2.3 | ( -11.2, -8.9 ) |
| 5551-5573 | AGGCUUAUUGCAGCAAGCU | -2.3 | ( -10.9, -8.6 ) |
| 8986-9008 | CCAGAACCUCAACUUUGAG | -2.3 | ( -10.4, -8.1 ) |
| 8756-8778 | ACAUCUUGCUCCUCAAAUG | -2.2 | ( -7.9, -5.7 ) |
| 702-724 | AGGUCAUCGAUACCCUAAC | -2.2 | ( -10.0, -7.8 ) |
| 4618-4640 | CGUCUCCGUAAUACCAACU | -2.1 | ( -9.6, -7.5 ) |
| 7071-7093 | UAGAGUCUGGGUCCAAAGU | -2.1 | ( -8.4, -6.3 ) |
| 5642-5664 | CACAUGUGGAACUUCAUUA | -2.1 | ( -8.2, -6.1 ) |
| 2437-2459 | CAUCGUGGACGUACAAUUC | -2 | ( -8.5, -6.5 ) |
| 351-373 | AUCCUAAACCUCAAAGAAA | -2 | ( -8.9, -6.9 ) |
| 342-364 | UGAGCACAAAUCCUAAACC | -2 | ( -10.6, -8.6 ) |
| 6230-6252 | CUCCACAACUGGAUUACUG | -2 | ( -10.4, -8.4 ) |
| 5267-5289 | CAUCCCGUGACGAAAUACA | -2 | ( -9.4, -7.4 ) |

| Position | 5'-3' target or sense strand | Net Therm | Therm of each end |
|---|---|---|---|
| 8330-8352 | GGGUGGAAGAGGAGAUAUA | -6.6 | ( -12.1, -5.5 ) |
| 9190-9212 | UGCGGCCUUUAUCUCUUUA | -5.9 | ( -11.8, -5.9 ) |
| 7036-7058 | GUGGACGCCAACUUGUUAU | -5.5 | ( -11.2, -5.7 ) |
| 6337-6359 | UGGCUCUCUGCUAAGAUUA | -5.2 | ( -11.5, -6.3 ) |
| 1365-1387 | GACCUUGUUCGACAUAAUG | -5 | ( -11.1, -6.1 ) |
| 7713-7735 | CUCCCUGUUGAGACAUCAU | -4.8 | ( -11.6, -6.8 ) |
| 1292-1314 | UGGCUUGGGAUAUGAUGAU | -4.7 | ( -11.5, -6.8 ) |
| 7673-7695 | GUGCUGAGGAAGAGAAACU | -4.7 | ( -11.0, -6.3 ) |
| 8652-8674 | GGCUAUGACCAGGUAUUCU | -4.7 | ( -11.3, -6.6 ) |
| 5452-5474 | GAGGUGUUGUAUCAACAAU | -4.6 | ( -11.1, -6.5 ) |
| 4877-4899 | GACCGUCUGGAAUGUUUGA | -4.5 | ( -11.4, -6.9 ) |
| 1613-1635 | CUGCCCUAAAUUGCAAUGA | -4.4 | ( -11.5, -7.1 ) |
| 7826-7848 | CUGCAUUAAAGGAGGUAAA | -4.3 | ( -10.3, -6.0 ) |
| 5454-5476 | GGUGUUGUAUCAACAAUAC | -4.3 | ( -11.1, -6.8 ) |
| 3043-3065 | UUGGGCCCAUUAUACUUAA | -4.3 | ( -10.2, -5.9 ) |
| 1718-1740 | AGCCCAUCACUUUCUUCAG | -4 | ( -12.1, -8.1 ) |
| 819-841 | CGGGAUAAAUUUCGCAACA | -3.8 | ( -11.8, -8.0 ) |
| 2211-2233 | CCCAUGUACAGUCGAUUUC | -3.8 | ( -10.3, -6.5 ) |
| 4089-4111 | UGUAGCACAAGGAUAUAAU | -3.8 | ( -8.4, -4.6 ) |
| 4595-4617 | ACGCUGUAGCAUACUAUAG | -3.8 | ( -10.2, -6.4 ) |
| 2846-2868 | CCUUGUCACCCUGGUAUAA | -3.7 | ( -9.0, -5.3 ) |
| 3287-3309 | GUCCCAUGGAAAUCAAGGU | -3.7 | ( -12.3, -8.6 ) |
| 8014-8036 | GACACCACAACUCCAAUUC | -3.6 | ( -10.1, -6.5 ) |
| 4321-4343 | GACGCUACUAGCAUAUUGG | -3.6 | ( -11.6, -8.0 ) |
| 5598-5620 | GCCCAUAGUAACUACCAAC | -3.5 | ( -13.2, -9.7 ) |
| 8931-8953 | AUCCCAGGAGAUACUUGAU | -3.5 | ( -10.1, -6.6 ) |
| 8846-8868 | ACUCCUGGUUAGGCAACAU | -3.5 | ( -10.0, -6.5 ) |
| 4876-4898 | AGACCGUCUGGAAUGUUUG | -3.2 | ( -10.0, -6.8 ) |
| 4473-4495 | GAUCCCUUUCUACGGUAAG | -3.1 | ( -10.3, -7.2 ) |
| 3558-3580 | GACCUUCCUAGGUACAACA | -3.1 | ( -11.1, -8.0 ) |
| 950-972 | CCAACGACUGUUCCAAUAG | -3.1 | ( -9.1, -6.0 ) |
| 1607-1629 | ACAGUACUGCCCUAAAUUG | -3.1 | ( -8.8, -5.7 ) |
| 2970-2992 | UGGUGUCAUCCUGCUAACA | -3.1 | ( -10.3, -7.2 ) |
| 5451-5473 | AGAGGUGUUGUAUCAACAA | -3.1 | ( -9.9, -6.8 ) |
| 7063-7085 | GAGAUGGGCAGCAACAUUA | -3 | ( -9.1, -6.1 ) |
| 4320-4342 | AGACGCUACUAGCAUAUUG | -3 | ( -9.1, -6.1 ) |
| 5094-5116 | GGGACUUAACUUCUCGUAC | -2.9 | ( -12.3, -9.4 ) |
| 5510-5532 | UCGAACAAGCUCAGGUAAU | -2.9 | ( -8.6, -5.7 ) |
| 9060-9082 | CUCUCCAGUAGAGCUCAAU | -2.9 | ( -9.5, -6.6 ) |
| 5045-5067 | CUGGACUAACUCACAUAGA | -2.9 | ( -10.4, -7.5 ) |
| 4020-4042 | GAGCUAUCAAGUAGGAUAC | -2.9 | ( -11.1, -8.2 ) |
| 1622-1644 | AUUGCAAUGAGUCCAUAAA | -2.8 | ( -7.7, -4.9 ) |
| 7065-7087 | GAUGGGCAGCAACAUUACA | -2.8 | ( -10.0, -7.2 ) |
| 7267-7289 | CCGGAUUAUGUACCACCAA | -2.7 | ( -11.8, -9.1 ) |
| 9007-9029 | CCAGCAAUCAUUGAAAGAC | -2.7 | ( -11.5, -8.8 ) |
| 7429-7451 | CAGGAAGAGAAUAGCUCAU | -2.7 | ( -10.4, -7.7 ) |
| 2105-2127 | CUGACUGCUUCAGGAAACA | -2.6 | ( -9.4, -6.8 ) |
| 1623-1645 | UUGCAAUGAGUCCAUAAAC | -2.6 | ( -9.2, -6.6 ) |
| 1813-1835 | CCUAGACCUUGUGACAUUG | -2.6 | ( -9.4, -6.8 ) |

