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(54) Title: THE RNA INTERACTOME OF POLYCOMB REPRESSIVE COMPLEX 1 (PRC1)

(57) Abstract: This invention relates to polycomb-associated RNAs, libraries and fragments of those RNAs, inhibitory nucleic acids and methods and compositions for targeting RNAs, and methods of use thereof.

The RNA Interactome of Polycomb Repressive Complex 1 (PRC1)

CLAIM OF PRIORITY

This application claims the benefit of U.S. Provisional Patent Application Serial No. 62/134,361, filed on March 17, 2015. The entire contents of the foregoing are hereby incorporated by reference.

FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

This invention was made with Government support under Grant No. RO1-DA36895 awarded by the National Institutes of Health. The Government has certain rights in the invention.

TECHNICAL FIELD

This invention relates to the RNA interactome of Polycomb Repressive Complex 1 (PRC1) and methods of using inhibitory nucleic acids that bind RNAs and inhibit the PRC1-RNA interaction to modulate gene expression.

BACKGROUND

Transcriptome analyses have suggested that, although only 1-2% of the mammalian genome is protein-coding, 70-90% is transcriptionally active (Carninci et al., 2005; Kapranov et al., 2007; Mercer et al., 2009). Ranging from 100 nt to >100 kb, these transcripts are largely unknown in function, may originate within or between genes, and may be conserved and developmentally regulated (Kapranov et al., 2007; Guttman et al., 2009). Recent discoveries argue that a subset of these transcripts play crucial roles in epigenetic regulation.

RNA-mediated recruitment is especially attractive for Polycomb proteins. First identified in Drosophila as homeotic regulators, Polycomb proteins are conserved from flies to mammals and control many aspects of development (Ringrose and Paro, 2004; Boyer et al., 2006; Lee et al., 2006; Schuettengruber et al., 2007; Pietersen and van Lohuizen, 2008; Schwartz and Pirrotta, 2008).

Polycomb Repressive Complex 1 (PRC1) is the enzymatic complex that ubiquitylates histone H2A at lysine 119 (H2AK119Ub). In mammals, it is composed of multiple variable subunits, including (1) the catalytic subunit, Ring1b or Ring1a; (2) Bmi1

(which can be PCGF1, PCGF2, PCGF3, PCGF5, or PCGF6); (3) PH1 (or PH2, PH3); and (4) CBX2, 4, 6, 7, or 8. Action of PRC1 on chromatin results in chromatin compaction and transcriptional repression. The classical PRC1 complex exists in two forms in which either CBX and MPH or RYBP subunits associate with the catalytic core subunits RING1A/B and PCGF2/4. The PRC1 interacting protein, SCMLH1/2/3, is only weakly associated/substoichiometric and is considered an accessory factor, rather than a core component. The RanBP-ZF domain present in RYBP/YAF2 has an RNA binding function in some related proteins but apparently not in RYBP/YAF2. See, e.g., Brockdorff, RNA 19:429-442 (2013); Yap et al., Mol Cell. 38(5):662-74 (2010).

Although PRC1 binds thousands of sites in the mammalian genome, how PRC1 is targeted to chromatin has remained a mystery. YY1 and the H3K27me3 chromatin mark may recruit PRC1 in some contexts, but they are unlikely to be the general or only mechanisms. RNA-mediated targeting is another potential mechanism. PRC1 is known to interact with at least one RNA, ANRIL, likely via the chromodomain (CD) of the CBX7 protein (Yap et al., Mol Cell. 38(5):662-74 (2010)). ANRIL is an antisense non-coding RNA (ncRNA) at the INK4b/ARF/INK4a locus (Pasmant et al., Cancer Res 67: 3963–3969 (2007)). How many RNAs interact with PRC1 and whether they are a general recruiting tool for PRC1 has not previously been determined.

SUMMARY

A new ‘denaturing’ CLIP-seq method was developed using the biotin-avidin method, which enables washes in high salt and urea (i.e., protein denaturing conditions). Because the exemplified system includes two protein tags, FLAG and biotin, purification can be performed with either tag or conducted as a tandem affinity purification (e.g., FLAG purification first, followed by biotin pulldown). For the denaturing method, the biotin tag is preferably used. During CLIP, because the interacting RNAs are UV-crosslinked to RNA-binding proteins in a covalent fashion, the RNA-protein interactions survive the wash conditions, whereas nonspecific, low-affinity interactions are not preserved. These methods were used to identify genome-wide pools of polycomb repressive complex 1 (PRC1)-interacting RNAs (referred to herein as the “PRC1 transcriptome” or “PRC1 RNA interactome”) in several cell types, including embryonic stem cells and human fibroblast cells.

The results of the studies described herein demonstrated that PRC1 binds both noncoding RNA and coding RNA. The transcriptome includes antisense, intergenic, and

promoter-associated transcripts, as well as many unannotated RNAs. A large number of transcripts occur within imprinted regions, oncogene and tumor suppressor loci, and stem-cell-related bivalent domains. Further evidence is provided that inhibitory oligonucleotides that specifically bind to these PRC1-interacting RNAs can successfully modulate gene expression in a variety of separate and independent examples, presumably by inhibiting PRC1-associated effects. PRC1 binding sites can be classified into several groups, including (i) 3' untranslated region [3' UTR], (ii) promoter-associated, (iii) gene body, (iv) antisense, and (v) intergenic. Inhibiting the PRC1-RNA interactions can lead to either activation or repression, depending on context.

Also provided herein are methods for isolating RNA sequences that interact with a selected protein, e.g., with chromatin complexes, in a cell; the methods include providing a cell expressing (i) a biotin ligase, e.g., BirA, and (ii) the protein of interest comprising a biotinylation sequence; exposing the cells to UV-crosslinking; lysing the cells, isolating protein-RNA complexes from the lysed cells, e.g., using avidin purification, e.g., streptavidin beads; washing the complxes in protein-denaturing conditions, e.g., high salt and detergent, e.g., using 8 M urea + 0.1% SDS; and isolating the protein-RNA complexes.

In one aspect, described herein are methods for isolating RNA sequences that interact with a selected protein, e.g., with chromatin complexes. The methods include providing a cell expressing (i) a biotin ligase, e.g., BirA, and (ii) the protein of interest comprising a biotinylation sequence; exposing the cells to UV-crosslinking to crosslink the proteins to RNA, to create protein-RNA complexes; lysing the cells to obtain a sample comprising the protein-RNA complexes; isolating protein-RNA complexes from the lysed cells, e.g., using avidin purification, e.g., streptavidin beads; washing the complxes in protein-denaturing conditions, e.g., high salt and detergent, e.g., using 8 M urea + 0.1% SDS; and isolating the protein-RNA complexes.

In some embodiments, the methods include optionally preparing a plurality of validated cDNAs complementary to the pool of ribonucleic acids (RNAs) that bind to the protein of interest; these methods include synthesizing DNA complementary to the RNAs to provide an initial population of cDNAs; PCR-amplifying, if necessary, using strand-specific primers; purifying the initial population of cDNAs to obtain a purified population of cDNAs that are at least about 20 nucleotides (nt) in length, e.g., at least 25, 50, 75, 100, 150, 200, or 250 nt in length; sequencing at least part or substantially all of the purified population of cDNAs; aligning reads to a reference genome and retaining only those that are aligned;

selecting high-confidence cDNA sequences, optionally, based on criteria that (1) the candidate transcript has a minimum read density in reads per kilobase per million reads (RPKM) terms (e.g., above a desired threshold); and/or (2) the candidate transcript is enriched in the wildtype library versus a suitable control library (such as an IgG pulldown library or a protein-null pulldown library); thereby preparing the plurality of cDNAs. In some embodiments, the cDNAs are synthesized using strand-specific adaptors.

In some embodiments, the method is used to prepare a library representing a transcriptome associated with the protein of interest.

In some embodiments, the methods further include sequencing substantially all of the cDNAs.

In another aspect the invention features an inhibitory nucleic acid that specifically binds to, or is complementary to a region of an RNA that is known to bind to Polycomb repressive complex 1 (PRC1), wherein the sequence of the region is selected from the group consisting of SEQ ID NOs:1 to 5893 (human), 5894 to 17415 (human), and 17416 to 36368 (mouse) as set forth in Tables 1-3. Without being bound by a theory of invention, these inhibitory nucleic acids are able to interfere with the binding of and function of PRC1, by preventing recruitment of PRC1 to a specific chromosomal locus. For example, data herein shows that a single administration of inhibitory nucleic acids designed to specifically bind a RNA can alter expression of a gene associated with the RNA. Data provided herein also indicate that putative ncRNA binding sites for PRC1 show no conserved primary sequence motif, making it possible to design specific inhibitory nucleic acids that will interfere with PRC1 interaction with a single ncRNA, without generally disrupting PRC1 interactions with other ncRNAs. Further, data provided herein support that RNA can recruit PRC1 in a cis fashion, repressing gene expression at or near the specific chromosomal locus from which the RNA was transcribed, thus making it possible to design inhibitory nucleic acids that inhibit the function of PRC1 and increase the expression of a specific target gene.

In some embodiments, the inhibitory nucleic acid is provided for use in a method of modulating expression of a "gene targeted by the PRC1-binding RNA" (e.g., an intersecting or nearby gene, as set forth in Tables 1-3 below), meaning a gene whose expression is regulated by the PRC1-binding RNA. The term "PRC1-binding RNA" or "RNA that binds PRC1" is used interchangeably with "PRC1-associated RNA" and "PRC1-interacting RNA", and refers to an RNA transcript or a region thereof (e.g., a Peak as described below) that binds the PRC1 complex, directly or indirectly. Such binding may be determined by

dCLIP-SEQ techniques described herein using a component of the PRC1 complex, e.g., PRC1 itself. SEQ ID NOs: 1 to 5893 represent human RNA sequences containing portions that have been experimentally determined to bind PRC1 using the dCLIP-seq method described herein; SEQ ID NOs: 17416 to 36368 represent murine RNA sequences containing portions that have been experimentally determined to bind PRC1 using the dCLIP-seq method described herein; and SEQ ID NOs: 5894 to 17415 represent or human RNA sequences corresponding to the murine RNA sequences.

Such methods of modulating gene expression may be carried out in vitro, ex vivo, or in vivo. Tables 1-3 display genes targeted by the PRC1-binding RNA; the SEQ ID NOS: of the PRC1-associated RNA are set forth in the same row as the gene name. In some embodiments, the inhibitory nucleic acid is provided for use in a method of treating disease, e.g. a disease category as described herein. The treatment may involve modulating expression (either up or down) of a gene targeted by the PRC1-binding RNA, preferably upregulating gene expression. The inhibitory nucleic acid may be formulated as a sterile composition for parenteral administration. It is understood that any reference to uses of compounds throughout the description contemplates use of the compound in preparation of a pharmaceutical composition or medicament for use in the treatment of a disease. Thus, as one nonlimiting example, this aspect of the invention includes use of such inhibitory nucleic acids in the preparation of a medicament for use in the treatment of disease, wherein the treatment involves upregulating expression of a gene targeted by the PRC1-binding RNA.

Diseases, disorders or conditions that may be treated according to the invention include cardiovascular, metabolic, inflammatory, bone, neurological or neurodegenerative, pulmonary, hepatic, kidney, urogenital, bone, cancer, and/or protein deficiency disorders.

In a related aspect, the invention features a process of preparing an inhibitory nucleic acid that modulates gene expression, the process comprising the step of synthesizing an inhibitory nucleic acid of between 5 and 40 bases in length, or about 8 to 40, or about 5 to 50 bases in length, optionally single stranded, that specifically binds, or is complementary to, an RNA sequence that has been identified as binding to PRC1, optionally an RNA of any of Tables 1-3 or any one of SEQ ID NOs: 1 to 5893, or 5894 to 17415, or 17416 to 36368. This aspect of the invention may further comprise the step of identifying the RNA sequence as binding to PRC1, optionally through the dCLIP-seq method described herein.

In a further aspect of the present invention a process of preparing an inhibitory nucleic acid that specifically binds to an RNA that binds to Polycomb repressive complex 1 (PRC1) is provided, the process comprising the step of designing and/or synthesizing an inhibitory nucleic acid of between 5 and 40 bases in length, or about 8 to 40, or about 5 to 50 bases in length, optionally single stranded, that specifically binds to an RNA sequence that binds to PRC1, optionally an RNA of any of Tables 1-3 or any one of SEQ ID NOs: 1 to 5893, or 5894 to 17415, or 17416 to 36368.

In some embodiments prior to synthesizing the inhibitory nucleic acid the process further comprises identifying an RNA that binds to PRC1.

In some embodiments the RNA has been identified by a method involving identifying an RNA that binds to PRC1.

In some embodiments the inhibitory nucleic acid is at least 80% complementary to a contiguous sequence of between 5 and 40 bases, or about 8 to 40, or about 5 to 50 bases in said RNA sequence that binds to PRC1. In some embodiments the sequence of the designed and/or synthesized inhibitory nucleic acid is based on a said RNA sequence that binds to PRC1, or a portion thereof, said portion having a length of from 5 to 40 contiguous base pairs, or about 8 to 40 bases, or about 5 to 50 bases.

In some embodiments the sequence of the designed and/or synthesized inhibitory nucleic acid is based on a nucleic acid sequence that is complementary to said RNA sequence that binds to PRC1, or is complementary to a portion thereof, said portion having a length of from 5 to 40 contiguous base pairs, or about 8 to 40 base pairs, or about 5 to 50 base pairs.

The designed and/or synthesized inhibitory nucleic acid may be at least 80% complementary to (optionally one of at least 90%, 95%, 96%, 97%, 98%, 99% or 100% complementary to) the portion of the RNA sequence to which it binds or targets, or is intended to bind or target. In some embodiments it may contain 1, 2 or 3 base mismatches compared to the portion of the target RNA sequence or its complement respectively. In some embodiments it may have up to 3 mismatches over 15 bases, or up to 2 mismatches over 10 bases.

The inhibitory nucleic acid or portion of RNA sequence that binds to PRC1 may have a length of one of at least 8 to 40, or 10 to 50, or 5 to 50, or 5 to 40 bases, e.g., 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, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, or 50 bases. Where the

inhibitory nucleic acid is based on an RNA sequence that binds to PRC1, a nucleic acid sequence that is complementary to said RNA sequence that binds to PRC1 or a portion of such a sequence, it may be based on information about that sequence, e.g. sequence information available in written or electronic form, which may include sequence information contained in publicly available scientific publications or sequence databases.

In some embodiments, the isolated single stranded oligonucleotide is of 5 to 40 nucleotides in length and has a region of complementarity that is complementary with at least 5 contiguous nucleotides of the PRC1-binding RNA that inhibits expression of the target gene, wherein the oligonucleotide is complementary to and binds specifically within a PRC1-binding region of the PRC1-binding RNA and interferes with binding of PRC1 to the PRC1-binding region without inducing degradation of the PRC1-binding RNA (e.g., wherein the PRC1-binding region has a nucleotide sequence identified using a denaturing cross-linking immunoprecipitation procedure using an a biotin-tagged PRC1 as described herein), and without interfering with binding of PRC2 to a PRC2-binding region of the RNA (as described in WO 2012/087983 or WO 2012/065143, wherein the PRC2-binding region has a nucleotide sequence protected from nucleases during an RNA immunoprecipitation procedure using an antibody directed against PRC2), optionally wherein the PRC1-binding RNA is transcribed from a sequence of the chromosomal locus of the target gene, and optionally wherein a decrease in recruitment of PRC1 to the target gene in the cell following delivery of the single stranded oligonucleotide to the cell, compared with an appropriate control cell to which the single stranded oligonucleotide has not been delivered, indicates effectiveness of the single stranded oligonucleotide.

Where the design and/or synthesis involves design and/or synthesis of a sequence that is complementary to a nucleic acid described by such sequence information the skilled person is readily able to determine the complementary sequence, e.g. through understanding of Watson-Crick base pairing rules which form part of the common general knowledge in the field.

In the methods described above the RNA that binds to PRC1 may be, or have been, identified, or obtained, by a method that involves identifying RNA that binds to PRC1.

Such methods may involve the following steps: providing a sample containing nuclear ribonucleic acids, contacting the sample with an agent that binds specifically to PRC1 or a subunit thereof, allowing complexes to form between the agent and protein in the

sample, partitioning the complexes, synthesizing nucleic acid that is complementary to nucleic acid present in the complexes.

If necessary, the method may further comprise the steps of amplifying the synthesized nucleic acid, and/or purifying the nucleic acid (or amplified nucleic acid), and/or sequencing the nucleic acids so obtained, and/or filtering/analysing the nucleic acids so obtained to identify high-probability PRC1 (or subunit thereof)-interacting transcripts.

In one embodiment the method involves the dCLIP-Seq method described herein.

In accordance with the above, in some embodiments the RNA that binds to PRC1 may be one that is known to bind PRC1, e.g. information about the sequence of the RNA and/or its ability to bind PRC1 is available to the public in written or electronic form allowing the design and/or synthesis of the inhibitory nucleic acid to be based on that information. As such, an RNA that binds to PRC1 may be selected from known sequence information and used to inform the design and/or synthesis of the inhibitory nucleic acid.

In other embodiments the RNA that binds to PRC1 may be identified as one that binds PRC1 as part of the method of design and/or synthesis.

In preferred embodiments design and/or synthesis of an inhibitory nucleic acid involves manufacture of a nucleic acid from starting materials by techniques known to those of skill in the art, where the synthesis may be based on a sequence of an RNA (or portion thereof) that has been selected as known to bind to Polycomb repressive complex 2.

Methods of design and/or synthesis of an inhibitory nucleic acid may involve one or more of the steps of:

Identifying and/or selecting a portion of an RNA sequence that binds to PRC1 (e.g., as shown in Tables 1-3);

Designing a nucleic acid sequence having a desired degree of sequence identity or complementarity to an RNA sequence that binds to PRC1 or a portion thereof;

Synthesizing a nucleic acid to the designed sequence;

Mixing the synthesized nucleic acid with at least one pharmaceutically acceptable diluent, carrier or excipient to form a pharmaceutical composition or medicament.

Inhibitory nucleic acids so designed and/or synthesized may be useful in method of modulating gene expression as described herein.

As such, the process of preparing an inhibitory nucleic acid may be a process that is for use in the manufacture of a pharmaceutical composition or medicament for use in the

treatment of disease, optionally wherein the treatment involves modulating expression of a gene targeted by the RNA binds to PRC1.

Thus, provided herein are methods for isolating RNA sequences that interact with a selected protein, e.g., with chromatin complexes, in a cell. The methods include providing a cell expressing (i) a biotin ligase, e.g., BirA, and (ii) the protein of interest comprising a biotinylation sequence; exposing the cells to UV-crosslinking; lysing the cells, isolating protein-RNA complexes from the lysed cells, e.g., using avidin purification, e.g., streptavidin beads; washing the complxes in protein-denaturing conditions, e.g., high salt and detergent, e.g., using 8 M urea + 0.1% SDS; and isolating the protein-RNA complexes. In some embodiments, the methods include labelling the RNA in the RNA-protein complxes, e.g., by phosphorylation using ^{32}P-ATP. In some embodiments, the methods include purifying the RNA-protein complexes, preparing cDNA from the RNA, and deep sequencing the cDNA to identify the RNA sequences bound to the protein.

Also provided are kits for use in the methods described herein; these kits include an expression vector comprising a sequence encoding a biotin ligase, and an expression vector comprising a sequence encoding a biotinylation sequence, and optionally one or more buffers. In some embodiments, the the buffers include one or more of a high stringency denaturing buffer, e.g., comprising 8 M urea (range: 5-10 M, 6-10M, 7-10M, 7-9M, or 7.5-8.5M) plus 0.1% SDS (range: 0.0-2.0%); a wash buffer (e.g., PBS + 2% SDS; and a high salt wash buffer (e.g., PBS + 750 mM NaCl + 1% NP40 + 0.5% NaDeoxycholate + 0.1% SDS).

In yet another aspect, the invention provides isolated nucleic acids comprising a sequence referred to in any of Tables 1-3, or a fragment comprising at least 20 nt thereof. In some or any embodiments, the invention provides an isolated nucleic acid comprising (a) an RNA sequence as set forth in Tables 1-3 that targets a proto-oncogene or oncogene as set forth in Tables 1-3, or (b) a fragment of (a) that is at least 20 bases in length that retains PRC1-binding activity, or (c) a derivative of (a) or (b) that is at least about 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% homologous thereto, or (d) a nucleic acid of (a), (b), or (c) in which one or more bases has been replaced with a base of similar base-pairing capacity, such as replacing U with T. In preferred embodiments, the isolated nucleic acid of (a), (b) or (c) is for use in a method of decreasing expression of an oncogene. In some embodiments, the isolated nucleic acid is synthetic. In some embodiments, the isolated RNA comprises a SEQ ID NO. associated with Pvt1 in Tables 1-3. Pvt1 is known

in the art to be disrupted in some cases of Burkitt's lymphoma as well as in plasmacytomas (e.g., by translocations from another chromosome). Therefore, Pvt1 is likely to act by targeting PRC1 to c-Myc in order to repress its expression. Accordingly, exogenous administration of any of the RNA sequences associated with Pvt1 in Tables 1-3, or inhibitory nucleic acids complementary thereto, could rescue Pvt1 loss-of-function phenotypes contributing to various cancers.

In a further aspect, the invention provides methods for decreasing expression of an oncogene in a cell. In some embodiments, the methods include contacting the cell with a PRC1-binding fragment described in any of Tables 1-3, or a nucleic acid sequence that is at least about 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% homologous to a PRC1-binding fragment as referred to in any of Tables 1-3. In exemplary methods, the RNA a nucleic acid in which one or more bases has been replaced with a base of similar base-pairing capacity, such as replacing U with T. PRC1-binding fragments of murine or orthologous ncRNAs, including human ncRNA, which retain the ncRNA's ability to bind PRC1, are contemplated.

In yet another aspect, the invention features methods for increasing expression of a tumor suppressor in a mammal, e.g. human, in need thereof. The methods include administering to said mammal an inhibitory nucleic acid that specifically binds, or is complementary, to a human PRC1-interacting RNA corresponding to a tumor suppressor locus of any of Tables 1-3 or a human RNA corresponding to an imprinted gene of any of Tables 1-3, or a related naturally occurring RNA that is othologous or at least 90%, (e.g., 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%%, or 100%) identical over at least 15 (e.g., at least 20, 21, 25, 30, 100) nucoleobases thereof, in an amount effective to increase expression of the tumor suppressor or growth suppressing gene. It is understood that one method of determining human orthologous RNA that corresponds to murine RNA is to identify a corresponding human sequence at least 90% identical (e.g., 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% identical) to at least 15 nucleobases of the murine sequence (or at least 20, 21, 25, 30, 40, 50, 60, 70, 80, 90 or 100 nucleobases).

In an additional aspect, the invention provides methods for inhibiting or suppressing tumor growth in a mammal, e.g. human, with cancer, comprising administering to said mammal an inhibitory nucleic acid that specifically binds, or is complementary, to a human PRC1-interacting RNA corresponding to a tumor suppressor locus of any of Tables 1-3, or a human RNA corresponding to an imprinted gene of any of Tables 1-3, or a related

naturally-occurring RNA that is orthologous or at least 90%, (e.g., 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99% or 100%) identical over at least 15 (e.g., at least 20, 21, 25, 30, 50, 70, 100) nucleobases thereof, in an amount effective to suppress or inhibit tumor growth.

In another aspect, the invention features methods for treating a mammal, e.g., a human, with cancer comprising administering to said mammal an inhibitory nucleic acid that specifically binds, or is complementary, to a human RNA corresponding to a tumor suppressor locus of any of Tables 1-3, or a human RNA corresponding to an imprinted gene of Tables 1-3, or a related naturally occurring RNA that is orthologous or at least 90% (e.g.,91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100%) identical over at least 15 (e.g., at least 20, 21, 25, 30, 50, 70, 100) nucleobases thereof, in a therapeutically effective amount.

Also provided herein are inhibitory nucleic acids that specifically bind, or are complementary to, a region of an RNA that is known to bind to Polycomb repressive complex 1 (PRC1), wherein the sequence of the region is selected from the group consisting of SEQ ID NOs:1 to 5893 (human), 5894 to 17415 (human), and 17416 to 36368 (mouse) as set forth in Tables 1-3, for use in the treatment of disease, wherein the treatment involves modulating expression of a gene targeted by the RNA, wherein the inhibitory nucleic acid is between 5 and 40 bases in length, and wherein the inhibitory nucleic acid is formulated as a sterile composition.

Further described herein are processs for preparing an inhibitory nucleic acid that specifically binds, or is complementary to, an RNA that is known to bind to Polycomb repressive complex 1 (PRC1), selected from the group consisting of SEQ ID NOs:1 to 5893 (human), 5894 to 17415 (human), and 17416 to 36368 (mouse) as set forth in Tables 1-3; the processes include the step of designing and/or synthesizing an inhibitory nucleic acid of between 5 and 40 bases in length, optionally single stranded, that specifically binds to a region of the RNA that binds PRC1.

In some embodiments, the sequence of the designed and/or synthesized inhibitory nucleic acid is a nucleic acid sequence that is complementary to said RNA sequence that binds to PRC1, or is complementary to a portion thereof, said portion having a length of from 5 to 40 contiguous base pairs.

In some embodiments, the inhibitory nucleic acid is for use in the manufacture of a pharmaceutical composition or medicament for use in the treatment of disease, optionally

wherein the treatment involves modulating expression of a gene targeted by the RNA binds to PRC1.

In some embodiments, the modulation is increasing expression of a gene and the region of the RNA that binds PRC1 can be in intergenic space mapping to a noncoding RNA, antisense to the coding gene, or in the promoter, 3'UTR, 5'UTR, exons, and introns of a coding gene.

In some embodiments, the modulation is decreasing expression of a gene and the region of the RNA that binds PRC1 can be in intergenic space mapping to a noncoding RNA, antisense to the coding gene, or in the promoter, 3'UTR, 5'UTR, exons, and introns of a coding gene.

In some embodiments,the modulation is to influence gene expression by altering splicing of a gene and the region of the RNA that binds PRC1 can be in intergenic space mapping to a noncoding RNA, antisense to the coding gene, or in the promoter, 3'UTR, 5'UTR, exons, and introns of a coding gene.

Also provided herein are sterile compositions comprising an inhibitory nucleic acid that specifically binds, or is complementary to, an RNA sequence of any one of SEQ ID NOs:1 to 5893 (human), 5894 to 17415 (human), and 17416 to 36368 (mouse) and is capable of modulating expression of a gene targeted by the RNA as set forth in Tables 1-3. In some embodiments, the composition is for parenteral administration. In some embodiments, the RNA sequence is in the 3'UTR of a gene, and the inhibitory nucleic acid is capable of upregulating or downregulating expression of a gene targeted by the RNA.

Also provided herein is an inhibitory nucleic acid for use in the treatment of disease, wherein said inhibitory nucleic acid specifically binds, or is complementary to, an RNA sequence of any one of SEQ ID NOs:1 to 5893 (human) or 5894 to 17415 (human), and wherein the treatment involves modulating expression of a gene targeted by the RNA according to Tables 1-3.

The present disclosure also provides methods for modulating gene expression in a cell or a mammal comprising administering to the cell or the mammal an inhibitory nucleic acid that specifically binds, or is complementary to, an RNA sequence of any one of SEQ ID NOs:1 to 5893 (human) or 5894 to 17415 (human) or 17416 to 36368 (mouse), in an amount effective for modulating expression of a gene targeted by the RNA according to Table 1-3.

In addition, provided herein are inhibitory nucleic acids of about 5 to 50 bases in length that specifically bind, or are complementary to, a fragment of at least five consecutive bases within any of SEQ ID NOs:1 to 5893 (human) or 5894 to 17415 (human) or 17416 to 36368 (mouse), optionally for use in the treatment of disease, wherein the treatment involves modulating expression of a gene targeted by the RNA.

In addition, provided are methods for modulating expression of a gene comprising administering to a mammal an inhibitory nucleic acid as described herein in an amount effective for modulating expression of a gene targeted by the RNA as set forth in Tables 1-3.

In some embodiments, the modulation is upregulating or downregulating gene expression, optionally wherein the gene targeted by the RNA is selected from the group set forth in Tables 1-3, and wherein the RNA sequence is listed in the same row as the gene.

In some embodiments,the inhibitory nucleic acid is 5 to 40 bases in length (optionally 12-30, 12-28, or 12-25 bases in length).

In some embodiments, the inhibitory nucleic acid is 10 to 50 bases in length.

In some embodiments, the inhibitory nucleic acid comprises a base sequence at least 90% complementary to at least 10 bases of the RNA sequence.

In some embodiments, the inhibitory nucleic acid comprises a sequence of bases at least 80% or 90% complementary to, e.g., at least 5-30, 10-30, 15-30, 20-30, 25-30 or 5-40, 10-40, 15-40, 20-40, 25-40, or 30-40 bases of the RNA sequence.

In some embodiments, the inhibitory nucleic acid comprises a sequence of bases with up to 3 mismatches (e.g., up to 1, or up to 2 mismatches) in complementary base pairing over 10, 15, 20, 25 or 30 bases of the RNA sequence.

In some embodiments, the inhibitory nucleic acid comprises a sequence of bases at least 80% complementary to at least 10 bases of the RNA sequence.

In some embodiments,the inhibitory nucleic acid comprises a sequence of bases with up to 3 mismatches over 15 bases of the RNA sequence.

In some embodiments, the inhibitory nucleic acid is single stranded.

In some embodiments, the inhibitory nucleic acid is double stranded.

In some embodiments, the inhibitory nucleic acid comprises one or more modifications comprising: a modified sugar moiety, a modified internucleoside linkage, a modified nucleotide and/or combinations thereof.

In some embodiments, the inhibitory nucleic acid is an antisense oligonucleotide, LNA molecule, PNA molecule, ribozyme or siRNA.

In some embodiments, the inhibitory nucleic acid is double stranded and comprises an overhang (optionally 2-6 bases in length) at one or both termini.

In some embodiments, the inhibitory nucleic acid is selected from the group consisting of antisense oligonucleotides, ribozymes, external guide sequence (EGS) oligonucleotides, siRNA compounds, micro RNAs (miRNAs); small, temporal RNAs (stRNA), and single- or double-stranded RNA interference (RNAi) compounds.

In some embodiments, the RNAi compound is selected from the group consisting of short interfering RNA (siRNA); or a short, hairpin RNA (shRNA); small RNA-induced gene activation (RNAa); and small activating RNAs (saRNAs).

In some embodiments, the antisense oligonucleotide is selected from the group consisting of antisense RNAs, antisense DNAs, and chimeric antisense oligonucleotides.

In some embodiments, the modified internucleoside linkage comprises at least one of: alkylphosphonate, phosphorothioate, phosphorodithioate, alkylphosphonothioate, phosphoramidate, carbamate, carbonate, phosphate triester, acetamidate, carboxymethyl ester, or combinations thereof.

In some embodiments, the modified sugar moiety comprises a 2'-O-methoxyethyl modified sugar moiety, a 2'-methoxy modified sugar moiety, a 2'-O-alkyl modified sugar moiety, or a bicyclic sugar moiety. In some embodiments, the inhibitory nucleic acids include 2'-OMe, 2'-F, LNA, PNA, FANA, ENA or morpholino modifications.

Further provided are sterile compositions comprising an isolated nucleic acid that is a mouse RNA sequence of any one of any one of SEQ ID NOs:1 to 5893 (human) or 5894 to 17415 (human) or 17416 to 36368 (mouse), or a fragment thereof at least 20 bases in length that retains PRC1-binding activity.

Also provided are isolated nucleic acids for use in a method of decreasing expression of an oncogene, comprising an RNA sequence as set forth in Tables 1-3 that targets a proto-oncogene or oncogene as set forth in Tables 1-3, or a fragment thereof at least 20 bases in length that retains PRC1-binding activity.

In addition, provided are methods for decreasing expression of an oncogene in a cell, the method comprising contacting the cell with an RNA sequence as set forth in Tables 1-3 that targets an oncogene as set forth in Tables 1-3, or a fragment thereof at least 20 bases in length that retains PRC1-binding activity.

Further, provided herein are methods of inducing expression of a target gene in a cell, the method comprising delivering to the cell a single stranded oligonucleotide of 5 to 40 nucleotides in length having a region of complementarity that is complementary with at least 5 contiguous nucleotides of a PRC1-binding RNA that inhibits expression of the target gene, wherein the oligonucleotide is complementary to and binds specifically to the PRC1-binding RNA, and wherein the PRC1-binding RNA is transcribed from a sequence of the chromosomal locus of the target gene.

In some embodiments, the RNA is a non-codingRNA.

In some embodiments, the methods include detecting expression of the PRC1-binding RNA in the cell, wherein expression of the PRC1-binding RNA in the cell indicates that the single stranded oligonucleotide is suitable for increasing expression of the target gene in the cell.

In some embodiments, the methods include detecting a change in expression of the target gene following delivery of the single stranded oligonucleotide to the cell, wherein an increase in expression of the target gene compared with an appropriate control cell indicates effectiveness of the single stranded oligonucleotide.

In some embodiments, the methods include detecting a change in recruitment of PRC1 to the target gene in the cell following delivery of the single stranded oligonucleotide to the cell, wherein a decrease in recruitment compared with an appropriate control cell indicates effectiveness of the single stranded oligonucleotide.

In some embodiments, the cell is in vitro.

In some embodiments, the cell is in vivo.

In some embodiments, at least one nucleotide of the oligonucleotide is a modified nucleotide.

In some embodiments, the PRC1-binding RNA is transcribed from the same strand as the target gene in a genomic region containing the target gene.

In some embodiments, the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to an exon.

In some embodiments, the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from the same strand as the target gene within a chromosomal region within -2.0 kb to +0.001 kb of the transcription start site of the target gene.

In some embodiments, the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from the opposite strand of the target gene within a chromosomal region within -0.5 to +0.1 kb of the transcription start site of the target gene.

In some embodiments, the oligonucleotide has complementarity to the PRC1-binding RNA in a region of the PRC1-binding RNA that forms a stem-loop structure.

In some embodiments, at least one nucleotide of the oligonucleotide is an RNA or DNA nucleotide.

In some embodiments, at least one nucleotide of the oligonucleotide is a ribonucleic acid analogue comprising a ribose ring having a bridge between its 2'-oxygen and 4'-carbon.

In some embodiments, the ribonucleic acid analogue comprises a methylene bridge between the 2'-oxygen and the 4'-carbon.

In some embodiments, at least one nucleotide of the oligonucleotide comprises a modified sugar moiety.

In some embodiments, the modified sugar moiety comprises a 2'-O-methoxyethyl modified sugar moiety, a 2'-methoxy modified sugar moiety, a 2'-O-alkyl modified sugar moiety, or a bicyclic sugar moiety.

In some embodiments, the oligonucleotide comprises at least one modified internucleoside linkage.

In some embodiments, the at least one modified internucleoside linkage is selected from phosphorothioate, phosphorodithioate, alkylphosphonothioate, phosphoramidate, carbamate, carbonate, phosphate triester, acetamidate, carboxymethyl ester, and combinations thereof.

In some embodiments, the oligonucleotide is configured such that hybridization of the single stranded oligonucleotide to the PRC1-binding RNA does not activate an RNAse H pathway in the cell.

In some embodiments, the oligonucleotide is configured such that hybridization of the single stranded oligonucleotide to the PRC1-binding RNA does not induce substantial cleavage or degradation of the PRC1-binding RNA in the cell.

In some embodiments, the oligonucleotide is configured such that hybridization of the single stranded oligonucleotide to the PRC1-binding RNA interferes with interaction of the RNA with PRC1 in the cell.

In some embodiments, the target gene is a protein-coding gene.

In some embodiments, the chromosomal locus of the target gene is an endogenous gene of an autosomal chromosome.

In some embodiments, the cell is a cell of a male subject.

In some embodiments, the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to an intron-exon junction or an intron.

In some embodiments, the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to a translation initiation region or a translation termination region.

In some embodiments, the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to a promoter.

In some embodiments, the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to a 5'-UTR.

In some embodiments, the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to a 3'-UTR.

In some or any embodiments, the inhibitory nucleic acid is an oligomeric base compound or oligonucleotide mimetic that hybridizes to at least a portion of the target nucleic acid and modulates its function. In some or any embodiments, the inhibitory nucleic acid is single stranded or double stranded. A variety of exemplary inhibitory nucleic acids are known and described in the art. In some examples, the inhibitory nucleic acid is an antisense oligonucleotide, locked nucleic acid (LNA) molecule, peptide nucleic acid (PNA) molecule, ribozyme, siRNA, antagomirs, external guide sequence (EGS) oligonucleotide, microRNA (miRNA), small, temporal RNA (stRNA), or single- or double-stranded RNA interference (RNAi) compounds. It is understood that the term "LNA molecule" refers to a molecule that comprises at least one LNA modification; thus LNA molecules may have one or more locked nucleotides (conformationally constrained) and one or more non-locked nucleotides. It is also understood that the term "LNA" includes a nucleotide that comprises any constrained sugar that retains the desired properties of high affinity binding to complementary RNA, nuclease resistance, lack of immune stimulation, and rapid kinetics. Exemplary constrained sugars include those listed below. Similarly, it is

understood that the term "PNA molecule" refers to a molecule that comprises at least one PNA modification and that such molecules may include unmodified nucleotides or internucleoside linkages.

In some or any embodiments, the inhibitory nucleic acid comprises at least one nucleotide and/or nucleoside modification (e.g., modified bases or with modified sugar moieties), modified internucleoside linkages, and/or combinations thereof. Thus, inhibitory nucleic acids can comprise natural as well as modified nucleosides and linkages. Examples of such chimeric inhibitory nucleic acids, including hybrids or gapmers, are described below.

In some embodiments, the inhibitory nucleic acid comprises one or more modifications comprising: a modified sugar moiety, and/or a modified internucleoside linkage, and/or a modified nucleotide and/or combinations thereof. In some embodiments, the modified internucleoside linkage comprises at least one of: alkylphosphonate, phosphorothioate, phosphorodithioate, alkylphosphonothioate, phosphoramidate, carbamate, carbonate, phosphate triester, acetamidate, carboxymethyl ester, or combinations thereof. In some embodiments, the modified sugar moiety comprises a 2'-O-methoxyethyl modified sugar moiety, a 2'-methoxy modified sugar moiety, a 2'-O-alkyl modified sugar moiety, or a bicyclic sugar moiety. Other examples of modifications include locked nucleic acid (LNA), peptide nucleic acid (PNA), arabinonucleic acid (ANA), optionally with 2'-F modification, 2'-fluoro-D-Arabinonucleic acid (FANA), phosphorodiamidate morpholino oligomer (PMO), ethylene-bridged nucleic acid (ENA), optionally with 2'-O,4'-C-ethylene bridge, and bicyclic nucleic acid (BNA). Yet other examples are described below and/or are known in the art.

In some embodiments, the inhibitory nucleic acid is 5-40 bases in length (e.g., 12-30, 12-28, 12-25). The inhibitory nucleic acid may also be 10-50, or 5-50 bases length. For example, the inhibitory nucleic acid may be one of any of 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, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, or 50 bases in length. In some embodiments, the inhibitory nucleic acid is double stranded and comprises an overhang (optionally 2-6 bases in length) at one or both termini. In other embodiments, the inhibitory nucleic acid is double stranded and blunt-ended. In some embodiments, the inhibitory nucleic acid comprises or consists of a sequence of bases at least 80% or 90% complementary to, e.g., at least 5, 10, 15, 20, 25 or 30 bases of, or up to 30 or 40 bases of, the target RNA, or comprises a

sequence of bases with up to 3 mismatches (e.g., up to 1, or up to 2 mismatches) over 10, 15, 20, 25 or 30 bases of the target RNA.

Thus, the inhibitory nucleic acid can comprise or consist of a sequence of bases at least 80% complementary to at least 10 contiguous bases of the target RNA, or at least 80% complementary to at least 15, or 15-30, or 15-40 contiguous bases of the target RNA, or at least 80% complementary to at least 20, or 20-30, or 20-40 contiguous bases of the target RNA, or at least 80% complementary to at least 25, or 25-30, or 25-40 contiguous bases of the target RNA, or at least 80% complementary to at least 30, or 30-40 contiguous bases of the target RNA, or at least 80% complementary to at least 40 contiguous bases of the target RNA. Moreover, the inhibitory nucleic acid can comprise or consist of a sequence of bases at least 90% complementary to at least 10 contiguous bases of the target RNA, or at least 90%complementary to at least 15, or 15-30, or 15-40 contiguous bases of the target RNA, or at least 90% complementary to at least 20, or 20-30, or 20-40 contiguous bases of the target RNA, or at least 90% complementary to at least 25, or 25-30, or 25-40 contiguous bases of the target RNA, or at least 90% complementary to at least 30, or 30-40 contiguous bases of the target RNA, or at least 90% complementary to at least 40 contiguous bases of the target RNA. Similarly, the inhibitory nucleic acid can comprise or consist of a sequence of bases fully complementary to at least 5, 10, or 15 contiguous bases of the target RNA.