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| | | | |
|---|---|---|---|
| 4424-4446 | CUGUGCCGCAUUCUAACAU | -2.6 | ( -9.1, -6.5 ) |
| 8932-8954 | UCCCAGGAGAUACUUGAUC | -2.5 | ( -11.6, -9.1 ) |
| 3944-3966 | UACCAGUGGAAACCCUUAG | -2.5 | ( -9.5, -7.0 ) |
| 6782-6804 | GAGAUGAUAUCACUUUCAU | -2.5 | ( -9.1, -6.6 ) |
| 339-361 | CAUGAGCACACUUCCUAAA | -2.4 | ( -8.3, -5.9 ) |
| 7104-7126 | GGUUGUGGUUCUUGAUUCG | -2.4 | ( -9.7, -7.3 ) |
| 8338-8360 | GAGGAGAUAUACCAAUGCU | -2.4 | ( -11.2, -8.8 ) |
| 1287-1309 | UCGAAUGGCUUGGGAUAUG | -2.4 | ( -8.6, -6.2 ) |
| 4716-4738 | UUGCAACGUGGCUGUUGAA | -2.3 | ( -9.2, -6.9 ) |
| 4560-4582 | UGAGAUAGCGUCCAAACUA | -2.3 | ( -9.5, -7.2 ) |
| 1604-1626 | UCAACAGUACUGCCCUAAA | -2.3 | ( -8.2, -5.9 ) |
| 349-371 | CUUCCUAAACCUCAAAGAA | -2.3 | ( -9.2, -6.9 ) |
| 2221-2243 | GUCGAUUUCAGAUUGUUCA | -2.3 | ( -10.5, -8.2 ) |
| 1118-1140 | GUCAUGUGGACCUAUUAGU | -2.3 | ( -9.0, -6.7 ) |
| 4290-4312 | UGUGAUUAUCUGUGAUGAA | -2.3 | ( -9.4, -7.1 ) |
| 7779-7801 | GAAGGUUACCUUCGAUAGA | -2.3 | ( -9.8, -7.5 ) |
| 426-448 | GAUCGUUGGUGGAGUAUAC | -2.2 | ( -9.4, -7.2 ) |
| 4596-4618 | CGCUGUAGCAUACUAUAGG | -2.2 | ( -10.6, -8.4 ) |
| 4343-4365 | UAGGCACGGUCUUAGAUCA | -2.2 | ( -10.7, -8.5 ) |
| 6238-6260 | CACCAGUGGAUCAAUGAAG | -2.2 | ( -10.3, -8.1 ) |
| 3269-3291 | CUGAACCUGUAAUAUUUAG | -2.2 | ( -8.1, -5.9 ) |
| 6243-6265 | GUGGAUCAAUGAAGACUAC | -2.1 | ( -11.2, -9.1 ) |
| 8247-8269 | GAUGUGGACCUCAAAGAAA | -2.1 | ( -9.0, -6.9 ) |
| 4485-4507 | CGGUAAGGCUAUACCGAUA | -2.1 | ( -9.8, -7.7 ) |
| 8765-8787 | GGAGGUACUAUUACCUCAC | -2.1 | ( -12.1, -10.0 ) |
| 2854-2876 | CCCUGGUAUAAGCAUUGGA | -2.1 | ( -11.3, -9.2 ) |
| 4421-4443 | UCACUGUGCCGCAUUCUAA | -2.1 | ( -9.4, -7.3 ) |
| 8857-8879 | GGCAACAUCAUCAUGUACG | -2.1 | ( -10.9, -8.8 ) |
| 7092-7114 | GUCUGAGACAAAGGUUGUG | -2 | ( -10.0, -8.0 ) |
| 3064-3086 | CAGGCUACCAUUACUACCA | -2 | ( -11.5, -9.5 ) |
| 341-363 | UGAGCACACUUCCUAAACC | -2 | ( -10.6, -8.6 ) |
| 817-839 | GACGGGAUAAAUUUCGCAA | -2 | ( -11.4, -9.4 ) |
| 2989-3011 | AGCCUGCUUUAUCCAUCCU | -2 | ( -10.9, -8.9 ) |

FIG. 13 (page 471 of 479)