Complementarity can also be referenced in terms of the number of mismatches in complementary base pairing, as noted above. Thus, the inhibitory nucleic acid can comprise or consist of a sequence of bases with up to 3 mismatches over 10 contiguous bases of the target RNA, or up to 3 mismatches over 15 contiguous bases of the target RNA, or up to 3 mismatches over 20 contiguous bases of the target RNA, or up to 3 mismatches over 25 contiguous bases of the target RNA, or up to 3 mismatches over 30 contiguous bases of the target RNA. Similarly, the inhibitory nucleic acid can comprise or consist of a sequence of bases with up to 2 mismatches over 10 contiguous bases of the target RNA, or up to 2 mismatches over 15 contiguous bases of the target RNA, or up to 2 mismatches over 20 contiguous bases of the target RNA, or up to 2 mismatches over 25 contiguous bases of the target RNA, or up to 2 mismatches over 30 contiguous bases of the target RNA. Similarly, the the inhibitory nucleic acid can comprise or consist of a sequence of bases with one mismatch over 10, 15, 20, 25 or 30 contiguous bases of the target RNA.

As such, in some embodiments the inhibitory nucleic acid comprises or consists of a sequence of bases about 5 to 40, or 8 to 40, or 10 to 50, or 5 to 50 bases in length,

comprising a base sequence at least 80% complementary to (optionally one of at least 90%, 95%, 96%, 97%, 98%, 99% or 100% complementary to) a contiguous sequence of at least 5 to 40 bases, or 8 to 40, or 10 to 50, or 5 to 50 bases (optionally one of at least 10, 15, 20, 25 or 30 bases, or one of 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, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, or 50 bases) of the target RNA. Thus, in some embodiments the inhibitory nucleic acid may comprise or consist of a sequence of at least 5 to 40, or 8 to 40, or 5 to 50,or 10 to 50, bases (optionally one of at least 10, 15, 20, 25 or 30 bases, or one of 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, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, or 50 bases) having at least 80% identity to (optionally one of at least 90%, 95%, 96%, 97%, 98%, 99% or 100% identity to) a contiguous sequence of bases of the same length of an antisense nucleic acid that is completely complementary in sequence to the target RNA. In some embodiments the sequence of the inhibitory nucleic acid may contain 1, 2 or 3 mismatches in complementary base pairing compared to the target ncRNA sequence, over 10, 15, 20, 25 or 30 bases (optionally one of 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29 or 30 bases) of the target RNA.

In some or any embodiments, the inhibitory nucleic acid is 5 to 40, or 8 to 40, or 10 to 50 bases in length (e.g., 12-30, 12-28, 12-25, 5-25, or 10-25, bases in length), and comprises a sequence of bases with up to 3 mismatches in complementary base pairing over 15 bases of , or up to 2 mismatches over 10 bases.

In some embodiments, gene expression is modulated in a cell. In some embodiments, the cell is a cancer cell, e.g., a tumor cell, in vitro or in vivo, e.g., in a subject. In other embodiments, the cell is a stem cell that is contacted with the inhibitory nucleic acid, PRC1-binding ncRNA, or fragment thereof, ex vivo, for example to enhance pluripotency, enhance differentiation, or induce the stem cell to differentiate to a particular cell type, e.g. nerve, neuron, dopaminergic neuron, muscle, skin, heart, kidney, liver, lung, neuroendocrine, retinal, retinal pigment epithelium, pancreatic alpha or beta cells, hematopoietic, chondrocyte, bone cells and/or blood cells (e.g., T-cells, B-cells, macrophages, erythrocytes, platelets, and the like).

In an additional aspect, the invention provides methods for enhancing pluripotency of a stem cell. The methods include contacting the cell with an inhibitory nucleic acid that specifically binds, or is complementary, to a nucleic acid sequence that is at least about

90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98% or 99% homologous to a PRC1-binding fragment thereof, as referred to in Tables 1-3. PRC1-binding fragments of murine or orthologous RNAs, including human RNAs, are contemplated in the aforementioned method.

In a further aspect, the invention features methods for enhancing differentiation of a stem cell, the method comprising contacting the cell with an inhibitory nucleic acid that specifically binds, or is complementary, to a PRC1-binding RNA sequence as set forth in SEQ ID NOS. 17416 to 36368 [mouse Peaks] or 1 to 5893 [human Peaks] or 5894 to 17416 [human Peaks identified by LiftOver],.

In some embodiments, the stem cell is an embryonic stem cell. In some embodiments, the stem cell is an iPS cell or an adult stem cell.

In an additional aspect, the invention provides sterile compositions including an inhibitory nucleic acid that specifically binds to or is at least 90% complementary to (e.g., at least 5, 10, 15, 20, 25 or 30 bases of, or up to 30 or 40 bases of) a sequence listed in any of Tables 1-3, or any one of SEQ ID NOs: 17416 to 36368 [mouse Peaks] or 1 to 5893 [human Peaks] or 5894 to 17416 [human Peaks identified by LiftOver], or a related naturally occurring RNA at least 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99%, or 100% identical to at least 15 (e.g., at least 20, 21, 25, 30, 100) nucleobases of an ncRNA of any of Tables 1-3 or any one of SEQ ID NOs: 17416 to 36368 [mouse Peaks] or 1 to 5893 [human Peaks] or 5894 to 17416 [human Peaks identified by LiftOver], for parenteral administration. In some embodiments, the inhibitory nucleic acid is selected from the group consisting of antisense oligonucleotides, ribozymes, external guide sequence (EGS) oligonucleotides, siRNA compounds, micro RNAs (miRNAs); small, temporal RNAs (stRNA), and single- or double-stranded RNA interference (RNAi) compounds. In some embodiments, the RNAi compound is selected from the group consisting of short interfering RNA (siRNA); or a short, hairpin RNA (shRNA); small RNA-induced gene activation (RNAa); and small activating RNAs (saRNAs).

In some embodiments, the antisense oligonucleotide is selected from the group consisting of antisense RNAs, antisense DNAs, chimeric antisense oligonucleotides, and antisense oligonucleotides.

In some embodiments, the inhibitory nucleic acid comprises one or more modifications comprising: a modified sugar moiety, a modified internucleoside linkage, a modified nucleotide and/or combinations thereof. In some embodiments, the modified

internucleoside linkage comprises at least one of: alkylphosphonate, phosphorothioate, phosphorodithioate, alkylphosphonothioate, phosphoramidate, carbamate, carbonate, phosphate triester, acetamidate, carboxymethyl ester, or combinations thereof. In some embodiments, the modified sugar moiety comprises a 2'-O-methoxyethyl modified sugar moiety, a 2'-methoxy modified sugar moiety, a 2'-O-alkyl modified sugar moiety, or a bicyclic sugar moiety. Other examples of modifications include locked nucleic acid (LNA), peptide nucleic acid (PNA), arabinonucleic acid (ANA), optionally with 2'-F modification, 2'-fluoro-D-Arabinonucleic acid (FANA), phosphorodiamidate morpholino oligomer (PMO), ethylene-bridged nucleic acid (ENA), optionally with 2'-O,4'-C-ethylene bridge, and bicyclic nucleic acid (BNA). Yet other examples are described below and/or are known in the art.

PRC1-binding fragments of any of the RNA sequences set forth in the sequence listing as summarized below are contemplated. In some aspects, the fragments may recruit PRC1 and enhance PRC1 activity, thereby repressing gene expression, while in other instances the fragments may interfere with PRC1 activity by masking the ncRNA-binding sites on PRC1. In particular, the invention features uses of fragments of the RNA below to modulate expression of any of the genes set forth in Tables 1-3, for use in treating a disease, disorder, condition or association (whether in the "opposite strand" column or the "same strand" column).

Moreover, inhibitory nucleic acids that specifically bind to any of the RNA peaks set forth in the sequence listing as summarized below, any one of SEQ ID NOs: 1 to 5893, 5894 to 17415, or 17416 to 36368, are also contemplated. In particular, the invention features uses of these inhibitory nucleic acids to upregulate expression of any of the genes set forth in Tables 1-3, for use in treating a disease, disorder, condition or association known in the art (whether in the "opposite strand" column or the "same strand"); upregulations of a set of genes grouped together in any one of the categories is contemplated. In some embodiments it is contemplated that expression may be increased by at least about 15-fold, 20-fold, 30-fold, 40-fold, 50-fold or 100-fold, or any range between any of the foregoing numbers. In other experiments, increased mRNA expression has been shown to correlate to increased protein expression.

Thus, in various aspects, the invention features inhibitory nucleic acids that specifically bind to any of the RNA sequences of any of Tables 1-3, for use in modulating

expression of a group of reference genes that fall within any one or more of the categories set forth in the tables, and for treating corresponding diseases, disorders or conditions.

In another aspect, the invention also features inhibitory nucleic acids that specifically bind, or are complementary, to any of the RNA sequences of SEQ ID NOS: 17416 to 36368 [mouse Peaks] or 1 to 5893 [human Peaks] or 5894 to 17416 [human Peaks identified by LiftOver], whether in the "opposite strand" column or the "same strand" column of Tables 1-3. In some embodiments, the inhibitory nucleic acid is provided for use in a method of modulating expression of a gene targeted by the PRC1-binding RNA (e.g., an intersecting or nearby gene, as set forth in any of Tables 1-4 below). Such methods may be carried out in vitro, ex vivo, or in vivo. In some embodiments, the inhibitory nucleic acid is provided for use in methods of treating disease, e.g. as described below. The treatments may involve modulating expression (either up or down) of a gene targeted by the PRC1-binding RNA, preferably upregulating gene expression. In some embodiments, the inhibitory nucleic acid is formulated as a sterile composition for parenteral administration. Thus, in one aspect the invention describes a group of inhibitory nucleic acids that specifically bind, or are complementary to, a group of RNA sequences, i.e., Peaks, in any one of Tables 1, 2, or 3. In particular, the invention features uses of such inhibitory nucleic acids to upregulate expression of any of the reference genes set forth in Tables 1-3, for use in treating a disease, disorder, or condition.

It is understood that inhibitory nucleic acids of the invention may be complementary to, or specifically bind to, Peaks, or regions adjacent to (within 100, 200, 300, 400, or 500 nts of) Peaks, as shown in Tables 1-3.

Also provided herein are methods for treating a subject with MECP2 Duplication Syndrome. The methods include administering a therapeutically effective amount of an inhibitory nucleic acid targeting a PRC1-binding region on Mecp2 RNA, e.g., an inhibitory nucleic acid targeting a sequence within the 3'UTR of Mecp2. In some embodiments, inhibitory nucleic acid comprises any of SEQ ID NOs:36399 to 36404.

Further provided herein are methods for treating a subject with systemic lupus erythematosus. The methods include administering a therapeutically effective amount of an inhibitory nucleic acid targeting a PRC1-binding region on IRAK1 RNA, e.g., an inhibitory nucleci acid targeting a sequence within the 3'UTR of IRAK1.

In some embodiments, the inhibitory nucleic acid comprises any of SEQ ID NOs:36396 to 36398.

In some embodiments, the inhibitory nucleic acid comprises at least one locked nucleotide.

Also provided herein are inhibitory nucleic acids targeting a PRC1-binding region on Mecp2 RNA, preferably wherein the PRC1 binding region comprises SEQ ID NO:5876 or 5877, and/or preferably an inhibitory nucleic acid targeting a sequence within the 3'UTR of Mecp2, for use in treating a subject with MECP2 Duplication Syndrome, e.g., comprising any of SEQ ID NOs:36399 to 36404.

In addition, provided herein are inhibitory nucleic acids targeting a PRC1-binding region on IRAK1 RNA, preferably wherein the PRC1 binding region comprises SEQ ID NO:5874 or 5875, and/or preferably an inhibitory nucleic acid targeting a sequence within the 3'UTR of IRAK1, for use in treating a subject with systemic lupus erythematosus, e.g., an inhibitory nucleic acid comprising any of SEQ ID NOs:36396 to 36398.

In some or any embodiments, the inhibitory nucleic acids are, e.g., about 5 to 40, about 8 to 40, or 10 to 50 bases, or 5 to 50 bases in length. In some embodiments, the inhibitory nucleic acid comprises or consists of a sequence of bases at least 80% or 90% complementary to, e.g., at least 5, 10, 15, 20, 25 or 30 bases of, or up to 30 or 40 bases of, the target RNA (e.g., any one of SEQ ID NOs: 1 to 36,368), or comprises a sequence of bases with up to 3 mismatches (e.g., up to 1, or up to 2 mismatches) over 10, 15, 20, 25 or 30 bases of the target RNA.

Thus, as noted above, the inhibitory nucleic acid can comprise or consist of a sequence of bases at least 80% complementary to at least 10, or 10-30 or 10-40 contiguous bases of the target RNA, or at least 80% complementary to at least 15, or 15-30, or 15-40 contiguous bases of the target RNA, or at least 80% complementary to at least 20, or 20-30, or 20-40 contiguous bases of the target RNA, or at least 80% complementary to at least 25, or 25-30, or 25-40 contiguous bases of the target RNA, or at least 80% complementary to at least 30, or 30-40 contiguous bases of the target RNA, or at least 80% complementary to at least 40 contiguous bases of the target RNA. Moreover, the inhibitory nucleic acid can comprise or consist of a sequence of bases at least 90% complementary to at least 5, or 5-30 or 5-40 or 8-40 contiguous bases of the target RNA, or at least 90% complementary to at least 10, or 10-30, or 10-40 contiguous bases of the target RNA, or at least 90%complementary to at least 15, or 15-30, or 15-40 contiguous bases of the target RNA, or at least 90% complementary to at least 20, or 20-30, or 20-40 contiguous bases of the target RNA, or at least 90% complementary to at least 25, or 25-30, or 25-40 contiguous

bases of the target RNA, or at least 90% complementary to at least 30, or 30-40 contiguous bases of the target RNA, or at least 90% complementary to at least 40 contiguous bases of the target RNA. Similarly, the inhibitory nucleic acid can comprise or consist of a sequence of bases fully complementary to at least 5, 10, or 15 contiguous bases of the target RNA. It is understood that some additional non-complementary bases may be included. It is understood that inhibitory nucleic acids that comprise such sequences of bases as described may also comprise other non-complementary bases. For example, an inhibitory nucleic acid can be 20 bases in total length but comprise a 15 base portion that is fully complementary to 15 bases of the target RNA. Similarly, an inhibitory nucleic acid can be 20 bases in total length but comprise a 15 base portion that is at least 80% complementary to 15 bases of the target RNA.

Complementarity can also be referenced in terms of the number of mismatches in complementary base pairing, as noted above. Thus, the inhibitory nucleic acid can comprise or consist of a sequence of bases with up to 3 mismatches over 10 contiguous bases of the target RNA, or up to 3 mismatches over 15 contiguous bases of the target RNA, or up to 3 mismatches over 20 contiguous bases of the target RNA, or up to 3 mismatches over 25 contiguous bases of the target RNA, or up to 3 mismatches over 30 contiguous bases of the target RNA. Similarly, the inhibitory nucleic acid can comprise or consist of a sequence of bases with up to 2 mismatches over 10 contiguous bases of the target RNA, or up to 2 mismatches over 15 contiguous bases of the target RNA, or up to 2 mismatches over 20 contiguous bases of the target RNA, or up to 2 mismatches over 25 contiguous bases of the target RNA, or up to 2 mismatches over 30 contiguous bases of the target RNA. Similarly, the the inhibitory nucleic acid can comprise or consist of a sequence of bases with one mismatch over 10, 15, 20, 25 or 30 contiguous bases of the target RNA.

In some or any of the embodiments of inhibitory nucleic acids described herein (e.g. in the summary, detailed description, or examples of embodiments) or the processes for designing or synthesizing them, the inhibitory nucleic acids may optionally exclude (a) any LNA that disrupts binding of PRC2 to an RNA, e.g., as describe in WO 2012/087983 or WO 2012/065143; (b) any one or more of the specific inhibitory nucleic acids made or actually disclosed (i.e. specific chemistry, single or double-stranded, specific modifications, and specific base sequence), set forth in WO 2012/065143 or WO 2012/087983; and/or the general base sequence of any one or more of the inhibitory nucleic acids of (b); and/or (c) the group of inhibitory nucleic acids that specifically bind or are complementary to the same

specific portion of RNA (a stretch of contiguous bases) as any one or more of the inhibitory nucleic acids of (a); as disclosed in any one or more of the following publications: as targeting ANRIL RNA (as described in Yap et al., Mol Cell. 2010 Jun 11;38(5):662-74) HOTAIR RNA (Rinn et al., 2007), Tsix, RepA, or Xist RNAs ((Zhao et al., 2008) [SEQ ID NOs: 936166 – 936170 of WO 2012/087983], or (Sarma et al., 2010) [SEQ ID NOs: 936177 – 936186 of WO 2012/087983] or (Zhao et al., 2010) [SEQ ID NOs: 936187 – 936188 of WO 2012/087983] or (Prasnath et al., 2005) [SEQ ID NOs: 936173-936176 of WO 2012/087983] or (Shamovsky et al., 2006) [SEQ ID NO: 936172 of WO 2012/087983] or (Mariner et al., 2008) [SEQ ID NO: 936171 of WO 2012/087983] or (Sunwoo et al., 2008) or (Bernard et al., 2010) [SEQ ID NO: 936189 of WO 2012/087983]; or as targeting short RNAs of 50-200 nt that are identified as candidate PRC2 regulators (Kanhere et al., 2010); or (Kuwabara et al., US 2005/0226848) [SEQ ID NOs: 936190 – 936191 of WO 2012/087983] or (Li et al., US 2010/0210707) [SEQ ID NOs: 936192 – 936227 of WO 2012/087983] or (Corey et al., 7,709,456) [SEQ ID NOs: 936228 – 936245] or (Mattick et al., WO 2009/124341), or (Corey et al., US 2010/0273863) [SEQ ID NOs: 936246 – 936265 of WO 2012/087983], or (Wahlstedt et al., US 2009/0258925) [SEQ ID NOs: 935060 – 935126 of WO 2012/087983], or BACE: US 2009/0258925 [SEQ ID NOs: 935060 – 935126 of WO 2012/087983]; ApoA1: US 2010/0105760 / EP235283 [SEQ ID NOs: 935127 – 935299 of WO 2012/087983], P73, p53, PTEN, WO 2010/065787 A2 / EP2370582 [SEQ ID NOs: 935300 – 935345 of WO 2012/087983]; SIRT1: WO 2010/065662 A2 / EP09831068 [SEQ ID NOs: : 935346 – 935392 of WO 2012/087983]; VEGF: WO 2010/065671 A2 / EP2370581 [SEQ ID NOs: 935393 - 935403 of WO 2012/087983]; EPO: WO 2010/065792 A2 / EP09831152 [SEQ ID NOs: 935404 – 935412 of WO 2012/087983]; BDNF: WO2010/093904 [SEQ ID NOs: 935413 - 935423 of WO 2012/087983], DLK1: WO 2010/107740 [SEQ ID NOs: 935424 – 935430 of WO 2012/087983]; NRF2/NFE2L2: WO 2010/107733 [SEQ ID NOs: 935431 - 935438 of WO 2012/087983]; GDNF: WO 2010/093906 [SEQ ID NOs: 935439 – 935476 of WO 2012/087983]; SOX2, KLF4, Oct3A/B, "reprogramming factors: WO 2010/135329 [SEQ ID NOs: 935477 – 935493 of WO 2012/087983]; Dystrophin: WO 2010/129861 [SEQ ID NOs: 935494 – 935525 of WO 2012/087983]; ABCA1, LCAT, LRP1, ApoE, LDLR, ApoA1: WO 2010/129799 [SEQ ID NOs: 935526 – 935804 of WO 2012/087983]; HgF: WO 2010/127195 [SEQ ID NOs: 935805 – 935809 of WO 2012/087983]; TTP/Zfp36: WO 2010/129746[SEQ ID NOs: 935810 – 935824 of WO 2012/087983]; TFE3, IRS2: WO

2010/135695 [SEQ ID NOs: 935825 – 935839 of WO 2012/087983]; RIG1, MDA5, IFNA1: WO 2010/138806 [SEQ ID NOs: 935840 – 935878 of WO 2012/087983]; PON1: WO 2010/148065 [SEQ ID NOs: 935879 – 935885 of WO 2012/087983]; Collagen: WO/2010/148050 [SEQ ID NOs: 935886 – 935918 of WO 2012/087983]; Dyrk1A, Dscr1, "Down Syndrome Gene": WO/2010/151674 [SEQ ID NOs: 935919 – 935942 of WO 2012/087983]; TNFR2: WO/2010/151671 [SEQ ID NOs: 935943 – 935951 of WO 2012/087983]; Insulin: WO/2011/017516 [SEQ ID NOs: 935952 – 935963 of WO 2012/087983]; ADIPOQ: WO/2011/019815 [SEQ ID NOs: 935964 – 935992 of WO 2012/087983]; CHIP: WO/2011/022606 [SEQ ID NOs: 935993 – 936004 of WO 2012/087983]; ABCB1: WO/2011/025862 [SEQ ID NOs: 936005 - 936014 of WO 2012/087983]; NEUROD1, EUROD1, HNF4A, MAFA, PDX, KX6, "Pancreatic development gene": WO/2011/085066 [SEQ ID NOs: 936015 – 936054 of WO 2012/087983]; MBTPS1: WO/2011/084455 [SEQ ID NOs: 936055 – 936059 of WO 2012/087983]; SHBG: WO/2011/085347 [SEQ ID NOs: 936060 – 936075 of WO 2012/087983]; IRF8: WO/2011/082409 [SEQ ID NOs: 936076 – 936080 of WO 2012/087983]; UCP2: WO/2011/079263 [SEQ ID NOs: 936081 – 936093 of WO 2012/087983]; HGF: WO/2011/079261 [SEQ ID NOs: 936094 – 936104 of WO 2012/087983]; GH: WO/2011/038205 [SEQ ID NOs: 936105 – 936110 of WO 2012/087983]; IQGAP: WO/2011/031482 [SEQ ID NOs: 936111 – 936116 of WO 2012/087983]; NRF1: WO/2011/090740 [SEQ ID NOs: 936117 – 936123 of WO 2012/087983]; P63: WO/2011/090741 [SEQ ID NOs: 936124 – 936128 of WO 2012/087983]; RNAseH1: WO/2011/091390 [SEQ ID NOs: 936129 – 936140 of WO 2012/087983]; ALOX12B: WO/2011/097582 [SEQ ID NOs: 936141 – 936146 of WO 2012/087983]; PYCR1: WO/2011/103528 [SEQ ID NOs: 936147 – 936151 of WO 2012/087983]; CSF3: WO/2011/123745 [SEQ ID NOs: 936152 – 936157 of WO 2012/087983]; FGF21: WO/2011/127337 [SEQ ID NOs: 936158 – 936165 of WO 2012/087983]; SIRTUIN (SIRT): WO2011/139387 [SEQ ID NOs: 936266 –936369 and 936408-936425 of WO 2012/087983]; PAR4: WO2011/143640 [SEQ ID NOs: 936370 – 936376 and 936426 of WO 2012/087983]; LHX2: WO2011/146675 [SEQ ID NOs: 936377 – 936388 and 936427-936429 of WO 2012/087983]; BCL2L11: WO2011/146674 [SEQ ID NO: 936389 – 936398 and 936430-936431 of WO 2012/087983]; MSRA: WO2011/150007 [SEQ ID NOs: 936399 – 936405 and 936432 of WO 2012/087983]; ATOH1: WO2011/150005 [SEQ ID NOs: 936406 – 936407 and 936433 of WO 2012/087983] of

which each of the foregoing is incorporated by reference in its entirety herein. In some or any of the embodiments, optionally excluded from the invention are of inhibitory nucleic acids that specifically bind to, or are complementary to, any one or more of the following regions: Nucleotides 1-932 of SEQ ID NO: 935128 of WO 2012/087983; Nucleotides 1-1675 of SEQ ID NO: 935306 of WO 2012/087983; Nucleotides 1-518 of SEQ ID NO: 935307 of WO 2012/087983; Nucleotides 1-759 of SEQ ID NO: 935308 of WO 2012/087983; Nucleotides 1-25892 of SEQ ID NO: 935309 of WO 2012/087983; Nucleotides 1-279 of SEQ ID NO: 935310 of WO 2012/087983; Nucleotides 1-1982 of SEQ ID NO: 935311 of WO 2012/087983; Nucleotides 1-789 of SEQ ID NO: 935312 of WO 2012/087983; Nucleotides 1-467 of SEQ ID NO: 935313 of WO 2012/087983; Nucleotides 1-1028 of SEQ ID NO: 935347 of WO 2012/087983; Nucleotides 1-429 of SEQ ID NO: 935348 of WO 2012/087983; Nucleotides 1-156 of SEQ ID NO: 935349 of WO 2012/087983; Nucleotides 1-593 of SEQ ID NO:935350 of WO 2012/087983; Nucleotides 1-643 of SEQ ID NO: 935395 of WO 2012/087983; Nucleotides 1-513 of SEQ ID NO: 935396 of WO 2012/087983; Nucleotides 1-156 of SEQ ID NO: 935406 of WO 2012/087983; Nucleotides 1-3175 of SEQ ID NO: 935414 of WO 2012/087983; Nucleotides 1-1347 of SEQ ID NO: 935426 of WO 2012/087983; Nucleotides 1-5808 of SEQ ID NO: 935433 of WO 2012/087983; Nucleotides 1-237 of SEQ ID NO: 935440 of WO 2012/087983; Nucleotides 1-1246 of SEQ ID NO: 935441 of WO 2012/087983; Nucleotides 1-684 of SEQ ID NO: 935442 of WO 2012/087983; Nucleotides 1-400 of SEQ ID NO: 935473 of WO 2012/087983; Nucleotides 1-619 of SEQ ID NO: 935474 of WO 2012/087983;Nucleotides 1-813 of SEQ ID NO: 935475 of WO 2012/087983; Nucleotides 1-993 of SEQ ID NO: 935480 of WO 2012/087983; Nucleotides 1-401 of SEQ ID NO: 935480 of WO 2012/087983; Nucleotides 1-493 of SEQ ID NO: 935481 of WO 2012/087983; Nucleotides 1-418 of SEQ ID NO: 935482 of WO 2012/087983; Nucleotides 1-378 of SEQ ID NO: 935496 of WO 2012/087983; Nucleotides 1-294 of SEQ ID NO: 935497 of WO 2012/087983; Nucleotides 1-686 of SEQ ID NO: 935498 of WO 2012/087983; Nucleotides 1-480 of SEQ ID NO: 935499 of WO 2012/087983; Nucleotides 1-501 of SEQ ID NO: 935500 of WO 2012/087983; Nucleotides 1-1299 of SEQ ID NO: 935533 of WO 2012/087983; Nucleotides 1-918 of SEQ ID NO: 935534 of WO 2012/087983; Nucleotides 1-1550 of SEQ ID NO: 935535 of WO 2012/087983; Nucleotides 1-329 of SEQ ID NO: 935536 of WO 2012/087983; Nucleotides 1-1826 of SEQ ID NO: 935537 of WO 2012/087983; Nucleotides 1-536 of SEQ ID NO: 935538 of

WO 2012/087983; Nucleotides 1-551 of SEQ ID NO: 935539 of WO 2012/087983; Nucleotides 1-672 of SEQ ID NO: 935540 of WO 2012/087983; Nucleotides 1-616 of SEQ ID NO: 935541 of WO 2012/087983; Nucleotides 1-471 of SEQ ID NO: 935542 of WO 2012/087983; Nucleotides 1-707 of SEQ ID NO: 935543 of WO 2012/087983; Nucleotides 1-741 of SEQ ID NO: 935544 of WO 2012/087983; Nucleotides 1-346 of SEQ ID NO: 935545 of WO 2012/087983; Nucleotides 1-867 of SEQ ID NO: 935546 of WO 2012/087983; Nucleotides 1-563 of SEQ ID NO: 935547 of WO 2012/087983; Nucleotides 1-970 of SEQ ID NO: 935812 of WO 2012/087983; Nucleotides 1-1117 of SEQ ID NO: 935913 of WO 2012/087983; Nucleotides 1-297 of SEQ ID NO: 935814 of WO 2012/087983; Nucleotides 1-497 of SEQ ID NO: 935827 of WO 2012/087983; Nucleotides 1-1267 of SEQ ID NO: 935843 of WO 2012/087983; Nucleotides 1-586 of SEQ ID NO: 935844 of WO 2012/087983; Nucleotides 1-741 of SEQ ID NO: 935845 of WO 2012/087983; Nucleotides 1-251 of SEQ ID NO: 935846 of WO 2012/087983; Nucleotides 1-681 of SEQ ID NO: 935847 of WO 2012/087983; Nucleotides 1-580 of SEQ ID NO: 935848 of WO 2012/087983; Nucleotides 1-534 of SEQ ID NO: 935880 of WO 2012/087983; Nucleotides 1-387 of SEQ ID NO: 935889 of WO 2012/087983; Nucleotides 1-561 of SEQ ID NO: 935890 of WO 2012/087983; Nucleotides 1-335 of SEQ ID NO: 935891 of WO 2012/087983; Nucleotides 1-613 of SEQ ID NO: 935892 of WO 2012/087983; Nucleotides 1-177 of SEQ ID NO: 935893 of WO 2012/087983; Nucleotides 1-285 of SEQ ID NO: 935894 of WO 2012/087983; Nucleotides 1-3814 of SEQ ID NO: 935921 of WO 2012/087983; Nucleotides 1-633 of SEQ ID NO: 935922 of WO 2012/087983; Nucleotides 1-497 of SEQ ID NO: 935923 Nucleotides 1-545 of SEQ ID NO: 935924 of WO 2012/087983; Nucleotides 1-413 of SEQ ID NO: 935950 of WO 2012/087983; Nucleotides 1-413 of SEQ ID NO: 935951 of WO 2012/087983; Nucleotides 1-334 of SEQ ID NO: 935962 of WO 2012/087983; Nucleotides 1-582 of SEQ ID NO: 935963 of WO 2012/087983; Nucleotides 1-416 of SEQ ID NO: 935964 of WO 2012/087983; Nucleotides 1-3591 of SEQ ID NO: 935990 of WO 2012/087983; Nucleotides 1-875 of SEQ ID NO: 935991 of WO 2012/087983; Nucleotides 1-194 of SEQ ID NO: 935992 of WO 2012/087983; Nucleotides 1-2074 of SEQ ID NO: 936003 of WO 2012/087983; Nucleotides 1-1237 of SEQ ID NO: 936004 of WO 2012/087983; Nucleotides 1-4050 of SEQ ID NO: 936013 of WO 2012/087983; Nucleotides 1-1334 of SEQ ID NO: 936014 of WO 2012/087983; Nucleotides 1-1235 of SEQ ID NO: 936048 of WO 2012/087983; Nucleotides 1-17,964 of SEQ ID NO: 936049 of WO 2012/087983;

Nucleotides 1-50,003 of SEQ ID NO: 936050 of WO 2012/087983; Nucleotides 1-486 of SEQ ID NO: 936051 of WO 2012/087983; Nucleotides 1-494 of SEQ ID NO: 936052 of WO 2012/087983; Nucleotides 1-1992 of SEQ ID NO: 936053 of WO 2012/087983; Nucleotides 1-1767 of SEQ ID NO: 936054 of WO 2012/087983; Nucleotides 1-1240 of SEQ ID NO: 936059 of WO 2012/087983; Nucleotides 1-3016 of SEQ ID NO: 936074 of WO 2012/087983; Nucleotides 1-1609 of SEQ ID NO: 936075 of WO 2012/087983; Nucleotides 1-312 of SEQ ID NO: 936080 of WO 2012/087983; Nucleotides 1-243 of SEQ ID NO: 936092 of WO 2012/087983; Nucleotides 1-802 of SEQ ID NO: 936093 of WO 2012/087983; Nucleotides 1-514 of SEQ ID NO: 936102 of WO 2012/087983; Nucleotides 1-936 of SEQ ID NO: 936103 of WO 2012/087983; Nucleotides 1-1075 of SEQ ID NO: 936104 of WO 2012/087983; Nucleotides 1-823 of SEQ ID NO: 936110 of WO 2012/087983; Nucleotides 1-979 of SEQ ID NO: 936116 of WO 2012/087983; Nucleotides 1-979 of SEQ ID NO: 936123 of WO 2012/087983; Nucleotides 1-288 of SEQ ID NO: 936128 of WO 2012/087983; Nucleotides 1-437 of SEQ ID NO: 936137 of WO 2012/087983; Nucleotides 1-278 of SEQ ID NO: 936138 of WO 2012/087983; Nucleotides 1-436 of SEQ ID NO: 936139 of WO 2012/087983; Nucleotides 1-1140 of SEQ ID NO: 936140 of WO 2012/087983; Nucleotides 1-2082 of SEQ ID NO: 936146 of WO 2012/087983; Nucleotides 1-380 of SEQ ID NO: 936151 of WO 2012/087983; Nucleotides 1-742 of SEQ ID NO: 936157 of WO 2012/087983; Nucleotides 1-4246 of SEQ ID NO: 936165 of WO 2012/087983; Nucleotides 1-1028 of SEQ ID NO: 936408 of WO 2012/087983; Nucleotides 1-429 of SEQ ID NO: 936409 of WO 2012/087983; Nucleotides 1-508 of SEQ ID NO: 936410 of WO 2012/087983; Nucleotides 1-593 of SEQ ID NO: 936411 of WO 2012/087983; Nucleotides 1-373 of SEQ ID NO: 936412 of WO 2012/087983; Nucleotides 1-1713 of SEQ ID NO: 936413 of WO 2012/087983; Nucleotides 1-660 of SEQ ID NO:936414 of WO 2012/087983; Nucleotides 1-589 of SEQ ID NO: 936415 of WO 2012/087983; Nucleotides 1-726 of SEQ ID NO: 936416 of WO 2012/087983; Nucletides 1-320 of SEQ ID NO: 936417 of WO 2012/087983; Nucletides 1-616 of SEQ ID NO: 936418 of WO 2012/087983; Nucletides 1-492 of SEQ ID NO: 936419 of WO 2012/087983; Nucletides 1-428 of SEQ ID NO: 936420 of WO 2012/087983; Nucletides 1-4041 of SEQ ID NO: 936421 of WO 2012/087983; Nucletides 1-705 of SEQ ID NO: 936422 of WO 2012/087983; Nucletides 1-2714 of SEQ ID NO: 936423 of WO 2012/087983; Nucletides 1-1757 of SEQ ID NO: 936424 of WO 2012/087983; Nucletides 1-3647 of SEQ ID NO: 936425 of WO 2012/087983; Nucleotides 1-354 of SEQ ID NO:

936426 of WO 2012/087983; Nucleotides 1-2145 of SEQ ID NO: 936427, Nucleotides 1-606 of SEQ ID NO: 936428 of WO 2012/087983; Nucleotides 1-480 of SEQ ID NO: 936429 of WO 2012/087983; Nucleotides 1-3026 of SEQ ID NO: 936430 of WO 2012/087983; Nucleotides 1-1512 of SEQ ID NO: 936431 of WO 2012/087983; Nucleotides 1-3774 of SEQ ID NO: 936432 of WO 2012/087983; Nucleotides 1-589 of SEQ ID NO: 936433.

In some of the embodiments of inhibitory nucleic acids described herein, or processes for designing or synthesizing them, the inhibitory nucleic acids will upregulate gene expression and may specifically bind or specifically hybridize or be complementary to the PRC1-binding RNA that is transcribed from the same strand as a protein coding reference gene. The inhibitory nucleic acid may bind to a region of the PRC1-binding RNA, that originates within or overlaps an intron, exon, intron-exon junction, 5' UTR, 3' UTR, a translation initiation region, or a translation termination region of a protein-coding sense-strand of a reference gene (refGene).

In some or any of the embodiments of inhibitory nucleic acids described herein, or processes for designing or syntheisizing them, the inhibitory nucleic acids will upregulate gene expression and may specifically bind or specifically hybridize or be complementary to a PRC1 binding RNA that transcribed from the opposite strand (the antisense-strand) of a protein-coding reference gene.

The inhibitory nucleic acids described herein may be modified, e.g. comprise a modified sugar moiety, a modified internucleoside linkage, a modified nucleotide and/or combinations thereof. In addition, the inhibitory nucleic acids can exhibit one or more of the following properties: do not induce substantial cleavage or degradation of the target RNA; do not cause substantially complete cleavage or degradation of the target RNA; do not activate the RNAse H pathway; do not activate RISC; do not recruit any Argonaute family protein; are not cleaved by Dicer; do not mediate alternative splicing; are not immune stimulatory; are nuclease resistant; have improved cell uptake compared to unmodified oligonucleotides; are not toxic to cells or mammals; may have improved endosomal exit; do interfere with interaction of ncRNA with PRC1, preferably the Ezh2 subunit but optionally the Suz12, Eed, RbAp46/48 subunits or accessory factors such as Jarid2; do decrease histone H3-lysine27 methylation and/or do upregulate gene expression.

In some or any of the embodiments of inhibitory nucleic acids described herein, or processes for designing or synthesizing them, the inhibitory nucleic acids may optionally

exclude those that bind DNA of a promoter region, as described in Kuwabara et al., US 2005/0226848 or Li et al., US 2010/0210707 or Corey et al., 7,709,456 or Mattick et al., WO 2009/124341, or those that bind DNA of a 3' UTR region, as described in Corey et al., US 2010/0273863.

Inhibitory nucleic acids that are designed to interact with RNA to modulate gene expression are a distinct subset of base sequences from those that are designed to bind a DNA target (e.g., are complementary to the underlying genomic DNA sequence from which the RNA is transcribed).

This application incorporates by reference the entire disclosures of U.S. provisional Nos. 61/425,174 filed on December 20, 2010, and 61/512,754 filed on July 28, 2011, and International Patent Appliation Nos. PCT/US2011/060493, filed November 12, 2011, and PCT/US2011/065939, filed on December 19, 2011.

Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. Methods and materials are described herein for use in the present invention; other, suitable methods and materials known in the art can also be used. The materials, methods, and examples are illustrative only and not intended to be limiting. All publications, patent applications, patents, sequences, database entries, and other references mentioned herein are incorporated by reference in their entirety. In case of conflict, the present specification, including definitions, will control.

Other features and advantages of the invention will be apparent from the following detailed description and figures, and from the claims.

REFERENCE TO SEQUENCE LISTING

This application includes a Sequence Listing in .txt format, filed herewith as 29539-0159WO1_ST25.txt, a file of 67.2 MB. The entire content of this file is hereby incorporated by reference.

DESCRIPTION OF DRAWINGS

Figures 1A-B are schematics of exemplary denaturing CLIP (dCLIP) pull-down methods (1A) and library preparation methods (1B).

Figures 2A-D show four test genes for effects of disrupting PRC1-3'UTR interactions. IGV screenshots shown for three Chromobox Homolog 7 (CBX7)-binding RNAs: (2A) Mouse DDB1 and CUL4 Associated Factor 12-Like 1 (Dcaf12L1); (2B)

Mouse Calmodulin 2 (Calm2); (2C) Mouse methyl CpG binding protein 2 (Mecp2); and (2D) Human interleukin 1 associated kinase 1 (IRAK1). For each gene, the RNA-seq profile shows the FPKM expression values of each gene. CLIP-seq profiles are then shown for various biological replicates (e.g., Cbx7 #1, #2, #3). For Dcaf12L1 and Calm2, statistically significant peaks ("Peak", as called by PeakRanger software) shown as bars under each replicate's track. Two control (tag-only libraries) are shown for each gene. Only the relevant strand is shown (Watson or Crick). Note highly reproducible CLIP profiles and very clean control libraries. ASO LNA mixmers used for knockoff ananlysis are shown as black bars. The mixmers were pooled for the transfections.

Figure 3 is a graph showing gene upregulation as a result of disrupting PRC1-3'UTR interactions. 16.7 ES cells were nucleofected with pooled mixmer LNAs against Calmodulin 2 (Calm2) (leftmost bars) or DDB1 and CUL4 Associated Factor 12-Like 1 (Dcaf12L1) (middle bars); Dual-specific phosphatase 9 (Dusp9) was used as a negative control (right bars). Cells were harvested after 24 hours and whole cell RNA was used for quantitative gene expression analysis using real-time RT-PCR. Expression of specific transcripts was normalized to beta-actin as a reference gene.

Figures 4A-B shows the test gene, *Tsix*, and results of knocking off PRC1 from Tsix RNA. (4A) The RNA-seq profile shows the Fragments Per Kilobase of transcript per Million mapped reads (FPKM) expression values of each gene. CLIP-seq profiles are then shown for two biological replicates (Cbx7 #1, #2), with corresponding statistically significant peaks ("Peak", as called by PeakRanger software) shown as bars under each replicate's track. Two control (tag-only libraries) are shown for each gene. Antisense oligonucleotide (ASO) LNA mixmers used for knockoff ananlysis are shown as black bars. The mixmers were pooled for the transfections. Only the Watson strand is shown in the figure. (4B) Tsix RNA is a repressor of *Xist* expression. Here we hypothesized that Tsix recruits PRC1 to repress *Xist* expression. The RT-qPCR analysis performed 6 hours after administering Tsix LNAs support this interaction. *Xist* upregulation was achieved specifically.

Figures 5A-B show examples of gene downregulation as a result of disrupting PRC1 RNA interactions. (5A) Mouse embryonic fibroblasts (MEFs) were nucleofected with pooled LNAs and harvested after 24 hours for qRT-PCR analysis of Mecp2 expression. Downregulation was seen after Mecp2-specific LNA treatment, but not seen with LNAs against Tsix or scrambled control. (5B) Human PC3 cells were transfected with pooled

IRAK1-specific LNA (left bar in each group) or control scrambled LNA (right bar in each group), then harvested after 24 hours or 36 hours, as indicated, for qRT-PCR analysis of IRAK1 expression. Specific downregulation seen for IRAK1-specific LNA.

Table 1: Human CBX7-RNA binding sites as determined by denaturing CLIP-seq analysis in Human 293 cells. All coordinates in hg19. The columns (c) correspond to: c1, SEQ ID Number. c2, Chromosome number. c3, Read start position. c4, Read end position. c5, chromosome strand that the transcript is made from (+, top or Watson strand; -, bottom or Crick strand of each chromosome). C6, nearest gene name. c7, gene categories as defined in Example 2.

Table 2: Human LiftOver sequences corresponding to CBX7-RNA binding sites as determined by denaturing CLIP-seq analysis in mouse ES cells shown. All coordinates in hg19. CBX7-binding sites derived from CLIP-seq performed in the mouse ES cell line, 16.7, as shown in Table 3, are translated from mouse mm9 to human hg19 coordinates.

Table 3: Mouse CBX7-RNA binding sites as determined by denaturing CLIP-seq analysis in ES cells derived from *Mus musculus*. All coordinates in mm9. CLIP-seq performed in the mouse ES cell line, EL 16.7. CBX7 binding sites in the RNA are shown.

DETAILED DESCRIPTION

The new 'denaturing' CLIP-seq (dCLIP-seq) method, which utilizes a biotin tag to enable purification of RNA-protein complexes under denaturing conditions to increase the specificity of the purification scheme, was used to capture a genome-wide pool of transcripts (>30 nt) that bind with the PRC1 complex via the CBX7 subunit. Transcriptome characterization has identified classes of medically significant targets. Many if not all of the mouse PRC1-transcripts identified herein were shown by LiftOver analysis to have direct counterparts in the human epigenome.

As demonstrated herein, at least a subset of RNAs directly interacts with PRC1 *in vivo* and, in many cases, the interacting subunit is a CBX protein, e.g., CBX7. In some cases, the interacting subunit is CBX2, 4, 6, or 8. CBX7 is generally expressed earlier in development in less-differentiated cells, while CBX2, 4, 6, 8 are expressed in more differentiated cells and may be more tissue-specific. The CBX family is likely to have highly overlapping RNA interactomes, because the proteins are highly similar to each other and have RNA-binding domains.

The present analysis suggests that both *cis* and *trans* mechanisms may be utilized by RNAs in the PRC1 RNA interactome. As shown herein, PRC1 has a number of different cis-regulatory effects. PRC1 binding sites can be classified into several groups, including (i) 3' untranslated region (3' UTR), (ii) promoter-associated, (iii) gene body, (iv) antisense, and (v) intergenic. Disrupting the interaction between PRC1 and a binding RNA could lead to either activation or repression. For example, targeting the PRC1 binding sites within the 3' UTR of *Calm2* and *Dcaf12l1* results in upregulation of these coding genes (Fig. 3). *Calm2* is a member of the calmodulin gene family, with three distinct calmodulin genes throughout the genome that encode an identical protein. CALM2 is a calcium binding protein that plays a role in signaling pathways, cell cycle progression and proliferation. Mutations are associated with long-QT syndrome (LQTS, life-threatening ventricular arrhythmias) with delayed neurodevelopment and epilepsy. By contrast, targeting various regions within *Mecp2* and *IRAK1* resulted in gene downregulation (Figs. 5A-B). The present methods may be especially useful when one aims to titrate down but not eliminate gene expression, such as in the case of *MECP2* Duplication Syndrome (a disease in which the *MECP2* gene is duplicated and causes an Rett Syndrome-like disorder) or for treating autoimmune or inflammatory diseases, such as systemic lupus erythematosis (SLE), for which *IRAK1* (interleukin 1 associated kinase 1) has been implicated.

As used herein, the 3'UTR is the last exon of a protein coding gene that usually includes the last few translated codons and the rest of the untranslated 3' end of the mRNA encoded by the gene.

The evidence presented herein further demonstrates that RNA cofactors are a general feature of Polycomb regulation and that inhibitory nucleic acids as described herein that target RNAs in the PRC1 RNA interactome can successfully modulate (e.g., upregulate) gene expression, with effects dependent on the target site in the interacting transcript. The effects are presumed to be caused by inhibiting PRC1-RNA interactions. Genes in *cis*, in either antisense-strand orientation or same strand orientation, and extending 1 kb or more, e.g. 5 or 20 kb, from the location of the PRC1-binding RNA, can be regulated. Because chromatin modifiers such as PRC1 play a central role in maintaining stem cell pluripotency and in cancer, a genome-wide profile of regulatory RNAs will be a valuable resource in the quest to diagnose and treat disease. To downregulate gene expression, targeting RNA-PRC1 interactions by antisense oligonucleotides provides an alternative approach to RNAi methods, when one aims to titrate down but not eliminate

gene expression, such as in the case of *MECP2* Duplication Syndrome (a disease in which the *MECP2* gene is duplicated and causes an Rett Syndrome-like disorder) or for treating autoimmune or inflammatory diseases, such as systemic lupus erythematosis (SLE), for which *IRAK1* (interleukin 1 associated kinase 1) has been implicated.

Denaturing CLIP-seq Methods (dCLIP-seq)

Described herein are methods for pulling down RNAs that bind to a protein of interest, to produce libraries of those RNAs, and to identify regions of the RNAs to which the proteins bind. These methods were used to identify RNAs that bind the CBX7 portion of the PRC1 complex, but can be used with any proteins known or suspected to bind RNA. In some embodiments, the methods include the steps shown in Figs. 1A and/or 1B; one of skill in the art will appreciate that other techniques can be substituted for those shown. These include conventional CLIP (see, e.g., Davidovich et al., Mol Cell. 2015 Feb 5;57(3):552-8), HITS-CLIP (Darnell, Wiley Interdiscip Rev RNA. 2010 Sep-Oct; 1(2): 266–286), PAR-CLIP, iCLIP (huppertz et al., Methods. 2014 February; 65(3): 274–287), and native RIP (Zhao et al., Mol Cell. 2010 Dec 22;40(6):939-53).