| Position | 5'-3' target or sense strand | Net Therm | Therm of each end |
|---|---|---|---|
| 5472-5494 | GGCCUUAGGUCUCCUAAAU | -8.8 | ( -13.2, -4.4 ) |
| 1530-1552 | UGGGAGCUGGCAUAUAAAU | -7.2 | ( -11.6, -4.4 ) |
| 3561-3583 | GGGACCUGUCAAUCAAAUG | -6.6 | ( -12.3, -5.7 ) |
| 526-548 | UGGCCUCUUUACGGUAAUG | -6.6 | ( -12.7, -6.1 ) |
| 3428-3450 | GGGACACCAAUGAGAAUUG | -6.6 | ( -12.3, -5.7 ) |
| 5106-5128 | GUGCCUAAUUCGCCUUAAG | -6.3 | ( -12.2, -5.9 ) |
| 7004-7026 | CGGACGAGAAGGUAAUAAU | -6.2 | ( -10.8, -4.6 ) |
| 5471-5493 | AGGCCUUAGGUCUCCUAAA | -6.2 | ( -12.1, -5.9 ) |
| 7002-7024 | GACGGACGAGAAGGUAAUA | -6.1 | ( -11.4, -5.3 ) |
| 6565-6587 | GUGGGUGAUUUCCAUUAUG | -6 | ( -12.1, -6.1 ) |
| 3560-3582 | AGGGACCUGUCAAUCAAAU | -5.9 | ( -11.1, -5.2 ) |
| 3069-3091 | UGGCAAGUACUUCCAAAUG | -5.8 | ( -11.5, -5.7 ) |
| 3322-3344 | GCCGAUACAGAAACAUCAA | -5.5 | ( -12.6, -7.1 ) |
| 5192-5214 | CCCAUCCCAUCACCAAAUA | -5.4 | ( -10.3, -4.9 ) |
| 4011-4033 | UGCUGCCCAAGGCUAUAAA | -5.4 | ( -10.3, -4.9 ) |
| 3746-3768 | GACCAAUAUCCAUUCUUAA | -5.3 | ( -11.2, -5.9 ) |
| 1562-1584 | ACUGCAAUGACAGCUUAAA | -5.2 | ( -9.9, -4.7 ) |
| 3319-3341 | CCAGCCGAUACAGAAACAU | -5 | ( -11.5, -6.5 ) |
| 4958-4980 | GCGUCUUUACAGGGUUAAC | -5 | ( -11.6, -6.6 ) |
| 1529-1551 | AUGGGAGCUGGCAUAUAAA | -4.9 | ( -9.8, -4.9 ) |
| 1987-2009 | UGCGAGGUUAACACCAAUA | -4.7 | ( -10.8, -6.1 ) |
| 4873-4895 | CCUGCUGAAACCACAACAA | -4.7 | ( -11.5, -6.8 ) |
| 8770-8792 | GUCUACGCUCCCACAAUAU | -4.6 | ( -9.2, -4.6 ) |
| 1259-1281 | GUCCAACAACCACCUUAGU | -4.5 | ( -11.2, -6.7 ) |
| 9091-9113 | UGUGGCAUAUACCUCUUUA | -4.4 | ( -10.3, -5.9 ) |
| 1553-1575 | CUGCCCUUAACUGCAAUGA | -4.4 | ( -11.5, -7.1 ) |
| 8788-8810 | UGGGUGCGCAUGAUAUUGA | -4.4 | ( -11.5, -7.1 ) |
| 3740-3762 | GCCCUAGACCAAUAUCCAU | -4.3 | ( -13.2, -8.9 ) |
| 4799-4821 | GACCAUCAGGCAUGUUUGA | -4.3 | ( -11.2, -6.9 ) |
| 8908-8930 | CCGGCAAUCAUUCAAAGAC | -4.1 | ( -12.9, -8.8 ) |
| 2585-2607 | UCCUCUUCAUCUGCAUUGU | -4.1 | ( -10.6, -6.5 ) |
| 8854-8876 | GCACUCGACUUCGAUAUGU | -4.1 | ( -11.0, -6.9 ) |
| 7728-7750 | AGUGCUUAAGGAGAUAAAG | -4 | ( -9.9, -5.9 ) |
| 5105-5127 | AGUGCCUAAUUCGCCUUAA | -4 | ( -9.9, -5.9 ) |
| 7871-7893 | AGGCCAUUAACCACAUCAG | -3.9 | ( -12.1, -8.2 ) |
| 6563-6585 | GAGUGGGUGAUUUCCAUUA | -3.9 | ( -10.0, -6.1 ) |
| 8853-8875 | AGCACUCGACUUCGAUAUG | -3.8 | ( -10.0, -6.2 ) |
| 759-781 | CGGGAUCAAUUAUGCAACA | -3.8 | ( -11.8, -8.0 ) |
| 4967-4989 | CAGGGUUAACCCACAUAGA | -3.8 | ( -11.3, -7.5 ) |
| 1563-1585 | CUGCAAUGACAGCUUAAAC | -3.7 | ( -10.3, -6.6 ) |
| 1054-1076 | CGGAGUCAUGUGGAUUUGA | -3.7 | ( -10.6, -6.9 ) |
| 5096-5118 | CCAUGUGGAAGUGCCUAAU | -3.7 | ( -9.2, -5.5 ) |
| 5521-5543 | CCAGUGAUCCAGUCUAACU | -3.6 | ( -10.3, -6.7 ) |
| 5585-5607 | UCAGCGGCAUUCAAUAUCU | -3.6 | ( -10.6, -7.0 ) |
| 1304-1326 | CCACUCUGGUAGACUUACU | -3.6 | ( -10.3, -6.7 ) |
| 7718-7740 | CCUACAAUGAAGUGCUUAA | -3.6 | ( -9.5, -5.9 ) |
| 5402-5424 | UGGAGGAGUGUUCCAAACA | -3.6 | ( -10.4, -6.8 ) |
| 1513-1535 | CAGCUCAUCAACAGCAAUG | -3.5 | ( -10.3, -6.8 ) |
| 4892-4914 | GGCUGAAAGCUUACUUCGA | -3.5 | ( -12.1, -8.6 ) |