In preferred embodiments, the methods are practiced using cells, e.g., mammalian cells, that express the bacterial biotin ligase BirA, and an RNA-binding protein of interest, e.g., CBX2, CBX4, CBX6, CBX7, or CBX8, fused to a biotinylation tag sequence. In some embodiments, the BirA and RNA binding protein are on separate vectors, preferably separate vectors with different selectable markers, e.g., different antibiotic resistance genes, or different fluorescent proteins. In some embodiments, the BirA is expressed from a first vector under neomycin resistance, and the protein of interest fused to a biotinylation tag sequence is expressed from a second vector under puromycin resistance. Biotinylation tag sequences are known in the art, see, e.g., Schatz, Biotechnology (N Y). 1993 Oct;11(10):1138-43; Tucker and Grisshammer, Biochem J. 1996 Aug 1;317 (Pt 3):891-9; and Beckett et al., Protein Sci. 1999 Apr;8(4):921-9. An exemplary biotinylation sequence is GLNDIFEAQKIEWHE (SEQ ID NO: 36369); other sequences are known in the art, e.g., GLNDIFEAQKIEWH (SEQ ID NO: 36370); and others as disclosed in Beckett et al., Protein Science 1999, 8:921–929, e.g., in Fig. 5 and Table 2 therein. Sequences for BirA are also known in the art; see, e.g., Howard et al., Gene. 1985;35(3):321-31. An exemplary protein sequence for BirA is as follows:

```
          10         20         30         40         50
MKDNTVPLKL IALLANGEFH SGEQLGETLG MSRAAINKHI QTLRDWGVDV
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          60         70         80         90        100
FTVPGKGYSL PEPIQLLNAK QILGQLDGGS VAVLPVIDST NQYLLDRIGE
         110        120        130        140        150
LKSGDACIAE YQQAGRGRRG RKWFSPFGAN LYLSMFWRLE QGPAAAIGLS
         160        170        180        190        200
LVIGIVMAEV LRKLGADKVR VKWPNDLYLQ DRKLAGILVE LTGKTGDAAQ
         210        220        230        240        250
IVIGAGINMA MRRVEESVVN QGWITLQEAG INLDRNTLAA MLIRELRAAL
         260        270        280        290        300
ELFEQEGLAP YLSRWEKLDN FINRPVKLII GDKEIFGISR GIDKQGALLL
         310        320
EQDGIIKPWM GGEISLRSAE K   (SEQ ID NO: 36371)
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Additional exemplary sequences include those at GenBank Acc. No. NP_418404.1 and YP_491483.1; exemplary coding sequences can be found at NC_000913.3 and NC_007779.1.

Cells are crosslinked by exposure to ultraviolet (UV) light (e.g., preferably 254 nm, but a range of 200 nm to 400 nm may be possible), cellular lysates are prepared, then DNAsed to solubilize the chromatin, and protein-RNA complexes are pulled down using streptavidin beads. Importantly, the samples are then washed, preferably with a high stringency wash, e.g., using 8 M urea (range: 5-10 M, 6-10M, 7-10M, 7-9M, or 7.5-8.5M) + 0.1% SDS (range: 0.0-2.0%). Other detergents may be used as substitutes for SDS, including Triton X-100 and NP40. Samples can then be further washed, e.g., in PBS + 2% SDS and further in high salt buffer (e.g., PBS + 750 mM NaCl + 1% NP40 + 0.5% NaDeoxycholate + 0.1% SDS; variations on salt/detergent conditions are possible). Under such suitable stringent conditions, most proteins are denatured, resulting in the loss of the nonspecific RNA-protein interactions. Only the extremely high-affinity biotin-avidin interaction survives. Thus, these steps can be used to effectively remove the vast majority of background RNA, resulting in extremely clean “peaks” of binding. The samples are then treated with DNAse to remove contaminating DNA. The RNA is phosphorylated using P32-ATP and run on SDS-PAGE and transferred onto membrane. Bands corresponding to the protein-RNA complex are then excised and eluted for cDNA preparation.

In some embodiments, the methods include contacting the sample with an agent, e.g., an antibody, that binds specifically to an RNA-binding protein or protein complex such as PRC1, e.g., to CBX7.

In some embodiments, the methods include some or all of the following: isolating the complexes; synthesizing DNA complementary to the RNAs to provide an initial population of cDNAs; PCR-amplifying, if necessary, using strand-specific primers; purifying the initial population of cDNAs to obtain a purified population of cDNAs that are at least 20 nucleotides (nt) in length; and high-throughput sequencing the purified population of cDNAs. Homopolymer reads are filtered, and reads matching the mitochondrial genome and ribosomal RNAs are excluded from all subsequent analyses. Reads that align to a reference genome with ≤ 1 mismatch are retained, excluding homopolymers, reads that align to the mitochondrial genome, and ribosomal RNAs. High probability PRC1-interacting transcripts are then called based on criteria that reads were significantly enriched in the wildtype library versus control library (such as a protein-null or tag-only control library, a minus-crosslinking library, or library made from an IgG pulldown done in parallel) for any given transcript. For example, under one set of criteria published in Zhao et al., 2010, the transcripts were enriched 3:1 in the wildtype library over the EZH2-null library, and each transcript had an RPKM minimum of 0.4. The criteria can be adjusted up or down based on empirical control data suggesting what cutoffs could be reasonably used. Statistical methods may also be used to call enrichment or "peaks" (binding sites) in the PRC1 library relative to control libraries, as has been used for the peaks called herein.

In general, to construct dCLIP-seq libraries, RNAs are extracted from the gel using standard techniques. To capture all RNAs (not just polyA RNAs) and to preserve strand information, 3'end-specific adapter is ligated to the extracted RNA fragments followed by hybridization with reverse transcription primer specific to 3'end adaptor and ligation of second adaptor specific to 5' end. The subsequent reverse transcription step creates first strand cDNA sequence that contains sequences complementary to the 3' and 5' adapters. The resulting PCR using 3'- and 5'- adaptor specific primer pairs is then performed to amplify the cDNAs and the products sequenced via standard methods of high throughput sequencing. Prior to sequencing, a size-selection step is incorporated in which amplified PCR products of desired sizes are excised after separation by gel electrophoresis (e.g., on a Nu-Sieve agarose gel or in an acrylamide gel) in order to remove an undesirable side products such as adapter dimers.

Kits

Provided herein are kits for use in the dCLIP-seq methods described herein. The kits can include, but are not limited to, an expression vector for expressing the bacterial

biotin ligase BirA in a cell type of interest, and an expression vector for expressing RNA-binding proteins of interest, e.g., mammalian (e.g., human or mouse) RNA-binding proteins of interest PRC1 components such as CBX2, CBX4, CBX6, CBX7, CBX8, or RYPB fused in-frame to a Flag-biotinylation tag sequence. In addition to PRC1 components, PRC2 components (EZH2, EZH1, SUZ12, etc) or any other RNA-binding protein (ATRX, YY1, CTCF, as three examples) may be used as bait and fused in frame to the biotin tag. In some embodiments, the kits include buffers, e.g., a high stringency denaturing buffer, e.g., comprising 8 M urea (range: 5-10 M, 6-10M, 7-10M, 7-9M, or 7.5-8.5M) plus 0.1% SDS (range: 0.0-2.0%); wash buffer (e.g., PBS + 2% SDS; high salt wash buffer (e.g., PBS + 750 mM NaCl + 1% NP40 + 0.5% NaDeoxycholate + 0.1% SDS. Other detergents may be used as substitutes for SDS, including Triton X-100 and NP40; variations on salt conditions are also possible. In some embodiments, the kits include cells expressing BirA.

PRC1-Interatcting RNAs and RNA Libraries

The present invention includes the individual PRC1-binding regions of RNAs described herein, as well as libraries of RNAs produced by methods described herein. In some embodiments, the libraries are in solution, or are lyophilized. In some embodiments, the libraries are bound to a substrate, e.g., wherein each member of the library is bound to an individually addressable member, e.g., an individual area on an array (e.g., a microarray), or a bead. The PRC1 RNA interactome consists of both coding and noncoding transcripts. Non-coding PRC1-interacting RNA transcripts may also include a protein-coding sequence of bases, e.g., a distinct transcript that overlaps in position with a protein-coding reference gene (e.g., the gene whose expression is modulated in *cis*).

In one embodiment, an RNA includes a nucleotide sequence that is at least about 85% or more homologous or identical to the entire length of an RNA sequence shown herein, e.g., in any of Tables 1-4, or a fragment comprising at least 20 nt thereof (e.g., at least 25, 30, 35, 40, 50, 60, 70, 80, 90, or 100 nt thereof, e.g., at least 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 50% or more of the full length RNA). In some embodiments, the nucleotide sequence is at least about 90%, 91%, 92%, 93%, 94%, 95%, 96%, 97%, 98%, 99% or 100% homologous or identical to an RNA sequence shown herein.

Mouse-to-human LiftOver analysis and analysis in the UCSC genome browser of syntenic positions indicate the existence of similar transcripts in the human genome. This process and LiftOver chains are generally described in Kent et al., *Proc. Nat'l Acad. Sci.*, 100(20) 11484-11489 (2003). Given the geographic and sequence similarities between the

mouse and human transcripts, we believe that a similar number of PRC1-interacting transcripts occur in the human system. The data suggest that many if not all of the mouse PRC1-transcripts have direct counterparts in the human epigenome. Such direct counterparts in other species are termed "orthologous" herein.

RNAs may be functionally conserved without being highly conserved at the level of overall nucleotide identity. For example, mouse Xist shows only 76% overall nucleotide identity with human XIST using sliding 21-bp windows, or an overall sequence identity of only 60%. However, within specific functional domains, the degree of conservation can be >70% between different mammalian species. The crucial motif in some RNAs (e.g., Repeat A of XIST) is the secondary structures formed by the repeat. An RNA interacting with PRC1 may therefore be similarly low in overall conservation but still have conservation in secondary structure within specific domains of the RNA, and thereby demonstrate functional conservation with respect to recruitment of PRC1.

Calculations of homology or sequence identity between sequences (the terms are used interchangeably herein) are performed as follows.

To determine the percent identity of two nucleic acid sequences, the sequences are aligned for optimal comparison purposes (e.g., gaps can be introduced in one or both of a first and a second amino acid or nucleic acid sequence for optimal alignment and non-homologous sequences can be disregarded for comparison purposes). The length of a reference sequence aligned for comparison purposes is at least 80% of the length of the reference sequence, and in some embodiments is at least 90% or 100%. The nucleotides at corresponding amino acid positions or nucleotide positions are then compared. When a position in the first sequence is occupied by the same nucleotide as the corresponding position in the second sequence, then the molecules are identical at that position (as used herein nucleic acid "identity" is equivalent to nucleic acid "homology"). The percent identity between the two sequences is a function of the number of identical positions shared by the sequences, taking into account the number of gaps, and the length of each gap, which need to be introduced for optimal alignment of the two sequences.

For purposes of the present invention, the comparison of sequences and determination of percent identity between two sequences can be accomplished using a Blossum 62 scoring matrix with a gap penalty of 12, a gap extend penalty of 4, and a frameshift gap penalty of 5.

There are several potential uses for the RNAs described herein in the expanded PRC1 transcriptome: The RNAs themselves, or antagomirs and small molecules designed against them, can be utilized to modulate expression (either up or down) of Polycomb target genes.

In various related aspects, including with respect to the targeting of RNAs by LNA molecule, PRC1-binding RNAs can include endogenous coding and non-coding cellular RNAs, including but not limited to those RNAs that are greater than 60 nt in length, e.g., greater than 100 nt, e.g., greater than 200 nt, have no positive-strand open reading frames greater than 100 amino acids in length, are identified as ncRNAs by experimental evidence, and are distinct from known (smaller) functional-RNA classes (including but not limited to ribosomal, transfer, and small nuclear/nucleolar RNAs, siRNA, piRNA, and miRNA). See, e.g., Lipovich et al., "MacroRNA underdogs in a microRNA world: Evolutionary, regulatory, and biomedical significance of mammalian long non-protein-coding RNA" Biochimica et Biophysica Acta (2010) doi:10.1016/j.bbagrm.2010.10.001; Ponting et al., Cell 136(4):629–641 (2009), Jia et al., RNA 16 (8) (2010) 1478–1487, Dinger et al., Nucleic Acids Res. 37 1685 (2009) D122–D126 (database issue); and references cited therein. ncRNAs have also been referred to as, and can include, long non-coding RNA, long RNA, large RNA, macro RNA, intergenic RNA, and NonCoding Transcripts.

The methods described herein can be used to target both coding and non-coding RNAs. Known classes of RNAs include large intergenic non-coding RNAs (lincRNAs, see, e.g., Guttman et al., Nature. 2009 Mar 12;458(7235):223-7. Epub 2009 Feb 1, which describes over a thousand exemplary highly conserved large non-coding RNAs in mammals; and Khalil et al., PNAS 106(28)11675–11680 (2009)); promoter associated short RNAs (PASRs; see, e.g., Seila et al., Science. 2008 Dec 19;322(5909):1849-51. Epub 2008 Dec 4; Kanhere et al., Molecular Cell 38, 675–688, (2010)); endogenous antisense RNAs (see, e.g., Numata et al., BMC Genomics. 10:392 (2009); Okada et al., Hum Mol Genet. 17(11):1631-40 (2008); Numata et al., Gene 392(1-2):134-141 (2007); and Røsok and Sioud, Nat Biotechnol. 22(1):104-8 (2004)); and RNAs that bind chromatin modifiers such as PRC2 and LSD1 (see, e.g., Tsai et al., Science. 2010 Aug 6;329(5992):689-93. Epub 2010 Jul 8; and Zhao et al., Science. 2008 Oct 31;322(5902):750-6).

Exemplary ncRNAs include XIST, TSIX, SRA1, and KCNQ1OT1. The sequences for more than 17,000 long human ncRNAs can be found in the NCode™ Long ncRNA Database on the Invitrogen website. Additional long ncRNAs can be identified using, e.g.,

manual published literature, Functional Annotation of Mouse (FANTOM3) project, Human Full-length cDNA Annotation Invitational (H-Invitational) project, antisense ncRNAs from cDNA and EST database for mouse and human using a computation pipeline (Zhang et al., Nucl. Acids Res. 35 (suppl 1): D156-D161 (2006); Engstrom et al., PLoS Genet. 2:e47 (2006)), human snoRNAs and scaRNAs derived from snoRNA-LBME-db, RNAz (Washietl et al. 2005), Noncoding RNA Search (Torarinsson, et al. 2006), and EvoFold (Pedersen et al. 2006).

Methods of Modulating Gene Expression

The RNAs described herein, including fragments thereof that are at least 20 nt in length, and inhibitory nucleic acids and small molecules targeting (e.g., complementary to) them, can be used to modulate gene expression in a cell, e.g., a cancer cell, a stem cell, or other normal cell types for gene or epigenetic therapy. The cells can be *in vitro*, including *ex vivo*, or *in vivo* (e.g., in a subject who has cancer, e.g., a tumor).

The methods described herein can be used for modulating expression of oncogenes and tumor suppressors in cells, e.g., cancer cells. For example, to decrease expression of an gene (e.g., an oncogene or imprinted gene) in a cell, the methods include introducing into the cell an inhibitory nucleic acid or small molecule that specifically binds, or is complementary, to a PRC1-binding region of an RNA that increases expression of the gene, e.g., an oncogene and/or an imprinted gene, set forth in Tables 1-3. As another example, to increase expression of a gene, e.g., a tumor suppressor, in a cell, the methods include introducing into the cell an inhibitory nucleic acid or small molecule that specifically binds, or is complementary, to a PRC1-binding region of an RNA that decreases expression of the gene, e.g., of a tumor suppressor gene, set forth in Tables 1-3, e.g., in subjects with cancer, e.g., lung adenocarcinoma patients.

In general, the methods include introducing into the cell an inhibitory nucleic acid that specifically binds, or is complementary, to a region of an RNA that modulated expression of a gene as set forth in Tables 1-3.

In preferred embodiments, the inhibitory nucleic acid binds to a region within or near (e.g., within 100, 200, 300, 400, 500, 600, 700, 1K, 2K, or 5K bases of) a PRC1-binding region of the RNA as set forth in Tables 1-3. The empirically-identified "peaks," which are believed to represent PRC1-binding regions are shown in Table 1, with 500 nts of sequence on each side, so that in some the methods can include targeting a sequence as shown in one of the sequences in Tables 1-3, or a sequence that is between 500 nts from the

start and 500 nts of the end of a sequence shown in Tables 1-3, or between 400 nts from the start and 400 nts of the end, 300 nts from the start and 300 nts of the end, between 200 nts from the start and 200 nts of the end, or between 100 nts from the start and 100 nts of the end, of a sequence shown in Tables 1-3. A nucleic acid that binds "specifically" binds primarily to the target RNA or related RNAs to inhibit regulatory function of the RNA but not of other non-target RNAs. The specificity of the nucleic acid interaction thus refers to its function (e.g., inhibiting the PRC1-associated repression of gene expression) rather than its hybridization capacity. Inhibitory nucleic acids may exhibit nonspecific binding to other sites in the genome or other RNAs, without interfering with binding of other regulatory proteins and without causing degradation of the non-specifically-bound RNA. Thus this nonspecific binding does not significantly affect function of other non-target RNAs and results in no significant adverse effects.

These methods can be used to treat a cancer in a subject by administering to the subject a composition (e.g., as described herein) comprising a PRC1-binding fragment of an RNA as described herein and/or an inhibitory nucleic acid that binds to an RNA (e.g., an inhibitory nucleic acid that binds to an RNA that inhibits a tumor suppressor, or cancer-suppressing gene, or imprinted gene and/or other growth-suppressing genes in any of Tables 1-3). Examples of cellular proliferative and/or differentiative disorders include cancer, e.g., carcinoma, sarcoma, metastatic disorders or hematopoietic neoplastic disorders, e.g., leukemias. A metastatic tumor can arise from a multitude of primary tumor types, including but not limited to those of prostate, colon, lung, breast and liver origin.

As used herein, treating includes "prophylactic treatment" which means reducing the incidence of or preventing (or reducing risk of) a sign or symptom of a disease in a patient at risk for the disease, and "therapeutic treatment", which means reducing signs or symptoms of a disease, reducing progression of a disease, reducing severity of a disease, in a patient diagnosed with the disease. With respect to cancer, treating includes inhibiting tumor cell proliferation, increasing tumor cell death or killing, inhibiting rate of tumor cell growth or metastasis, reducing size of tumors, reducing number of tumors, reducing number of metastases, increasing 1-year or 5-year survival rate.

As used herein, the terms "cancer", "hyperproliferative" and "neoplastic" refer to cells having the capacity for autonomous growth, i.e., an abnormal state or condition characterized by rapidly proliferating cell growth. Hyperproliferative and neoplastic disease states may be categorized as pathologic, i.e., characterizing or constituting a disease state, or

may be categorized as non-pathologic, i.e., a deviation from normal but not associated with a disease state. The term is meant to include all types of cancerous growths or oncogenic processes, metastatic tissues or malignantly transformed cells, tissues, or organs, irrespective of histopathologic type or stage of invasiveness. "Pathologic hyperproliferative" cells occur in disease states characterized by malignant tumor growth. Examples of non-pathologic hyperproliferative cells include proliferation of cells associated with wound repair.

The terms "cancer" or "neoplasms" include malignancies of the various organ systems, such as affecting lung (e.g. small cell, non-small cell, squamous, adenocarcinoma), breast, thyroid, lymphoid, gastrointestinal, genito-urinary tract, kidney, bladder, liver (e.g. hepatocellular cancer), pancreas, ovary, cervix, endometrium, uterine, prostate, brain, as well as adenocarcinomas which include malignancies such as most colon cancers, colorectal cancer, renal-cell carcinoma, prostate cancer and/or testicular tumors, non-small cell carcinoma of the lung, cancer of the small intestine and cancer of the esophagus.

The term "carcinoma" is art recognized and refers to malignancies of epithelial or endocrine tissues including respiratory system carcinomas, gastrointestinal system carcinomas, genitourinary system carcinomas, testicular carcinomas, breast carcinomas, prostatic carcinomas, endocrine system carcinomas, and melanomas. In some embodiments, the disease is renal carcinoma or melanoma. Exemplary carcinomas include those forming from tissue of the cervix, lung, prostate, breast, head and neck, colon and ovary. The term also includes carcinosarcomas, e.g., which include malignant tumors composed of carcinomatous and sarcomatous tissues. An "adenocarcinoma" refers to a carcinoma derived from glandular tissue or in which the tumor cells form recognizable glandular structures.

The term "sarcoma" is art recognized and refers to malignant tumors of mesenchymal derivation.

Additional examples of proliferative disorders include hematopoietic neoplastic disorders. As used herein, the term "hematopoietic neoplastic disorders" includes diseases involving hyperplastic/neoplastic cells of hematopoietic origin, e.g., arising from myeloid, lymphoid or erythroid lineages, or precursor cells thereof. Preferably, the diseases arise from poorly differentiated acute leukemias, e.g., erythroblastic leukemia and acute megakaryoblastic leukemia. Additional exemplary myeloid disorders include, but are not limited to, acute promyeloid leukemia (APML), acute myelogenous leukemia (AML) and

chronic myelogenous leukemia (CML) (reviewed in Vaickus, L. (1991) *Crit Rev. in Oncol./Hemotol.* 11:267-97); lymphoid malignancies include, but are not limited to acute lymphoblastic leukemia (ALL) which includes B-lineage ALL and T-lineage ALL, chronic lymphocytic leukemia (CLL), prolymphocytic leukemia (PLL), hairy cell leukemia (HLL) and Waldenstrom's macroglobulinemia (WM). Additional forms of malignant lymphomas include, but are not limited to non-Hodgkin lymphoma and variants thereof, peripheral T cell lymphomas, adult T cell leukemia/lymphoma (ATL), cutaneous T-cell lymphoma (CTCL), large granular lymphocytic leukemia (LGF), Hodgkin's disease and Reed-Sternberg disease.

In some embodiments, specific cancers that can be treated using the methods described herein include, but are not limited to: breast, lung, prostate, CNS (e.g., glioma), salivary gland, prostate, ovarian, and leukemias (e.g., ALL, CML, or AML). Associations of these genes with a particular cancer are known in the art, e.g., as described in Futreal et al., Nat Rev Cancer. 2004;4;177-83; and The COSMIC (Catalogue of Somatic Mutations in Cancer) database and website, Bamford et al., Br J Cancer. 2004;91;355-8; see also Forbes et al., Curr Protoc Hum Genet. 2008; Chapter 10;Unit 10.11, and the COSMIC database, e.g., v.50 (Nov. 30, 2010).

In addition, the methods described herein can be used for modulating (e.g., enhancing or decreasing) pluripotency of a stem cell and to direct stem cells down specific differentiation pathways to make endoderm, mesoderm, ectoderm, and their developmental derivatives. To increase, maintain, or enhance pluripotency, the methods include introducing into the cell an inhibitory nucleic acid that specifically binds to, or is complementary to, a PRC1-binding site on a non-coding RNA as set forth in any of Tables 1-3. Stem cells useful in the methods described herein include adult stem cells (e.g., adult stem cells obtained from the inner ear, bone marrow, mesenchyme, skin, fat, liver, muscle, or blood of a subject, e.g., the subject to be treated); embryonic stem cells, or stem cells obtained from a placenta or umbilical cord; progenitor cells (e.g., progenitor cells derived from the inner ear, bone marrow, mesenchyme, skin, fat, liver, muscle, or blood); and induced pluripotent stem cells (e.g., iPS cells).

Furthermore, the present methods can be used to treat Systemic Lupus erythematosus (SLE), an autoimmune disease that affects 1.5 million Americans (16,000 new cases per year). Ages 10-50 are the most affected, with more sufferers being female than male. SLE is a multi-organ disease; the effects include arthritis, joint pain & swelling,

chest pain, fatigue, general malaise, hair loss, mouth sores, sensitivity to light, skin rash, and swollen lymph nodes. Current treatments include corticosteroids, immunosuppressants, and more recently belimumab (an inhibitor of B cell activating factor).

The causes of SLE are probably multiple, including HLA haplotypes. The interleukin 1 receptor associated kinase 1 (IRAK1) has been implicated in some patients. IRAK1 is X-linked (possibly explaining the female predominance of the disease) and is involved in immune response to foreign antigens and pathogens. IRAK1 has been associated with SLE in both adult and pediatric forms. Overexpression of IRAK1 in animal models causes SLE, and knocking out IRAK1 in mice alleviates symptoms of SLE. See, e.g., Jacob et al., Proc Natl Acad Sci U S A. 2009 Apr 14;106(15):6256-61. The present methods can include treating a subject with SLE by administering an inhibitory nucleic acid that is complementary to a PRC1-binding region on IRAK1 RNA, e.g., an LNA targeting the 3' UTR as shown in Figure 2D and 5B, e.g., as shown in Table 4.

The present methods can also be used to treat MECP2 Duplication Syndrome in a subject. This condition is characterized by mental retardation, weak muscle tone, and feeding difficulties, as well as poor/absent speech, seizures, and muscle spasticity. There are more reported cases in males than in females; female carriers may have skewed XCI. There is a 50% mortality rate by age 25 associated with this condition, which accounts for 1-2% of X-linked mental retardation. The real rate of incidence is unknown, as many go undiagnosed. Genetically, the cause is duplication (even triplication) of MECP2 gene. There is no current treatment. The present methods can include treating a subject with MECP2 Duplication Syndrome by administering an inhibitory nucleic acid that is complementary to a PRC1-binding region on Mecp2 RNA, e.g., an LNA targeting the 3'UTR of Mecp2 as shown in Fig. 2C and 5A, e.g., as shown in Table 4.

In some embodiments, the methods described herein include administering a composition, e.g., a sterile composition, comprising an inhibitory nucleic acid that is complementary to a PRC1-binding region on an RNA described herein, e.g., as set forth in any of Tables 1-3, or SEQ ID NOS:1-5893 (human) or 5894-17415 (human LiftOver). Inhibitory nucleic acids for use in practicing the methods described herein can be an antisense or small interfering RNA, including but not limited to an shRNA or siRNA. In some embodiments, the inhibitory nucleic acid is a modified nucleic acid polymer (e.g., a locked nucleic acid (LNA) molecule). The present methods can include administration of a

Inhibitory nucleic acids have been employed as therapeutic moieties in the treatment of disease states in animals, including humans. Inhibitory nucleic acids can be useful therapeutic modalities that can be configured to be useful in treatment regimes for the treatment of cells, tissues and animals, especially humans.

For therapeutics, an animal, preferably a human, suspected of having cancer is treated by administering an RNA or inhibitory nucleic acid in accordance with this invention. For example, in one non-limiting embodiment, the methods comprise the step of administering to the animal in need of treatment, a therapeutically effective amount of an RNA or inhibitory nucleic acid as described herein.

Inhibitory Nucleic Acids

Inhibitory nucleic acids useful in the present methods and compositions include antisense oligonucleotides, ribozymes, external guide sequence (EGS) oligonucleotides, siRNA compounds, single- or double-stranded RNA interference (RNAi) compounds such as siRNA compounds, molecules comprising modified bases, locked nucleic acid molecules (LNA molecules), antagomirs, peptide nucleic acid molecules (PNA molecules), and other oligomeric compounds or oligonucleotide mimetics which hybridize to at least a portion of the target nucleic acid and modulate its function. In some embodiments, the inhibitory nucleic acids include antisense RNA, antisense DNA, chimeric antisense oligonucleotides, antisense oligonucleotides comprising modified linkages, interference RNA (RNAi), short interfering RNA (siRNA); a micro, interfering RNA (miRNA); a small, temporal RNA (stRNA); or a short, hairpin RNA (shRNA); small RNA-induced gene activation (RNAa); small activating RNAs (saRNAs), or combinations thereof. See, e.g., WO 2010040112.

In the present methods, the inhibitory nucleic acids are preferably designed to target a specific region of the RNA that binds to PRC1, as described herein (see Tables 1-3). These "inhibitory" nucleic acids are believed to work by inhibiting the interaction between the RNA and PRC1, and as described herein can be used to modulate expression of a gene.

In some embodiments, the inhibitory nucleic acids are 10 to 50, 13 to 50, or 13 to 30 nucleotides in length. One having ordinary skill in the art will appreciate that this embodies oligonucleotides having antisense (complementary) portions of 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, or 50 nucleotides in length, or any range therewithin. It is understood that non-complementary bases may be included in such inhibitory nucleic acids; for example, an inhibitory nucleic acid 30 nucleotides in length may have a portion of 15

bases that is complementary to the targeted RNA. In some embodiments, the oligonucleotides are 15 nucleotides in length. In some embodiments, the antisense or oligonucleotide compounds of the invention are 12 or 13 to 30 nucleotides in length. One having ordinary skill in the art will appreciate that this embodies inhibitory nucleic acids having antisense (complementary) portions of 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29 or 30 nucleotides in length, or any range therewithin.

Preferably the inhibitory nucleic acid comprises one or more modifications comprising: a modified sugar moiety, and/or a modified internucleoside linkage, and/or a modified nucleotide and/or combinations thereof. It is not necessary for all positions in a given oligonucleotide to be uniformly modified, and in fact more than one of the modifications described herein may be incorporated in a single oligonucleotide or even at within a single nucleoside within an oligonucleotide.

In some embodiments, the inhibitory nucleic acids are chimeric oligonucleotides that contain two or more chemically distinct regions, each made up of at least one nucleotide. These oligonucleotides typically contain at least one region of modified nucleotides that confers one or more beneficial properties (such as, for example, increased nuclease resistance, increased uptake into cells, increased binding affinity for the target) and a region that is a substrate for enzymes capable of cleaving RNA:DNA or RNA:RNA hybrids. Chimeric inhibitory nucleic acids of the invention may be formed as composite structures of two or more oligonucleotides, modified oligonucleotides, oligonucleosides and/or oligonucleotide mimetics as described above. Such compounds have also been referred to in the art as hybrids or gapmers. Representative United States patents that teach the preparation of such hybrid structures comprise, but are not limited to, US patent nos. 5,013,830; 5,149,797; 5, 220,007; 5,256,775; 5,366,878; 5,403,711; 5,491,133; 5,565,350; 5,623,065; 5,652,355; 5,652,356; and 5,700,922, each of which is herein incorporated by reference.

In some embodiments, the inhibitory nucleic acid comprises at least one nucleotide modified at the 2' position of the sugar, most preferably a 2'-O-alkyl, 2'-O-alkyl-O-alkyl or 2'-fluoro-modified nucleotide. In other preferred embodiments, RNA modifications include 2'-fluoro, 2'-amino and 2' O-methyl modifications on the ribose of pyrimidines, abasic residues or an inverted base at the 3' end of the RNA. Such modifications are routinely incorporated into oligonucleotides and these oligonucleotides have been shown to have a

higher Tm (i.e., higher target binding affinity) than; 2'-deoxyoligonucleotides against a given target.

A number of nucleotide and nucleoside modifications have been shown to make the oligonucleotide into which they are incorporated more resistant to nuclease digestion than the native oligodeoxynucleotide; these modified oligos survive intact for a longer time than unmodified oligonucleotides. Specific examples of modified oligonucleotides include those comprising modified backbones, for example, phosphorothioates, phosphotriesters, methyl phosphonates, short chain alkyl or cycloalkyl intersugar linkages or short chain heteroatomic or heterocyclic intersugar linkages. Most preferred are oligonucleotides with phosphorothioate backbones and those with heteroatom backbones, particularly CH_2 -NH-O-CH_2, CH,~N(CH_3)~O~CH_2 (known as a methylene(methylimino) or MMI backbone], CH_2 --O--N (CH_3)-CH_2, CH_2 -N (CH_3)-N (CH_3)-CH_2 and O-N (CH_3)- CH_2 -CH_2 backbones, wherein the native phosphodiester backbone is represented as O- P-- O- CH,); amide backbones (see De Mesmaeker et al. Ace. Chem. Res. 1995, 28:366-374); morpholino backbone structures (see Summerton and Weller, U.S. Pat. No. 5,034,506); peptide nucleic acid (PNA) backbone (wherein the phosphodiester backbone of the oligonucleotide is replaced with a polyamide backbone, the nucleotides being bound directly or indirectly to the aza nitrogen atoms of the polyamide backbone, see Nielsen et al., Science 1991, 254, 1497). Phosphorus-containing linkages include, but are not limited to, phosphorothioates, chiral phosphorothioates, phosphorodithioates, phosphotriesters, aminoalkylphosphotriesters, methyl and other alkyl phosphonates comprising 3'alkylene phosphonates and chiral phosphonates, phosphinates, phosphoramidates comprising 3'-amino phosphoramidate and aminoalkylphosphoramidates, thionophosphoramidates, thionoalkylphosphonates, thionoalkylphosphotriesters, and boranophosphates having normal 3'-5' linkages, 2'-5' linked analogs of these, and those having inverted polarity wherein the adjacent pairs of nucleoside units are linked 3'-5' to 5'-3' or 2'-5' to 5'-2'; see US patent nos. 3,687,808; 4,469,863; 4,476,301; 5,023,243; 5, 177,196; 5,188,897; 5,264,423; 5,276,019; 5,278,302; 5,286,717; 5,321,131; 5,399,676; 5,405,939; 5,453,496; 5,455, 233; 5,466,677; 5,476,925; 5,519,126; 5,536,821; 5,541,306; 5,550,111; 5,563, 253; 5,571,799; 5,587,361; and 5,625,050.

Morpholino-based oligomeric compounds are described in Dwaine A. Braasch and David R. Corey, Biochemistry, 2002, 41(14), 4503-4510); Genesis, volume 30, issue 3, 2001; Heasman, J., Dev. Biol., 2002, 243, 209-214; Nasevicius et al., Nat. Genet., 2000, 26,

216-220; Lacerra et al., Proc. Natl. Acad. Sci., 2000, 97, 9591-9596; and U.S. Pat. No. 5,034,506, issued Jul. 23, 1991. In some embodiments, the morpholino-based oligomeric compound is a phosphorodiamidate morpholino oligomer (PMO) (e.g., as described in Iverson, Curr. Opin. Mol. Ther., 3:235-238, 2001; and Wang et al., J. Gene Med., 12:354-364, 2010; the disclosures of which are incorporated herein by reference in their entireties).

Cyclohexenyl nucleic acid oligonucleotide mimetics are described in Wang et al., J. Am. Chem. Soc., 2000, 122, 8595-8602.

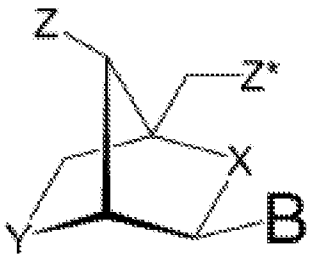
Modified oligonucleotide backbones that do not include a phosphorus atom therein have backbones that are formed by short chain alkyl or cycloalkyl internucleoside linkages, mixed heteroatom and alkyl or cycloalkyl internucleoside linkages, or one or more short chain heteroatomic or heterocyclic internucleoside linkages. These comprise those having morpholino linkages (formed in part from the sugar portion of a nucleoside); siloxane backbones; sulfide, sulfoxide and sulfone backbones; formacetyl and thioformacetyl backbones; methylene formacetyl and thioformacetyl backbones; alkene containing backbones; sulfamate backbones; methyleneimino and methylenehydrazino backbones; sulfonate and sulfonamide backbones; amide backbones; and others having mixed N, O, S and CH2 component parts; see US patent nos. 5,034,506; 5,166,315; 5,185,444; 5,214,134; 5,216,141; 5,235,033; 5,264, 562; 5, 264,564; 5,405,938; 5,434,257; 5,466,677; 5,470,967; 5,489,677; 5,541,307; 5,561,225; 5,596, 086; 5,602,240; 5,610,289; 5,602,240; 5,608,046; 5,610,289; 5,618,704; 5,623, 070; 5,663,312; 5,633,360; 5,677,437; and 5,677,439, each of which is herein incorporated by reference.

Modified oligonucleotides are also known that include oligonucleotides that are based on or constructed from arabinonucleotide or modified arabinonucleotide residues. Arabinonucleosides are stereoisomers of ribonucleosides, differing only in the configuration at the 2'-position of the sugar ring. In some embodiments, a 2'-arabino modification is 2'-F arabino. In some embodiments, the modified oligonucleotide is 2'-fluoro-D-arabinonucleic acid (FANA) (as described in, for example, Lon et al., Biochem., 41:3457-3467, 2002 and Min et al., Bioorg. Med. Chem. Lett., 12:2651-2654, 2002; the disclosures of which are incorporated herein by reference in their entireties). Similar modifications can also be made at other positions on the sugar, particularly the 3' position of the sugar on a 3' terminal nucleoside or in 2'-5' linked oligonucleotides and the 5' position of 5' terminal nucleotide.

PCT Publication No. WO 99/67378 discloses arabinonucleic acids (ANA) oligomers and their analogues for improved sequence specific inhibition of gene expression via association to complementary messenger RNA.

Other preferred modifications include ethylene-bridged nucleic acids (ENAs) (e.g., International Patent Publication No. WO 2005/042777, Morita et al., Nucleic Acid Res., Suppl 1:241-242, 2001; Surono et al., Hum. Gene Ther., 15:749-757, 2004; Koizumi, Curr. Opin. Mol. Ther., 8:144-149, 2006 and Horie et al., Nucleic Acids Symp. Ser (Oxf), 49:171-172, 2005; the disclosures of which are incorporated herein by reference in their entireties). Preferred ENAs include, but are not limited to, 2'-O,4'-C-ethylene-bridged nucleic acids.

Examples of LNAs are described in WO 2008/043753 and include compounds of the following formula.



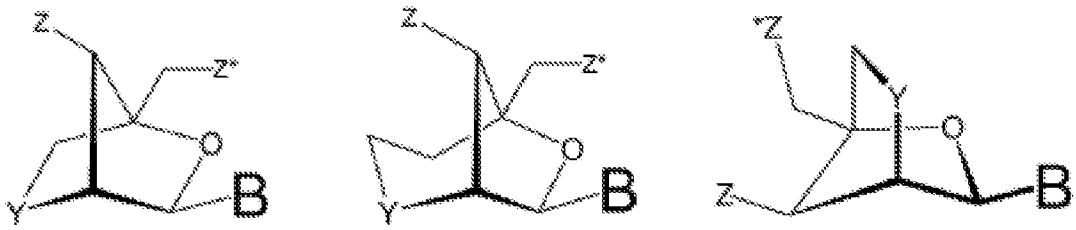
where X and Y are independently selected among the groups -O-,

-S-, -N(H)-, N(R)-, -CH2- or -CH- (if part of a double bond),

$-CH_2-O-$, $-CH_2-S-$, $-CH_2-N(H)-$, $-CH_2-N(R)-$, $-CH_2-CH_2-$ or $-CH_2-CH-$ (if part of a double bond),

-CH=CH-, where R is selected from hydrogen and C_{1-4}-alkyl; Z and Z* are independently selected among an internucleoside linkage, a terminal group or a protecting group; B constitutes a natural or non-natural nucleotide base moiety; and the asymmetric groups may be found in either orientation.

Preferably, the LNA used in the oligomer of the invention comprises at least one LNA unit according any of the formulas

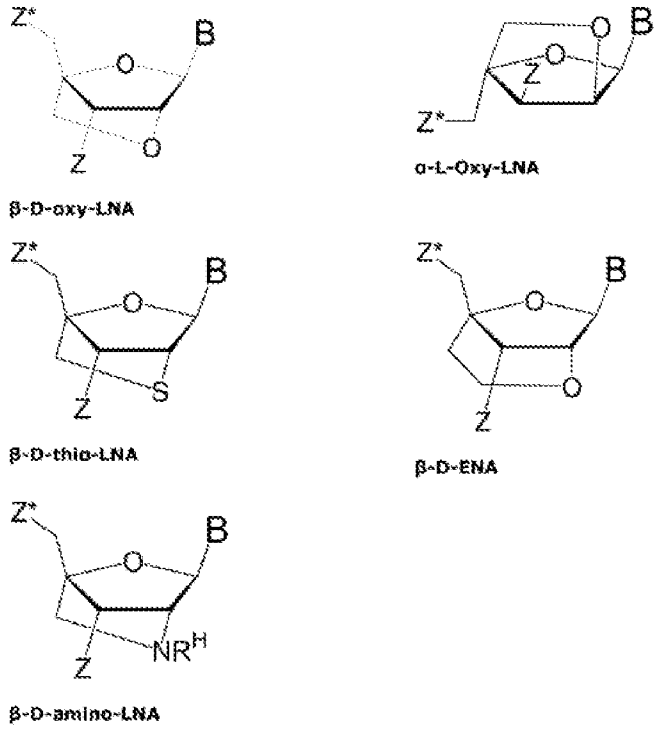


wherein Y is -O-, -S-, -NH-, or $N(R^H)$; Z and Z* are independently selected among an internucleoside linkage, a terminal group or a protecting group; B constitutes a natural or non-natural nucleotide base moiety, and RH is selected from hydrogen and C_{1-4}-alkyl.

Preferably, the Locked Nucleic Acid (LNA) used in the oligomeric compound, such as an antisense oligonucleotide, of the invention comprises at least one nucleotide comprises a Locked Nucleic Acid (LNA) unit according any of the formulas shown in Scheme 2 of PCT/DK2006/000512.

Preferably, the LNA used in the oligomer of the invention comprises internucleoside linkages selected from -0-$P(O)_2$-O-, -O-P(O,S)-O-, -0-$P(S)_2$-O-, -S-$P(O)_2$-O-, -S-P(O,S)-O-, -S-$P(S)_2$-O-, -0-$P(O)_2$-S-, -O-P(O,S)-S-, -S-$P(O)_2$-S-, -O-$PO(R^H)$-O-, O-$PO(OCH_3)$-O-, -O-$PO(NR^H)$-O-, -0-$PO(OCH_2CH_2S\text{-}R)$-O-, -O-$PO(BH_3)$-O-, -O-$PO(NHR^H)$-O-, -O-$P(O)_2$-NR^H-, -NR^H-$P(O)_2$-O-, -NR^H-CO-O-, where R^H is selected from hydrogen and C_{1-4}-alkyl.

Specifically preferred LNA units are shown in scheme 2:



Scheme 2

The term "thio-LNA" comprises a locked nucleotide in which at least one of X or Y in the general formula above is selected from S or -CH2-S-. Thio-LNA can be in both beta-D and alpha-L-configuration.

The term "amino-LNA" comprises a locked nucleotide in which at least one of X or Y in the general formula above is selected from -N(H)-, N(R)-, CH_2-N(H)-, and -CH_2-N(R)- where R is selected from hydrogen and C_{1-4}-alkyl. Amino-LNA can be in both beta-D and alpha-L-configuration.

The term "oxy-LNA" comprises a locked nucleotide in which at least one of X or Y in the general formula above represents -O- or -CH_2-O-. Oxy-LNA can be in both beta-D and alpha-L-configuration.

The term "ena-LNA" comprises a locked nucleotide in which Y in the general formula above is -CH_2-O- (where the oxygen atom of -CH_2-O- is attached to the 2'-position relative to the base B).

LNAs are described in additional detail below.

One or more substituted sugar moieties can also be included, e.g., one of the following at the 2' position: OH, SH, SCH_3, F, OCN, OCH_3 OCH_3, OCH_3 $O(CH_2)n$ CH_3,

$O(CH_2)n\ NH_2$ or $O(CH_2)n\ CH_3$ where n is from 1 to about 10; Ci to C10 lower alkyl, alkoxyalkoxy, substituted lower alkyl, alkaryl or aralkyl; Cl; Br; CN; CF3 ; OCF3; O-, S-, or N-alkyl; O-, S-, or N-alkenyl; SOCH3; SO2 CH3; ONO2; NO2; N3; NH2; heterocycloalkyl; heterocycloalkaryl; aminoalkylamino; polyalkylamino; substituted silyl; an RNA cleaving group; a reporter group; an intercalator; a group for improving the pharmacokinetic properties of an oligonucleotide; or a group for improving the pharmacodynamic properties of an oligonucleotide and other substituents having similar properties. A preferred modification includes 2'-methoxyethoxy [2'-0-$CH_2CH_2OCH_3$, also known as 2'-O-(2-methoxyethyl)] (Martin et al, HeIv. Chim. Acta, 1995, 78, 486). Other preferred modifications include 2'-methoxy (2'-0-CH_3), 2'-propoxy (2'-$OCH_2\ CH_2CH_3$) and 2'-fluoro (2'-F). Similar modifications may also be made at other positions on the oligonucleotide, particularly the 3' position of the sugar on the 3' terminal nucleotide and the 5' position of 5' terminal nucleotide. Oligonucleotides may also have sugar mimetics such as cyclobutyls in place of the pentofuranosyl group.

Inhibitory nucleic acids can also include, additionally or alternatively, nucleobase (often referred to in the art simply as "base") modifications or substitutions. As used herein, "unmodified" or "natural" nucleobases include adenine (A), guanine (G), thymine (T), cytosine (C) and uracil (U). Modified nucleobases include nucleobases found only infrequently or transiently in natural nucleic acids, e.g., hypoxanthine, 6-methyladenine, 5-Me pyrimidines, particularly 5-methylcytosine (also referred to as 5-methyl-2' deoxycytosine and often referred to in the art as 5-Me-C), 5-hydroxymethylcytosine (HMC), glycosyl HMC and gentobiosyl HMC, isocytosine, pseudoisocytosine, as well as synthetic nucleobases, e.g., 2-aminoadenine, 2- (methylamino)adenine, 2-(imidazolylalkyl)adenine, 2-(aminoalklyamino)adenine or other heterosubstituted alkyladenines, 2-thiouracil, 2-thiothymine, 5-bromouracil, 5-hydroxymethyluracil, 5-propynyluracil, 8-azaguanine, 7-deazaguanine, N6 (6-aminohexyl)adenine, 6-aminopurine, 2-aminopurine, 2-chloro-6-aminopurine and 2,6-diaminopurine or other diaminopurines. See, e.g., Kornberg, “DNA Replication,” W. H. Freeman & Co., San Francisco, 1980, pp75-77; and Gebeyehu, G., et al. Nucl. Acids Res., 15:4513 (1987)). A "universal" base known in the art, e.g., inosine, can also be included. 5-Me-C substitutions have been shown to increase nucleic acid duplex stability by 0.6-1.2<0>C. (Sanghvi, in Crooke, and Lebleu, eds., Antisense Research and Applications, CRC Press, Boca Raton, 1993, pp. 276-278) and are presently preferred base substitutions.

It is not necessary for all positions in a given oligonucleotide to be uniformly modified, and in fact more than one of the modifications described herein may be incorporated in a single oligonucleotide or even at within a single nucleoside within an oligonucleotide.

In some embodiments, both a sugar and an internucleoside linkage, i.e., the backbone, of the nucleotide units are replaced with novel groups. The base units are maintained for hybridization with an appropriate nucleic acid target compound. One such oligomeric compound, an oligonucleotide mimetic that has been shown to have excellent hybridization properties, is referred to as a peptide nucleic acid (PNA). In PNA compounds, the sugar-backbone of an oligonucleotide is replaced with an amide containing backbone, for example, an aminoethylglycine backbone. The nucleobases are retained and are bound directly or indirectly to aza nitrogen atoms of the amide portion of the backbone. Representative United States patents that teach the preparation of PNA compounds include, but are not limited to, US patent nos. 5,539,082; 5,714,331; and 5,719,262, each of which is herein incorporated by reference . Further teaching of PNA compounds can be found in Nielsen et al, Science, 1991, 254, 1497-1500.

Inhibitory nucleic acids can also include one or more nucleobase (often referred to in the art simply as "base") modifications or substitutions. As used herein, "unmodified" or "natural" nucleobases comprise the purine bases adenine (A) and guanine (G), and the pyrimidine bases thymine (T), cytosine (C) and uracil (U). Modified nucleobases comprise other synthetic and natural nucleobases such as 5-methylcytosine (5-me-C), 5-hydroxymethyl cytosine, xanthine, hypoxanthine, 2-aminoadenine, 6-methyl and other alkyl derivatives of adenine and guanine, 2-propyl and other alkyl derivatives of adenine and guanine, 2-thiouracil, 2-thiothymine and 2-thiocytosine, 5-halouracil and cytosine, 5-propynyl uracil and cytosine, 6-azo uracil, cytosine and thymine, 5-uracil (pseudo-uracil), 4-thiouracil, 8-halo, 8-amino, 8-thiol, 8- thioalkyl, 8-hydroxyl and other 8-substituted adenines and guanines, 5-halo particularly 5- bromo, 5-trifluoromethyl and other 5-substituted uracils and cytosines, 7-methylquanine and 7-methyladenine, 8-azaguanine and 8-azaadenine, 7-deazaguanine and 7-deazaadenine and 3- deazaguanine and 3-deazaadenine.

Further, nucleobases comprise those disclosed in United States Patent No. 3,687,808, those disclosed in “The Concise Encyclopedia of Polymer Science And Engineering”, pages 858-859, Kroschwitz, ed. John Wiley & Sons, 1990;, those disclosed

by Englisch et al., Angewandle Chemie, International Edition, 1991, 30, page 613, and those disclosed by Sanghvi, Chapter 15, Antisense Research and Applications," pages 289-302, Crooke, and Lebleu, eds., CRC Press, 1993. Certain of these nucleobases are particularly useful for increasing the binding affinity of the oligomeric compounds of the invention. These include 5-substituted pyrimidines, 6-azapyrimidines and N-2, N-6 and 0-6 substituted purines, comprising 2-aminopropyladenine, 5-propynyluracil and 5-propynylcytosine. 5-methylcytosine substitutions have been shown to increase nucleic acid duplex stability by 0.6-1.2<0>C (Sanghvi, et al., eds, "Antisense Research and Applications," CRC Press, Boca Raton, 1993, pp. 276-278) and are presently preferred base substitutions, even more particularly when combined with 2'-O-methoxyethyl sugar modifications. Modified nucleobases are described in US patent nos. 3,687,808, as well as 4,845,205; 5,130,302; 5,134,066; 5,175, 273; 5, 367,066; 5,432,272; 5,457,187; 5,459,255; 5,484,908; 5,502,177; 5,525,711; 5,552,540; 5,587,469; 5,596,091; 5,614,617; 5,750,692, and 5,681,941, each of which is herein incorporated by reference.

In some embodiments, the inhibitory nucleic acids are chemically linked to one or more moieties or conjugates that enhance the activity, cellular distribution, or cellular uptake of the oligonucleotide. For example, one or more inhibitory nucleic acids, of the same or different types, can be conjugated to each other; or inhibitory nucleic acids can be conjugated to targeting moieties with enhanced specificity for a cell type or tissue type. Such moieties include, but are not limited to, lipid moieties such as a cholesterol moiety (Letsinger et al., Proc. Natl. Acad. Sci. USA, 1989, 86, 6553-6556), cholic acid (Manoharan et al., Bioorg. Med. Chem. Let., 1994, 4, 1053-1060), a thioether, e.g., hexyl-S- tritylthiol (Manoharan et al, Ann. N. Y. Acad. Sci., 1992, 660, 306-309; Manoharan et al., Bioorg. Med. Chem. Let., 1993, 3, 2765-2770), a thiocholesterol (Oberhauser et al., Nucl. Acids Res., 1992, 20, 533-538), an aliphatic chain, e.g., dodecandiol or undecyl residues (Kabanov et al., FEBS Lett., 1990, 259, 327-330; Svinarchuk et al., Biochimie, 1993, 75, 49- 54), a phospholipid, e.g., di-hexadecyl-rac-glycerol or triethylammonium 1,2-di-O-hexadecyl- rac-glycero-3-H-phosphonate (Manoharan et al., Tetrahedron Lett., 1995, 36, 3651-3654; Shea et al., Nucl. Acids Res., 1990, 18, 3777-3783), a polyamine or a polyethylene glycol chain (Mancharan et al., Nucleosides & Nucleotides, 1995, 14, 969-973), or adamantane acetic acid (Manoharan et al., Tetrahedron Lett., 1995, 36, 3651-3654), a palmityl moiety (Mishra et al., Biochim. Biophys. Acta, 1995, 1264, 229-237), or an octadecylamine or hexylamino-carbonyl-t oxycholesterol moiety (Crooke et al., J. Pharmacol. Exp. Ther., 1996, 277, 923-

937). See also US patent nos. 4,828,979; 4,948,882; 5,218,105; 5,525,465; 5,541,313; 5,545,730; 5,552, 538; 5,578,717, 5,580,731; 5,580,731; 5,591,584; 5,109,124; 5,118,802; 5,138,045; 5,414,077; 5,486, 603; 5,512,439; 5,578,718; 5,608,046; 4,587,044; 4,605,735; 4,667,025; 4,762, 779; 4,789,737; 4,824,941; 4,835,263; 4,876,335; 4,904,582; 4,958,013; 5,082, 830; 5,112,963; 5,214,136; 5,082,830; 5,112,963; 5,214,136; 5, 245,022; 5,254,469; 5,258,506; 5,262,536; 5,272,250; 5,292,873; 5,317,098; 5,371,241, 5,391, 723; 5,416,203, 5,451,463; 5,510,475; 5,512,667; 5,514,785; 5, 565,552; 5,567,810; 5,574,142; 5,585,481; 5,587,371; 5,595,726; 5,597,696; 5,599,923; 5,599, 928 and 5,688,941, each of which is herein incorporated by reference.

These moieties or conjugates can include conjugate groups covalently bound to functional groups such as primary or secondary hydroxyl groups. Conjugate groups of the invention include intercalators, reporter molecules, polyamines, polyamides, polyethylene glycols, polyethers, groups that enhance the pharmacodynamic properties of oligomers, and groups that enhance the pharmacokinetic properties of oligomers. Typical conjugate groups include cholesterols, lipids, phospholipids, biotin, phenazine, folate, phenanthridine, anthraquinone, acridine, fluoresceins, rhodamines, coumarins, and dyes. Groups that enhance the pharmacodynamic properties, in the context of this invention, include groups that improve uptake, enhance resistance to degradation, and/or strengthen sequence-specific hybridization with the target nucleic acid. Groups that enhance the pharmacokinetic properties, in the context of this invention, include groups that improve uptake, distribution, metabolism or excretion of the compounds of the present invention. Representative conjugate groups are disclosed in International Patent Application No. PCT/US92/09196, filed Oct. 23, 1992, and U.S. Pat. No. 6,287,860, which are incorporated herein by reference. Conjugate moieties include, but are not limited to, lipid moieties such as a cholesterol moiety, cholic acid, a thioether, e.g., hexyl-5-tritylthiol, a thiocholesterol, an aliphatic chain, e.g., dodecandiol or undecyl residues, a phospholipid, e.g., di-hexadecyl-rac- glycerol or triethylammonium l,2-di-O-hexadecyl-rac-glycero-3-H-phosphonate, a polyamine or a polyethylene glycol chain, or adamantane acetic acid, a palmityl moiety, or an octadecylamine or hexylamino-carbonyl-oxy cholesterol moiety. See, e.g., U.S. Pat. Nos. 4,828,979; 4,948,882; 5,218,105; 5,525,465; 5,541,313; 5,545,730; 5,552,538; 5,578,717, 5,580,731; 5,580,731; 5,591,584; 5,109,124; 5,118,802; 5,138,045; 5,414,077; 5,486,603; 5,512,439; 5,578,718; 5,608,046; 4,587,044; 4,605,735; 4,667,025; 4,762,779; 4,789,737; 4,824,941; 4,835,263; 4,876,335; 4,904,582; 4,958,013; 5,082,830; 5,112,963; 5,214,136;

5,082,830; 5,112,963; 5,214,136; 5,245,022; 5,254,469; 5,258,506; 5,262,536; 5,272,250; 5,292,873; 5,317,098; 5,371,241, 5,391,723; 5,416,203, 5,451,463; 5,510,475; 5,512,667; 5,514,785; 5,565,552; 5,567,810; 5,574,142; 5,585,481; 5,587,371; 5,595,726; 5,597,696; 5,599,923; 5,599,928 and 5,688,941.

The inhibitory nucleic acids useful in the present methods are sufficiently complementary to the target RNA, e.g., hybridize sufficiently well and with sufficient biological functional specificity, to give the desired effect. "Complementary" refers to the capacity for pairing, through base stacking and specific hydrogen bonding, between two sequences comprising naturally or non-naturally occurring (e.g., modified as described above) bases (nucleosides) or analogs thereof. For example, if a base at one position of an inhibitory nucleic acid is capable of hydrogen bonding with a base at the corresponding position of an RNA, then the bases are considered to be complementary to each other at that position. 100% complementarity is not required. As noted above, inhibitory nucleic acids can comprise universal bases, or inert abasic spacers that provide no positive or negative contribution to hydrogen bonding. Base pairings may include both canonical Watson-Crick base pairing and non-Watson-Crick base pairing (e.g., Wobble base pairing and Hoogsteen base pairing). It is understood that for complementary base pairings, adenosine-type bases (A) are complementary to thymidine-type bases (T) or uracil-type bases (U), that cytosine-type bases (C) are complementary to guanosine-type bases (G), and that universal bases such as such as 3-nitropyrrole or 5-nitroindole can hybridize to and are considered complementary to any A, C, U, or T. Nichols et al., Nature, 1994;369:492-493 and Loakes et al., Nucleic Acids Res., 1994;22:4039-4043. Inosine (I) has also been considered in the art to be a universal base and is considered complementary to any A, C, U, or T. See Watkins and SantaLucia, Nucl. Acids Research, 2005; 33 (19): 6258-6267.

In some embodiments, the location on a target RNA to which an inhibitory nucleic acids hybridizes is defined as a region to which a protein binding partner binds, as shown in Tables 1-3. Routine methods can be used to design an inhibitory nucleic acid that binds to this sequence with sufficient specificity. In some embodiments, the methods include using bioinformatics methods known in the art to identify regions of secondary structure, e.g., one, two, or more stem-loop structures, or pseudoknots, and selecting those regions to target with an inhibitory nucleic acid. For example, methods of designing oligonucleotides similar to the inhibitory nucleic acids described herein, and various options for modified chemistries or formats, are exemplified in Lennox and Behlke, Gene Therapy (2011) 18:

1111-1120, which is incorporated herein by reference in its entirety, with the understanding that the present disclosure does not target miRNA 'seed regions'.

While the specific sequences of certain exemplary target segments are set forth herein, one of skill in the art will recognize that these serve to illustrate and describe particular embodiments within the scope of the present invention. Additional target segments are readily identifiable by one having ordinary skill in the art in view of this disclosure. Target segments 5-500 nucleotides in length comprising a stretch of at least five (5) consecutive nucleotides within the protein binding region, or immediately adjacent thereto, are considered to be suitable for targeting as well. Target segments can include sequences that comprise at least the 5 consecutive nucleotides from the 5 '-terminus of one of the protein binding regions (the remaining nucleotides being a consecutive stretch of the same RNA beginning immediately upstream of the 5'-terminus of the binding segment and continuing until the inhibitory nucleic acid contains about 5 to about 100 nucleotides). Similarly preferred target segments are represented by RNA sequences that comprise at least the 5 consecutive nucleotides from the 3 '-terminus of one of the illustrative preferred target segments (the remaining nucleotides being a consecutive stretch of the same RNA beginning immediately downstream of the 3'-terminus of the target segment and continuing until the inhibitory nucleic acid contains about 5 to about 100 nucleotides). One having skill in the art armed with the sequences provided herein will be able, without undue experimentation, to identify further preferred protein binding regions to target with complementary inhibitory nucleic acids.

In the context of the present disclosure, hybridization means base stacking and hydrogen bonding, which may be Watson-Crick, Hoogsteen or reversed Hoogsteen hydrogen bonding, between complementary nucleoside or nucleotide bases. For example, adenine and thymine are complementary nucleobases which pair through the formation of hydrogen bonds. Complementary, as the term is used in the art, refers to the capacity for precise pairing between two nucleotides. For example, if a nucleotide at a certain position of an oligonucleotide is capable of hydrogen bonding with a nucleotide at the same position of a RNA molecule, then the inhibitory nucleic acid and the RNA are considered to be complementary to each other at that position. The inhibitory nucleic acids and the RNA are complementary to each other when a sufficient number of corresponding positions in each molecule are occupied by nucleotides that can hydrogen bond with each other through their bases. Thus, "specifically hybridizable" and "complementary" are terms which are used to

indicate a sufficient degree of complementarity or precise pairing such that stable and specific binding occurs between the inhibitory nucleic acid and the RNA target. For example, if a base at one position of an inhibitory nucleic acid is capable of hydrogen bonding with a base at the corresponding position of a RNA, then the bases are considered to be complementary to each other at that position. 100% complementarity is not required.

It is understood in the art that a complementary nucleic acid sequence need not be 100% complementary to that of its target nucleic acid to be specifically hybridizable. A complementary nucleic acid sequence for purposes of the present methods is specifically hybridizable when binding of the sequence to the target RNA molecule interferes with the normal function of the target RNA to cause a loss of activity (e.g., inhibiting PRC1-associated repression with consequent up-regulation of gene expression) and there is a sufficient degree of complementarity to avoid non-specific binding of the sequence to non-target RNA sequences under conditions in which avoidance of the non-specific binding is desired, e.g., under physiological conditions in the case of in vivo assays or therapeutic treatment, and in the case of in vitro assays, under conditions in which the assays are performed under suitable conditions of stringency. For example, stringent salt concentration will ordinarily be less than about 750 mM NaCl and 75 mM trisodium citrate, preferably less than about 500 mM NaCl and 50 mM trisodium citrate, and more preferably less than about 250 mM NaCl and 25 mM trisodium citrate. Low stringency hybridization can be obtained in the absence of organic solvent, e.g., formamide, while high stringency hybridization can be obtained in the presence of at least about 35% formamide, and more preferably at least about 50% formamide. Stringent temperature conditions will ordinarily include temperatures of at least about 30° C, more preferably of at least about 37° C, and most preferably of at least about 42° C. Varying additional parameters, such as hybridization time, the concentration of detergent, e.g., sodium dodecyl sulfate (SDS), and the inclusion or exclusion of carrier DNA, are well known to those skilled in the art. Various levels of stringency are accomplished by combining these various conditions as needed. In a preferred embodiment, hybridization will occur at 30° C in 750 mM NaCl, 75 mM trisodium citrate, and 1% SDS. In a more preferred embodiment, hybridization will occur at 37° C in 500 mM NaCl, 50 mM trisodium citrate, 1% SDS, 35% formamide, and 100 μg/ml denatured salmon sperm DNA (ssDNA). In a most preferred embodiment, hybridization will occur at 42° C in 250 mM NaCl, 25 mM trisodium citrate, 1% SDS, 50%

formamide, and 200 μg/ml ssDNA. Useful variations on these conditions will be readily apparent to those skilled in the art.

For most applications, washing steps that follow hybridization will also vary in stringency. Wash stringency conditions can be defined by salt concentration and by temperature. As above, wash stringency can be increased by decreasing salt concentration or by increasing temperature. For example, stringent salt concentration for the wash steps will preferably be less than about 30 mM NaCl and 3 mM trisodium citrate, and most preferably less than about 15 mM NaCl and 1.5 mM trisodium citrate. Stringent temperature conditions for the wash steps will ordinarily include a temperature of at least about 25° C, more preferably of at least about 42° C, and even more preferably of at least about 68° C. In a preferred embodiment, wash steps will occur at 25° C in 30 mM NaCl, 3 mM trisodium citrate, and 0.1% SDS. In a more preferred embodiment, wash steps will occur at 42° C. in 15 mM NaCl, 1.5 mM trisodium citrate, and 0.1% SDS. In a more preferred embodiment, wash steps will occur at 68° C in 15 mM NaCl, 1.5 mM trisodium citrate, and 0.1% SDS. Additional variations on these conditions will be readily apparent to those skilled in the art. Hybridization techniques are well known to those skilled in the art and are described, for example, in Benton and Davis (Science 196:180, 1977); Grunstein and Hogness (Proc. Natl. Acad. Sci., USA 72:3961, 1975); Ausubel et al. (Current Protocols in Molecular Biology, Wiley Interscience, New York, 2001); Berger and Kimmel (Guide to Molecular Cloning Techniques, 1987, Academic Press, New York); and Sambrook et al., Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Laboratory Press, New York.

In general, the inhibitory nucleic acids useful in the methods described herein have at least 80% sequence complementarity to a target region within the target nucleic acid, e.g., 90%, 95%, or 100% sequence complementarity to the target region within an RNA. For example, an antisense compound in which 18 of 20 nucleobases of the antisense oligonucleotide are complementary, and would therefore specifically hybridize, to a target region would represent 90 percent complementarity. Percent complementarity of an inhibitory nucleic acid with a region of a target nucleic acid can be determined routinely using basic local alignment search tools (BLAST programs) (Altschul et al., J. Mol. Biol., 1990, 215, 403-410; Zhang and Madden, Genome Res., 1997, 7, 649-656). Antisense and other compounds of the invention that hybridize to an RNA are identified through routine experimentation. In general the inhibitory nucleic acids must retain specificity for their

target, i.e., either do not directly bind to, or do not directly significantly affect expression levels of, transcripts other than the intended target.

Target-specific effects, with corresponding target-specific functional biological effects, are possible even when the inhibitory nucleic acid exhibits non-specific binding to a large number of non-target RNAs. For example, short 8 base long inhibitory nucleic acids that are fully complementary to a RNA may have multiple 100% matches to hundreds of sequences in the genome, yet may produce target-specific effects, e.g. upregulation of a specific target gene through inhibition of PRC1 activity. 8-base inhibitory nucleic acids have been reported to prevent exon skipping with with a high degree of specificity and reduced off-target effect. See Singh et al., RNA Biol., 2009; 6(3): 341–350. 8-base inhibitory nucleic acids have been reported to interfere with miRNA activity without significant off-target effects. See Obad et al., Nature Genetics, 2011; 43: 371–378.

For further disclosure regarding inhibitory nucleic acids, please see US2010/0317718 (antisense oligos); US2010/0249052 (double-stranded ribonucleic acid (dsRNA)); US2009/0181914 and US2010/0234451 (LNA molecules); US2007/0191294 (siRNA analogues); US2008/0249039 (modified siRNA); and WO2010/129746 and WO2010/040112 (inhibitory nucleic acids).

Antisense

In some embodiments, the inhibitory nucleic acids are antisense oligonucleotides. Antisense oligonucleotides are typically designed to block expression of a DNA or RNA target by binding to the target and halting expression at the level of transcription, translation, or splicing. Antisense oligonucleotides of the present invention are complementary nucleic acid sequences designed to hybridize under stringent conditions to an RNA *in vitro*, and are expected to inhibit the activity of PRC1 *in vivo*. Thus, oligonucleotides are chosen that are sufficiently complementary to the target, i.e., that hybridize sufficiently well and with sufficient biological functional specificity, to give the desired effect.

Modified Base, including Locked Nucleic Acids (LNAs)

In some embodiments, the inhibitory nucleic acids used in the methods described herein comprise one or more modified bonds or bases. Modified bases include phosphorothioate, methylphosphonate, peptide nucleic acids, or locked nucleic acids (LNAs). Preferably, the modified nucleotides are part of locked nucleic acid molecules,

including [alpha]-L-LNAs. LNAs include ribonucleic acid analogues wherein the ribose ring is "locked" by a methylene bridge between the 2'-oxgygen and the 4'-carbon – i.e., oligonucleotides containing at least one LNA monomer, that is, one 2'-*O*,4'-*C*-methylene-*β*-D-ribofuranosyl nucleotide. LNA bases form standard Watson-Crick base pairs but the locked configuration increases the rate and stability of the basepairing reaction (Jepsen et al., Oligonucleotides, 14, 130-146 (2004)). LNAs also have increased affinity to base pair with RNA as compared to DNA. These properties render LNAs especially useful as probes for fluorescence in situ hybridization (FISH) and comparative genomic hybridization, as knockdown tools for miRNAs, and as antisense oligonucleotides to target mRNAs or other RNAs, e.g., RNAs as described herien.

The modified base/LNA molecules can include molecules comprising 10-30, e.g., 12-24, e.g., 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, or 30 nucleotides in each strand, wherein one of the strands is substantially identical, e.g., at least 80% (or more, e.g., 85%, 90%, 95%, or 100%) identical, e.g., having 3, 2, 1, or 0 mismatched nucleotide(s), to a target region in the RNA. The modified base/LNA molecules can be chemically synthesized using methods known in the art.

The modified base/LNA molecules can be designed using any method known in the art; a number of algorithms are known, and are commercially available (e.g., on the internet, for example at exiqon.com). See, e.g., You et al., Nuc. Acids. Res. 34:e60 (2006); McTigue et al., Biochemistry 43:5388-405 (2004); and Levin et al., Nuc. Acids. Res. 34:e142 (2006). For example, "gene walk" methods, similar to those used to design antisense oligos, can be used to optimize the inhibitory activity of a modified base/LNA molecule; for example, a series of oligonucleotides of 10-30 nucleotides spanning the length of a target RNA can be prepared, followed by testing for activity. Optionally, gaps, e.g., of 5-10 nucleotides or more, can be left between the LNAs to reduce the number of oligonucleotides synthesized and tested. GC content is preferably between about 30-60 %. General guidelines for designing modified base/LNA molecules are known in the art; for example, LNA sequences will bind very tightly to other LNA sequences, so it is preferable to avoid significant complementarity within an LNA molecule. Contiguous runs of three or more Gs or Cs, or more than four LNA residues, should be avoided where possible (for example, it may not be possible with very short (e.g., about 9-10 nt) oligonucleotides). In some embodiments, the LNAs are xylo-LNAs.

For additional information regarding LNA molecules see U.S. Pat. Nos. 6,268,490; 6,734,291; 6,770,748; 6,794,499; 7,034,133; 7,053,207; 7,060,809; 7,084,125; and 7,572,582; and U.S. Pre-Grant Pub. Nos. 20100267018; 20100261175; and 20100035968; Koshkin et al. Tetrahedron 54, 3607–3630 (1998); Obika et al. Tetrahedron Lett. 39, 5401–5404 (1998); Jepsen et al., Oligonucleotides 14:130–146 (2004); Kauppinen et al., Drug Disc. Today 2(3):287-290 (2005); and Ponting et al., Cell 136(4):629–641 (2009), and references cited therein.

As demonstrated herein and previously (see, e.g., WO 2012/065143 and WO 2012/087983, incorporated herein by reference), LNA molecules can be used as a valuable tool to manipulate and aid analysis of RNAs. Advantages offered by an LNA molecule-based system are the relatively low costs, easy delivery, and rapid action. While other inhibitory nucleic acids may exhibit effects after longer periods of time, LNA molecules exhibit effects that are more rapid, e.g., a comparatively early onset of activity, are fully reversible after a recovery period following the synthesis of new RNA, and occur without causing substantial or substantially complete RNA cleavage or degradation. One or more of these design properties may be desired properties of the inhibitory nucleic acids of the invention. Additionally, LNA molecules make possible the systematic targeting of domains within much longer nuclear transcripts. Although a PNA-based system has been described earlier, the effects on Xi were apparent only after 24 hours (Beletskii et al., Proc Natl Acad Sci USA. 2001;98:9215–9220). The LNA technology enables high-throughput screens for functional analysis of non-coding RNAs and also provides a novel tool to manipulate chromatin states *in vivo* for therapeutic applications.

In various related aspects, the methods described herein include using LNA molecules to target RNAs for a number of uses, including as a research tool to probe the function of a specific RNA, e.g., *in vitro* or *in vivo*. The methods include selecting one or more desired RNAs, designing one or more LNA molecules that target the RNA, providing the designed LNA molecule, and administering the LNA molecule to a cell or animal. The methods can optionally include selecting a region of the RNA and designing one or more LNA molecules that target that region of the RNA.

Aberrant imprinted gene expression is implicated in several diseases including Long QT syndrome, Beckwith-Wiedemann, Prader-Willi, and Angelman syndromes, as well as behavioral disorders and carcinogenesis (see, e.g., Falls et al., Am. J. Pathol. 154:635-647 (1999); Lalande, Annu Rev Genet 30:173-195 (1996); Hall Annu Rev Med. 48:35-44

(1997)). LNA molecules can be created to treat such imprinted diseases. As one example, the long QT Syndrome can be caused by a K+ gated Calcium-channel encoded by Kcnq1. This gene is regulated by its antisense counterpart, the long noncoding RNA, Kcnq1ot1 (Pandey et al., Mol Cell. 2008 Oct 24;32(2):232-46). Disease arises when Kcnq1ot1 is aberrantly expressed. LNA molecules can be created to downregulate Kcnq1ot1, thereby restoring expression of Kcnq1. As another example, LNA molecules could inhibit RNA cofactors for polycomb complex chromatin modifiers to reverse the imprinted defect.

From a commercial and clinical perspective, the timepoints between about 1 to 24 hours potentially define a window for epigenetic reprogramming. The advantage of the LNA system is that it works quickly, with a defined half-life, and is therefore reversible upon degradation of LNAs, at the same time that it provides a discrete timeframe during which epigenetic manipulations can be made. By targeting nuclear long RNAs, LNA molecules or similar polymers, e.g., xylo-LNAs, might be utilized to manipulate the chromatin state of cells in culture or *in vivo*, by transiently eliminating the regulatory RNA and associated proteins long enough to alter the underlying locus for therapeutic purposes. In particular, LNA molecules or similar polymers that specifically bind to, or are complementary to, PRC1-binding RNA can prevent recruitment of PRC1 to a specific chromosomal locus, in a gene-specific fashion.

LNA molecules might also be administered *in vivo* to treat other human diseases, such as but not limited to cancer, neurological disorders, infections, inflammation, and myotonic dystrophy. For example, LNA molecules might be delivered to tumor cells to downregulate the biologic activity of a growth-promoting or oncogenic long nuclear RNA (e.g., Gtl2 or MALAT1 (Luo et al., Hepatology. 44(4):1012-24 (2006)), a RNA associated with metastasis and is frequently upregulated in cancers). Repressive RNAs downregulating tumor suppressors can also be targeted by LNA molecules to promote reexpression. For example, expression of the INK4b/ARF/INK4a tumor suppressor locus is controlled by Polycomb group proteins including PRC1 and PRC1 and repressed by the antisense noncoding RNA ANRIL (Yap et al., Mol Cell. 2010 Jun 11;38(5):662-74). PRC1-binding regions described herein in ANRIL can be targeted by LNA molecules to promote reexpression of the INK4b/ARF/INK4a tumor suppressor. Some ncRNAs may be positive regulators of oncogenes. Such "activating ncRNAs" have been described recently (e.g., Jpx (Tian et al., Cell. 143(3):390-403 (2010) and others (Ørom et al., Cell. 143(1):46-58 (2010)). Therefore, LNA molecules could be directed at these activating ncRNAs to

downregulate oncogenes. LNA molecules could also be delivered to inflammatory cells to downregulate regulatory ncRNA that modulate the inflammatory or immune response. (e.g., LincRNA-Cox2, see Guttman et al., Nature. 458(7235):223-7. Epub 2009 Feb 1 (2009)).

In still other related aspects, the LNA molecules targeting PRC1-binding regions in RNAs described herein can be used to create animal or cell models of conditions associated with altered gene expression (e.g., as a result of altered epigenetics).

The methods described herein may also be useful for creating animal or cell models of other conditions associated with aberrant imprinted gene expression, e.g., as noted above.

In various related aspects, the results described herein demonstrate the utility of LNA molecules for targeting RNA, for example, to transiently disrupt chromatin for purposes of reprogramming chromatin states *ex vivo*. Because LNA molecules stably displace RNA for hours and chromatin does not rebuild for hours thereafter, LNA molecules create a window of opportunity to manipulate the epigenetic state of specific loci *ex vivo,* e.g., for reprogramming of hiPS and hESC prior to stem cell therapy. For example, Gtl2 controls expression of DLK1, which modulates the pluripotency of iPS cells. Low Gtl2 and high DLK1 is correlated with increased pluripotency and stability in human iPS cells. Thus, LNA molecules targeting Gtl2 can be used to inhibit differentiation and increase pluripotency and stability of iPS cells.

See also PCT/US11/60493, which is incorporated by reference herein in its entirety.

Interfering RNA, including siRNA/shRNA

In some embodiments, the inhibitory nucleic acid sequence that is complementary to an RNA can be an interfering RNA, including but not limited to a small interfering RNA ("siRNA") or a small hairpin RNA ("shRNA"). Methods for constructing interfering RNAs are well known in the art. For example, the interfering RNA can be assembled from two separate oligonucleotides, where one strand is the sense strand and the other is the antisense strand, wherein the antisense and sense strands are self-complementary (i.e., each strand comprises nucleotide sequence that is complementary to nucleotide sequence in the other strand; such as where the antisense strand and sense strand form a duplex or double stranded structure); the antisense strand comprises nucleotide sequence that is complementary to a nucleotide sequence in a target nucleic acid molecule or a portion thereof (i.e., an undesired gene) and the sense strand comprises nucleotide sequence corresponding to the target nucleic acid sequence or a portion thereof. Alternatively, interfering RNA is assembled from a single oligonucleotide, where the self-complementary sense and antisense regions

are linked by means of nucleic acid based or non-nucleic acid-based linker(s). The interfering RNA can be a polynucleotide with a duplex, asymmetric duplex, hairpin or asymmetric hairpin secondary structure, having self-complementary sense and antisense regions, wherein the antisense region comprises a nucleotide sequence that is complementary to nucleotide sequence in a separate target nucleic acid molecule or a portion thereof and the sense region having nucleotide sequence corresponding to the target nucleic acid sequence or a portion thereof. The interfering can be a circular single-stranded polynucleotide having two or more loop structures and a stem comprising self-complementary sense and antisense regions, wherein the antisense region comprises nucleotide sequence that is complementary to nucleotide sequence in a target nucleic acid molecule or a portion thereof and the sense region having nucleotide sequence corresponding to the target nucleic acid sequence or a portion thereof, and wherein the circular polynucleotide can be processed either in vivo or in vitro to generate an active siRNA molecule capable of mediating RNA interference.

In some embodiments, the interfering RNA coding region encodes a self-complementary RNA molecule having a sense region, an antisense region and a loop region. Such an RNA molecule when expressed desirably forms a "hairpin" structure, and is referred to herein as an "shRNA." The loop region is generally between about 2 and about 10 nucleotides in length. In some embodiments, the loop region is from about 6 to about 9 nucleotides in length. In some embodiments, the sense region and the antisense region are between about 15 and about 20 nucleotides in length. Following post-transcriptional processing, the small hairpin RNA is converted into a siRNA by a cleavage event mediated by the enzyme Dicer, which is a member of the RNase III family. The siRNA is then capable of inhibiting the expression of a gene with which it shares homology. For details, see Brummelkamp et al., Science 296:550-553, (2002); Lee et al, Nature Biotechnol., 20, 500-505, (2002); Miyagishi and Taira, Nature Biotechnol 20:497-500, (2002); Paddison et al. Genes & Dev. 16:948-958, (2002); Paul, Nature Biotechnol, 20, 505-508, (2002); Sui, Proc. Natl. Acad. Sd. USA, 99(6), 5515-5520, (2002); Yu et al. Proc NatlAcadSci USA 99:6047-6052, (2002).