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| | | | |
|---|---|---|---|
| 8147-8169 | CUGCUUGGAAGUCGAAGAA | -3.4 | ( -10.3, -6.9 ) |
| 8604-8626 | UGACCUGGAACUAAUAACA | -3.4 | ( -10.6, -7.2 ) |
| 5385-5407 | CCAACAGUUCGACGAAAUG | -3.4 | ( -9.1, -5.7 ) |
| 7348-7370 | GACCGUGAUACAGACCUUA | -3.2 | ( -11.4, -8.2 ) |
| 7729-7751 | GUGCUUAAGGAGAUAAAGG | -3.2 | ( -11.0, -7.8 ) |
| 8242-8264 | GAGGUCUAUCAGUGUUGUG | -3.1 | ( -11.1, -8.0 ) |
| 5519-5541 | CACCAGUGAUCCAGUCUAA | -3 | ( -10.3, -7.3 ) |
| 4956-4978 | GAGCGUCUUUACAGGGUUA | -3 | ( -11.4, -8.4 ) |
| 5099-5121 | UGUGGAAGUGCCUAAUUCG | -3 | ( -10.3, -7.3 ) |
| 7582-7604 | GAAUCAAAGCUGCCAAUUA | -3 | ( -7.9, -4.9 ) |
| 4882-4904 | ACCACAACAAGGCUGAAAG | -3 | ( -9.9, -6.9 ) |
| 7486-7508 | GACUCUUGGUCCACUGUUA | -3 | ( -10.2, -7.2 ) |
| 8607-8629 | CCUGGAACUAAUAACAUCA | -3 | ( -11.3, -8.3 ) |
| 7425-7447 | CGGAUCUUAUUCGUCAAUG | -2.9 | ( -9.7, -6.8 ) |
| 897-919 | CUGCCCGAAUUCAAGCAUA | -2.9 | ( -11.5, -8.6 ) |
| 2594-2616 | UCUGCAUUGUCUGGCAUGU | -2.9 | ( -10.6, -7.7 ) |
| 4638-4660 | CUGCAAUACAUCUGUGAUA | -2.8 | ( -10.3, -7.5 ) |
| 4349-4371 | CACCUCAUUCCAACAUAGA | -2.8 | ( -10.3, -7.5 ) |
| 2926-2948 | GACCUAGUAUUUGACAUCA | -2.8 | ( -11.1, -8.3 ) |
| 3113-3135 | CUGGUACUUACAUCUAUGA | -2.8 | ( -10.3, -7.5 ) |
| 3901-3923 | CCAGUGUUCACUGACAACU | -2.8 | ( -10.3, -7.5 ) |
| 5567-5589 | ACGACAUGUGGAAUUUCAU | -2.7 | ( -9.3, -6.6 ) |
| 6164-6186 | AGUGGAUCAAUGAAGAUUG | -2.7 | ( -9.8, -7.1 ) |
| 6268-6290 | GCAAAGUUCGUGCCCUUAA | -2.7 | ( -8.6, -5.9 ) |
| 5908-5930 | GAGGACUUGGUAAAUUUGC | -2.6 | ( -11.2, -8.6 ) |
| 4891-4913 | AGGCUGAAAGCUUACUUCG | -2.6 | ( -10.9, -8.3 ) |
| 7905-7927 | CUUGCUGGACGACAACAAU | -2.6 | ( -9.1, -6.5 ) |
| 5196-5218 | UCCCAUCACCAAAUACAUC | -2.6 | ( -11.6, -9.0 ) |
| 6806-6828 | CAGACCCAUCACACAUAAC | -2.6 | ( -9.4, -6.8 ) |
| 8602-8624 | UAUGACCUGGAACUAAUAA | -2.6 | ( -7.5, -4.9 ) |
| 4220-4242 | UCUGUGACGAGUGCUAUUC | -2.5 | ( -9.4, -6.9 ) |
| 6727-6749 | GGACUCAAUUCGUUCGUAG | -2.5 | ( -11.1, -8.6 ) |
| 4020-4042 | AGGCUAUAAAGUGCUAGUG | -2.5 | ( -10.9, -8.4 ) |
| 1181-1203 | CCCAGGAUUGCAAUUGUUC | -2.5 | ( -11.3, -8.8 ) |
| 6193-6215 | UGUGCCGAAUCUUGGCUAU | -2.5 | ( -10.5, -8.0 ) |
| 4449-4471 | UCUCAUCUUCUGCCAUUCA | -2.4 | ( -9.5, -7.1 ) |
| 6165-6187 | GUGGAUCAAUGAAGAUUGC | -2.4 | ( -11.2, -8.8 ) |
| 2382-2404 | CCUCUAUGGUGUUGGAUCU | -2.4 | ( -10.4, -8.0 ) |
| 4685-4707 | CCUUCUCCAUAGAGAUUAC | -2.4 | ( -9.2, -6.8 ) |
| 1936-1958 | UGCGUGUGGAUGAACAGUA | -2.3 | ( -10.7, -8.4 ) |
| 8241-8263 | AGAGGUCUAUCAGUGUUGU | -2.3 | ( -9.9, -7.6 ) |
| 5010-5032 | GCAAUCGGGUGAGAAUUUC | -2.3 | ( -8.8, -6.5 ) |
| 2481-2503 | CCUAUGGAUGAUGUUUAUG | -2.3 | ( -8.4, -6.1 ) |
| 641-663 | AGGUCAUCGAUACCCUAAC | -2.2 | ( -10.0, -7.8 ) |
| 3215-3237 | UGGAGAAGAAAGUCAUCGU | -2.2 | ( -10.4, -8.2 ) |
| 4948-4970 | UUCUGGGAGAGCGUCUUUA | -2.2 | ( -8.1, -5.9 ) |
| 5235-5257 | UCUCGAGGUAGUGACAAGU | -2.2 | ( -9.7, -7.5 ) |
| 1303-1325 | ACCACUCUGGUAGACUUAC | -2.1 | ( -9.9, -7.8 ) |
| 8768-8790 | UAGUCUACGCUCCCACAAU | -2.1 | ( -8.6, -6.5 ) |
| 1503-1525 | GCAGAAUUUACAGCUCAUC | -2.1 | ( -11.2, -9.1 ) |

**FIG. 14 (page 473 of 479)**

| | | | |
|---|---|---|---|
| 1502-1524 | AGCAGAAUUUACAGCUCAU | -2.1 | ( -9.8, -7.7 ) |
| 7008-7030 | CGAGAAGGUAAUAAUACUA | -2.1 | ( -9.7, -7.6 ) |
| 5352-5374 | ACCUGCUGUCAUUCCUGAU | -2.1 | ( -9.8, -7.7 ) |
| 1380-1402 | UUGGGCCAAAGUCAUCUUG | -2.1 | ( -10.2, -8.1 ) |
| 756-778 | GGACGGGAUCAAUUAUGCA | -2.1 | ( -11.4, -9.3 ) |
| 4630-4652 | GUGAUAGACUGCAAUACAU | -2.1 | ( -9.0, -6.9 ) |
| 9129-9151 | ACUCAAACUCACUCCAUUG | -2.1 | ( -8.9, -6.8 ) |
| 8599-8621 | GCAUAUGACCUGGAACUAA | -2 | ( -9.2, -7.2 ) |
| 1389-1411 | AGUCAUCUUGGUCCUAUUC | -2 | ( -8.9, -6.9 ) |
| 281-303 | UGAGCACGAAUCCUAAACC | -2 | ( -10.6, -8.6 ) |
| 5528-5550 | UCCAGUCUAACUUCGCUAA | -2 | ( -10.4, -8.4 ) |
| 290-312 | AUCCUAAACCUCAAAGAAA | -2 | ( -8.9, -6.9 ) |

FIG. 14 (page 474 of 479)