The target RNA cleavage reaction guided by siRNAs is highly sequence specific. In general, siRNA containing a nucleotide sequences identical to a portion of the target nucleic acid are preferred for inhibition. However, 100% sequence identity between the siRNA and the target gene is not required to practice the present invention. Thus the invention has the

advantage of being able to tolerate sequence variations that might be expected due to genetic mutation, strain polymorphism, or evolutionary divergence. For example, siRNA sequences with insertions, deletions, and single point mutations relative to the target sequence have also been found to be effective for inhibition. Alternatively, siRNA sequences with nucleotide analog substitutions or insertions can be effective for inhibition. In general the siRNAs must retain specificity for their target, i.e., must not directly bind to, or directly significantly affect expression levels of, transcripts other than the intended target.

Ribozymes

In some embodiments, the inhibitory nucleic acids are ribozymes. Trans-cleaving enzymatic nucleic acid molecules can also be used; they have shown promise as therapeutic agents for human disease (Usman & McSwiggen, 1995 Ann. Rep. Med. Chem. 30, 285-294; Christoffersen and Marr, 1995 J. Med. Chem. 38, 2023-2037). Enzymatic nucleic acid molecules can be designed to cleave specific RNA targets within the background of cellular RNA. Such a cleavage event renders the RNA non- functional.

In general, enzymatic nucleic acids with RNA cleaving activity act by first binding to a target RNA. Such binding occurs through the target binding portion of a enzymatic nucleic acid which is held in close proximity to an enzymatic portion of the molecule that acts to cleave the target RNA. Thus, the enzymatic nucleic acid first recognizes and then binds a target RNA through complementary base pairing, and once bound to the correct site, acts enzymatically to cut the target RNA. Strategic cleavage of such a target RNA will destroy its ability to direct synthesis of an encoded protein. After an enzymatic nucleic acid has bound and cleaved its RNA target, it is released from that RNA to search for another target and can repeatedly bind and cleave new targets.

Several approaches such as in vitro selection (evolution) strategies (Orgel, 1979, Proc. R. Soc. London, B 205, 435) have been used to evolve new nucleic acid catalysts capable of catalyzing a variety of reactions, such as cleavage and ligation of phosphodiester linkages and amide linkages, (Joyce, 1989, Gene, 82, 83-87; Beaudry et al., 1992, Science 257, 635-641; Joyce, 1992, Scientific American 267, 90-97; Breaker et al, 1994, TIBTECH 12, 268; Bartel et al, 1993, Science 261 :1411-1418; Szostak, 1993, TIBS 17, 89-93; Kumar et al, 1995, FASEB J., 9, 1183; Breaker, 1996, Curr. Op. Biotech., 1, 442). The development of ribozymes that are optimal for catalytic activity would contribute significantly to any strategy that employs RNA-cleaving ribozymes for the purpose of regulating gene expression. The hammerhead ribozyme, for example, functions with a

catalytic rate (kcat) of about 1 min $^{-1}$ in the presence of saturating (10 MM) concentrations of Mg^{2+} cofactor. An artificial "RNA ligase" ribozyme has been shown to catalyze the corresponding self-modification reaction with a rate of about 100 min^{-1}. In addition, it is known that certain modified hammerhead ribozymes that have substrate binding arms made of DNA catalyze RNA cleavage with multiple turn-over rates that approach 100 min^{-1}.

Making and Using Inhibitory Nucleic Acids

The nucleic acid sequences used to practice the methods described herein, whether RNA, cDNA, genomic DNA, vectors, viruses or hybrids thereof, can be isolated from a variety of sources, genetically engineered, amplified, and/or expressed/ generated recombinantly. If desired, nucleic acid sequences of the invention can be inserted into delivery vectors and expressed from transcription units within the vectors. The recombinant vectors can be DNA plasmids or viral vectors. Generation of the vector construct can be accomplished using any suitable genetic engineering techniques well known in the art, including, without limitation, the standard techniques of PCR, oligonucleotide synthesis, restriction endonuclease digestion, ligation, transformation, plasmid purification, and DNA sequencing, for example as described in Sambrook et al. Molecular Cloning: A Laboratory Manual. (1989)), Coffin et al. (Retroviruses. (1997)) and “RNA Viruses: A Practical Approach” (Alan J. Cann, Ed., Oxford University Press, (2000)).

Preferably, inhibitory nucleic acids of the invention are synthesized chemically. Nucleic acid sequences used to practice this invention can be synthesized in vitro by well-known chemical synthesis techniques, as described in, e.g., Adams (1983) J. Am. Chem. Soc. 105:661; Belousov (1997) Nucleic Acids Res. 25:3440-3444; Frenkel (1995) Free Radic. Biol. Med. 19:373-380; Blommers (1994) Biochemistry 33:7886-7896; Narang (1979) Meth. Enzymol. 68:90; Brown (1979) Meth. Enzymol. 68:109; Beaucage (1981) Tetra. Lett. 22:1859; U.S. Patent No. 4,458,066; WO/2008/043753 and WO/2008/049085, and the refences cited therein.

Nucleic acid sequences of the invention can be stabilized against nucleolytic degradation such as by the incorporation of a modification, e.g., a nucleotide modification. For example, nucleic acid sequences of the invention includes a phosphorothioate at least the first, second, or third internucleotide linkage at the 5' or 3' end of the nucleotide sequence. As another example, the nucleic acid sequence can include a 2'-modified nucleotide, e.g., a 2'-deoxy, 2'-deoxy-2'-fluoro, 2'-O-methyl, 2'-O-methoxyethyl (2'-O-MOE), 2'-O-aminopropyl (2'-O-AP), 2'-O-dimethylaminoethyl (2'-O-DMAOE), 2'-O-

dimethylaminopropyl (2'-O-DMAP), 2'-O-dimethylaminoethyloxyethyl (2'-O-DMAEOE), or 2'-O--N-methylacetamido (2'-O--NMA). As another example, the nucleic acid sequence can include at least one 2'-O-methyl-modified nucleotide, and in some embodiments, all of the nucleotides include a 2'-O-methyl modification. In some embodiments, the nucleic acids are "locked," i.e., comprise nucleic acid analogues in which the ribose ring is "locked" by a methylene bridge connecting the 2'-O atom and the 4'-C atom (see, e.g., Kaupinnen et al., Drug Disc. Today 2(3):287-290 (2005); Koshkin et al., J. Am. Chem. Soc., 120(50):13252–13253 (1998)). For additional modifications see US 20100004320, US 20090298916, and US 20090143326.

It is understood that any of the modified chemistries or formats of inhibitory nucleic acids described herein can be combined with each other, and that one, two, three, four, five, or more different types of modifications can be included within the same molecule.

Techniques for the manipulation of nucleic acids used to practice this invention, such as, e.g., subcloning, labeling probes (e.g., random-primer labeling using Klenow polymerase, nick translation, amplification), sequencing, hybridization and the like are well described in the scientific and patent literature, see, e.g., Sambrook et al., Molecular Cloning; A Laboratory Manual 3d ed. (2001); Current Protocols in Molecular Biology, Ausubel et al., eds. (John Wiley & Sons, Inc., New York 2010); Kriegler, Gene Transfer and Expression: A Laboratory Manual (1990); Laboratory Techniques In Biochemistry And Molecular Biology: Hybridization With Nucleic Acid Probes, Part I. Theory and Nucleic Acid Preparation, Tijssen, ed. Elsevier, N.Y. (1993).

Pharmaceutical Compositions

The methods described herein can include the administration of pharmaceutical compositions and formulations comprising inhibitory nucleic acid sequences designed to target an RNA.

In some embodiments, the compositions are formulated with a pharmaceutically acceptable carrier. The pharmaceutical compositions and formulations can be administered parenterally, topically, orally or by local administration, such as by aerosol or transdermally. The pharmaceutical compositions can be formulated in any way and can be administered in a variety of unit dosage forms depending upon the condition or disease and the degree of illness, the general medical condition of each patient, the resulting preferred method of administration and the like. Details on techniques for formulation and

administration of pharmaceuticals are well described in the scientific and patent literature, see, e.g., Remington: The Science and Practice of Pharmacy, 21st ed., 2005.

The inhibitory nucleic acids can be administered alone or as a component of a pharmaceutical formulation (composition). The compounds may be formulated for administration, in any convenient way for use in human or veterinary medicine. Wetting agents, emulsifiers and lubricants, such as sodium lauryl sulfate and magnesium stearate, as well as coloring agents, release agents, coating agents, sweetening, flavoring and perfuming agents, preservatives and antioxidants can also be present in the compositions.

Formulations of the compositions of the invention include those suitable for intradermal, inhalation, oral/ nasal, topical, parenteral, rectal, and/or intravaginal administration. The formulations may conveniently be presented in unit dosage form and may be prepared by any methods well known in the art of pharmacy. The amount of active ingredient (e.g., nucleic acid sequences of this invention) which can be combined with a carrier material to produce a single dosage form will vary depending upon the host being treated, the particular mode of administration, e.g., intradermal or inhalation. The amount of active ingredient which can be combined with a carrier material to produce a single dosage form will generally be that amount of the compound which produces a therapeutic effect, e.g., an antigen specific T cell or humoral response.

Pharmaceutical formulations of this invention can be prepared according to any method known to the art for the manufacture of pharmaceuticals. Such drugs can contain sweetening agents, flavoring agents, coloring agents and preserving agents. A formulation can be admixtured with nontoxic pharmaceutically acceptable excipients which are suitable for manufacture. Formulations may comprise one or more diluents, emulsifiers, preservatives, buffers, excipients, etc. and may be provided in such forms as liquids, powders, emulsions, lyophilized powders, sprays, creams, lotions, controlled release formulations, tablets, pills, gels, on patches, in implants, etc.

Pharmaceutical formulations for oral administration can be formulated using pharmaceutically acceptable carriers well known in the art in appropriate and suitable dosages. Such carriers enable the pharmaceuticals to be formulated in unit dosage forms as tablets, pills, powder, dragees, capsules, liquids, lozenges, gels, syrups, slurries, suspensions, etc., suitable for ingestion by the patient. Pharmaceutical preparations for oral use can be formulated as a solid excipient, optionally grinding a resulting mixture, and processing the mixture of granules, after adding suitable additional compounds, if desired,

to obtain tablets or dragee cores. Suitable solid excipients are carbohydrate or protein fillers include, e.g., sugars, including lactose, sucrose, mannitol, or sorbitol; starch from corn, wheat, rice, potato, or other plants; cellulose such as methyl cellulose, hydroxypropylmethyl-cellulose, or sodium carboxy-methylcellulose; and gums including arabic and tragacanth; and proteins, e.g., gelatin and collagen. Disintegrating or solubilizing agents may be added, such as the cross-linked polyvinyl pyrrolidone, agar, alginic acid, or a salt thereof, such as sodium alginate. Push-fit capsules can contain active agents mixed with a filler or binders such as lactose or starches, lubricants such as talc or magnesium stearate, and, optionally, stabilizers. In soft capsules, the active agents can be dissolved or suspended in suitable liquids, such as fatty oils, liquid paraffin, or liquid polyethylene glycol with or without stabilizers.

Aqueous suspensions can contain an active agent (e.g., nucleic acid sequences of the invention) in admixture with excipients suitable for the manufacture of aqueous suspensions, e.g., for aqueous intradermal injections. Such excipients include a suspending agent, such as sodium carboxymethylcellulose, methylcellulose, hydroxypropylmethylcellulose, sodium alginate, polyvinylpyrrolidone, gum tragacanth and gum acacia, and dispersing or wetting agents such as a naturally occurring phosphatide (e.g., lecithin), a condensation product of an alkylene oxide with a fatty acid (e.g., polyoxyethylene stearate), a condensation product of ethylene oxide with a long chain aliphatic alcohol (e.g., heptadecaethylene oxycetanol), a condensation product of ethylene oxide with a partial ester derived from a fatty acid and a hexitol (e.g., polyoxyethylene sorbitol mono-oleate), or a condensation product of ethylene oxide with a partial ester derived from fatty acid and a hexitol anhydride (e.g., polyoxyethylene sorbitan mono-oleate). The aqueous suspension can also contain one or more preservatives such as ethyl or n-propyl p-hydroxybenzoate, one or more coloring agents, one or more flavoring agents and one or more sweetening agents, such as sucrose, aspartame or saccharin. Formulations can be adjusted for osmolarity.

In some embodiments, oil-based pharmaceuticals are used for administration of nucleic acid sequences of the invention. Oil-based suspensions can be formulated by suspending an active agent in a vegetable oil, such as arachis oil, olive oil, sesame oil or coconut oil, or in a mineral oil such as liquid paraffin; or a mixture of these. See e.g., U.S. Patent No. 5,716,928 describing using essential oils or essential oil components for increasing bioavailability and reducing inter- and intra-individual variability of orally

administered hydrophobic pharmaceutical compounds (see also U.S. Patent No. 5,858,401). The oil suspensions can contain a thickening agent, such as beeswax, hard paraffin or cetyl alcohol. Sweetening agents can be added to provide a palatable oral preparation, such as glycerol, sorbitol or sucrose. These formulations can be preserved by the addition of an antioxidant such as ascorbic acid. As an example of an injectable oil vehicle, see Minto (1997) J. Pharmacol. Exp. Ther. 281:93-102.

Pharmaceutical formulations can also be in the form of oil-in-water emulsions. The oily phase can be a vegetable oil or a mineral oil, described above, or a mixture of these. Suitable emulsifying agents include naturally-occurring gums, such as gum acacia and gum tragacanth, naturally occurring phosphatides, such as soybean lecithin, esters or partial esters derived from fatty acids and hexitol anhydrides, such as sorbitan mono-oleate, and condensation products of these partial esters with ethylene oxide, such as polyoxyethylene sorbitan mono-oleate. The emulsion can also contain sweetening agents and flavoring agents, as in the formulation of syrups and elixirs. Such formulations can also contain a demulcent, a preservative, or a coloring agent. In alternative embodiments, these injectable oil-in-water emulsions of the invention comprise a paraffin oil, a sorbitan monooleate, an ethoxylated sorbitan monooleate and/or an ethoxylated sorbitan trioleate.

The pharmaceutical compounds can also be administered by in intranasal, intraocular and intravaginal routes including suppositories, insufflation, powders and aerosol formulations (for examples of steroid inhalants, see e.g., Rohatagi (1995) J. Clin. Pharmacol. 35:1187-1193; Tjwa (1995) Ann. Allergy Asthma Immunol. 75:107-111). Suppositories formulations can be prepared by mixing the drug with a suitable non-irritating excipient which is solid at ordinary temperatures but liquid at body temperatures and will therefore melt in the body to release the drug. Such materials are cocoa butter and polyethylene glycols.

In some embodiments, the pharmaceutical compounds can be delivered transdermally, by a topical route, formulated as applicator sticks, solutions, suspensions, emulsions, gels, creams, ointments, pastes, jellies, paints, powders, and aerosols.

In some embodiments, the pharmaceutical compounds can also be delivered as microspheres for slow release in the body. For example, microspheres can be administered via intradermal injection of drug which slowly release subcutaneously; see Rao (1995) J. Biomater Sci. Polym. Ed. 7:623-645; as biodegradable and injectable gel formulations, see,

e.g., Gao (1995) Pharm. Res. 12:857-863 (1995); or, as microspheres for oral administration, see, e.g., Eyles (1997) J. Pharm. Pharmacol. 49:669-674.

In some embodiments, the pharmaceutical compounds can be parenterally administered, such as by intravenous (IV) administration or administration into a body cavity or lumen of an organ. These formulations can comprise a solution of active agent dissolved in a pharmaceutically acceptable carrier. Acceptable vehicles and solvents that can be employed are water and Ringer's solution, an isotonic sodium chloride. In addition, sterile fixed oils can be employed as a solvent or suspending medium. For this purpose any bland fixed oil can be employed including synthetic mono- or diglycerides. In addition, fatty acids such as oleic acid can likewise be used in the preparation of injectables. These solutions are sterile and generally free of undesirable matter. These formulations may be sterilized by conventional, well known sterilization techniques. The formulations may contain pharmaceutically acceptable auxiliary substances as required to approximate physiological conditions such as pH adjusting and buffering agents, toxicity adjusting agents, e.g., sodium acetate, sodium chloride, potassium chloride, calcium chloride, sodium lactate and the like. The concentration of active agent in these formulations can vary widely, and will be selected primarily based on fluid volumes, viscosities, body weight, and the like, in accordance with the particular mode of administration selected and the patient's needs. For IV administration, the formulation can be a sterile injectable preparation, such as a sterile injectable aqueous or oleaginous suspension. This suspension can be formulated using those suitable dispersing or wetting agents and suspending agents. The sterile injectable preparation can also be a suspension in a nontoxic parenterally-acceptable diluent or solvent, such as a solution of 1,3-butanediol. The administration can be by bolus or continuous infusion (e.g., substantially uninterrupted introduction into a blood vessel for a specified period of time).

In some embodiments, the pharmaceutical compounds and formulations can be lyophilized. Stable lyophilized formulations comprising an inhibitory nucleic acid can be made by lyophilizing a solution comprising a pharmaceutical of the invention and a bulking agent, e.g., mannitol, trehalose, raffinose, and sucrose or mixtures thereof. A process for preparing a stable lyophilized formulation can include lyophilizing a solution about 2.5 mg/mL protein, about 15 mg/mL sucrose, about 19 mg/mL NaCl, and a sodium citrate buffer having a pH greater than 5.5 but less than 6.5. See, e.g., U.S. 20040028670.

The compositions and formulations can be delivered by the use of liposomes. By using liposomes, particularly where the liposome surface carries ligands specific for target cells, or are otherwise preferentially directed to a specific organ, one can focus the delivery of the active agent into target cells *in vivo*. See, e.g., U.S. Patent Nos. 6,063,400; 6,007,839; Al-Muhammed (1996) J. Microencapsul. 13:293-306; Chonn (1995) Curr. Opin. Biotechnol. 6:698-708; Ostro (1989) Am. J. Hosp. Pharm. 46:1576-1587. As used in the present invention, the term "liposome" means a vesicle composed of amphiphilic lipids arranged in a bilayer or bilayers. Liposomes are unilamellar or multilamellar vesicles that have a membrane formed from a lipophilic material and an aqueous interior that contains the composition to be delivered. Cationic liposomes are positively charged liposomes that are believed to interact with negatively charged DNA molecules to form a stable complex. Liposomes that are pH-sensitive or negatively-charged are believed to entrap DNA rather than complex with it. Both cationic and noncationic liposomes have been used to deliver DNA to cells.

Liposomes can also include "sterically stabilized" liposomes, i.e., liposomes comprising one or more specialized lipids. When incorporated into liposomes, these specialized lipids result in liposomes with enhanced circulation lifetimes relative to liposomes lacking such specialized lipids. Examples of sterically stabilized liposomes are those in which part of the vesicle-forming lipid portion of the liposome comprises one or more glycolipids or is derivatized with one or more hydrophilic polymers, such as a polyethylene glycol (PEG) moiety. Liposomes and their uses are further described in U.S. Pat. No. 6,287,860.

The formulations of the invention can be administered for prophylactic and/or therapeutic treatments. In some embodiments, for therapeutic applications, compositions are administered to a subject who is need of reduced triglyceride levels, or who is at risk of or has a disorder described herein, in an amount sufficient to cure, alleviate or partially arrest the clinical manifestations of the disorder or its complications; this can be called a therapeutically effective amount. For example, in some embodiments, pharmaceutical compositions of the invention are administered in an amount sufficient to decrease serum levels of triglycerides in the subject.

The amount of pharmaceutical composition adequate to accomplish this is a therapeutically effective dose. The dosage schedule and amounts effective for this use, i.e., the dosing regimen, will depend upon a variety of factors, including the stage of the disease

or condition, the severity of the disease or condition, the general state of the patient's health, the patient's physical status, age and the like. In calculating the dosage regimen for a patient, the mode of administration also is taken into consideration.

The dosage regimen also takes into consideration pharmacokinetics parameters well known in the art, i.e., the active agents' rate of absorption, bioavailability, metabolism, clearance, and the like (see, e.g., Hidalgo-Aragones (1996) J. Steroid Biochem. Mol. Biol. 58:611-617; Groning (1996) Pharmazie 51:337-341; Fotherby (1996) Contraception 54:59-69; Johnson (1995) J. Pharm. Sci. 84:1144-1146; Rohatagi (1995) Pharmazie 50:610-613; Brophy (1983) Eur. J. Clin. Pharmacol. 24:103-108; Remington: The Science and Practice of Pharmacy, 21st ed., 2005). The state of the art allows the clinician to determine the dosage regimen for each individual patient, active agent and disease or condition treated. Guidelines provided for similar compositions used as pharmaceuticals can be used as guidance to determine the dosage regiment, i.e., dose schedule and dosage levels, administered practicing the methods of the invention are correct and appropriate.

Single or multiple administrations of formulations can be given depending on for example: the dosage and frequency as required and tolerated by the patient, the degree and amount of therapeutic effect generated after each administration (e.g., effect on tumor size or growth), and the like. The formulations should provide a sufficient quantity of active agent to effectively treat, prevent or ameliorate conditions, diseases or symptoms.

In alternative embodiments, pharmaceutical formulations for oral administration are in a daily amount of between about 1 to 100 or more mg per kilogram of body weight per day. Lower dosages can be used, in contrast to administration orally, into the blood stream, into a body cavity or into a lumen of an organ. Substantially higher dosages can be used in topical or oral administration or administering by powders, spray or inhalation. Actual methods for preparing parenterally or non-parenterally administrable formulations will be known or apparent to those skilled in the art and are described in more detail in such publications as Remington: The Science and Practice of Pharmacy, 21st ed., 2005.

Various studies have reported successful mammalian dosing using complementary nucleic acid sequences. For example, Esau C., et al., (2006) Cell Metabolism, 3(2):87-98 reported dosing of normal mice with intraperitoneal doses of miR-122 antisense oligonucleotide ranging from 12.5 to 75 mg/kg twice weekly for 4 weeks. The mice appeared healthy and normal at the end of treatment, with no loss of body weight or reduced food intake. Plasma transaminase levels were in the normal range (AST ¾ 45, ALT ¾ 35)

for all doses with the exception of the 75 mg/kg dose of miR-122 ASO, which showed a very mild increase in ALT and AST levels. They concluded that 50mg/kg was an effective, non-toxic dose. Another study by Krützfeldt J., et al., (2005) Nature 438, 685-689, injected anatgomirs to silence miR-122 in mice using a total dose of 80, 160 or 240 mg per kg body weight. The highest dose resulted in a complete loss of miR-122 signal. In yet another study, locked nucleic acid molecules ("LNA molecules") were successfully applied in primates to silence miR-122. Elmen J., et al., (2008) Nature 452, 896-899, report that efficient silencing of miR-122 was achieved in primates by three doses of 10 mg kg-1 LNA-antimiR, leading to a long-lasting and reversible decrease in total plasma cholesterol without any evidence for LNA-associated toxicities or histopathological changes in the study animals.

In some embodiments, the methods described herein can include co-administration with other drugs or pharmaceuticals, e.g., compositions for providing cholesterol homeostasis. For example, the inhibitory nucleic acids can be co-administered with drugs for treating or reducing risk of a disorder described herein.

EXAMPLES

The invention is further described in the following examples, which do not limit the scope of the invention described in the claims.

Example 1. A Denaturing CLIP-seq Method for identifying RNA interactomes of chromatin complexes with high specificity

PRC1 is Polycomb Repressive Complex 1, a Polycomb complex that is biochemically distinct from PRC2. PRC1 is the ezymatic complex that ubiquitylates histone H2A at lysine 119 (H2AK119Ub). Action of PRC1 on chromatin results in chromatin compaction and transcriptional repression. Although PRC1 binds thousands of sites in the mammalian genome, how PRC1 is targeted to chromatin has remained a mystery. YY1 may recruit PRC1 in some contexts, but is unlikely to be the general mechanism. RNA-mediated targeting is another potential mechanism. PRC1 is known to interact with at least one RNA -- ANRIL (Yap et al., Mol Cell. 2010 Jun 11;38(5):662-74). This example describes methods that were developed to determing how many RNAs interact with PRC1 and whether they are a general recruiting tool for PRC1.

These "denaturing" CLIP-seq methods (also referred to herein as dCLIP-seq) utilize a biotin tag to enable purification of RNA-protein complexes under denaturing conditions to increase the specificity of the purification scheme. As shown in Figs. 1A-B, for the

denaturing CLIP method, cell lines stably expressing two vectors were prepared: vector #1 - expressing bacterial biotin ligase BirA under neomycin resistance; and vector #2 – expressing a protein of interest (here, PRC1) fused to a biotinylation tag or control vector under puromycin resistance. Both human HEK 293 kidney cells and mouse 16.7 ES cells were used. Cells were crosslinked by exposure to ultraviolet (UV) light (254 nm) at 150-400 mJ/cm^2 on ice depending on cell layer thickness, cellular lysates are prepared, then treated with DNAse to solubilize the chromatin, and protein-RNA complexes were pulled down using streptavidin beads. Importantly, the samples were then washed with a high stringency wash using 8 M urea + 0.1% SDS (range: 0.0-2.0%) at room temperature. Samples were then further washed in PBS + 2% SDS and further in high salt buffer (PBS + 750 mM NaCl + 1% NP40 + 0.5% NaDeoxycholate + 0.1% SDS), each at room temperature. Under such stringent conditions, most proteins are denatured, resulting in the loss of the nonspecific RNA-protein interactions. Only the extremely high-affinity biotin-avidin interaction survives. Thus, these steps can be used to effectively remove the vast majority of background RNA, resulting in extremely clean "peaks" of binding. The samples are then treated with DNAse to remove contaminating DNA. The RNA was phosphorylated using ^{32}P-ATP and run on SDS-PAGE and transferred onto a membrane. Broad bands corresponding to the RNA-PRC1 complex were identified by the presence of radioactive labeling (hot smear on the membrane) and then excised and eluted for cDNA preparation preparation prior to deep sequencing.

Peaks (high-frequency sequences, believed to correlate with protein binding sites on the RNA), were called by the following methods. About 40 million paired-end 50 nucleotide (nt) reads were generated for every dCLIP-seq sample. Adaptor sequences were trimmed with either Trim Galore! v0.3.3 (for dCLIP-seq; stringency 15 and allowed error rate 0.2), or cutadapt (v1.0). Identical sequences (PCR duplicates) were removed by custom programs prior to alignment. To account for the M. mus (mus) / M. castaneus (cas) hybrid character of mouse 16.7 ES cell line used for a dCLIP-seq, reads were first aligned to custom mus/129 and cas genomes, and then mapped back to the reference mm9 genome (Pinter et al., Genome Res 22, 1864-1876, 2012). For dCLIP-seq data obtained from human HEK293 cell line, alignments were performed to hg19 human reference genome. All alignments were performed with Tophat (v2.0.11) (Kim et al., Genome Biol 14, R36, 2013). Post-processing of alignments was performed with custom scripts using SAMtools (Li et al., Bioinformatics 25, 2078-2079, 2009), and BEDtools v2.17.0 (Quinlan and Hall,

Bioinformatics 26, 841-842, 2010). These included accounting, alignment file-type conversion, extracting and sorting reads (SAMtools), and obtaining wig coverage files (SAMtools depth).

Fragment per million (fpm) wig files were then created by scaling uniquely aligned wig files to total number of fragments per million in each library (determined by SAMtools flagstat combining reads "with itself and mate mapped" and "singletons"). Then consecutive wig entries of equal coverage were merged forming bed files that were used for peak calling. The peak caller software peakranger (v.16) (Uren et al., Bioinformatics 28, 3013-3020, 2012) was used. The software peakranger requires an even distribution of watson/crick entries, so prior to calling, strand specific bed file entries were randomized for strand. The software peakranger was called with arguments ranger –p 0.01 –-format bed –gene_annot_file (either mm9 or hg19 appropriate), –d experiment and –c mock-transfected control, to find narrow peaks with p-value 0.01 or less. To extract more uniquely aligned reads, a second round of peak calling was performed from the mus track, this time including "pegged" reads attained using tophat2 with the option –g 100. Pegged reads are singletons extracted from the reps track where the locus of one end is fixed locus and other varies. We then merged the results with the previous method.

Example 2. Human CBX7-RNA binding sites as determined by denaturing CLIP-seq analysis in Human 293 cells

CLIP-seq performed in human female embryonic kidney fibroblast line, HEK293, as described above in Example 1. CBX7 binding sites in the RNA are shown in Table 1. Peaks were called from uniquely mapped reads using the software peakranger (p=0.01). The resulting strand specific bed files were then converted to their respective strands. To produce non-overlapping peaks, entries, from two biological replicate bed files were expanded by 500 nucleotides on each side and merged. The envelope of 500 bases was added because RNA-protein interactions could be affected by changes in nucleic acid folding nearby, which in turn could cause allosteric effects on the RNA-protein interaction. Then the closest gene was determined for each entry (bedtools closest) and categorized as "Imprinted" gene, "Oncogene", and/or "Tumor Suppressor".

Our analysis turned up 5893 binding sites in RNA for human CBX7. The columns (c) in Table 1 correspond to: c1, SEQ ID Number. c2, Chromosome number. c3, Read start position. c4, Read end position. c5, chromosome strand that the transcript is made from (+,

top or Watson strand; -, bottom or Crick strand of each chromosome). C6, nearest gene name. c7, gene categories as defined in the following way.

The hexadecimal code is used in Table 1 to indicate the number of categories satisfied by each gene: The 4 bit represents an Imprinted gene (IM). The 2 bit represents an Oncogene (OC). The 1 bit represents a Tumor Suppressor (TS). The hexadecimal code can be translated to binary. Each bit represents the condition (1) or absence (0) of the condition. Thus:

Value	binary	meaning
0x1	0 0 1	TS
0x2	0 1 0	OC
0x3	0 1 1	TS and OC
0x4	1 0 0	IM
0x5	1 0 1	IM and TS
0x6	1 1 0	IM and OC
0x7	1 1 1	IM and OC and TS

Example 3. Mouse CBX7-RNA binding sites as determined by denaturing CLIP-seq analysis in ES cells derived from *Mus musculus*.

CLIP-seq was performed as described in Example 1 in the mouse ES cell line, EL 16.7. CBX7 binding sites in the RNA are shown in Table 3. Peaks were called from uniquely mapped reads using the software peakranger (p=0.01). The resulting strand specific bed files were then converted to their respective strand. To produce non-overlapping peaks entries, 3 biological replicates of undifferentiated and 1 biological replicate of day 7-differentiated ES cells were expanded by 500 nucleotides on each side and merged. The envelope of 500 bases was added because RNA-protein interactions could be affected by changes in nucleic acid folding nearby, which in turn could cause allosteric effects on the RNA-protein interaction. Then the closest gene was determined for each entry (bedtools closest) and categorized as “Imprinted” gene, “Oncogene”, and/or “Tumor Suppressor”.

Our analysis revealed 18,953 binding sites (peaks) in RNA for mouse ES cells. The columns (c) in Table 3 correspond to: c1, SEQ ID Number. c2, Chromosome number. c3, Read start position. c4, Read end position. c5, chromosome strand that the transcript is made from (+, top or Watson strand; -, bottom or Crick strand of each chromosome). C6, nearest gene name. c7, gene categories as defined above in Example 2.

Example 4. Human LiftOver sequences corresponding to CBX7-RNA binding sites as determined by denaturing CLIP-seq analysis in mouse ES cells

CBX7-binding sites shown in Table 2 were derived from dCLIP-seq performed in the mouse ES cell line, 16.7, as shown in Table 3, translated from mouse mm9 to human hg19 coordinates. The software UCSC Liftover was used to convert mouse mm9 coordinates from the mouse sub-sheet to human hg19 in the human liftover sub-sheet, prior to the envelope extension and merge step. The analysis led to 11,522 binding sites in human RNA. The columns (c) in Table 2 correspond to: c1, SEQ ID Number. c2, Chromosome number. c3, Read start position. c4, Read end position. c5, chromosome strand that the transcript is made from (+, top or Watson strand; -, bottom or Crick strand of each chromosome). C6, nearest gene name. c7, gene categories as defined in Example 2.

Example 5. Targeting the PRC1-RNA Interaction to Modulate Gene Expression

Analysis of the results described above indicated that PRC1 binding sites can be classified into several groups, including (i) 3' untranslated region [3' UTR], (ii) promoter-associated, (iii) gene body, (iv) antisense, and (v) intergenic. In order to block the identified interactions between Cbx7 and specific RNA transcripts, antisense oligonucleotides (ASO) LNAs were administered to cells in culture, to determine whether targeting the interaction between PRC1 and each of these RNA classes would change gene expression in *cis*.

First, the effects of disrupting PRC1-3'UTR interactions were examined. Potential Cbx7 binding sites (identified as described above) that were within 3'UTRs of three selected transcripts were identified based on CLIP-seq data, including (FIG. 2A) Mouse DDB1 and CUL4 Associated Factor 12-Like 1 (Dcaf12L1); (FIG. 2B) Mouse Calmodulin 2 (Calm2); (FIG. 2C) Mouse Mecp2; and (FIG. 2D) Human IRAK1. 22-mer mixmer LNAs targeting selected binding sites (Figure 3) were designed with the following sequences:

Table 4. Sequences of LNAs targeting Dusp9, Dcaf12L1, IRAK1, Mecp2, and Calm2

Target Gene	LNA I.D	LNA sequence	SEQ ID NO:
Dusp9	Dusp9-1-a	CCTACAGTTCCAAGAAGTCTAA	36372
	Dusp9-1-b	GAAGCAGGAAGGAGTCTACACG	36373
	Dusp9-2-a	CAGTTTGACCACCCTCAGTCAC	36374
	Dusp9-2-b	AAAGAAACAGTCAGGGCACCAG	36375
	Dusp9-3-a	CACAGGTATTGCCAGCTCCAGG	36376
	Dusp9-3-b	CACACACACAGAGTCTACAACG	36377
Dcaf12L1	Dcaf12L1-1	CCTGTCTGCCATACATTCTACA	36378
	Dcaf12L1-2	GCTCAGACTTCTTCCTTTGCAC	36379
	Dcaf12L1-3	GTAACAGATCTATTCTACTTGA	36380
	Dcaf12L1-4-a	CATTATCTCTATTTATCTGAAC	36381
	Dcaf12L1-4-b	GGAGAAAACCAATCTATCCGCA	36382
Calm2	Calm2-1-a	GCCAGAGTAAGCCACATGCAAC	36383
	Calm2-1-b	TTAGATGTGCAGACGGGCTTAG	36384
	Calm2-2-a	TTACAGCTCCACACTTCAACAAC	36385
	Calm2-2-b	ACATGCTGACAGTTCCTAAAAG	36386
Scrambled control	LNA-Scr	GTGTAACACGTCTATACGCCCA	36387
Tsix	Tsix-region-1	AGAGTACAGTTAACAAGCTGGGT	36388
	Tsix-region-2	TGTTTTGTGACAGGGATTCT	36389
	Tsix-region-3a	TTCTTCCTTGCATTGTGTCTA	36390
	Tsix-region-3b	GGTGTGTCCTATGGTCCTATGT	36391
	Tsix-region-3c	CCATGTAACAGAATGTTGAGAT	36392
	Tsix-region-4a	CATAATCTGTGACCAGTACCTC	36393
	Tsix-region-4b	CATCAGAAGAGGTTAGATAT	36394
	Tsix-region-4c	TGGAGGCAGGTGGATTTCTAAC	36395
IRAK1	IRAK1-a	CCAACATGCGCCAGCCTCCTCA	36396
	IRAK1-b	AAGTGCTGGGATTACAGGCGTG	36397
	IRAK1-c	ATCATGACTCACTGCAGCCTCG	36398
Mecp2	Mecp2-reg 1-a	TCGCTATACCACAGTCCACAGG	36399
	Mecp2-reg1-b	TGAAGCAGAGAGCAGGAAGAAG	36400
	Mecp2-reg1-c	ACACCTCAAATCTCAAGAGGCT	36401
	Mecp2-reg2-a	GATTACTCCCTAGAGCAAGGCC	36402
	Mecp2-reg2-b	CACAAGGAAAGGGCTCGGCACA	36403
	Mecp2-reg2-c	CCACTTCCCTCCCTTCAAATGC	36404

Phosphate residues were replaced with phosphorothioate residues for increased stability. Multiple LNA oligonucleotides (LNAs) targeting the same transcript were pooled together to the final concentration of 50 μM. Following trypsinization and feeder removal, a total of 2×10^6 EL16.7 mouse ES cells were resuspended in 100 μL of ES cell nucleofector solution (Lonza) supplemented with 2 μM LNAs. The cells were transfected using the A-030 program. A 0.5 mL of culture medium was added to the cells and 250 μL of this

suspension was plated on gelatinized 6-well tissue culture dish with 2ml of fibroblast-conditioned media. Per time point, whole cell RNA was extracted using a Trizol reagent and expression of the target genes was estimated using quantitative real-time RT-PCR (normalized to beta-actin as a reference gene).

The effect of LNAs on gene expression was represented as a ratio between specific LNAs and scrambled control. The results are shown in Figure 3 and 5A-B. To test the specificity of LNA pools, two unrelated amplicons were tested for every LNA pool along with a specific one. There was a specific increase in Dcaf12L1 gene expression 24 hrs after nucleofection with the Dcaf12L1-specific LNA pool as compared to unrelated Calm2 or Dusp9 genes (Figure 3, right). The same was true for the LNA pool against Calm2, which resulted in a specific increase in Calm2 mRNA levels as compared to unrelated Dsup9 and Dcaf12L1 genes 24 hrs after nucleofection (Figure 3, left). These results indicate that targeting the RNA interaction with PRC1 lead to an increase in gene expression.

In contrast, LNAs targeting Mecp2 and IRAK1 interaction with PRC1-binding RNA resulted in gene downregulation, presumably as a result of disrupting PRC1 RNA interactions. Mouse embryonic fibroblasts (MEFs) are nucleofected with pooled LNAs and harvested after 24 hours for qRT-PCR analysis of Mecp2 expression. Downregulation was seen after Mecp2-specific LNA treatment, but not seen with LNAs against Tsix or scrambled control (Figure 5A). In addition, human PC3 cells were transfected with pooled IRAK1-specific LNA or control scrambled LNA, then harvested after 24 hours or 36 hours for qRT-PCR analysis of IRAK1 expression. Specific downregulation was seen for IRAK1-specific LNA (Figure 5B). Thus, these LNAs caused downregulation but not elimination of gene expression in cis. Thus, targeting 3' UTR-PRC1 interactions by antisense oligonucleotides provides an alternative approach to RNAi methods and may be especially useful when one aims to titrate down but not eliminate gene expression, such as in the case of *MECP2* Duplication Syndrome.

Second, we examined the effects of disrupting PRC1-antisense RNA interactions. As an example, Tsix RNA is antisense to *Xist* and binds PRC1 via CBX7 at both Tsix's 5' and 3' ends. Tsix RNA is a known repressor of *Xist* expression but the mechanisms of repression have not be fully elucidated. Here we hypothesized that Tsix in part recruits PRC1 to repress *Xist* expression. Targeting Tsix RNA with ASO mixmers led to increased Xist expression even after just 6 hours of treatment (Figure 4A,B), consistent with a derepression of Xist when PRC1 cannot be recruited. Furthermore, ANRIL is antisense to

INK4a and interacts with CBX7. Targeting ANRIL is expected to lead to derepression of the linked coding gene INK4a, consistent with loss of ANRIL-PRC1 interactions. Thus, antisense RNAs interact with PRC1 and serve as recruiting tools for PRC1 in cis.

Third, we examined the effects of disrupting PRC1-intergenic RNA interactions. Genes can either be turned up or down. For example, Xist is a CBX7 target. Xist recruits PRC1 via CBX7 to the rest of the X-chromosome. Targeting Xist binding sites is expected to prevent PRC1 recruitment and leads to failure of X-inactivation or higher likelihood of X-reactivation. As an opposite example, Pvt1 is a long noncoding RNA located next to c-Myc and is a frequent site of translocations in B-cell lymphomas (e.g., Burkitt's). Pvt1 and cMyc are both associated with oncogenesis. Pvt1 appears to be a positive regulator of cMyc expression. Our analysis shows that Pvt1 is a PRC1 target. Pvt1 may recruit PRC1 and result in upregulation of cMyc.

These data indicate that PRC1-RNA interactions may serve different functions within cells and genes may be up- or down-regulated by disrupting these CBX7-RNA interactions.

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1	chr1	840144	841315	+	SAMD11	0x0
2	chr1	852326	853425	-	LOC100130417	0x0
3	chr1	864967	866163	+	SAMD11	0x0
4	chr1	879290	880468	-	NOC2L	0x0
5	chr1	893660	894797	-	NOC2L	0x0
6	chr1	933795	934971	-	HES4	0x0
7	chr1	939820	940963	+	ISG15	0x1
8	chr1	941875	943019	+	ISG15	0x1
9	chr1	990208	992002	+	AGRN	0x0
10	chr1	1018302	1019453	-	C1orf159	0x0
11	chr1	1042955	1044169	-	C1orf159	0x0
12	chr1	1155610	1156790	-	SDF4	0x0
13	chr1	1221945	1223142	+	SCNN1D	0x0
14	chr1	1240971	1242078	-	ACAP3	0x0
15	chr1	1244270	1245370	-	ACAP3	0x0
16	chr1	1244824	1245997	+	PUSL1	0x0
17	chr1	1250751	1251923	-	CPSF3L	0x0
18	chr1	1253901	1255113	-	CPSF3L	0x0
19	chr1	1257950	1259068	-	CPSF3L	0x0
20	chr1	1270872	1272024	-	DVL1	0x4
21	chr1	1287069	1288262	+	TAS1R3	0x0
22	chr1	1327280	1328568	-	CCNL2	0x0
23	chr1	1482465	1483678	-	SSU72	0x0
24	chr1	1497825	1498974	-	SSU72	0x0
25	chr1	1499242	1500446	-	SSU72	0x0
26	chr1	1531126	1532227	-	C1orf233	0x0
27	chr1	1534005	1535150	-	C1orf233	0x0
28	chr1	1554365	1555575	+	MIB2	0x0
29	chr1	1717245	1718531	-	GNB1	0x0
30	chr1	2087331	2088452	+	PRKCZ	0x0
31	chr1	2186545	2187672	+	SKI	0x0
32	chr1	2258187	2259377	-	MORN1	0x0
33	chr1	2970525	2971680	-	FLJ42875	0x0
34	chr1	3696643	3697775	-	LRRC47	0x0
35	chr1	3712359	3713583	-	LRRC47	0x0
36	chr1	5221620	5222816	+	AJAP1	0x0
37	chr1	6244753	6246027	-	RPL22	0x6
38	chr1	6257275	6258424	-	RPL22	0x6
39	chr1	6283411	6284533	-	ICMT	0x0
40	chr1	6438381	6439534	-	ACOT7	0x0
41	chr1	6584050	6585244	-	NOL9	0x0
42	chr1	6605037	6606171	-	NOL9	0x0
43	chr1	6651267	6652348	-	KLHL21	0x0
44	chr1	6695045	6696146	-	DNAJC11	0x1
45	chr1	6709976	6711146	-	DNAJC11	0x1
46	chr1	6844973	6846190	+	CAMTA1	0x1
47	chr1	8387551	8388748	+	SLC45A1	0x0
48	chr1	8411950	8413097	-	RERE	0x0
49	chr1	8556917	8558157	-	RERE	0x0
50	chr1	8667679	8668827	-	RERE	0x0
51	chr1	8922743	8923838	-	ENO1	0x0
52	chr1	8924945	8926044	-	ENO1	0x0
53	chr1	8926640	8927823	-	ENO1	0x0
54	chr1	9364627	9365824	+	SPSB1	0x0
55	chr1	9648465	9649637	+	TMEM201	0x0
56	chr1	9797015	9798190	-	CLSTN1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1	chr1	840144	841315	+	SAMD11	0x0
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29	chr1	1717245	1718531	-	GNB1	0x0
30	chr1	2087331	2088452	+	PRKCZ	0x0
31	chr1	2186545	2187672	+	SKI	0x0
32	chr1	2258187	2259377	-	MORN1	0x0
33	chr1	2970525	2971680	-	FLJ42875	0x0
34	chr1	3696643	3697775	-	LRRC47	0x0
35	chr1	3712359	3713583	-	LRRC47	0x0
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37	chr1	6244753	6246027	-	RPL22	0x6
38	chr1	6257275	6258424	-	RPL22	0x6
39	chr1	6283411	6284533	-	ICMT	0x0
40	chr1	6438381	6439534	-	ACOT7	0x0
41	chr1	6584050	6585244	-	NOL9	0x0
42	chr1	6605037	6606171	-	NOL9	0x0
43	chr1	6651267	6652348	-	KLHL21	0x0
44	chr1	6695045	6696146	-	DNAJC11	0x1
45	chr1	6709976	6711146	-	DNAJC11	0x1
46	chr1	6844973	6846190	+	CAMTA1	0x1
47	chr1	8387551	8388748	+	SLC45A1	0x0
48	chr1	8411950	8413097	-	RERE	0x0
49	chr1	8556917	8558157	-	RERE	0x0
50	chr1	8667679	8668827	-	RERE	0x0
51	chr1	8922743	8923838	-	ENO1	0x0
52	chr1	8924945	8926044	-	ENO1	0x0
53	chr1	8926640	8927823	-	ENO1	0x0
54	chr1	9364627	9365824	+	SPSB1	0x0
55	chr1	9648465	9649637	+	TMEM201	0x0
56	chr1	9797015	9798190	-	CLSTN1	0x0

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58	chr1	10210619	10211845	+	UBE4B	0x1
59	chr1	10212128	10213323	+	UBE4B	0x1
60	chr1	10219898	10221032	+	UBE4B	0x1
61	chr1	10437072	10438185	+	KIF1B	0x1
62	chr1	10517254	10518437	-	DFFA	0x0
63	chr1	10519910	10521155	-	DFFA	0x0
64	chr1	11082896	11084096	+	TARDBP	0x0
65	chr1	11086612	11087712	+	TARDBP	0x0
66	chr1	11114167	11115339	-	SRM	0x0
67	chr1	11166821	11168000	-	MTOR	0x0
68	chr1	11190033	11191197	-	MTOR	0x0
69	chr1	11845848	11847032	-	MTHFR	0x0
70	chr1	11967643	11968911	+	PLOD1	0x0
71	chr1	11969319	11970555	-	KIAA2013	0x0
72	chr1	12024759	12025894	+	PLOD1	0x0
73	chr1	12071654	12072919	+	MFN2	0x0
74	chr1	12081168	12082397	+	MIIP	0x0
75	chr1	12337286	12338484	+	VPS13D	0x0
76	chr1	12496061	12497240	-	DHRS3	0x0
77	chr1	12534409	12535606	+	VPS13D	0x0
78	chr1	12828806	12829927	+	PRAMEF12	0x0
79	chr1	15931136	15932327	+	DDI2	0x0
80	chr1	16046315	16047483	+	PLEKHM2	0x0
81	chr1	16158644	16159843	-	FLJ37453	0x0
82	chr1	16163602	16164745	+	SPEN	0x0
83	chr1	16176405	16177587	+	SPEN	0x0
84	chr1	16198975	16200210	+	SPEN	0x0
85	chr1	16202208	16203403	+	SPEN	0x0
86	chr1	16256261	16257458	+	SPEN	0x0
87	chr1	16263796	16264969	+	SPEN	0x0
88	chr1	16265815	16266883	+	SPEN	0x0
89	chr1	16780855	16781964	-	CROCCP3	0x0
90	chr1	16846525	16847742	-	CROCCP3	0x0
91	chr1	16871860	16873033	-	NBPF1	0x0
92	chr1	17004176	17005430	-	ESPNP	0x0
93	chr1	17053194	17054426	+	MIR3675	0x0
94	chr1	17186168	17187363	+	CROCC	0x2
95	chr1	17187862	17189092	+	CROCC	0x2
96	chr1	17733274	17734587	-	RCC2	0x0
97	chr1	17748766	17749972	-	RCC2	0x0
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99	chr1	19407485	19408666	-	UBR4	0x0
100	chr1	19467661	19468839	-	UBR4	0x0
101	chr1	19480827	19482021	-	UBR4	0x0
102	chr1	19510062	19511162	-	UBR4	0x0
103	chr1	19518563	19519634	-	UBR4	0x0
104	chr1	19625557	19627771	-	AKR7A2	0x0
105	chr1	19934145	19935669	+	C1orf151-NBL1	0x0
106	chr1	19934145	19935669	+	MINOS1	0x0
107	chr1	21068879	21070073	-	HP1BP3	0x0
108	chr1	21101451	21102605	-	HP1BP3	0x0
109	chr1	21112219	21113345	-	HP1BP3	0x0
110	chr1	21180924	21182129	-	EIF4G3	0x0
111	chr1	21219529	21220598	-	EIF4G3	0x0
112	chr1	21357497	21358722	-	EIF4G3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
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114	chr1	21469103	21470320	-	EIF4G3	0x0
115	chr1	21483420	21484575	-	EIF4G3	0x0
116	chr1	21499884	21501032	-	EIF4G3	0x0
117	chr1	22022042	22023220	-	USP48	0x0
118	chr1	22090919	22092045	-	USP48	0x0
119	chr1	22175614	22176789	-	HSPG2	0x0
120	chr1	22418197	22419329	+	CDC42	0x2
121	chr1	22438373	22439541	+	CDC42	0x2
122	chr1	23604893	23606066	-	HNRNPR	0x0
123	chr1	23611267	23612409	-	HNRNPR	0x0
124	chr1	23636297	23637464	-	HNRNPR	0x0
125	chr1	23664466	23665686	-	HNRNPR	0x0
126	chr1	23696173	23697372	+	C1orf213	0x0
127	chr1	24018563	24019764	+	RPL11	0x0
128	chr1	24035667	24036809	+	RPL11	0x0
129	chr1	24053341	24054440	+	TCEB3	0x0
130	chr1	24055464	24056625	+	TCEB3	0x0
131	chr1	24086902	24088096	-	LOC100506963	0x0
132	chr1	24121383	24122585	+	LYPLA2	0x0
133	chr1	24321543	24322767	+	PNRC2	0x0
134	chr1	24795527	24796626	+	NIPAL3	0x0
135	chr1	25168610	25169758	+	CLIC4	0x0
136	chr1	25686991	25688242	+	TMEM50A	0x0
137	chr1	26142500	26144914	+	SEPN1	0x0
138	chr1	26226551	26228033	-	STMN1	0x0
139	chr1	26799856	26800971	+	HMGN2	0x0
140	chr1	27212259	27213402	-	GPN2	0x0
141	chr1	27435519	27436813	-	SLC9A1	0x0
142	chr1	27586882	27588101	+	WDTC1	0x0
143	chr1	27632491	27633959	+	WDTC1	0x0
144	chr1	27730967	27732179	-	WASF2	0x0
145	chr1	27732345	27740500	-	WASF2	0x0
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147	chr1	28298923	28300079	-	EYA3	0x0
148	chr1	28352695	28353858	-	EYA3	0x0
149	chr1	28833307	28835831	+	RCC1	0x0
150	chr1	28833307	28835831	+	SNHG3	0x0
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152	chr1	28904692	28908087	-	SNORA16A	0x0
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155	chr1	28904692	28908087	-	SNORD99	0x0
156	chr1	28974564	28975822	+	RNU11	0x0
157	chr1	29247305	29248543	+	EPB41	0x1
158	chr1	29308535	29309673	-	TMEM200B	0x0
159	chr1	29444554	29446232	+	EPB41	0x1
160	chr1	29474230	29475417	-	SRSF4	0x0
161	chr1	29480719	29481895	-	SRSF4	0x0
162	chr1	30305391	30306547	-	MECR	0x0
163	chr1	31316149	31317342	+	LOC100129196	0x0
164	chr1	31467449	31468593	-	PUM1	0x0
165	chr1	31478154	31479311	-	PUM1	0x0
166	chr1	32203368	32204547	-	BAI2	0x1
167	chr1	32228432	32229591	-	BAI2	0x1
168	chr1	32507902	32509306	+	KHDRBS1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
169	chr1	32640327	32641537	+	KPNA6	0x0
170	chr1	32661663	32662812	+	TXLNA	0x0
171	chr1	32689077	32690271	+	EIF3I	0x0
172	chr1	32800031	32801234	-	MARCKSL1	0x0
173	chr1	33051782	33052957	+	ZBTB8A	0x0
174	chr1	33086866	33088028	-	ZBTB8OS	0x0
175	chr1	33474529	33475637	-	AK2	0x0
176	chr1	33765318	33766520	+	ZNF362	0x0
177	chr1	34029443	34030618	-	CSMD2	0x0
178	chr1	35316677	35317863	-	C1orf212	0x0
179	chr1	35648193	35650636	-	SFPQ	0x2
180	chr1	35651800	35652899	-	SFPQ	0x2
181	chr1	35656343	35657533	-	SFPQ	0x2
182	chr1	36031642	36032886	+	NCDN	0x0
183	chr1	36063797	36064965	-	PSMB2	0x0
184	chr1	36307953	36309152	+	EIF2C4	0x0
185	chr1	36388167	36389851	+	EIF2C1	0x0
186	chr1	36614384	36615568	-	TRAPPC3	0x0
187	chr1	36807748	36808925	-	STK40	0x0
188	chr1	39469513	39470715	+	AKIRIN1	0x0
189	chr1	39493910	39495136	+	NDUFS5	0x0
190	chr1	40029630	40030729	-	PABPC4	0x0
191	chr1	40032527	40033665	-	PABPC4	0x0
192	chr1	40032527	40033665	-	SNORA55	0x0
193	chr1	40041718	40042871	-	PABPC4	0x0
194	chr1	40413156	40414381	+	MFSD2A	0x1
195	chr1	40428168	40429524	+	MFSD2A	0x1
196	chr1	40537396	40538555	+	CAP1	0x0
197	chr1	40537899	40539087	-	PPT1	0x0
198	chr1	40598294	40599496	+	RLF	0x0
199	chr1	40930541	40931733	+	ZNF643	0x0
200	chr1	41476871	41478119	+	CTPS	0x0
201	chr1	41608008	41609172	-	SCMH1	0x0
202	chr1	41919561	41920665	+	LOC100507178	0x0
203	chr1	42641695	42642843	-	FOXJ3	0x0
204	chr1	42643332	42644469	-	FOXJ3	0x0
205	chr1	43161880	43162989	+	YBX1	0x0
206	chr1	43167147	43168350	+	YBX1	0x0
207	chr1	44125402	44126640	+	KDM4A	0x0
208	chr1	44170298	44171502	+	KDM4A	0x0
209	chr1	44369888	44371081	+	ST3GAL3	0x0
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212	chr1	44911247	44912431	+	RNF220	0x0
213	chr1	45062534	45063657	-	TMEM53	0x0
214	chr1	45186916	45188147	-	TMEM53	0x0
215	chr1	45196159	45197386	-	BEST4	0x0
216	chr1	45240987	45242949	+	RPS8	0x0
217	chr1	45240987	45242949	+	SNORD46	0x0
218	chr1	45240987	45242949	+	SNORD55	0x0
219	chr1	45242965	45244687	+	RPS8	0x0
220	chr1	45242965	45244687	+	SNORD38A	0x0
221	chr1	45242965	45244687	+	SNORD38B	0x0
222	chr1	45284993	45286220	-	PTCH2	0x1
223	chr1	46125981	46127259	-	GPBP1L1	0x0
224	chr1	46148262	46149412	-	GPBP1L1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
225	chr1	46654276	46655502	-	POMGNT1	0x0
226	chr1	46859410	46860537	+	FAAH	0x0
227	chr1	47745459	47746710	-	STIL	0x0
228	chr1	47774668	47775846	-	STIL	0x0
229	chr1	49275861	49277039	-	BEND5	0x0
230	chr1	51049850	51051026	-	FAF1	0x0
231	chr1	51189287	51190509	-	FAF1	0x0
232	chr1	51715868	51717079	-	TTC39A	0x0
233	chr1	51787282	51788462	-	TTC39A	0x0
234	chr1	52379262	52380464	-	RAB3B	0x0
235	chr1	52438512	52439715	+	BTF3L4	0x0
236	chr1	52826661	52827803	-	CC2D1B	0x0
237	chr1	52837435	52838617	-	ORC1	0x2
238	chr1	53336515	53337624	+	ZYG11A	0x0
239	chr1	53349000	53350130	+	ZYG11A	0x0
240	chr1	53367018	53368216	+	ZYG11A	0x0
241	chr1	53491985	53493213	+	SCP2	0x0
242	chr1	53716288	53717467	-	LRP8	0x0
243	chr1	55315885	55317555	-	DHCR24	0x0
244	chr1	57129718	57130907	+	PRKAA2	0x0
245	chr1	59248014	59249266	-	JUN	0x2
246	chr1	60868316	60869493	+	HOOK1	0x0
247	chr1	61663674	61664848	+	NFIA	0x0
248	chr1	63182476	63183613	-	DOCK7	0x0
249	chr1	65008049	65009293	+	CACHD1	0x0
250	chr1	65234621	65235845	+	RAVER2	0x0
251	chr1	65523304	65524453	-	MIR101-1	0x1
252	chr1	65523304	65524453	-	MIR3671	0x0
253	chr1	67873676	67875700	-	SERBP1	0x0
254	chr1	67878205	67879389	-	SERBP1	0x0
255	chr1	67887368	67888559	-	SERBP1	0x0
256	chr1	68166950	68168313	-	GNG12	0x0
257	chr1	68273081	68274225	-	GNG12	0x0
258	chr1	70067427	70068625	+	LRRC7	0x0
259	chr1	70686727	70688033	+	SRSF11	0x2
260	chr1	76252214	76253404	+	RABGGTB	0x0
261	chr1	76252214	76253404	+	SNORD45C	0x0
262	chr1	77554193	77555417	-	PIGK	0x0
263	chr1	78170124	78171311	-	USP33	0x0
264	chr1	78410310	78411448	-	FUBP1	0x2
265	chr1	78434297	78435474	-	FUBP1	0x2
266	chr1	82403020	82404264	+	LPHN2	0x2
267	chr1	84570348	84571545	+	PRKACB	0x0
268	chr1	84966968	84968146	-	GNG5	0x0
269	chr1	85330676	85331965	-	LPAR3	0x0
270	chr1	85610552	85611775	-	SYDE2	0x0
271	chr1	86057408	86058620	+	CYR61	0x0
272	chr1	86079240	86080418	-	ZNHIT6	0x0
273	chr1	87426543	87427773	+	HS2ST1	0x0
274	chr1	87511146	87512431	+	HS2ST1	0x0
275	chr1	89255594	89256826	+	PKN2	0x0
276	chr1	89259619	89260755	+	PKN2	0x0
277	chr1	89270987	89272231	+	PKN2	0x0
278	chr1	90341079	90342295	+	LRRC8D	0x0
279	chr1	90472119	90473511	+	ZNF326	0x0
280	chr1	91363596	91364776	-	ZNF644	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
281	chr1	91852202	91853725	-	HFM1	0x0
282	chr1	92326566	92327783	-	TGFBR3	0x1
283	chr1	92724108	92725226	-	GLMN	0x0
284	chr1	92975994	92977194	-	EVI5	0x0
285	chr1	93588727	93590210	+	MTF2	0x0
286	chr1	93618375	93619763	-	TMED5	0x0
287	chr1	93803508	93804686	-	LOC100131564	0x0
288	chr1	93810953	93812167	+	DR1	0x0
289	chr1	94312549	94313776	+	MIR760	0x0
290	chr1	94899930	94901140	+	ABCD3	0x0
291	chr1	95401336	95402708	+	LOC729970	0x0
292	chr1	96690973	96692200	+	PTBP2	0x0
293	chr1	96911938	96913259	+	PTBP2	0x0
294	chr1	98628031	98629273	+	LOC729987	0x0
295	chr1	100139712	100140929	+	PALMD	0x0
296	chr1	100547299	100548483	+	HIAT1	0x0
297	chr1	101486719	101487914	-	DPH5	0x0
298	chr1	102251585	102252999	-	OLFM3	0x0
299	chr1	103507706	103508886	-	COL11A1	0x2
300	chr1	108112882	108114057	-	VAV3	0x0
301	chr1	109241985	109243695	+	PRPF38B	0x0
302	chr1	109604746	109605960	-	TAF13	0x0
303	chr1	109642240	109643797	+	SCARNA2	0x0
304	chr1	109852954	109854306	-	SORT1	0x0
305	chr1	110563994	110565230	+	AHCYL1	0x0
306	chr1	110881918	110883020	+	RBM15	0x2
307	chr1	110889786	110890938	+	RBM15	0x2
308	chr1	111983105	111984257	-	WDR77	0x0
309	chr1	112001663	112002811	+	ATP5F1	0x0
310	chr1	112186658	112187879	+	RAP1A	0x1
311	chr1	112198778	112199981	+	RAP1A	0x1
312	chr1	113212803	113214334	+	CAPZA1	0x0
313	chr1	113454053	113456912	-	SLC16A1	0x0
314	chr1	113459502	113460782	-	SLC16A1	0x0
315	chr1	113552218	113553398	+	LRIG2	0x0
316	chr1	113711026	113712272	+	LRIG2	0x0
317	chr1	114216414	114217630	+	MAGI3	0x0
318	chr1	115248058	115249362	-	NRAS	0x2
319	chr1	115259278	115261005	-	CSDE1	0x0
320	chr1	115259278	115261005	-	NRAS	0x2
321	chr1	115268298	115269476	-	CSDE1	0x0
322	chr1	115269811	115271040	+	SYCP1	0x0
323	chr1	115272477	115273735	-	CSDE1	0x0
324	chr1	115277451	115278611	-	CSDE1	0x0
325	chr1	116915330	116916732	+	ATP1A1	0x0
326	chr1	116926045	116927247	+	ATP1A1	0x0
327	chr1	116932313	116933518	+	ATP1A1	0x0
328	chr1	116946522	116947737	+	ATP1A1	0x0
329	chr1	117452059	117453257	+	PTGFRN	0x0
330	chr1	117640591	117641790	+	TTF2	0x0
331	chr1	117910253	117911401	+	MAN1A2	0x0
332	chr1	117944308	117945714	+	MAN1A2	0x0
333	chr1	117993522	117994752	+	MAN1A2	0x0
334	chr1	118530435	118531631	-	SPAG17	0x0
335	chr1	120543418	120544633	-	NOTCH2	0x2
336	chr1	144055799	144057061	+	SRGAP2P2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
337	chr1	144857432	144858775	-	PDE4DIP	0x2
338	chr1	144881054	144882227	-	PDE4DIP	0x2
339	chr1	144900376	144901530	-	PDE4DIP	0x2
340	chr1	144921748	144923136	-	PDE4DIP	0x2
341	chr1	145115870	145116991	+	SEC22B	0x0
342	chr1	145382265	145383487	+	NBPF10	0x0
343	chr1	145394939	145396145	-	POLR3GL	0x0
344	chr1	145508701	145509914	+	RBM8A	0x0
345	chr1	145510390	145511633	+	RBM8A	0x0
346	chr1	145577621	145578843	+	PIAS3	0x0
347	chr1	146555618	146556791	-	LOC728989	0x0
348	chr1	147510499	147511710	-	PDZK1P1	0x0
349	chr1	147825129	147826328	+	GPR89C	0x0
350	chr1	147993651	147994895	+	GPR89C	0x0
351	chr1	148240938	148242186	+	NBPF15	0x0
352	chr1	148247512	148248779	+	NBPF15	0x0
353	chr1	148344173	148345590	-	PPIAL4D	0x0
354	chr1	148344173	148345590	-	PPIAL4F	0x0
355	chr1	149193532	149194786	-	HIST2H2BF	0x0
356	chr1	149223492	149224764	-	HIST2H2BF	0x0
357	chr1	149229993	149231191	-	HIST2H2BF	0x0
358	chr1	149294107	149295294	-	HIST2H2BF	0x0
359	chr1	149298025	149299210	-	HIST2H2BF	0x0
360	chr1	149513523	149514749	-	HIST2H2BF	0x0
361	chr1	149803642	149804974	+	HIST2H4A	0x0
362	chr1	149803642	149804974	+	HIST2H4B	0x0
363	chr1	149822551	149824705	+	HIST2H2AA3	0x0
364	chr1	149822551	149824705	+	HIST2H2AA4	0x0
365	chr1	149822551	149824705	+	HIST2H3A	0x0
366	chr1	149822551	149824705	+	HIST2H3C	0x0
367	chr1	149857574	149858794	-	HIST2H2BE	0x0
368	chr1	149858006	149859450	+	HIST2H2AC	0x0
369	chr1	150190301	150191593	-	ANP32E	0x0
370	chr1	150208744	150210050	+	CA14	0x0
371	chr1	150324926	150326093	+	PRPF3	0x0
372	chr1	150418223	150419437	+	RPRD2	0x0
373	chr1	150445729	150446920	+	RPRD2	0x0
374	chr1	150464353	150465522	+	TARS2	0x0
375	chr1	150470489	150471707	+	TARS2	0x0
376	chr1	150548808	150549982	-	MCL1	0x0
377	chr1	150592648	150593816	-	ENSA	0x0
378	chr1	150594619	150595719	-	ENSA	0x0
379	chr1	150815378	150816598	-	ARNT	0x2
380	chr1	150901999	150903198	+	SETDB1	0x0
381	chr1	150937624	150938971	-	CERS2	0x0
382	chr1	151024631	151025836	-	CDC42SE1	0x0
383	chr1	151148459	151149816	-	TMOD4	0x0
384	chr1	151148459	151149816	-	VPS72	0x0
385	chr1	151214030	151215213	+	PIP5K1A	0x0
386	chr1	151377945	151379168	-	POGZ	0x0
387	chr1	151415600	151416737	-	POGZ	0x0
388	chr1	151424674	151425882	-	POGZ	0x0
389	chr1	151669554	151671784	+	SNX27	0x0
390	chr1	153608927	153610327	+	CHTOP	0x0
391	chr1	153637282	153638518	-	ILF2	0x0
392	chr1	153949216	153950397	-	JTB	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
393	chr1	154179204	154180520	-	C1orf43	0x0
394	chr1	154223078	154224555	+	UBAP2L	0x0
395	chr1	154229465	154230671	+	UBAP2L	0x0
396	chr1	154231629	154232898	+	UBAP2L	0x0
397	chr1	154554155	154556592	-	ADAR	0x0
398	chr1	154573661	154574860	-	ADAR	0x0
399	chr1	154744040	154745218	-	KCNN3	0x2
400	chr1	155092389	155093588	+	EFNA1	0x1
401	chr1	155216724	155217968	-	FAM189B	0x0
402	chr1	155222866	155224055	-	FAM189B	0x0
403	chr1	155238484	155239665	-	CLK2	0x0
404	chr1	155281808	155283956	+	FDPS	0x0
405	chr1	155387707	155388905	-	ASH1L	0x0
406	chr1	155392166	155393369	-	ASH1L	0x0
407	chr1	155628831	155630008	-	YY1AP1	0x0
408	chr1	155717315	155718435	-	GON4L	0x0
409	chr1	155734656	155735997	-	GON4L	0x0
410	chr1	155889121	155890387	-	SNORA42	0x0
411	chr1	155895194	155896426	-	KIAA0907	0x0
412	chr1	155895194	155896426	-	SCARNA4	0x0
413	chr1	155978393	155979751	-	SSR2	0x0
414	chr1	156005184	156006501	-	UBQLN4	0x0
415	chr1	156046144	156047385	-	MEX3A	0x0
416	chr1	156049971	156051157	-	MEX3A	0x0
417	chr1	156083983	156085214	+	LMNA	0x0
418	chr1	156711443	156713262	-	HDGF	0x0
419	chr1	159147726	159148925	+	CADM3	0x1
420	chr1	159887640	159888903	-	TAGLN2	0x0
421	chr1	160247969	160249354	-	PEX19	0x0
422	chr1	160323451	160324651	+	NCSTN	0x0
423	chr1	160964965	160966160	-	F11R	0x0
424	chr1	160967011	160968217	-	F11R	0x0
425	chr1	161140861	161142038	-	B4GALT3	0x0
426	chr1	161195560	161196876	+	TOMM40L	0x0
427	chr1	161287359	161288596	+	SDHC	0x2
428	chr1	161296677	161298830	+	SDHC	0x2
429	chr1	161409368	161410591	-	C1orf192	0x0
430	chr1	161500321	161501624	+	HSPA6	0x4
431	chr1	161581923	161583137	+	HSPA7	0x0
432	chr1	161590868	161592139	+	HSPA7	0x0
433	chr1	162470267	162471488	+	UHMK1	0x0
434	chr1	164569061	164570291	+	PBX1	0x2
435	chr1	165825882	165827031	+	UCK2	0x0
436	chr1	165878681	165880175	+	UCK2	0x0
437	chr1	166245062	166246377	-	FAM78B	0x0
438	chr1	166716741	166718458	+	POGK	0x0
439	chr1	166822396	166823563	+	POGK	0x0
440	chr1	167876363	167877573	-	ADCY10	0x0
441	chr1	168024779	168025960	-	GPR161	0x0
442	chr1	168218537	168219697	+	SFT2D2	0x0
443	chr1	169894169	169895391	-	KIFAP3	0x0
444	chr1	171470726	171471915	+	PRRC2C	0x0
445	chr1	171509758	171510953	+	PRRC2C	0x0
446	chr1	173760137	173761357	+	KLHL20	0x0
447	chr1	173832715	173837436	-	GAS5	0x1
448	chr1	173832715	173837436	-	SNORD44	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
449	chr1	173832715	173837436	-	SNORD47	0x0
450	chr1	173832715	173837436	-	SNORD74	0x0
451	chr1	173832715	173837436	-	SNORD75	0x0
452	chr1	173832715	173837436	-	SNORD76	0x0
453	chr1	173832715	173837436	-	SNORD77	0x0
454	chr1	173832715	173837436	-	SNORD78	0x0
455	chr1	173832715	173837436	-	SNORD79	0x0
456	chr1	173832715	173837436	-	SNORD80	0x0
457	chr1	173832715	173837436	-	SNORD81	0x0
458	chr1	173903892	173905070	-	RC3H1	0x0
459	chr1	173906989	173908288	-	RC3H1	0x0
460	chr1	174158307	174159546	+	RABGAP1L	0x0
461	chr1	178567950	178569162	+	C1orf220	0x0
462	chr1	178842862	178844097	+	RALGPS2	0x0
463	chr1	178886248	178887421	+	RALGPS2	0x0
464	chr1	179189773	179190983	-	ABL2	0x2
465	chr1	179813512	179814723	-	TOR1AIP2	0x0
466	chr1	179833159	179835492	-	TOR1AIP2	0x0
467	chr1	180080290	180081489	+	CEP350	0x0
468	chr1	180245669	180246855	-	LOC100527964	0x0
469	chr1	180737011	180738229	+	XPR1	0x0
470	chr1	180751452	180752652	+	XPR1	0x0
471	chr1	180944787	180946000	-	STX6	0x0
472	chr1	182352152	182354225	-	GLUL	0x0
473	chr1	182357155	182358347	-	GLUL	0x0
474	chr1	182822589	182823780	+	DHX9	0x0
475	chr1	182843646	182844797	+	DHX9	0x0
476	chr1	183451618	183452866	+	SMG7	0x0
477	chr1	183521166	183522365	+	SMG7	0x0
478	chr1	183599093	183600275	-	ARPC5	0x0
479	chr1	185029958	185031201	+	RNF2	0x0
480	chr1	185266746	185267923	-	IVNS1ABP	0x0
481	chr1	186341227	186342433	+	C1orf27	0x0
482	chr1	190328252	190329522	-	FAM5C	0x0
483	chr1	193054036	193055950	+	TROVE2	0x0
484	chr1	194881379	194882556	-	KCNT2	0x0
485	chr1	196246079	196247256	-	KCNT2	0x0
486	chr1	196454168	196455378	-	KCNT2	0x0
487	chr1	197123904	197125081	-	ZBTB41	0x2
488	chr1	198189561	198190790	+	NEK7	0x0
489	chr1	201104044	201105241	-	TMEM9	0x0
490	chr1	201263563	201264762	+	PKP1	0x0
491	chr1	201844844	201846017	+	IPO9	0x0
492	chr1	201846540	201847715	+	IPO9	0x0
493	chr1	202102898	202104120	-	ARL8A	0x0
494	chr1	202112029	202113216	-	ARL8A	0x0
495	chr1	202428654	202429874	+	PPP1R12B	0x0
496	chr1	203292770	203293990	+	BTG2	0x1
497	chr1	203765008	203766264	+	ZC3H11A	0x0
498	chr1	204061645	204062843	+	SOX13	0x0
499	chr1	204082926	204084098	+	SOX13	0x0
500	chr1	204475098	204476336	+	MDM4	0x2
501	chr1	204475595	204476748	-	PIK3C2B	0x0
502	chr1	204506187	204507372	+	MDM4	0x2
503	chr1	204522274	204523452	+	MDM4	0x2
504	chr1	204530962	204532206	-	LRRN2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
505	chr1	205217339	205218722	+	TMCC2	0x0
506	chr1	205273122	205274318	-	NUAK2	0x0
507	chr1	205592298	205593497	-	ELK4	0x2
508	chr1	205682685	205686265	-	NUCKS1	0x0
509	chr1	205686535	205687953	-	NUCKS1	0x0
510	chr1	205718529	205719853	-	NUCKS1	0x0
511	chr1	206518541	206519779	+	SRGAP2	0x0
512	chr1	206895521	206896732	+	MAPKAPK2	0x0
513	chr1	206905648	206907237	+	MAPKAPK2	0x0
514	chr1	207285121	207286300	+	C4BPA	0x0
515	chr1	210029291	210030488	+	DIEXF	0x0
516	chr1	211712199	211713383	-	SLC30A1	0x0
517	chr1	212265961	212267203	+	DTL	0x0
518	chr1	212273532	212274725	+	DTL	0x0
519	chr1	212792678	212793986	+	ATF3	0x0
520	chr1	212964633	212965882	+	TATDN3	0x0
521	chr1	214371742	214372972	+	SMYD2	0x0
522	chr1	214529737	214530959	-	PTPN14	0x4
523	chr1	215758835	215760082	+	KCTD3	0x0
524	chr1	216707533	216708744	-	ESRRG	0x0
525	chr1	216938284	216939482	+	SPATA17	0x0
526	chr1	217781474	217782701	-	GPATCH2	0x0
527	chr1	219464873	219466060	+	LYPLAL1	0x0
528	chr1	220290576	220291740	+	RNU5F-1	0x0
529	chr1	220343726	220344909	-	RAB3GAP2	0x0
530	chr1	220373343	220374520	-	MIR664	0x0
531	chr1	220373343	220374520	-	SNORA36B	0x0
532	chr1	220411787	220412985	-	RAB3GAP2	0x0
533	chr1	224186371	224187597	+	FBXO28	0x0
534	chr1	224458091	224459318	-	NVL	0x0
535	chr1	224487715	224488892	-	NVL	0x0
536	chr1	224621339	224622694	-	WDR26	0x0
537	chr1	224632047	224633294	+	CNIH4	0x0
538	chr1	225227059	225228271	+	DNAH14	0x0
539	chr1	225395058	225396267	+	DNAH14	0x0
540	chr1	225589675	225591446	-	LBR	0x0
541	chr1	225683421	225684835	-	ENAH	0x0
542	chr1	225699878	225701146	-	ENAH	0x0
543	chr1	225832972	225834130	-	ENAH	0x0
544	chr1	225839667	225840854	-	ENAH	0x0
545	chr1	225840886	225842085	-	ENAH	0x0
546	chr1	225976535	225978191	+	SRP9	0x0
547	chr1	226053350	226054557	-	TMEM63A	0x0
548	chr1	226231274	226232493	+	H3F3A	0x0
549	chr1	226308957	226310189	+	H3F3A	0x0
550	chr1	226308957	226310189	+	H3F3AP4	0x0
551	chr1	226332364	226333539	-	ACBD3	0x0
552	chr1	226548198	226550310	-	PARP1	0x0
553	chr1	226633087	226634318	+	C1orf95	0x0
554	chr1	226764909	226766092	+	C1orf95	0x0
555	chr1	227174238	227175480	+	ADCK3	0x0
556	chr1	228246176	228247405	+	WNT3A	0x0
557	chr1	228268372	228269597	-	C1orf35	0x0
558	chr1	228286031	228287395	+	ARF1	0x1
559	chr1	228460035	228461227	+	OBSCN	0x6
560	chr1	228464213	228465383	+	OBSCN	0x6

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
561	chr1	228479225	228480392	+	OBSCN	0x6
562	chr1	228588834	228589997	-	TRIM11	0x0
563	chr1	228742937	228744191	+	RHOU	0x0
564	chr1	228763318	228764571	-	HIST3H2A	0x0
565	chr1	228822584	228823835	+	DUSP5P	0x0
566	chr1	229452464	229453715	+	SPHAR	0x0
567	chr1	229829043	229830261	+	URB2	0x0
568	chr1	230376361	230377564	+	GALNT2	0x0
569	chr1	231076229	231077435	-	TTC13	0x0
570	chr1	231089569	231090749	-	TTC13	0x0
571	chr1	231113282	231114478	-	TTC13	0x0
572	chr1	231400510	231401943	+	GNPAT	0x0
573	chr1	231694808	231696046	+	TSNAX	0x0
574	chr1	231694808	231696046	+	TSNAX-DISC1	0x0
575	chr1	231990122	231991288	+	DISC1	0x0
576	chr1	233514316	233515555	+	KIAA1804	0x2
577	chr1	233518262	233519476	+	KIAA1804	0x2
578	chr1	233520067	233521316	+	KIAA1804	0x2
579	chr1	234492209	234493429	-	TARBP1	0x0
580	chr1	234496426	234497849	+	C1orf31	0x0
581	chr1	234563407	234565919	-	TARBP1	0x0
582	chr1	234585710	234586893	-	TARBP1	0x0
583	chr1	234605372	234606597	-	TARBP1	0x0
584	chr1	234610314	234611484	-	TARBP1	0x0
585	chr1	234613342	234614518	-	TARBP1	0x0
586	chr1	234741314	234743389	-	IRF2BP2	0x0
587	chr1	234745312	234746411	-	IRF2BP2	0x0
588	chr1	235272366	235273548	-	TOMM20	0x0
589	chr1	235273910	235275525	-	TOMM20	0x0
590	chr1	235290593	235291716	-	SNORA14B	0x0
591	chr1	235460844	235462024	-	ARID4B	0x0
592	chr1	235601456	235602682	+	TBCE	0x0
593	chr1	235796415	235797938	-	GNG4	0x0
594	chr1	236380467	236381595	-	ERO1LB	0x0
595	chr1	236430556	236431809	+	GPR137B	0x0
596	chr1	236646542	236647719	+	EDARADD	0x0
597	chr1	236706956	236708213	-	HEATR1	0x0
598	chr1	236961224	236962464	+	MTR	0x0
599	chr1	236975460	236976657	+	MTR	0x0
600	chr1	237007214	237008501	+	MTR	0x0
601	chr1	237765743	237767229	+	RYR2	0x2
602	chr1	243663467	243665403	-	AKT3	0x2
603	chr1	244586559	244587735	-	ADSS	0x0
604	chr1	244871059	244872312	+	PPPDE1	0x0
605	chr1	245013374	245014444	-	HNRNPU	0x2
606	chr1	245016406	245017772	-	HNRNPU	0x2
607	chr1	245020748	245021936	-	HNRNPU	0x2
608	chr1	245026904	245028090	-	HNRNPU	0x2
609	chr1	245106873	245108219	+	EFCAB2	0x0
610	chr1	245382092	245383296	+	KIF26B	0x0
611	chr1	246197368	246198550	-	SMYD3	0x0
612	chr1	246349541	246350748	-	SMYD3	0x0
613	chr1	246636841	246638018	-	SMYD3	0x0
614	chr1	247318878	247320068	-	ZNF124	0x0
615	chr1	247322465	247323700	-	ZNF124	0x0
616	chr1	247326069	247327168	-	ZNF124	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
617	chr1	247453655	247454860	-	ZNF496	0x0
618	chr1	247613596	247614816	+	NLRP3	0x2
619	chr1	249167501	249168976	+	ZNF672	0x0
620	chr10	327413	328640	-	DIP2C	0x0
621	chr10	666729	667894	-	DIP2C	0x0
622	chr10	717319	718546	-	DIP2C	0x0
623	chr10	851188	852361	-	LARP4B	0x0
624	chr10	857811	858983	-	LARP4B	0x0
625	chr10	897946	899153	-	LARP4B	0x0
626	chr10	915522	916733	-	LARP4B	0x0
627	chr10	1037878	1039077	+	GTPBP4	0x1
628	chr10	1177466	1178635	+	WDR37	0x0
629	chr10	3143076	3144273	+	PFKP	0x2
630	chr10	5498718	5499855	+	NET1	0x0
631	chr10	5894873	5896267	-	ANKRD16	0x0
632	chr10	7284973	7286228	-	SFMBT2	0x4
633	chr10	7318329	7319540	-	SFMBT2	0x4
634	chr10	7327265	7328458	-	SFMBT2	0x4
635	chr10	7361094	7362349	-	SFMBT2	0x4
636	chr10	7388629	7389823	-	SFMBT2	0x4
637	chr10	7884436	7885634	+	TAF3	0x0
638	chr10	8034661	8035813	+	TAF3	0x0
639	chr10	10817881	10819050	-	SFTA1P	0x0
640	chr10	11375072	11376197	+	CELF2	0x0
641	chr10	11529210	11530389	-	USP6NL	0x0
642	chr10	12139258	12140488	+	DHTKD1	0x0
643	chr10	12141598	12142790	+	DHTKD1	0x0
644	chr10	12193739	12194931	+	SEC61A2	0x0
645	chr10	13769281	13770472	+	PRPF18	0x0
646	chr10	15254670	15255759	-	FAM171A1	0x0
647	chr10	15677400	15678528	-	ITGA8	0x0
648	chr10	15885198	15886387	-	FAM188A	0x1
649	chr10	16512344	16513511	+	PTER	0x0
650	chr10	16517452	16518631	+	PTER	0x0
651	chr10	17271274	17272447	+	VIM	0x0
652	chr10	17278801	17280000	+	VIM	0x0
653	chr10	17658065	17659244	-	PTPLA	0x0
654	chr10	17693625	17694846	+	STAM	0x0
655	chr10	18731218	18732413	+	CACNB2	0x0
656	chr10	18969440	18970539	+	ARL5B	0x0
657	chr10	21442123	21443301	-	C10orf113	0x0
658	chr10	21453958	21455156	+	LOC100128511	0x0
659	chr10	21934560	21935750	+	MLLT10	0x0
660	chr10	21944578	21945780	+	MLLT10	0x0
661	chr10	21974309	21975409	+	MLLT10	0x0
662	chr10	22221492	22222711	+	MLLT10	0x0
663	chr10	22517892	22519075	-	EBLN1	0x0
664	chr10	27046890	27048090	+	PDSS1	0x0
665	chr10	27112344	27113521	-	ABI1	0x2
666	chr10	27414860	27416037	-	YME1L1	0x0
667	chr10	27422424	27423599	-	YME1L1	0x0
668	chr10	27430769	27431910	-	YME1L1	0x0
669	chr10	27484861	27486047	-	ACBD5	0x0
670	chr10	27529727	27530930	-	ACBD5	0x0
671	chr10	27828011	27829181	+	RAB18	0x0
672	chr10	28840201	28841312	+	WAC	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
673	chr10	28896605	28897768	+	WAC	0x0
674	chr10	30601620	30602784	-	MTPAP	0x0
675	chr10	32197132	32198312	-	ARHGAP12	0x0
676	chr10	32298882	32300844	-	KIF5B	0x2
677	chr10	32307631	32308819	-	KIF5B	0x2
678	chr10	32599864	32601121	-	EPC1	0x2
679	chr10	33532312	33533462	-	NRP1	0x0
680	chr10	34682668	34684029	-	PARD3	0x0
681	chr10	34931805	34940500	-	PARD3	0x0
682	chr10	35005954	35007146	-	PARD3	0x0
683	chr10	35674327	35675517	+	CCNY	0x0
684	chr10	38104286	38105423	-	ZNF248	0x0
685	chr10	38410549	38411702	+	ZNF37A	0x2
686	chr10	38726021	38727193	+	LOC399744	0x0
687	chr10	42987909	42989114	+	LOC84856	0x0
688	chr10	43047320	43048711	-	ZNF37BP	0x0
689	chr10	45950107	45951270	-	MARCH8	0x0
690	chr10	48205645	48206744	+	AGAP9	0x0
691	chr10	49862031	49863217	-	ARHGAP22	0x0
692	chr10	50910581	50911972	-	OGDHL	0x0
693	chr10	51387116	51388251	+	MSMB	0x1
694	chr10	51591654	51592946	-	TIMM23	0x0
695	chr10	51748030	51749191	+	AGAP6	0x0
696	chr10	52141798	52142974	-	SGMS1	0x0
697	chr10	52789097	52790200	+	PRKG1	0x0
698	chr10	52938396	52939541	+	PRKG1	0x0
699	chr10	52980093	52981305	+	PRKG1	0x0
700	chr10	52999596	53000733	+	MIR605	0x0
701	chr10	53089007	53090231	+	MIR605	0x0
702	chr10	53134151	53135349	+	MIR605	0x0
703	chr10	53342480	53343660	+	PRKG1	0x0
704	chr10	53412101	53413200	+	PRKG1	0x0
705	chr10	53426903	53428121	+	PRKG1	0x0
706	chr10	57419102	57420322	-	ZWINT	0x0
707	chr10	57526788	57528007	-	ZWINT	0x0
708	chr10	58117180	58118473	-	ZWINT	0x0
709	chr10	61550012	61551187	-	CCDC6	0x0
710	chr10	61646660	61647838	-	CCDC6	0x0
711	chr10	61799473	61800681	-	ANK3	0x2
712	chr10	62471757	62472934	-	ANK3	0x2
713	chr10	62553173	62554457	+	CDK1	0x0
714	chr10	62670575	62671753	-	RHOBTB1	0x0
715	chr10	63447839	63449050	+	C10orf107	0x0
716	chr10	63976408	63977620	-	RTKN2	0x0
717	chr10	65006684	65007886	-	JMJD1C	0x0
718	chr10	65256338	65257454	-	JMJD1C	0x0
719	chr10	65283600	65284816	+	REEP3	0x0
720	chr10	65358845	65360025	+	REEP3	0x0
721	chr10	65381754	65383090	+	REEP3	0x0
722	chr10	67420760	67421880	-	CTNNA3	0x4
723	chr10	69090896	69092095	-	CTNNA3	0x4
724	chr10	69523738	69525755	+	SIRT1	0x0
725	chr10	69556175	69557381	-	DNAJC12	0x0
726	chr10	70101826	70103014	+	HNRNPH3	0x0
727	chr10	70128501	70129686	-	RUFY2	0x0
728	chr10	70153037	70154136	-	RUFY2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
729	chr10	70227468	70228610	-	DNA2	0x0
730	chr10	70286378	70287515	-	SLC25A16	0x0
731	chr10	70416334	70417482	+	TET1	0x0
732	chr10	70425287	70426442	+	TET1	0x0
733	chr10	70458278	70459445	+	TET1	0x0
734	chr10	70514348	70515593	+	CCAR1	0x0
735	chr10	70514348	70515593	+	SNORD98	0x0
736	chr10	70521337	70522505	+	CCAR1	0x0
737	chr10	70526118	70527353	+	CCAR1	0x0
738	chr10	70547382	70548611	+	CCAR1	0x0
739	chr10	70719311	70720548	+	DDX21	0x0
740	chr10	70742633	70743716	+	DDX21	0x0
741	chr10	71213672	71214905	+	TSPAN15	0x0
742	chr10	71968827	71969932	-	PPA1	0x0
743	chr10	72090161	72091301	-	LRRC20	0x0
744	chr10	72179181	72180412	+	EIF4EBP2	0x0
745	chr10	72182095	72183256	+	EIF4EBP2	0x0
746	chr10	72186344	72188291	+	EIF4EBP2	0x0
747	chr10	72226248	72227487	+	KIAA1274	0x0
748	chr10	72327126	72328451	+	KIAA1274	0x0
749	chr10	72603792	72604923	+	SGPL1	0x0
750	chr10	72638485	72639719	+	SGPL1	0x0
751	chr10	73059524	73060994	+	UNC5B	0x1
752	chr10	73575664	73577723	-	PSAP	0x0
753	chr10	73769977	73771076	+	CHST3	0x0
754	chr10	73771572	73773721	+	CHST3	0x0
755	chr10	74226979	74228171	-	MICU1	0x0
756	chr10	74645466	74646663	+	MCU	0x0
757	chr10	74761035	74762200	-	P4HA1	0x0
758	chr10	74853987	74855251	-	P4HA1	0x0
759	chr10	75008449	75009792	-	MRPS16	0x0
760	chr10	75262821	75263997	-	USP54	0x0
761	chr10	75433909	75435129	-	AGAP5	0x0
762	chr10	75456729	75457933	-	AGAP5	0x0
763	chr10	75536646	75537837	+	FUT11	0x0
764	chr10	75545273	75546461	+	KIAA0913	0x0
765	chr10	75558239	75559455	+	KIAA0913	0x0
766	chr10	75623611	75624834	-	CAMK2G	0x0
767	chr10	75828203	75829447	+	VCL	0x1
768	chr10	76102005	76103155	+	ADK	0x0
769	chr10	76602446	76603781	+	KAT6B	0x2
770	chr10	76870831	76872021	+	SAMD8	0x0
771	chr10	76936412	76937545	+	SAMD8	0x0
772	chr10	76983205	76984301	+	VDAC2	0x0
773	chr10	76994299	76995499	-	COMTD1	0x0
774	chr10	76995165	76996322	+	VDAC2	0x0
775	chr10	77160413	77161591	-	ZNF503	0x0
776	chr10	77550216	77551415	+	C10orf11	0x0
777	chr10	79514310	79515493	-	DLG5	0x2
778	chr10	79550701	79552113	-	DLG5	0x2
779	chr10	79580656	79581853	-	DLG5	0x2
780	chr10	79729156	79730355	-	POLR3A	0x2
781	chr10	79794606	79795831	+	RPS24	0x0
782	chr10	79796462	79797625	+	RPS24	0x0
783	chr10	79799824	79800997	+	RPS24	0x0
784	chr10	80146596	80147772	-	POLR3A	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
785	chr10	81572099	81573257	-	SFTPD	0x0
786	chr10	81686310	81687409	+	MBL1P	0x0
787	chr10	81885271	81886500	+	PLAC9	0x0
788	chr10	85911939	85913402	+	GHITM	0x0
789	chr10	87571839	87573088	-	GRID1	0x2
790	chr10	87811722	87812914	+	LOC100507470	0x0
791	chr10	88126165	88127381	+	OPN4	0x0
792	chr10	88256073	88257291	-	WAPAL	0x0
793	chr10	88266884	88268077	-	WAPAL	0x0
794	chr10	88648778	88650011	+	BMPR1A	0x2
795	chr10	89312084	89313511	+	MINPP1	0x0
796	chr10	89512707	89513915	-	ATAD1	0x0
797	chr10	89542693	89544610	-	ATAD1	0x0
798	chr10	89727592	89728794	+	PTEN	0x1
799	chr10	90999167	91000389	-	LIPA	0x0
800	chr10	91144482	91145707	-	SLC16A12	0x0
801	chr10	92986428	92987533	+	PCGF5	0x0
802	chr10	93576218	93577444	+	TNKS2	0x0
803	chr10	93756841	93758040	+	BTAF1	0x0
804	chr10	94044068	94045250	-	CPEB3	0x0
805	chr10	94092672	94093873	+	MARCH5	0x0
806	chr10	94193802	94195017	-	MARK2P9	0x0
807	chr10	94685206	94686408	+	EXOC6	0x0
808	chr10	96108489	96109640	-	NOC3L	0x0
809	chr10	96117423	96118595	-	NOC3L	0x0
810	chr10	96122067	96123244	-	NOC3L	0x0
811	chr10	96349622	96350815	+	HELLS	0x0
812	chr10	96362603	96364743	+	HELLS	0x0
813	chr10	96370239	96371467	+	HELLS	0x0
814	chr10	97888941	97890188	+	ZNF518A	0x2
815	chr10	98038160	98039356	+	DNTT	0x0
816	chr10	98281270	98282442	-	TM9SF3	0x0
817	chr10	98352618	98353841	-	PIK3AP1	0x0
818	chr10	98560827	98562069	-	PIK3AP1	0x0
819	chr10	98619000	98620163	+	LCOR	0x0
820	chr10	98697481	98698689	+	LCOR	0x0
821	chr10	99200150	99201299	-	EXOSC1	0x0
822	chr10	99211300	99212538	+	ZDHHC16	0x0
823	chr10	99220768	99221879	-	MMS19	0x0
824	chr10	99257035	99258187	-	MMS19	0x0
825	chr10	99434051	99435229	-	AVPI1	0x2
826	chr10	99486666	99487852	+	MARVELD1	0x0
827	chr10	99620012	99621179	+	GOLGA7B	0x0
828	chr10	101106408	101107648	+	CNNM1	0x0
829	chr10	101189707	101190895	-	GOT1	0x0
830	chr10	101198213	101199432	+	CNNM1	0x0
831	chr10	101446019	101447252	+	ENTPD7	0x0
832	chr10	101909566	101910739	-	ERLIN1	0x0
833	chr10	101996380	101997710	-	CWF19L1	0x0
834	chr10	101996380	101997710	-	SNORA12	0x0
835	chr10	102012574	102013761	-	CWF19L1	0x0
836	chr10	102121124	102123864	+	SCD	0x0
837	chr10	102123929	102124967	+	SCD	0x0
838	chr10	102312573	102313722	+	HIF1AN	0x0
839	chr10	102510249	102511465	+	PAX2	0x0
840	chr10	102588417	102589613	+	PAX2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
841	chr10	102740219	102741347	-	MRPL43	0x0
842	chr10	102746626	102747726	-	MRPL43	0x0
843	chr10	102826216	102827396	+	KAZALD1	0x0
844	chr10	103066793	103067972	+	BTRC	0x0
845	chr10	103124035	103125312	-	LBX1	0x0
846	chr10	103432736	103433950	-	FBXW4	0x0
847	chr10	103732741	103733962	-	C10orf76	0x0
848	chr10	103870177	103871418	-	LDB1	0x6
849	chr10	103903555	103904683	+	PPRC1	0x0
850	chr10	104350740	104351950	+	SUFU	0x1
851	chr10	104391364	104392863	+	SUFU	0x1
852	chr10	104618319	104619522	+	C10orf32	0x0
853	chr10	104618319	104619522	+	C10orf32-AS3MT	0x0
854	chr10	104703041	104704186	+	CNNM2	0x0
855	chr10	104841572	104842768	+	CNNM2	0x0
856	chr10	104929881	104931142	-	NT5C2	0x0
857	chr10	104936094	104937308	+	LOC729020	0x0
858	chr10	104966476	104967641	-	NT5C2	0x0
859	chr10	105071657	105072830	-	PCGF6	0x0
860	chr10	105236366	105237543	-	CALHM3	0x0
861	chr10	105354565	105355675	-	SH3PXD2A	0x0
862	chr10	105359058	105360157	-	SH3PXD2A	0x0
863	chr10	105402766	105403933	-	SH3PXD2A	0x0
864	chr10	105753471	105754685	+	SLK	0x0
865	chr10	105797373	105798600	+	SLK	0x0
866	chr10	108729213	108730449	+	SORCS3	0x0
867	chr10	111825059	111826221	+	ADD3	0x0
868	chr10	112045697	112046917	+	MXI1	0x1
869	chr10	112541004	112542127	+	RBM20	0x0
870	chr10	112556693	112557891	+	RBM20	0x0
871	chr10	112601898	112603122	-	LOC282997	0x0
872	chr10	114300308	114301485	+	VTI1A	0x2
873	chr10	114430666	114431996	+	VTI1A	0x2
874	chr10	114575897	114577131	+	VTI1A	0x2
875	chr10	114803679	114804834	+	TCF7L2	0x1
876	chr10	114810783	114812085	+	TCF7L2	0x1
877	chr10	114832960	114834173	+	TCF7L2	0x1
878	chr10	114994467	114995686	+	TCF7L2	0x1
879	chr10	116191291	116192572	-	ABLIM1	0x0
880	chr10	116192892	116194131	-	ABLIM1	0x0
881	chr10	116194170	116195533	-	ABLIM1	0x0
882	chr10	116482750	116483970	+	FAM160B1	0x0
883	chr10	116726306	116727502	+	TRUB1	0x0
884	chr10	118432853	118434126	-	HSPA12A	0x0
885	chr10	118659202	118660345	-	KIAA1598	0x0
886	chr10	118672336	118673543	-	KIAA1598	0x0
887	chr10	119040865	119042286	-	PDZD8	0x0
888	chr10	119133806	119134993	-	PDZD8	0x0
889	chr10	119613911	119615133	-	RAB11FIP2	0x0
890	chr10	120444662	120445977	-	C10orf46	0x0