| Position | 5'-3' target or sense strand | Net Therm | Therm of each end |
|---|---|---|---|
| 1847-1869 | GAGGGUGUCCCACUUAUAA | -6.9 | ( -12.2, -5.3 ) |
| 1141-1163 | GGCCAAAUGUUCACCUAUA | -6.8 | ( -13.2, -6.4 ) |
| 1237-1259 | UGGGACAUGAUGAUGAAAU | -6.2 | ( -11.6, -5.4 ) |
| 2003-2025 | CAGGCAACAACAGCCUUAA | -5.6 | ( -11.5, -5.9 ) |
| 5906-5928 | CAGCCGAAGAACUGGUAAA | -5.5 | ( -11.5, -6.0 ) |
| 1849-1871 | GGGUGUCCCACUUAUAACU | -5.4 | ( -12.1, -6.7 ) |
| 3473-3495 | CGGCAACACAAACGUUUCU | -5.4 | ( -11.8, -6.4 ) |
| 4147-4169 | GCCGGUAUAACAUACUCUA | -5.1 | ( -13.5, -8.4 ) |
| 2522-2544 | CCUGCAAGAACGUCAUUGU | -5 | ( -11.5, -6.5 ) |
| 1232-1254 | UGGCAUGGGACAUGAUGAU | -4.7 | ( -11.5, -6.8 ) |
| 6706-6728 | AGGGAGGAGGUUACUUUCU | -4.7 | ( -11.1, -6.4 ) |
| 8249-8271 | UGACUGAAGAGUCCAUUUA | -4.5 | ( -9.4, -4.9 ) |
| 8166-8188 | GGCGUGGAAAUCUAAGAAG | -4.5 | ( -12.5, -8.0 ) |
| 6778-6800 | CCUGAUGUGACCGUCUUAA | -4.5 | ( -10.4, -5.9 ) |
| 1553-1575 | CUGCCCUUAACUGUAAUGA | -4.4 | ( -11.5, -7.1 ) |
| 8872-8894 | ACCCUAGCAUUUGAAAUGU | -4.4 | ( -10.9, -6.5 ) |
| 3574-3596 | GUGCAGAUGUACACCAAUG | -4.3 | ( -11.1, -6.8 ) |
| 8165-8187 | AGGCGUGGAAAUCUAAGAA | -4.3 | ( -11.2, -6.9 ) |
| 3116-3138 | CCGGAACCUACAUUUAUGA | -4.3 | ( -11.8, -7.5 ) |
| 4521-4543 | UGCCGUGGCAUAUUAUAGA | -4.3 | ( -11.8, -7.5 ) |
| 8423-8445 | CCAUGACGUGCUACAUUAA | -4.3 | ( -9.2, -4.9 ) |
| 2005-2027 | GGCAACAACAGCCUUAAGU | -4.2 | ( -10.9, -6.7 ) |
| 3749-3771 | GACCCAUCAGUUACCUCAA | -4.2 | ( -12.3, -8.1 ) |
| 6955-6977 | GACCUCAUAAAGGCUAAUC | -4.2 | ( -11.1, -6.9 ) |
| 5109-5131 | GUGCAUGAUCUGUCUCAAA | -4.2 | ( -11.1, -6.9 ) |
| 9147-9169 | ACGCAAACUCACUCCAUUA | -4.1 | ( -10.2, -6.1 ) |
| 8338-8360 | GGCCCAAUGUAUAACAGCA | -4.1 | ( -14.4, -10.3 ) |
| 2133-2155 | UUACCCGUGCACCGUAAAU | -4 | ( -8.4, -4.4 ) |
| 2474-2496 | UCUGCACUUGCCUGUUGAU | -4 | ( -10.6, -6.6 ) |
| 2353-2375 | CACCUACAUCAGAAUAUAG | -3.9 | ( -10.3, -6.4 ) |
| 2351-2373 | UACACCUACAUCAGAAUAU | -3.9 | ( -8.5, -4.6 ) |
| 1608-1630 | UGCCCAUAAAUUCAACUCU | -3.8 | ( -12.7, -8.9 ) |
| 759-781 | CGGGAUAAACUAUGCAACA | -3.8 | ( -11.8, -8.0 ) |
| 8231-8253 | UUACCGAACAUGACAUAAU | -3.8 | ( -8.4, -4.6 ) |
| 738-760 | CGGUGUGAAGGUUCUUGAA | -3.7 | ( -10.6, -6.9 ) |
| 1188-1210 | CUGCAACUGUUCCAUUUAC | -3.7 | ( -10.3, -6.6 ) |
| 2013-2035 | CAGCCUUAAGUGUCCUACU | -3.7 | ( -11.5, -7.8 ) |
| 7890-7912 | AGCCCUUAAGCACAUAGAG | -3.7 | ( -12.1, -8.4 ) |
| 4520-4542 | AUGCCGUGGCAUAUUAUAG | -3.6 | ( -10.0, -6.4 ) |
| 2563-2585 | GGGAAUCAUGGGUUCUUCU | -3.5 | ( -11.0, -7.5 ) |
| 1396-1418 | CUGGUCUUGUUUCUGUUUG | -3.5 | ( -10.3, -6.8 ) |
| 1694-1716 | UCAGCUAUGCCACCAUAUC | -3.5 | ( -10.6, -7.1 ) |
| 8259-8281 | GUCCAUUUACCAAUCAUGU | -3.5 | ( -11.2, -7.7 ) |
| 5329-5351 | GUCGGUAGAAUCAUCCUAU | -3.5 | ( -11.4, -7.9 ) |
| 7620-7642 | UCCCUUAAGCAACACCUUA | -3.4 | ( -11.6, -8.2 ) |
| 8257-8279 | GAGUCCAUUUACCAAUCAU | -3.4 | ( -10.2, -6.8 ) |
| 5819-5841 | GGGUCCUUAUUGACAUCCU | -3.4 | ( -12.3, -8.9 ) |
| 9148-9170 | CGCAAACUCACUCCAUUAG | -3.4 | ( -9.4, -6.0 ) |
| 5388-5410 | CCAGCAAUUUGAUGAGAUG | -3.3 | ( -11.5, -8.2 ) |

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| | | | |
|---|---|---|---|
| 5924-5946 | ACCUCCUGCCUUCAAUACU | -3.2 | ( -10.0, -6.8 ) |
| 8223-8245 | CUCGACCAUUACCGAACAU | -3.2 | ( -9.7, -6.5 ) |
| 7278-7300 | GCCAAUGGAACUAUCUGAU | -3.2 | ( -10.9, -7.7 ) |
| 8873-8895 | CCCUAGCAUUUGAAAUGUA | -3.1 | ( -10.5, -7.4 ) |
| 2521-2543 | ACCUGCAAGAACGUCAUUG | -3 | ( -9.8, -6.8 ) |
| 1379-1401 | ACUGGGCCAAGGUUAUACU | -3 | ( -9.8, -6.8 ) |
| 1535-1557 | GCUGGCAUAUCAAUAGUAC | -3 | ( -12.1, -9.1 ) |
| 8420-8442 | ACACCAUGACGUGCUACAU | -3 | ( -9.9, -6.9 ) |
| 5090-5112 | GCUGGGAUACAAUGUGGAA | -2.9 | ( -12.1, -9.2 ) |
| 1721-1743 | GUGAUGACAAGCCGUAUUG | -2.9 | ( -9.0, -6.1 ) |
| 366-388 | GAUCGUUGGUGGAGUUUAC | -2.8 | ( -9.4, -6.6 ) |
| 8680-8702 | GGCAACAGAAUUUACUAUC | -2.8 | ( -10.9, -8.1 ) |
| 1889-1911 | UCCUUCUCUUGAAUAACAU | -2.7 | ( -9.2, -6.5 ) |
| 1132-1154 | UCCUUGGUAGGCCAAAUGU | -2.7 | ( -9.2, -6.5 ) |
| 1887-1909 | CAUCCUUCUCUUGAAUAAC | -2.6 | ( -9.4, -6.8 ) |
| 5559-5581 | GUUCUGGGCAAAGCAUAUG | -2.6 | ( -8.8, -6.2 ) |
| 6777-6799 | ACCUGAUGUGACCGUCUUA | -2.5 | ( -9.8, -7.3 ) |
| 3055-3077 | GCAAAGCACCUGGUUUAUG | -2.5 | ( -8.6, -6.1 ) |
| 4485-4507 | UGAACUUGCCAAACAAUUG | -2.5 | ( -8.2, -5.7 ) |
| 7609-7631 | UUACCCAUCAAUCCCUUAA | -2.5 | ( -8.4, -5.9 ) |
| 2529-2551 | GAACGUCAUUGUCCUAAAC | -2.5 | ( -9.1, -6.6 ) |
| 1883-1905 | CUGACAUCCUUCUCUUGAA | -2.5 | ( -9.4, -6.9 ) |
| 5570-5592 | AGCAUAUGUGGAACUUUGU | -2.5 | ( -8.8, -6.3 ) |
| 4970-4992 | CAGGGCUUACUAACAUCGA | -2.5 | ( -11.3, -8.8 ) |
| 6949-6971 | GAUGCAGACCUCAUAAAGG | -2.4 | ( -10.2, -7.8 ) |
| 3904-3926 | CCUGUGUUCACUGACAACA | -2.3 | ( -10.3, -8.0 ) |
| 6957-6979 | CCUCAUAAAGGCUAAUCUG | -2.2 | ( -10.4, -8.2 ) |
| 3063-3085 | CCUGGUUUAUGGCAAGUAC | -2.2 | ( -11.3, -9.1 ) |
| 8776-8798 | GGGAACAUCAUCAUGUACG | -2.2 | ( -11.0, -8.8 ) |
| 7035-7057 | GAUCCUUGACUGCUUCAAG | -2.2 | ( -10.3, -8.1 ) |
| 757-779 | GACGGGAUAAACUAUGCAA | -2.2 | ( -11.4, -9.2 ) |
| 5102-5124 | UGUGGAAGUGCAUGAUCUG | -2.1 | ( -10.3, -8.2 ) |
| 6404-6426 | ACGGAACCAUGAGAAUCGU | -2.1 | ( -10.3, -8.2 ) |
| 4480-4502 | UGUGAUGAACUUGCCAAAC | -2 | ( -9.4, -7.4 ) |
| 7063-7085 | GAGGAAGAAGAUGACAGAG | -2 | ( -11.2, -9.2 ) |
| 281-303 | UGAGCACGAAUCCUAAACC | -2 | ( -10.6, -8.6 ) |
| 6788-6810 | CCGUCUUAACAUCAAUGCU | -2 | ( -10.8, -8.8 ) |
| 290-312 | AUCCUAAACCUCAAAGAAA | -2 | ( -8.9, -6.9 ) |

FIG. 15 (page 476 of 479)

| Position | 5'-3' target or sense strand | Net Therm | Therm of each end |
|---|---|---|---|
| 5167-5189 | UGGGACGUGAUGUGGAAAU | -6.2 | ( -11.6, -5.4 ) |
| 7677-7699 | GGAGGAGAAAUUGCCAAUA | -6 | ( -12.1, -6.1 ) |
| 9187-9209 | UGCGGCAAGUACCUCUUUA | -5.9 | ( -11.8, -5.9 ) |
| 6099-6121 | GUGGAUGAACAGGCUAAUA | -5.9 | ( -11.2, -5.3 ) |
| 1251-1273 | CUGCAAUUGUUCGGUUUAU | -5.9 | ( -10.3, -4.4 ) |
| 3649-3671 | UGCCAGAUGUAUACAAAUG | -5.8 | ( -11.5, -5.7 ) |
| 8501-8523 | CCCUCACUUGUUAUCUUAA | -5.7 | ( -11.6, -5.9 ) |
| 2060-2082 | UCCCAGGAGACUAUAAUAG | -5.6 | ( -11.6, -6.0 ) |
| 1610-1632 | GGACCGCUCUAAACUGUAU | -5.4 | ( -12.3, -6.9 ) |
| 1590-1612 | UGGUAGCUGGCACAUAAAU | -5.1 | ( -9.5, -4.4 ) |
| 5772-5794 | GACCCUGUUGCUCAACAUA | -4.9 | ( -12.3, -7.4 ) |
| 8647-8669 | GACGCUAUGAUCAGAUACU | -4.8 | ( -11.6, -6.8 ) |
| 2059-2081 | AUCCCAGGAGACUAUAAUA | -4.8 | ( -10.1, -5.3 ) |
| 7824-7846 | UGUCCUAAAGGAGAUUAAG | -4.7 | ( -10.6, -5.9 ) |
| 7998-8020 | GGACUUGCUAGAAGACAAU | -4.6 | ( -11.1, -6.5 ) |
| 7680-7702 | GGAGAAAUUGCCAAUAAAC | -4.6 | ( -11.2, -6.6 ) |
| 4276-4298 | GGAGGAGCAUAUGAUAUCA | -4.6 | ( -12.1, -7.5 ) |
| 6168-6190 | GACGGACGCAUCAAACAAA | -4.6 | ( -11.4, -6.8 ) |
| 6674-6696 | CUGCUGAUGGCCUUAAAUG | -4.6 | ( -10.3, -5.7 ) |
| 6170-6192 | CGGACGCAUCAAACAAAGU | -4.5 | ( -10.8, -6.3 ) |
| 9225-9247 | GCUCAAACUCACUCCAUUG | -4.4 | ( -11.2, -6.8 ) |
| 2130-2152 | GGCCACAUAUCAGAAGUGU | -4.4 | ( -13.2, -8.8 ) |
| 8756-8778 | CCGGACAGAGAUAUUACUA | -4.2 | ( -11.8, -7.6 ) |
| 3971-3993 | UGCGAUCUCCUGUGUUUAC | -4.2 | ( -10.8, -6.6 ) |
| 4555-4577 | UGCGACGAACUGUCUAAAC | -4.2 | ( -10.8, -6.6 ) |
| 4877-4899 | GACCUUCAGGUAUGUUUGA | -4.2 | ( -11.1, -6.9 ) |
| 4279-4301 | GGAGCAUAUGAUAUCAUCA | -4 | ( -12.3, -8.3 ) |
| 3758-3780 | CGAGAGGUGCUGAUGUUAU | -4 | ( -9.7, -5.7 ) |
| 1589-1611 | AUGGUAGCUGGCACAUAAA | -3.9 | ( -8.8, -4.9 ) |
| 1634-1656 | GUCUCCAAACUGGGUUUCU | -3.8 | ( -10.2, -6.4 ) |
| 5313-5335 | CCUGGAAGUCAUCACAAGU | -3.8 | ( -11.3, -7.5 ) |
| 7128-7150 | UCCUCUGGUUGCAGAGUAU | -3.8 | ( -10.6, -6.8 ) |
| 822-844 | CGGGAUUAACUAUGCAACA | -3.8 | ( -11.8, -8.0 ) |
| 9000-9022 | UCUCCCUGCAAUCAUUCAA | -3.7 | ( -10.6, -6.9 ) |
| 5324-5346 | UCACAAGUACGUGGGUAAU | -3.7 | ( -9.4, -5.7 ) |
| 7242-7264 | UCCACCUCUCCUACAGAAA | -3.7 | ( -10.6, -6.9 ) |
| 6735-6757 | UGGCGUAAGGAUACAUCGU | -3.6 | ( -11.8, -8.2 ) |
| 7815-7837 | CUACCAAGAUGUCCUAAAG | -3.6 | ( -9.5, -5.9 ) |
| 8700-8722 | CGACCUUGAGCUGAUAACA | -3.6 | ( -10.8, -7.2 ) |
| 1573-1595 | CAGCUUAUUAACACCAAUG | -3.5 | ( -10.3, -6.8 ) |
| 2885-2907 | UCUGGUGGAACCAAUACAU | -3.5 | ( -10.4, -6.9 ) |
| 2470-2492 | GUCUCCUCGAGCAUAGUAU | -3.4 | ( -10.2, -6.8 ) |
| 8636-8658 | GAGCGUUUACAGACGCUAU | -3.4 | ( -11.4, -8.0 ) |
| 2852-2874 | GCCCUAUGUACAAACAGCU | -3.4 | ( -13.2, -9.8 ) |
| 7687-7709 | UUGCCAAUAAACCCUUUGA | -3.4 | ( -10.3, -6.9 ) |
| 9051-9073 | UGGGUACUCUCCAACUGAA | -3.4 | ( -11.5, -8.1 ) |
| 8033-8055 | CCACUAUCAUGGCCAAGAA | -3.4 | ( -10.3, -6.9 ) |
| 5463-5485 | CCAGCAGUUUGAUGAGAUG | -3.3 | ( -11.5, -8.2 ) |
| 8334-8356 | AGAGGACAUCUACCAAUCU | -3.3 | ( -9.9, -6.6 ) |

FIG. 16 (page 477 of 479)

| | | | |
|---|---|---|---|
| 4970-4992 | GACUACGUGCCUACCUAAA | -3.3 | ( -9.2, -5.9 ) |
| 7967-7989 | AGGCCGUUAAACACAUCGA | -3.3 | ( -12.1, -8.8 ) |
| 1849-1871 | GUGUGUGGUCCUGUUUACU | -3.2 | ( -9.9, -6.7 ) |
| 4554-4576 | AUGCGACGAACUGUCUAAA | -3.2 | ( -9.1, -5.9 ) |
| 4876-4898 | AGACCUUCAGGUAUGUUUG | -3.2 | ( -10.0, -6.8 ) |
| 4579-4601 | ACCUCAUUAGGUCUCAAUG | -3.2 | ( -10.0, -6.8 ) |
| 3532-3554 | GUGCAGGUUGUAUCAACAG | -3.1 | ( -11.1, -8.0 ) |
| 5311-5333 | GACCUGGAAGUCAUCACAA | -3.1 | ( -11.1, -8.0 ) |
| 8324-8346 | UCCGAACUGAAGAGGACAU | -3 | ( -10.9, -7.9 ) |
| 7959-7981 | UACUAGCAAGGCCGUUAAA | -2.9 | ( -7.6, -4.7 ) |
| 8498-8520 | ACACCCUCACUUGUUAUCU | -2.9 | ( -9.9, -7.0 ) |
| 5045-5067 | CAGGAUUGACUCACAUAGA | -2.9 | ( -10.4, -7.5 ) |
| 6316-6338 | GUGCUAUCUGACUUCAAGA | -2.9 | ( -11.0, -8.1 ) |
| 1613-1635 | CCGCUCUAAACUGUAUCGA | -2.9 | ( -11.7, -8.8 ) |
| 945-967 | CCAUCUAACCAAUGAUUGU | -2.9 | ( -9.4, -6.5 ) |
| 429-451 | GAUCGUUGGUGGAGUUUAC | -2.8 | ( -9.4, -6.6 ) |
| 4596-4618 | UGCUGUCGCAUUCUAUAGA | -2.8 | ( -10.3, -7.5 ) |
| 1756-1778 | ACCCACAAGUCCAACAUCA | -2.7 | ( -11.0, -8.3 ) |
| 7961-7983 | CUAGCAAGGCCGUUAAACA | -2.7 | ( -9.5, -6.8 ) |
| 8638-8660 | GCGUUUACAGACGCUAUGA | -2.7 | ( -10.2, -7.5 ) |
| 1352-1374 | UUCUGAGAGUGCCCGAAAU | -2.7 | ( -8.1, -5.4 ) |
| 6621-6643 | GGAGUACGUUGAAGUAGAG | -2.7 | ( -11.1, -8.4 ) |
| 7822-7844 | GAUGUCCUAAAGGAGAUUA | -2.7 | ( -9.0, -6.3 ) |
| 4160-4182 | UGAGCAAAGCUCAUGGUAU | -2.6 | ( -10.6, -8.0 ) |
| 6141-6163 | UGUCUCUCCUACACACUAU | -2.6 | ( -9.4, -6.8 ) |
| 8698-8720 | UACGACCUUGAGCUGAUAA | -2.6 | ( -8.9, -6.3 ) |
| 3191-3213 | CUGGCACAUACAUAUACGA | -2.6 | ( -11.5, -8.9 ) |
| 5269-5291 | ACACAUCCAAUCACAAAGU | -2.5 | ( -8.8, -6.3 ) |
| 1438-1460 | GGCAAUUGGUUGAAGGUAA | -2.5 | ( -10.9, -8.4 ) |
| 7723-7745 | CACCACAACAUGGUCUACU | -2.5 | ( -10.3, -7.8 ) |
| 1433-1455 | UGUCAGGCAAUUGGUUGAA | -2.5 | ( -9.4, -6.9 ) |
| 1940-1962 | ACGAGACGGAUGUGUUCAU | -2.5 | ( -9.1, -6.6 ) |
| 1150-1172 | GUCGUUUGCUCUUCGAUGU | -2.5 | ( -10.4, -7.9 ) |
| 7614-7636 | UGUCGUCUGUUGCUCUAUG | -2.5 | ( -9.7, -7.2 ) |
| 815-837 | UCGAGGACGGGAUUAACUA | -2.5 | ( -9.7, -7.2 ) |
| 2215-2237 | UGCACUGUCAACUACACAA | -2.5 | ( -10.5, -8.0 ) |
| 342-364 | CAUGAGCACACUUCCUAAA | -2.4 | ( -8.3, -5.9 ) |
| 4173-4195 | UGGUAUAGACCCGAAUAUC | -2.4 | ( -9.5, -7.1 ) |
| 4104-4126 | CAAGGUGCUAGUUCUGAAU | -2.4 | ( -9.0, -6.6 ) |
| 4595-4617 | AUGCUGUCGCAUUCUAUAG | -2.4 | ( -8.8, -6.4 ) |
| 2551-2573 | UGCACUUGCCUUUGGUUGA | -2.3 | ( -10.5, -8.2 ) |
| 6480-6502 | CGGGUCUAUGAAGAUCACA | -2.3 | ( -11.7, -9.4 ) |
| 9219-9241 | GACCAAGCUCAAACUCACU | -2.3 | ( -11.2, -8.9 ) |
| 352-374 | CUUCCUAAACCUCAAAGAA | -2.3 | ( -9.2, -6.9 ) |
| 1566-1588 | GAAGAUACAGCUUAUUAAC | -2.3 | ( -8.9, -6.6 ) |
| 7146-7168 | UGACGACAGGGAGAUAUCA | -2.2 | ( -9.7, -7.5 ) |
| 8580-8602 | UGAUCUGGUGGUCAUUUGU | -2.2 | ( -8.5, -6.3 ) |
| 6461-6483 | UUGCUGGACACGUGAAGAA | -2.2 | ( -9.1, -6.9 ) |
| 6314-6336 | CAGUGCUAUCUGACUUCAA | -2.2 | ( -9.1, -6.9 ) |
| 6479-6501 | ACGGGUCUAUGAAGAUCAC | -2.2 | ( -11.2, -9.0 ) |

**FIG. 16 (page 478 of 479)**

| | | | |
|---|---|---|---|
| 3944-3966 | UCCCUGUGGAGAAUAUGGA | -2.2 | ( -11.6, -9.4 ) |
| 1562-1584 | AUCAGAAGAUACAGCUUAU | -2.2 | ( -7.7, -5.5 ) |
| 819-841 | GGACGGGAUUAACUAUGCA | -2.1 | ( -11.4, -9.3 ) |
| 1452-1474 | GGUAAUCGCUGUGUUAUUC | -2.1 | ( -9.0, -6.9 ) |
| 7964-7986 | GCAAGGCCGUUAAACACAU | -2 | ( -9.7, -7.7 ) |
| 4270-4292 | UGUUCAGGAGGAGCAUAUG | -2 | ( -8.2, -6.2 ) |
| 5894-5916 | GGGUUAUUGUUGACAUCCU | -2 | ( -10.9, -8.9 ) |
| 344-366 | UGAGCACACUUCCUAAACC | -2 | ( -10.6, -8.6 ) |
| 5184-5206 | AUGUCUCACCAGACUUAAG | -2 | ( -7.9, -5.9 ) |
| 2219-2241 | CUGUCAACUACACAAUACA | -2 | ( -9.4, -7.4 ) |

FIG. 16 (page 479 of 479)

**INTERNATIONAL SEARCH REPORT**

International application No.
PCT/CA2010/000444

A. CLASSIFICATION OF SUBJECT MATTER

IPC: ***A61K 31/713*** (2006.01) , ***A61K 47/44*** (2006.01) , ***A61K 48/00*** (2006.01) , ***A61K 9/127*** (2006.01) , ***A61P 31/14*** (2006.01) , ***C12N 15/113*** (2010.01), ***C07H 21/02*** (2006.01) , ***C12N 15/51*** (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: ***A61K 31/713*** (2006.01) , ***A61K 47/44*** (2006.01) , ***A61K 48/00*** (2006.01) , ***A61K 9/127*** (2006.01) , ***A61P 31/14*** (2006.01) , ***C12N 15/113*** (2010.01), ***C07H 21/02*** (2006.01) , ***C12N 15/51*** (2006.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)

Biosis, CAplus, Medline, EPOQUE (EPODOCS, TXTEN), Canadian Patent Database, GenomeQuest (subsequences of SEQ ID NOs:1-7); Keywords: hepatitis C virus, HCV, antisense, interfering RNA, double-stranded RNA, dsRNA, siRNA, miRNA, aiRNA, SNALP, lipid

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| X | WO2007/076328 A2 (McSWIGGEN, J. et al) 5 July 2007 (05-07-2007) - the entire document; Tables 2, 3 | 1-20, 22-25, 27, 28, 41-66 |
| A | | 21, 26, 29-40 |
| X | WO2009/002918 A2 (McCALLUS, D. et al) 31 December 2008 (31-12-2008) | 1-19 |
| Y | - the entire document, particularly pp. 36-38 | 20-66 |

[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

| Date of the actual completion of the international search | Date of mailing of the international search report |
|---|---|
| 30 June 2010 (30-06-2010) | 8 July 2010 (08-07-2010) |

| Name and mailing address of the ISA/CA | Authorized officer |
|---|---|
| Canadian Intellectual Property Office<br>Place du Portage I, C114 - 1st Floor, Box PCT<br>50 Victoria Street<br>Gatineau, Quebec K1A 0C9<br>Facsimile No.: 001-819-953-2476 | Michael W. De Vouge (819) 997-2952 |

**INTERNATIONAL SEARCH REPORT**

International application No.
PCT/CA2010/000444

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of the first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons :

1. [ ] Claim Nos. :
because they relate to subject matter not required to be searched by this Authority, namely :

2. [X] Claim Nos. : 42-66
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically :

Claims 42-66, directed to methods for treatment of the human or animal body by surgery or therapy, are not required to be searched under Rule 39.1 of the PCT. Regardless, this Authority has established a search based on the alleged effect or purpose/use of the nucleic acid - lipid particle defined in claim 20.

3. [ ] Claim Nos. :
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows :

1. [ ] As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claim Nos. :

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim Nos. :

**Remark on Protest**

[ ] The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

[ ] The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

[ ] No protest accompanied the payment of additional search fees.

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| X | WO2004/011647 A1 (HAN, J. et al) 5 February 2004 (05-02-2004) | 1-6, 9-19 |
| Y | - the entire document, particularly Figure 1 | 20-66 |
| A | | 7, 8 |
| X | WO2005/012525 A1 (JAYASENA, S. et al) 10 February 2005 (10-02-2005) | 1-4, 9-19 |
| A | - the entire document, particularly Figure 5 | 5-8, 20-66 |
| Y | US2007/0135372 A1 (MacLACHLAN, I. et al) 14 June 2007 (14-06-2007) | 20-66 |
| A | - the entire document, especially paragraphs 0034-0039 and 0146 | 1-19 |

**INTERNATIONAL SEARCH REPORT**
Information on patent family members

International application No.
PCT/CA2010/000444

| Patent Document Cited in Search Report | Publication Date | Patent Family Member(s) | Publication Date |
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| | | EP1948674A4 | 04-02-2009 |
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