891	chr10	120801317	120802788	-	EIF3A	0x2
892	chr10	120827133	120828353	+	NANOS1	0x0
893	chr10	120829962	120831338	-	EIF3A	0x2
894	chr10	120928180	120929329	-	PRDX3	0x0
895	chr10	121334411	121335594	-	TIAL1	0x0
896	chr10	121335956	121337136	-	TIAL1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
897	chr10	121608403	121609588	-	MCMBP	0x0
898	chr10	123310751	123311964	-	FGFR2	0x2
899	chr10	123324439	123325692	-	FGFR2	0x2
900	chr10	123663896	123665105	-	ATE1	0x0
901	chr10	123718953	123720157	-	NSMCE4A	0x0
902	chr10	124913829	124915052	+	BUB3	0x0
903	chr10	124924070	124925428	+	BUB3	0x0
904	chr10	124934702	124936353	+	BUB3	0x0
905	chr10	124991437	124992665	+	BUB3	0x0
906	chr10	125025863	125027036	+	BUB3	0x0
907	chr10	125114673	125115921	+	BUB3	0x0
908	chr10	125164937	125166171	+	BUB3	0x0
909	chr10	125198504	125199751	+	GPR26	0x0
910	chr10	125664056	125665258	-	CPXM2	0x0
911	chr10	125774837	125776019	-	CHST15	0x0
912	chr10	125830388	125831664	-	CHST15	0x0
913	chr10	126308995	126312062	-	FAM53B	0x0
914	chr10	126369856	126371487	-	FAM53B	0x0
915	chr10	126464474	126465618	-	METTL10	0x0
916	chr10	126475775	126476905	-	METTL10	0x0
917	chr10	126496071	126497298	+	FAM175B	0x0
918	chr10	126700536	126701714	-	CTBP2	0x1
919	chr10	126800984	126802132	-	CTBP2	0x1
920	chr10	126816411	126817597	-	CTBP2	0x1
921	chr10	127411064	127412263	+	C10orf137	0x2
922	chr10	127705459	127706666	-	ADAM12	0x2
923	chr10	128854346	128855588	+	DOCK1	0x0
924	chr10	129894800	129896956	-	MKI67	0x0
925	chr10	129905232	129906521	-	MKI67	0x0
926	chr10	129913111	129914504	-	MKI67	0x0
927	chr10	131634425	131635894	-	EBF3	0x0
928	chr10	131642924	131644143	+	MGMT	0x0
929	chr10	132107642	132108887	+	GLRX3	0x0
930	chr10	132179372	132180570	-	LOC387723	0x0
931	chr10	134109868	134111045	-	STK32C	0x0
932	chr10	134754867	134756042	-	TTC40	0x0
933	chr10	135095771	135096937	-	TUBGCP2	0x0
934	chr10	135115703	135116996	-	TUBGCP2	0x0
935	chr10	135121757	135122955	-	TUBGCP2	0x0
936	chr10	135222774	135224017	+	MTG1	0x0
937	chr11	290224	291416	+	ATHL1	0x0
938	chr11	439910	441128	-	ANO9	0x0
939	chr11	642177	643361	-	DEAF1	0x0
940	chr11	671065	672334	-	DEAF1	0x0
941	chr11	769924	771342	-	PDDC1	0x0
942	chr11	790565	791735	-	SLC25A22	0x0
943	chr11	809719	810944	+	RPLP2	0x0
944	chr11	811175	813388	+	RPLP2	0x0
945	chr11	811175	813388	+	SNORA52	0x0
946	chr11	988708	989919	+	AP2A2	0x0
947	chr11	1773934	1775128	-	CTSD	0x0
948	chr11	2393292	2394489	+	CD81	0x4
949	chr11	2417707	2419006	+	CD81	0x4
950	chr11	2984521	2985619	-	SNORA54	0x0
951	chr11	3383623	3384799	-	ZNF195	0x0
952	chr11	3716135	3717338	-	NUP98	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
953	chr11	6631438	6632537	-	TAF10	0x0
954	chr11	8125426	8126565	+	TUB	0x0
955	chr11	8538631	8539771	-	STK33	0x0
956	chr11	8689247	8690420	-	TRIM66	0x0
957	chr11	8705244	8706446	+	RPL27A	0x0
958	chr11	8705244	8706446	+	SNORA3	0x0
959	chr11	8706452	8707671	+	RPL27A	0x0
960	chr11	8706452	8707671	+	SNORA45	0x0
961	chr11	9310545	9311720	-	TMEM41B	0x0
962	chr11	9431002	9432103	+	IPO7	0x0
963	chr11	9449754	9451088	+	IPO7	0x0
964	chr11	9449754	9451088	+	SNORA23	0x0
965	chr11	9461513	9462627	+	IPO7	0x0
966	chr11	9609488	9610703	+	WEE1	0x0
967	chr11	10264434	10265657	-	SBF2	0x0
968	chr11	10529526	10530696	-	MIR4485	0x0
969	chr11	10529526	10530696	-	MTRNR2L8	0x0
970	chr11	10818436	10819796	-	EIF4G2	0x0
971	chr11	10822497	10823700	-	EIF4G2	0x0
972	chr11	10822497	10823700	-	SNORD97	0x0
973	chr11	12962124	12963416	+	TEAD1	0x0
974	chr11	13434590	13435724	-	BTBD10	0x0
975	chr11	13440526	13441707	-	BTBD10	0x0
976	chr11	14478587	14479807	-	COPB1	0x0
977	chr11	16760098	16761286	+	C11orf58	0x0
978	chr11	16995727	16997058	-	PLEKHA7	0x0
979	chr11	17095623	17098089	-	RPS13	0x0
980	chr11	17098092	17099231	-	RPS13	0x0
981	chr11	17225281	17226466	-	PIK3C2A	0x0
982	chr11	17399390	17400490	+	B7H6	0x0
983	chr11	18428322	18429599	+	LDHA	0x0
984	chr11	19422875	19424100	-	NAV2-AS4	0x0
985	chr11	22248369	22249579	+	ANO5	0x0
986	chr11	22709343	22710553	+	GAS2	0x0
987	chr11	22795836	22797053	+	GAS2	0x0
988	chr11	23427115	23428335	+	GAS2	0x0
989	chr11	28191782	28193016	+	METTL15	0x0
990	chr11	28592373	28593592	+	METTL15	0x0
991	chr11	32608006	32609259	+	EIF3M	0x0
992	chr11	33100090	33101473	+	LINC00294	0x0
993	chr11	33160995	33162510	-	CSTF3	0x0
994	chr11	33690488	33691795	+	C11orf41	0x0
995	chr11	34073293	34074505	+	CAPRIN1	0x0
996	chr11	34117590	34118706	+	CAPRIN1	0x0
997	chr11	34121064	34122602	+	CAPRIN1	0x0
998	chr11	34368183	34369357	-	ABTB2	0x0
999	chr11	35473459	35474657	-	PAMR1	0x0
1000	chr11	36248223	36249497	+	LDLRAD3	0x0
1001	chr11	38594065	38595243	+	C11orf74	0x0
1002	chr11	43465120	43466265	+	TTC17	0x0
1003	chr11	43701813	43703100	+	HSD17B12	0x0
1004	chr11	43710889	43712096	+	HSD17B12	0x0
1005	chr11	43713719	43714879	+	HSD17B12	0x0
1006	chr11	44104241	44105440	+	ACCS	0x0
1007	chr11	44147814	44149025	+	EXT2	0x1
1008	chr11	44950191	44951341	+	TSPAN18	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1009	chr11	44953860	44955070	-	TP53I11	0x0
1010	chr11	45923521	45924726	+	MAPK8IP1	0x0
1011	chr11	46449763	46450915	-	AMBRA1	0x0
1012	chr11	46514646	46515836	-	AMBRA1	0x0
1013	chr11	46699392	46700538	-	ARHGAP1	0x0
1014	chr11	46772535	46773582	-	CKAP5	0x0
1015	chr11	47489352	47490908	-	CELF1	0x0
1016	chr11	47499886	47501080	-	CELF1	0x0
1017	chr11	47509722	47511032	-	CELF1	0x0
1018	chr11	47600235	47601463	+	NDUFS3	0x0
1019	chr11	47799968	47801080	-	NUP160	0x0
1020	chr11	47833349	47834567	-	NUP160	0x0
1021	chr11	50048802	50050001	+	OR4C13	0x2
1022	chr11	57083573	57084694	-	TNKS1BP1	0x0
1023	chr11	57092908	57094413	-	SSRP1	0x0
1024	chr11	57101422	57102590	-	SSRP1	0x0
1025	chr11	57507709	57508876	+	C11orf31	0x0
1026	chr11	57507709	57508876	+	TMX2	0x0
1027	chr11	57538522	57539710	+	CTNND1	0x1
1028	chr11	57575280	57576487	+	CTNND1	0x1
1029	chr11	57575280	57576487	+	TMX2-CTNND1	0x0
1030	chr11	57585111	57586193	+	CTNND1	0x1
1031	chr11	57585111	57586193	+	TMX2-CTNND1	0x0
1032	chr11	58385311	58386651	+	ZFP91	0x0
1033	chr11	59382267	59383461	-	OSBP	0x0
1034	chr11	60657745	60658974	-	PRPF19	0x0
1035	chr11	60673362	60674576	-	PRPF19	0x0
1036	chr11	60905662	60907001	-	VPS37C	0x0
1037	chr11	61080978	61082137	-	DDB1	0x0
1038	chr11	61094557	61095688	-	DDB1	0x0
1039	chr11	61103262	61104457	+	DAK	0x0
1040	chr11	61116305	61117482	-	CYBASC3	0x0
1041	chr11	61171066	61172241	-	CPSF7	0x0
1042	chr11	61570746	61572017	-	FADS1	0x0
1043	chr11	61633292	61634749	+	FADS2	0x0
1044	chr11	61731955	61733169	-	FTH1	0x0
1045	chr11	61918917	61920151	+	INCENP	0x0
1046	chr11	62326613	62327797	-	EEF1G	0x0
1047	chr11	62326613	62327797	-	MIR3654	0x0
1048	chr11	62328614	62329742	-	EEF1G	0x0
1049	chr11	62334335	62335539	-	EEF1G	0x0
1050	chr11	62360207	62361316	-	MTA2	0x2
1051	chr11	62364348	62365556	-	MTA2	0x2
1052	chr11	62383240	62384372	-	B3GAT3	0x0
1053	chr11	62400036	62401262	-	GANAB	0x0
1054	chr11	62431867	62433201	-	C11orf48	0x0
1055	chr11	62432354	62433550	+	METTL12	0x0
1056	chr11	62432354	62433550	+	SNORA57	0x0
1057	chr11	62489249	62490426	-	HNRNPUL2	0x0
1058	chr11	62489249	62490426	-	HNRNPUL2-BSCL2	0x0
1059	chr11	62510820	62512038	+	TTC9C	0x0
1060	chr11	62532031	62533274	+	POLR2G	0x0
1061	chr11	62542758	62543857	+	TAF6L	0x0
1062	chr11	62549124	62550223	+	TAF6L	0x0
1063	chr11	62567012	62568190	-	NXF1	0x2
1064	chr11	62608541	62609849	-	WDR74	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1065	chr11	62618968	62621378	-	SNHG1	0x0
1066	chr11	62618968	62621378	-	SNORD22	0x0
1067	chr11	62618968	62621378	-	SNORD29	0x0
1068	chr11	62618968	62621378	-	SNORD30	0x0
1069	chr11	62618968	62621378	-	SNORD31	0x0
1070	chr11	62622051	62623625	-	SNHG1	0x0
1071	chr11	62622051	62623625	-	SNORD25	0x0
1072	chr11	62622051	62623625	-	SNORD26	0x0
1073	chr11	62622051	62623625	-	SNORD27	0x0
1074	chr11	62622051	62623625	-	SNORD28	0x0
1075	chr11	63423115	63424290	-	ATL3	0x0
1076	chr11	63596428	63597649	+	C11orf84	0x0
1077	chr11	63785551	63786757	-	MACROD1	0x0
1078	chr11	64005477	64006741	+	VEGFB	0x0
1079	chr11	64013805	64014998	-	PPP1R14B	0x0
1080	chr11	64018832	64019978	+	PLCB3	0x1
1081	chr11	64063003	64064157	+	KCNK4	0x0
1082	chr11	64083247	64084373	+	ESRRA	0x0
1083	chr11	64083656	64084870	-	TRMT112	0x0
1084	chr11	64532206	64533405	-	SF1	0x0
1085	chr11	64574182	64575360	-	MEN1	0x1
1086	chr11	64845803	64846957	-	CDCA5	0x0
1087	chr11	64878887	64880037	+	C11orf2	0x0
1088	chr11	64878887	64880037	+	TM7SF2	0x0
1089	chr11	64880221	64881320	+	TM7SF2	0x0
1090	chr11	64914487	64915767	+	MRPL49	0x0
1091	chr11	64978362	64979722	+	CAPN1	0x0
1092	chr11	65197873	65199078	+	NEAT1	0x0
1093	chr11	65202147	65203375	+	NEAT1	0x0
1094	chr11	65205474	65206618	+	MIR612	0x0
1095	chr11	65211102	65213301	+	MIR612	0x0
1096	chr11	65267086	65272491	+	MALAT1	0x0
1097	chr11	65272670	65273959	+	MALAT1	0x0
1098	chr11	65303924	65305111	+	SCYL1	0x0
1099	chr11	65318518	65319691	-	LTBP3	0x0
1100	chr11	65340337	65341462	+	FAM89B	0x0
1101	chr11	65382895	65384217	+	PCNXL3	0x0
1102	chr11	65403876	65405283	+	PCNXL3	0x0
1103	chr11	65420601	65421743	-	RELA	0x0
1104	chr11	65606663	65607901	+	SNX32	0x0
1105	chr11	65621762	65623097	-	CFL1	0x0
1106	chr11	65657684	65658871	+	CCDC85B	0x0
1107	chr11	65732857	65734198	+	SART1	0x0
1108	chr11	66040462	66041680	+	RAB1B	0x4
1109	chr11	66115021	66116249	+	TMEM151A	0x0
1110	chr11	66412944	66414301	+	RBM14-RBM4	0x0
1111	chr11	66412944	66414301	+	RBM4	0x0
1112	chr11	66458249	66459396	-	SPTBN2	0x0
1113	chr11	66477558	66478690	-	SPTBN2	0x0
1114	chr11	66998612	66999821	+	KDM2A	0x0
1115	chr11	67129304	67130537	+	LOC100130987	0x0
1116	chr11	67171122	67172325	-	PPP1CA	0x1
1117	chr11	67888092	67889195	-	CHKA	0x0
1118	chr11	68114944	68116240	+	LRP5	0x2
1119	chr11	68124695	68125868	+	LRP5	0x2
1120	chr11	68178330	68179614	+	LRP5	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1121	chr11	68380749	68381958	+	PPP6R3	0x0
1122	chr11	68457842	68459072	+	GAL	0x0
1123	chr11	69465610	69466793	+	CCND1	0x2
1124	chr11	69468028	69469207	+	CCND1	0x2
1125	chr11	70260296	70261444	+	CTTN	0x0
1126	chr11	70266096	70267236	+	CTTN	0x0
1127	chr11	70281342	70282887	+	CTTN	0x0
1128	chr11	70487751	70488908	-	SHANK2	0x0
1129	chr11	71719638	71720823	-	NUMA1	0x2
1130	chr11	72396112	72397289	-	ARAP1	0x0
1131	chr11	72465381	72466597	-	STARD10	0x0
1132	chr11	72533951	72535153	+	ATG16L2	0x0
1133	chr11	73089519	73090913	+	RELT	0x0
1134	chr11	73102560	73103766	+	RELT	0x0
1135	chr11	73113207	73114421	-	FAM168A	0x0
1136	chr11	73292950	73294141	-	FAM168A	0x0
1137	chr11	73471139	73472306	-	RAB6A	0x0
1138	chr11	73686049	73687204	-	UCP2	0x0
1139	chr11	73692040	73693221	-	UCP2	0x0
1140	chr11	74395754	74397001	+	POLD3	0x0
1141	chr11	74459371	74460563	+	RNF169	0x0
1142	chr11	74548402	74549680	+	RNF169	0x0
1143	chr11	74953752	74954991	+	LOC100507050	0x0
1144	chr11	74973123	74974469	-	ARRB1	0x0
1145	chr11	75114637	75115718	+	RPS3	0x0
1146	chr11	75114637	75115718	+	SNORD15B	0x0
1147	chr11	75116122	75117284	+	RPS3	0x0
1148	chr11	75946310	75947433	-	WNT11	0x1
1149	chr11	76188233	76189474	+	C11orf30	0x2
1150	chr11	77445397	77446524	-	RSF1	0x0
1151	chr11	77596958	77598370	+	C11orf67	0x0
1152	chr11	78203348	78204744	-	NARS2	0x0
1153	chr11	78281988	78283213	-	NARS2	0x0
1154	chr11	79158852	79160049	+	USP35	0x0
1155	chr11	82400096	82401484	+	C11orf82	0x0
1156	chr11	85194521	85195729	+	TMEM126B	0x0
1157	chr11	85372133	85373311	-	CREBZF	0x0
1158	chr11	85374978	85376093	-	CREBZF	0x0
1159	chr11	85955600	85956820	+	EED	0x0
1160	chr11	86781990	86783149	+	TMEM135	0x0
1161	chr11	87035894	87037074	+	TMEM135	0x0
1162	chr11	87173935	87175142	+	TMEM135	0x0
1163	chr11	88115883	88117057	+	TYR	0x0
1164	chr11	88601325	88602522	-	GRM5	0x2
1165	chr11	90016508	90017736	+	NAALAD2	0x0
1166	chr11	92628475	92629717	+	FAT3	0x2
1167	chr11	93430080	93431249	+	KIAA1731	0x0
1168	chr11	93431321	93432559	+	KIAA1731	0x0
1169	chr11	93454277	93455631	+	KIAA1731	0x0
1170	chr11	93454277	93455631	+	SCARNA9	0x0
1171	chr11	93463172	93467318	-	MIR1304	0x0
1172	chr11	93463172	93467318	-	SNORA1	0x0
1173	chr11	93463172	93467318	-	SNORA18	0x0
1174	chr11	93463172	93467318	-	SNORA25	0x0
1175	chr11	93463172	93467318	-	SNORA32	0x0
1176	chr11	93463172	93467318	-	SNORA8	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1177	chr11	93463172	93467318	-	SNORD5	0x0
1178	chr11	93463172	93467318	-	SNORD6	0x0
1179	chr11	93467776	93468906	-	SNORA40	0x0
1180	chr11	93471932	93473313	-	TAF1D	0x0
1181	chr11	93710378	93711559	-	VSTM5	0x0
1182	chr11	93951439	93952636	-	GPR83	0x0
1183	chr11	94150949	94152169	-	MRE11A	0x2
1184	chr11	94191674	94192852	-	MRE11A	0x2
1185	chr11	94626721	94627940	+	AMOTL1	0x0
1186	chr11	94901765	94902876	-	SESN3	0x0
1187	chr11	94905459	94906618	-	SESN3	0x0
1188	chr11	95825694	95826915	-	MAML2	0x2
1189	chr11	97636450	97637649	-	CCDC82	0x0
1190	chr11	102165160	102166359	+	BIRC3	0x2
1191	chr11	102267092	102268404	-	TMEM123	0x0
1192	chr11	103002798	103004000	+	DYNC2H1	0x2
1193	chr11	103027441	103028540	+	DYNC2H1	0x2
1194	chr11	103174765	103176006	+	DYNC2H1	0x2
1195	chr11	105633446	105634654	+	GRIA4	0x0
1196	chr11	105968338	105969437	+	AASDHPPT	0x0
1197	chr11	108002424	108003642	+	ACAT1	0x0
1198	chr11	108047167	108048374	-	NPAT	0x0
1199	chr11	108344138	108345359	-	KDELC2	0x0
1200	chr11	108788410	108789619	+	DDX10	0x0
1201	chr11	110100605	110101959	-	RDX	0x0
1202	chr11	110165437	110166631	-	RDX	0x0
1203	chr11	111611018	111612348	-	PPP2R1B	0x1
1204	chr11	111630786	111631964	-	PPP2R1B	0x1
1205	chr11	111692090	111693298	-	ALG9	0x0
1206	chr11	111911615	111912858	+	DLAT	0x0
1207	chr11	113692674	113693849	-	USP28	0x2
1208	chr11	113737800	113739046	+	HTR3B	0x0
1209	chr11	114293964	114295180	+	RBM7	0x0
1210	chr11	115046086	115047511	-	CADM1	0x1
1211	chr11	115148719	115149902	-	CADM1	0x1
1212	chr11	115342456	115343604	-	CADM1	0x1
1213	chr11	115471774	115472976	+	FAM55B	0x0
1214	chr11	115692620	115693820	+	APOC3	0x0
1215	chr11	117708156	117709359	-	FXYD6	0x0
1216	chr11	118279246	118280394	+	ATP5L	0x0
1217	chr11	118342606	118343847	+	MLL	0x2
1218	chr11	118393102	118394257	+	MLL	0x2
1219	chr11	118427130	118428283	-	IFT46	0x0
1220	chr11	118470924	118472083	+	ARCN1	0x0
1221	chr11	118527620	118528782	+	PHLDB1	0x0
1222	chr11	118619817	118620995	-	DDX6	0x0
1223	chr11	118894521	118895926	-	SLC37A4	0x0
1224	chr11	118914425	118916307	-	HYOU1	0x0
1225	chr11	118964055	118965438	-	H2AFX	0x0
1226	chr11	120219784	120220989	+	ARHGEF12	0x1
1227	chr11	120346835	120347953	+	ARHGEF12	0x1
1228	chr11	120356530	120357629	+	ARHGEF12	0x1
1229	chr11	120901672	120902820	+	TBCEL	0x0
1230	chr11	122928226	122929337	-	HSPA8	0x0
1231	chr11	122929463	122930664	-	HSPA8	0x0
1232	chr11	123050799	123052002	-	CLMP	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1233	chr11	123595631	123596826	-	ZNF202	0x0
1234	chr11	123634095	123635377	+	GRAMD1B	0x0
1235	chr11	124505785	124507034	+	TBRG1	0x1
1236	chr11	124923736	124924915	-	TMEM218	0x0
1237	chr11	125169906	125171066	+	PKNOX2	0x0
1238	chr11	125453376	125454570	+	EI24	0x1
1239	chr11	125490149	125491346	+	STT3A	0x0
1240	chr11	125547115	125548337	+	CHEK1	0x1
1241	chr11	126076638	126077817	-	RPUSD4	0x0
1242	chr11	126147179	126148335	+	FOXRED1	0x0
1243	chr11	129297040	129298265	+	BARX2	0x0
1244	chr11	130013182	130015087	+	APLP2	0x0
1245	chr11	133768160	133769577	-	LOC283174	0x0
1246	chr11	133768160	133769577	-	MIR4697	0x0
1247	chr11	133775128	133776296	-	LOC283174	0x0
1248	chr11	133801584	133802941	-	IGSF9B	0x0
1249	chr11	133905644	133907090	-	IGSF9B	0x0
1250	chr11	134207878	134209110	+	GLB1L2	0x0
1251	chr11	134244503	134245731	+	GLB1L2	0x0
1252	chr12	364481	365671	-	SLC6A13	0x0
1253	chr12	392498	393756	-	KDM5A	0x2
1254	chr12	413102	414299	+	CCDC77	0x0
1255	chr12	973775	975079	+	WNK1	0x0
1256	chr12	1038335	1039518	-	RAD52	0x0
1257	chr12	1136736	1137951	+	ERC1	0x2
1258	chr12	2364481	2365782	+	CACNA1C	0x0
1259	chr12	2675917	2677086	+	CACNA1C	0x0
1260	chr12	2912189	2913544	+	FKBP4	0x0
1261	chr12	2927125	2928323	+	ITFG2	0x0
1262	chr12	2986248	2987433	+	C12orf32	0x0
1263	chr12	2997913	2999053	+	C12orf32	0x0
1264	chr12	3008519	3009671	+	TULP3	0x0
1265	chr12	3079751	3080900	+	TEAD4	0x0
1266	chr12	3153592	3154803	+	TEAD4	0x0
1267	chr12	4399756	4400906	+	CCND2	0x2
1268	chr12	4411084	4412957	+	CCND2	0x2
1269	chr12	4772532	4773729	+	NDUFA9	0x0
1270	chr12	6618969	6620370	+	NCAPD2	0x0
1271	chr12	6618969	6620370	+	SCARNA10	0x0
1272	chr12	6626244	6627393	+	NCAPD2	0x0
1273	chr12	6646283	6647637	+	GAPDH	0x0
1274	chr12	6652008	6653217	-	IFFO1	0x0
1275	chr12	6678923	6680015	-	CHD4	0x2
1276	chr12	6690067	6691369	-	CHD4	0x2
1277	chr12	6690067	6691369	-	SCARNA11	0x0
1278	chr12	6709165	6710346	-	CHD4	0x2
1279	chr12	6775774	6776986	-	ZNF384	0x2
1280	chr12	6879192	6880496	+	PTMS	0x2
1281	chr12	7052424	7053623	+	C12orf57	0x0
1282	chr12	7074110	7075210	-	PHB2	0x0
1283	chr12	7076077	7077300	-	PHB2	0x0
1284	chr12	7076077	7077300	-	SCARNA12	0x0
1285	chr12	7079104	7080280	-	PHB2	0x0
1286	chr12	7362702	7363899	+	PEX5	0x0
1287	chr12	9451079	9452259	+	LOC642846	0x0
1288	chr12	9572828	9574121	-	DDX12P	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1289	chr12	10865278	10866425	-	CSDA	0x0
1290	chr12	11283034	11284164	-	TAS2R30	0x0
1291	chr12	12396929	12398082	-	LRP6	0x0
1292	chr12	12693877	12695074	-	DUSP16	0x0
1293	chr12	12843359	12844568	+	CDKN1B	0x2
1294	chr12	12882447	12883597	+	APOLD1	0x0
1295	chr12	13349667	13350884	+	EMP1	0x1
1296	chr12	14553333	14554482	+	ATF7IP	0x0
1297	chr12	14576917	14578148	+	ATF7IP	0x0
1298	chr12	16034899	16035998	+	STRAP	0x0
1299	chr12	19459402	19460532	+	PLEKHA5	0x0
1300	chr12	19609180	19610356	-	PLCZ1	0x0
1301	chr12	19646275	19647461	+	AEBP2	0x0
1302	chr12	19667021	19668250	+	AEBP2	0x0
1303	chr12	19787207	19788406	+	AEBP2	0x0
1304	chr12	20703858	20705060	+	PDE3A	0x0
1305	chr12	21787731	21789097	-	LDHB	0x0
1306	chr12	21796330	21797498	-	LDHB	0x0
1307	chr12	21806910	21808112	-	LDHB	0x0
1308	chr12	22841550	22842755	+	ETNK1	0x0
1309	chr12	24302800	24303994	-	SOX5	0x2
1310	chr12	25359335	25360441	-	KRAS	0x2
1311	chr12	26799681	26800860	-	ITPR2	0x0
1312	chr12	27182459	27183558	+	MED21	0x0
1313	chr12	28416937	28418091	+	CCDC91	0x0
1314	chr12	29318753	29320044	+	FAR2	0x0
1315	chr12	31255183	31256382	+	DDX11	0x2
1316	chr12	32329775	32330974	+	BICD1	0x0
1317	chr12	34358128	34359328	+	ALG10	0x0
1318	chr12	38554688	38555905	-	CPNE8	0x0
1319	chr12	38556667	38557854	-	CPNE8	0x0
1320	chr12	40306319	40307450	-	SLC2A13	0x2
1321	chr12	41291889	41293092	+	CNTN1	0x2
1322	chr12	42802927	42804130	+	PPHLN1	0x0
1323	chr12	44112475	44113668	-	PUS7L	0x0
1324	chr12	46210804	46211974	+	ARID2	0x1
1325	chr12	46348079	46349248	-	SCAF11	0x0
1326	chr12	46578570	46579679	-	SLC38A1	0x0
1327	chr12	46580852	46583054	-	SLC38A1	0x0
1328	chr12	46662262	46663408	-	SLC38A1	0x0
1329	chr12	46753993	46755126	-	SLC38A2	0x0
1330	chr12	47028778	47029926	+	MIR4698	0x0
1331	chr12	48211842	48213021	-	HDAC7	0x0
1332	chr12	48361676	48362943	+	TMEM106C	0x0
1333	chr12	48929861	48931073	-	LALBA	0x0
1334	chr12	49047617	49048857	-	KANSL2	0x0
1335	chr12	49047617	49048857	-	MIR1291	0x0
1336	chr12	49047617	49048857	-	SNORA34	0x0
1337	chr12	49049902	49051113	-	SNORA2A	0x0
1338	chr12	49053651	49054832	-	KANSL2	0x0
1339	chr12	49318110	49319282	-	FKBP11	0x0
1340	chr12	49329445	49332620	-	ARF3	0x0
1341	chr12	49414410	49415621	-	MLL2	0x2
1342	chr12	49435603	49436758	-	MLL2	0x2
1343	chr12	49529532	49530765	+	TUBA1C	0x0
1344	chr12	49548759	49550000	+	TUBA1C	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1345	chr12	49666456	49667619	+	TUBA1C	0x0
1346	chr12	49920100	49921328	+	SPATS2	0x0
1347	chr12	49985589	49986795	+	PRPF40B	0x0
1348	chr12	50128781	50130000	-	FMNL3	0x2
1349	chr12	50134767	50135968	+	TMBIM6	0x0
1350	chr12	50145699	50146862	+	TMBIM6	0x0
1351	chr12	50156264	50157519	+	TMBIM6	0x0
1352	chr12	50157722	50158819	+	TMBIM6	0x0
1353	chr12	50184490	50185694	-	NCKAP5L	0x0
1354	chr12	50491552	50492780	+	SMARCD1	0x2
1355	chr12	50849813	50851143	+	LARP4	0x0
1356	chr12	51090319	51091513	+	DIP2B	0x0
1357	chr12	51498676	51499900	-	TFCP2	0x0
1358	chr12	51634102	51635201	+	DAZAP2	0x0
1359	chr12	51636316	51637386	+	DAZAP2	0x0
1360	chr12	52401840	52403056	+	GRASP	0x0
1361	chr12	53415744	53416893	+	EIF4B	0x0
1362	chr12	53427832	53429067	+	EIF4B	0x0
1363	chr12	53434475	53435740	+	EIF4B	0x0
1364	chr12	53440754	53442110	-	LOC283335	0x0
1365	chr12	53677339	53678467	+	ESPL1	0x2
1366	chr12	53861998	53863198	+	PCBP2	0x0
1367	chr12	53872702	53873900	+	PCBP2	0x0
1368	chr12	53925841	53927016	-	ATF7	0x0
1369	chr12	53959188	53960365	-	ATF7	0x0
1370	chr12	54058406	54059659	-	ATP5G2	0x0
1371	chr12	54105636	54106848	-	CALCOCO1	0x0
1372	chr12	54116856	54118029	-	CALCOCO1	0x0
1373	chr12	54624276	54625822	-	CBX5	0x0
1374	chr12	54624276	54625822	-	MIR3198-2	0x0
1375	chr12	54626334	54627796	-	CBX5	0x0
1376	chr12	54632554	54633647	-	CBX5	0x0
1377	chr12	54678040	54679244	+	HNRNPA1	0x0
1378	chr12	54678040	54679244	+	HNRNPA1P10	0x0
1379	chr12	54680244	54681745	+	HNRNPA1	0x0
1380	chr12	54744020	54745227	+	COPZ1	0x0
1381	chr12	56144734	56145888	+	GDF11	0x0
1382	chr12	56214650	56215827	-	DNAJC14	0x0
1383	chr12	56319123	56320301	-	WIBG	0x0
1384	chr12	56509912	56511132	+	RPL41	0x0
1385	chr12	56529980	56531185	+	ESYT1	0x0
1386	chr12	56554648	56555864	+	MYL6	0x0
1387	chr12	56567925	56569100	-	SMARCC2	0x0
1388	chr12	56574409	56575535	-	SMARCC2	0x0
1389	chr12	56631521	56633609	-	ANKRD52	0x0
1390	chr12	56650675	56651839	-	ANKRD52	0x0
1391	chr12	56665418	56666553	-	CS	0x0
1392	chr12	56669294	56670401	-	CS	0x0
1393	chr12	56904854	56906036	+	RBMS2	0x0
1394	chr12	56983285	56984504	+	RBMS2	0x0
1395	chr12	56990790	56991985	-	BAZ2A	0x0
1396	chr12	56998428	56999593	-	BAZ2A	0x0
1397	chr12	57031567	57032662	-	ATP5B	0x0
1398	chr12	57038251	57039453	-	ATP5B	0x0
1399	chr12	57038251	57039453	-	SNORD59A	0x0
1400	chr12	57057255	57058446	-	PTGES3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1401	chr12	57106012	57107208	-	NACA	0x2
1402	chr12	57452030	57453472	-	TMEM194A	0x0
1403	chr12	57557543	57558713	+	LRP1	0x0
1404	chr12	57650492	57651591	-	R3HDM2	0x0
1405	chr12	57677230	57678420	-	R3HDM2	0x0
1406	chr12	57764748	57765913	-	R3HDM2	0x0
1407	chr12	57923781	57924975	-	DCTN2	0x0
1408	chr12	57998635	57999786	+	DTX3	0x0
1409	chr12	59270638	59271817	-	LRIG3	0x1
1410	chr12	62948534	62949723	+	MON2	0x0
1411	chr12	63327834	63329011	-	PPM1H	0x0
1412	chr12	63358577	63359800	+	MIRLET7I	0x1
1413	chr12	65603419	65604657	+	LEMD3	0x0
1414	chr12	67285540	67286640	-	GRIP1	0x0
1415	chr12	67296512	67297691	-	GRIP1	0x0
1416	chr12	67431752	67432968	-	GRIP1	0x0
1417	chr12	67698510	67699685	+	CAND1	0x0
1418	chr12	69005201	69006430	+	RAP1B	0x0
1419	chr12	69649981	69651119	+	CPSF6	0x0
1420	chr12	69994544	69995776	+	CCT2	0x0
1421	chr12	70194830	70196046	+	RAB3IP	0x0
1422	chr12	70679838	70681070	+	CNOT2	0x0
1423	chr12	71896974	71898191	+	LGR5	0x0
1424	chr12	72004583	72005719	-	ZFC3H1	0x0
1425	chr12	72005992	72007142	-	ZFC3H1	0x0
1426	chr12	72180935	72182073	+	RAB21	0x0
1427	chr12	74850635	74851794	+	ATXN7L3B	0x0
1428	chr12	75679900	75681078	-	CAPS2	0x0
1429	chr12	75891366	75892543	+	GLIPR1	0x1
1430	chr12	75892900	75894150	-	KRR1	0x0
1431	chr12	76430189	76431289	-	PHLDA1	0x0
1432	chr12	76439331	76440505	-	NAP1L1	0x0
1433	chr12	76443863	76444966	-	NAP1L1	0x0
1434	chr12	76451371	76460500	-	NAP1L1	0x0
1435	chr12	76461818	76462967	-	NAP1L1	0x0
1436	chr12	77224354	77225520	+	ZDHHC17	0x1
1437	chr12	77423288	77424487	-	E2F7	0x4
1438	chr12	79454116	79455268	-	PAWR	0x1
1439	chr12	79545435	79546544	-	PAWR	0x1
1440	chr12	80065464	80066629	-	PAWR	0x1
1441	chr12	81938745	81939922	-	PPFIA2	0x0
1442	chr12	82111266	82112433	-	PPFIA2	0x0
1443	chr12	82763997	82765204	+	C12orf26	0x0
1444	chr12	83250305	83251851	+	TMTC2	0x0
1445	chr12	83445406	83446612	+	TMTC2	0x0
1446	chr12	85275664	85276792	-	SLC6A15	0x2
1447	chr12	85689617	85690718	+	ALX1	0x0
1448	chr12	88478022	88479168	-	CEP290	0x0
1449	chr12	88823643	88824885	+	TMTC3	0x0
1450	chr12	89912721	89913853	-	GALNT4	0x0
1451	chr12	89912721	89913853	-	POC1B-GALNT4	0x0
1452	chr12	90013416	90014561	-	ATP2B1	0x0
1453	chr12	90082996	90084168	-	ATP2B1	0x0
1454	chr12	92120144	92121361	+	CLLU1	0x0
1455	chr12	92734804	92736003	+	CLLU1	0x0
1456	chr12	93795485	93796681	+	NUDT4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1457	chr12	93795485	93796681	+	NUDT4P1	0x0
1458	chr12	93801835	93803801	-	UBE2N	0x0
1459	chr12	93895618	93896756	+	MRPL42	0x0
1460	chr12	93898154	93899253	+	MRPL42	0x0
1461	chr12	93902860	93904057	+	MRPL42	0x0
1462	chr12	94033987	94035163	-	LOC144481	0x0
1463	chr12	94270786	94271995	+	CRADD	0x0
1464	chr12	95449301	95450478	-	NR2C1	0x0
1465	chr12	95694283	95695450	+	VEZT	0x0
1466	chr12	95838385	95839584	-	USP44	0x0
1467	chr12	95907272	95908503	+	METAP2	0x2
1468	chr12	95945210	95946388	-	USP44	0x0
1469	chr12	96131748	96132931	-	NTN4	0x0
1470	chr12	96679370	96680544	-	CDK17	0x0
1471	chr12	98896705	98897950	+	TMPO	0x0
1472	chr12	98909061	98910417	+	TMPO	0x0
1473	chr12	98928615	98929958	+	TMPO	0x0
1474	chr12	98988112	98989361	+	SLC25A3	0x0
1475	chr12	98992887	98994230	+	SLC25A3	0x0
1476	chr12	98992887	98994230	+	SNORA53	0x0
1477	chr12	99477048	99478198	-	ANKS1B	0x0
1478	chr12	100497710	100498916	-	UHRF1BP1L	0x0
1479	chr12	100562243	100563428	-	GOLGA2P5	0x0
1480	chr12	100672654	100673917	+	SCYL2	0x0
1481	chr12	102599508	102600903	+	PARPBP	0x0
1482	chr12	102606561	102607720	+	PARPBP	0x0
1483	chr12	102819646	102820849	-	IGF1	0x0
1484	chr12	104167901	104169068	-	NT5DC3	0x0
1485	chr12	104324745	104325987	+	HSP90B1	0x0
1486	chr12	104381637	104382863	+	TDG	0x2
1487	chr12	104658682	104659889	+	TXNRD1	0x0
1488	chr12	104714376	104715825	+	TXNRD1	0x0
1489	chr12	104732514	104733718	+	TXNRD1	0x0
1490	chr12	104742733	104744033	+	TXNRD1	0x0
1491	chr12	105283361	105284557	+	C12orf45	0x0
1492	chr12	105392116	105393273	+	C12orf45	0x0
1493	chr12	105397776	105398870	+	C12orf45	0x0
1494	chr12	105503187	105504415	+	KIAA1033	0x0
1495	chr12	106631295	106632921	-	CKAP4	0x0
1496	chr12	106872290	106873478	+	POLR3B	0x0
1497	chr12	107347778	107348955	-	MTERFD3	0x0
1498	chr12	107384669	107385818	-	CRY1	0x0
1499	chr12	107951247	107952444	+	BTBD11	0x0
1500	chr12	108917140	108918239	-	SART3	0x0
1501	chr12	108953954	108955214	-	SART3	0x0
1502	chr12	109038635	109040230	-	CORO1C	0x0
1503	chr12	109312158	109313375	+	DAO	0x0
1504	chr12	109636634	109637824	+	ACACB	0x0
1505	chr12	109724629	109725961	-	FOXN4	0x0
1506	chr12	109740686	109741911	-	FOXN4	0x0
1507	chr12	109761616	109762830	+	ACACB	0x0
1508	chr12	109973462	109974663	+	UBE3B	0x0
1509	chr12	109994373	109995568	-	MMAB	0x0
1510	chr12	110763655	110764854	+	ATP2A2	0x2
1511	chr12	110777915	110779112	+	ATP2A2	0x2
1512	chr12	110783912	110785278	+	ATP2A2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1513	chr12	110824490	110826195	-	ANAPC7	0x0
1514	chr12	111157924	111159308	-	PPP1CC	0x0
1515	chr12	111855661	111856775	+	SH2B3	0x0
1516	chr12	111948470	111949661	-	ATXN2	0x0
1517	chr12	111958175	111959274	-	ATXN2	0x0
1518	chr12	112460151	112461345	+	ERP29	0x0
1519	chr12	112466354	112467513	-	NAA25	0x0
1520	chr12	112467833	112468970	-	NAA25	0x0
1521	chr12	112504368	112505565	-	NAA25	0x0
1522	chr12	112510461	112511674	-	NAA25	0x0
1523	chr12	112637375	112638555	-	C12orf51	0x2
1524	chr12	112704325	112705613	+	TRAFD1	0x0
1525	chr12	112746050	112747202	-	C12orf51	0x2
1526	chr12	112911069	112912282	+	PTPN11	0x2
1527	chr12	112944565	112946176	+	PTPN11	0x2
1528	chr12	113673828	113675053	+	TPCN1	0x0
1529	chr12	113735248	113736378	+	TPCN1	0x0
1530	chr12	113874548	113875949	+	SDSL	0x0
1531	chr12	115129856	115131062	+	LOC255480	0x0
1532	chr12	116398477	116399619	-	MED13L	0x0
1533	chr12	116433823	116435006	-	MED13L	0x0
1534	chr12	117152663	117154080	-	C12orf49	0x0
1535	chr12	117365284	117366523	+	FBXW8	0x0
1536	chr12	118683520	118685251	+	PEBP1	0x0
1537	chr12	119266964	119268147	+	SRRM4	0x0
1538	chr12	120123558	120130500	-	CIT	0x2
1539	chr12	120574832	120576057	-	GCN1L1	0x0
1540	chr12	120592597	120594106	-	GCN1L1	0x0
1541	chr12	120592597	120594106	-	MIR4498	0x0
1542	chr12	120600352	120601529	-	GCN1L1	0x0
1543	chr12	120636369	120637807	-	RPLP0	0x0
1544	chr12	120659813	120661023	-	PXN	0x0
1545	chr12	120719700	120720918	+	SIRT4	0x0
1546	chr12	120729010	120730242	-	PXN	0x0
1547	chr12	120730321	120731569	-	PXN	0x0
1548	chr12	120779154	120780474	-	MSI1	0x0
1549	chr12	120875360	120876560	+	COX6A1	0x0
1550	chr12	120877815	120879006	+	COX6A1	0x0
1551	chr12	120884509	120885705	+	GATC	0x0
1552	chr12	120935439	120936770	+	DYNLL1	0x0
1553	chr12	121124410	121125575	+	MLEC	0x0
1554	chr12	121138015	121139114	+	MLEC	0x0
1555	chr12	121159111	121160851	+	UNC119B	0x0
1556	chr12	121201895	121203019	-	SPPL3	0x0
1557	chr12	121308258	121309467	-	SPPL3	0x0
1558	chr12	121314068	121315243	-	SPPL3	0x0
1559	chr12	121676294	121677456	-	CAMKK2	0x0
1560	chr12	122496860	122497973	+	BCL7A	0x2
1561	chr12	122627621	122628772	+	MLXIP	0x0
1562	chr12	122779092	122780309	-	CLIP1	0x2
1563	chr12	122825134	122826272	-	CLIP1	0x2
1564	chr12	123120516	123121672	+	KNTC1	0x0
1565	chr12	123444050	123445230	-	ABCB9	0x0
1566	chr12	123745288	123746440	-	CDK2AP1	0x1
1567	chr12	123801208	123802366	-	SBNO1	0x0
1568	chr12	123943066	123944289	+	SNRNP35	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1569	chr12	124081212	124082349	+	TMED2	0x0
1570	chr12	124100782	124101965	+	DDX55	0x0
1571	chr12	124145169	124146424	+	GTF2H3	0x0
1572	chr12	124219151	124220344	+	ATP6V0A2	0x0
1573	chr12	124854201	124855376	-	NCOR2	0x0
1574	chr12	124903987	124905161	-	NCOR2	0x0
1575	chr12	124915360	124916735	-	NCOR2	0x0
1576	chr12	124922826	124924510	-	NCOR2	0x0
1577	chr12	124979296	124980474	-	NCOR2	0x0
1578	chr12	125261806	125262989	-	SCARB1	0x0
1579	chr12	125339397	125340559	-	SCARB1	0x0
1580	chr12	125397675	125398874	-	UBC	0x0
1581	chr12	127649925	127651531	-	LOC440117	0x0
1582	chr12	131358620	131359786	+	RAN	0x0
1583	chr12	131359882	131362107	+	RAN	0x0
1584	chr12	132589229	132590362	+	EP400NL	0x0
1585	chr12	132638091	132639288	+	NOC4L	0x0
1586	chr12	133159939	133161159	+	FBRSL1	0x4
1587	chr12	133235503	133236603	-	POLE	0x0
1588	chr12	133249065	133250242	-	POLE	0x0
1589	chr12	133286628	133287809	+	PGAM5	0x0
1590	chr12	133297027	133298212	+	PGAM5	0x0
1591	chr12	133302273	133303436	-	ANKLE2	0x0
1592	chr12	133340445	133341593	+	PGAM5	0x0
1593	chr12	133346386	133347715	-	GOLGA3	0x0
1594	chr12	133401746	133403135	+	PGAM5	0x0
1595	chr13	20182187	20183387	+	MPHOSPH8	0x0
1596	chr13	20198790	20199958	+	MPHOSPH8	0x0
1597	chr13	21185776	21187001	+	IFT88	0x1
1598	chr13	21535345	21536549	+	SAP18	0x0
1599	chr13	21946854	21948041	-	ZDHHC20	0x0
1600	chr13	21948636	21949812	-	ZDHHC20	0x0
1601	chr13	21994684	21995835	-	ZDHHC20	0x0
1602	chr13	23903680	23904855	-	SACS	0x0
1603	chr13	23934784	23935912	-	SACS	0x0
1604	chr13	24434695	24435873	-	MIPEP	0x0
1605	chr13	24699699	24700878	-	C1QTNF9B	0x0
1606	chr13	24796585	24798913	+	SPATA13	0x2
1607	chr13	25470098	25471258	-	CENPJ	0x0
1608	chr13	25670480	25671744	+	PABPC3	0x2
1609	chr13	26853541	26854689	+	CDK8	0x0
1610	chr13	26936737	26937942	+	CDK8	0x0
1611	chr13	27694168	27695357	-	USP12	0x0
1612	chr13	27827796	27830192	+	RPL21	0x0
1613	chr13	27827796	27830192	+	RPL21P28	0x0
1614	chr13	27827796	27830192	+	SNORA27	0x0
1615	chr13	27827796	27830192	+	SNORD102	0x0
1616	chr13	28007054	28008244	+	GTF3A	0x0
1617	chr13	28563055	28564262	-	PRHOXNB	0x0
1618	chr13	28712198	28713431	+	PAN3	0x0
1619	chr13	30085991	30087580	-	SLC7A1	0x0
1620	chr13	30106461	30107604	-	SLC7A1	0x0
1621	chr13	30109547	30110829	-	SLC7A1	0x0
1622	chr13	30814590	30815735	-	KATNAL1	0x0
1623	chr13	31712045	31713225	-	HSPH1	0x0
1624	chr13	34410120	34411619	+	RFC3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1625	chr13	34497437	34498845	+	RFC3	0x0
1626	chr13	34526824	34527999	+	RFC3	0x0
1627	chr13	35939677	35940865	+	NBEA	0x0
1628	chr13	37427215	37428396	-	SMAD9	0x0
1629	chr13	37439099	37440278	-	SMAD9	0x0
1630	chr13	41132450	41133622	-	FOXO1	0x1
1631	chr13	41155039	41156154	-	FOXO1	0x1
1632	chr13	41494897	41496052	-	LOC100616668	0x0
1633	chr13	41494897	41496052	-	SUGT1P3	0x0
1634	chr13	42352226	42353364	-	KIAA0564	0x0
1635	chr13	42439523	42440727	-	KIAA0564	0x0
1636	chr13	42893974	42895101	+	AKAP11	0x2
1637	chr13	44168571	44169757	-	ENOX1	0x0
1638	chr13	45575759	45576957	+	KIAA1704	0x0
1639	chr13	45825141	45826367	+	GTF2F2	0x0
1640	chr13	45910549	45912314	-	SNORA31	0x0
1641	chr13	45910549	45912314	-	TPT1	0x0
1642	chr13	46948034	46949263	-	KIAA0226L	0x0
1643	chr13	49561491	49562687	+	FNDC3A	0x0
1644	chr13	50587746	50588962	-	DLEU2	0x1
1645	chr13	50656526	50657696	+	DLEU1	0x1
1646	chr13	51323418	51324638	+	RNASEH2B	0x0
1647	chr13	51837909	51839104	+	FAM124A	0x0
1648	chr13	52987379	52988940	-	VPS36	0x0
1649	chr13	53190495	53191693	+	HNRNPA1L2	0x0
1650	chr13	60651419	60652765	-	DIAPH3	0x0
1651	chr13	61015885	61017092	+	TDRD3	0x0
1652	chr13	61125023	61126193	+	TDRD3	0x0
1653	chr13	61363164	61364351	+	TDRD3	0x0
1654	chr13	67840715	67841891	-	PCDH9	0x0
1655	chr13	72228968	72230115	-	DACH1	0x0
1656	chr13	72252217	72253358	-	DACH1	0x0
1657	chr13	72388884	72389994	-	DACH1	0x0
1658	chr13	72419172	72420352	-	DACH1	0x0
1659	chr13	73282402	73283576	-	MZT1	0x0
1660	chr13	73301105	73302258	-	MZT1	0x0
1661	chr13	73308096	73309322	+	BORA	0x0
1662	chr13	74505335	74506483	-	KLF12	0x0
1663	chr13	75883686	75884853	-	TBC1D4	0x0
1664	chr13	75935627	75936804	-	TBC1D4	0x0
1665	chr13	76134337	76135485	+	UCHL3	0x0
1666	chr13	76142156	76143379	+	UCHL3	0x0
1667	chr13	76179345	76180503	+	UCHL3	0x0
1668	chr13	76791681	76792834	+	LMO7	0x2
1669	chr13	77459623	77460867	-	KCTD12	0x0
1670	chr13	77581326	77582522	-	FBXL3	0x0
1671	chr13	77592190	77593366	-	FBXL3	0x0
1672	chr13	77730560	77731688	-	MYCBP2	0x2
1673	chr13	79176171	79177675	-	POU4F1	0x0
1674	chr13	79188083	79189266	-	RNF219	0x0
1675	chr13	79888041	79889331	-	RBM26	0x0
1676	chr13	79939705	79940928	-	RBM26	0x0
1677	chr13	80071204	80072474	+	NDFIP2	0x0
1678	chr13	92252899	92254129	+	GPC5	0x0
1679	chr13	95840472	95841650	-	ABCC4	0x0
1680	chr13	95868999	95870171	-	ABCC4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1681	chr13	96293455	96294610	-	DZIP1	0x0
1682	chr13	96855475	96856610	+	HS6ST3	0x0
1683	chr13	97601125	97602326	-	OXGR1	0x0
1684	chr13	98652227	98653437	+	IPO5	0x0
1685	chr13	99104245	99105441	-	STK24	0x0
1686	chr13	99205745	99206936	-	STK24	0x0
1687	chr13	99323732	99324883	+	FARP1	0x0
1688	chr13	99857416	99858783	+	UBAC2	0x0
1689	chr13	99866861	99868315	-	MIR548AN	0x0
1690	chr13	102651242	102652440	+	ITGBL1	0x0
1691	chr13	103278915	103280017	+	TPP2	0x0
1692	chr13	103355620	103356795	-	METTL21C	0x0
1693	chr13	107210710	107211839	-	ARGLU1	0x0
1694	chr13	108076427	108077608	-	FAM155A	0x0
1695	chr13	108161143	108162342	-	FAM155A	0x0
1696	chr13	108264790	108265967	-	FAM155A	0x0
1697	chr13	108299224	108300407	-	FAM155A	0x0
1698	chr13	109513961	109515157	-	LIG4	0x0
1699	chr13	110435906	110437076	-	IRS2	0x0
1700	chr13	110566925	110568267	+	COL4A2	0x2
1701	chr13	111348428	111349606	-	CARS2	0x0
1702	chr13	113598283	113599440	-	MCF2L-AS1	0x0
1703	chr13	113833527	113834684	-	PCID2	0x0
1704	chr13	113917507	113918650	+	CUL4A	0x1
1705	chr13	113931038	113932264	+	CUL4A	0x1
1706	chr13	114183681	114184915	+	TMCO3	0x0
1707	chr13	114294691	114295879	+	TFDP1	0x0
1708	chr14	20742356	20743528	-	TTC5	0x0
1709	chr14	20790801	20792085	-	CCNB1IP1	0x0
1710	chr14	20810712	20812122	-	RPPH1	0x0
1711	chr14	20882556	20883783	+	APEX1	0x0
1712	chr14	21081438	21082537	-	RNASE12	0x0
1713	chr14	21100650	21101887	+	ANG	0x0
1714	chr14	21120694	21121938	-	OR6S1	0x0
1715	chr14	21127573	21128700	-	OR6S1	0x0
1716	chr14	21130773	21132001	-	OR6S1	0x0
1717	chr14	21149336	21150513	+	ANG	0x0
1718	chr14	21150862	21152183	+	ANG	0x0
1719	chr14	21701758	21702922	-	HNRNPC	0x0
1720	chr14	21819168	21820374	-	SUPT16H	0x0
1721	chr14	21883441	21884661	-	CHD8	0x0
1722	chr14	21927022	21928341	-	RAB2B	0x0
1723	chr14	21970840	21972169	-	METTL3	0x2
1724	chr14	23398370	23399587	+	REM2	0x0
1725	chr14	23534766	23535940	-	ACIN1	0x2
1726	chr14	23539764	23541105	-	ACIN1	0x2
1727	chr14	23794361	23795539	+	BCL2L2-PABPN1	0x0
1728	chr14	23794361	23795539	+	PABPN1	0x0
1729	chr14	23947343	23948545	+	NGDN	0x0
1730	chr14	24736302	24737477	-	RABGGTA	0x0
1731	chr14	24783279	24784402	+	LTB4R	0x0
1732	chr14	24842532	24843745	+	NFATC4	0x0
1733	chr14	24910543	24911763	-	SDR39U1	0x0
1734	chr14	26150011	26151194	-	STXBP6	0x0
1735	chr14	28733778	28735048	+	FOXG1	0x4
1736	chr14	30270786	30271961	-	PRKD1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1737	chr14	31070268	31071668	+	G2E3	0x0
1738	chr14	31481080	31482291	-	MIR624	0x0
1739	chr14	31585380	31586544	-	HECTD1	0x0
1740	chr14	31919046	31920232	-	C14orf126	0x0
1741	chr14	32589428	32590647	+	ARHGAP5	0x0
1742	chr14	32803437	32804634	+	AKAP6	0x2
1743	chr14	32853729	32854962	+	AKAP6	0x2
1744	chr14	34929007	34930135	-	SPTSSA	0x0
1745	chr14	35328000	35329104	-	BAZ1A	0x0
1746	chr14	35857231	35858622	-	NFKBIA	0x2
1747	chr14	36231437	36232687	-	RALGAPA1	0x0
1748	chr14	39455981	39457143	+	GEMIN2	0x0
1749	chr14	39617080	39618404	-	TRAPPC6B	0x0
1750	chr14	39650236	39651971	+	PNN	0x1
1751	chr14	39837183	39838385	+	CTAGE5	0x0
1752	chr14	44660534	44661689	-	FSCB	0x0
1753	chr14	45429705	45430918	-	KLHL28	0x0
1754	chr14	45513128	45514344	+	FAM179B	0x0
1755	chr14	45571192	45572327	+	PRPF39	0x0
1756	chr14	45669258	45670454	+	FANCM	0x2
1757	chr14	45860772	45861964	+	FANCM	0x2
1758	chr14	50052744	50054179	+	LRR1	0x0
1759	chr14	50072238	50073452	+	LRR1	0x0
1760	chr14	50252419	50253619	-	NEMF	0x0
1761	chr14	50283121	50284320	-	NEMF	0x0
1762	chr14	50319903	50321149	-	NEMF	0x0
1763	chr14	50328727	50329939	-	NEMF	0x0
1764	chr14	50534715	50536100	+	ARF6	0x0
1765	chr14	50867418	50868611	-	CDKL1	0x0
1766	chr14	51255767	51256946	-	NIN	0x2
1767	chr14	51464045	51465182	-	TRIM9	0x0
1768	chr14	51574132	51575351	+	TMX1	0x0
1769	chr14	51712422	51713625	+	TMX1	0x0
1770	chr14	51715602	51716791	+	TMX1	0x0
1771	chr14	51721809	51723001	+	TMX1	0x0
1772	chr14	53010501	53011643	-	TXNDC16	0x0
1773	chr14	53052610	53053853	+	GPR137C	0x0
1774	chr14	53084258	53085453	+	GPR137C	0x0
1775	chr14	53517339	53518466	-	DDHD1	0x0
1776	chr14	54893869	54895013	-	CNIH	0x0
1777	chr14	55119067	55120298	+	SAMD4A	0x0
1778	chr14	56166774	56167972	+	KTN1	0x2
1779	chr14	57746954	57748160	+	MUDENG	0x0
1780	chr14	58645963	58647181	+	ACTR10	0x0
1781	chr14	58706021	58707218	-	FLJ31306	0x0
1782	chr14	60582184	60583444	+	C14orf135	0x0
1783	chr14	60590498	60591850	+	C14orf135	0x0
1784	chr14	60715423	60716633	+	PPM1A	0x0
1785	chr14	60728399	60729605	+	PPM1A	0x0
1786	chr14	63589788	63590983	+	RHOJ	0x0
1787	chr14	64481686	64482836	+	SYNE2	0x0
1788	chr14	64595923	64597126	+	SYNE2	0x0
1789	chr14	64640181	64641308	+	SYNE2	0x0
1790	chr14	64749029	64750351	-	ESR2	0x1
1791	chr14	65590559	65591762	-	MAX	0x0
1792	chr14	68265192	68266392	+	RAD51B	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1793	chr14	69259066	69260239	-	ZFP36L1	0x2
1794	chr14	70235277	70236409	+	SRSF5	0x0
1795	chr14	70827039	70828233	+	ADAM21	0x0
1796	chr14	71050827	71051971	-	MED6	0x0
1797	chr14	73395835	73397193	-	DPF3	0x0
1798	chr14	73637050	73638259	+	PSEN1	0x0
1799	chr14	73658933	73660059	+	PSEN1	0x0
1800	chr14	73750395	73751600	-	NUMB	0x0
1801	chr14	75068529	75069738	-	LTBP2	0x2
1802	chr14	75358451	75359654	+	DLST	0x0
1803	chr14	75496694	75497909	-	MLH3	0x0
1804	chr14	75575913	75577091	-	NEK9	0x2
1805	chr14	75600401	75601539	-	TMED10	0x0
1806	chr14	76528971	76530189	+	IFT43	0x0
1807	chr14	76637656	76638879	+	C14orf118	0x0
1808	chr14	76663629	76664745	+	C14orf118	0x0
1809	chr14	77256334	77257559	-	ANGEL1	0x0
1810	chr14	78173934	78175091	+	SLIRP	0x0
1811	chr14	81668501	81669733	-	SNORA79	0x0
1812	chr14	85737717	85738922	+	FLRT2	0x0
1813	chr14	89043389	89044605	+	ZC3H14	0x0
1814	chr14	89078709	89079907	+	ZC3H14	0x0
1815	chr14	89299285	89300522	+	TTC8	0x0
1816	chr14	90051483	90052669	+	PRO1768	0x0
1817	chr14	90178358	90179578	+	PRO1768	0x0
1818	chr14	90564181	90565327	-	EFCAB11	0x0
1819	chr14	91816631	91817828	-	CCDC88C	0x0
1820	chr14	93406578	93408201	-	ITPK1	0x0
1821	chr14	95192789	95194001	+	SERPINA13	0x0
1822	chr14	95999181	96000528	-	SCARNA13	0x0
1823	chr14	95999181	96000528	-	SNHG10	0x0
1824	chr14	96428328	96429515	-	TCL1A	0x0
1825	chr14	96788184	96789377	-	ATG2B	0x0
1826	chr14	96850446	96851673	+	C14orf129	0x0
1827	chr14	97003083	97004318	+	PAPOLA	0x0
1828	chr14	97299331	97300523	+	VRK1	0x0
1829	chr14	97303953	97305166	+	VRK1	0x0
1830	chr14	97588455	97589675	+	VRK1	0x0
1831	chr14	99438779	99440087	-	BCL11B	0x2
1832	chr14	99871011	99872156	-	SETD3	0x0
1833	chr14	99927008	99928201	-	SETD3	0x0
1834	chr14	99978119	99979271	-	CCDC85C	0x0
1835	chr14	99980306	99981513	-	CCDC85C	0x0
1836	chr14	100704883	100706065	+	YY1	0x0
1837	chr14	102451533	102452778	+	DYNC1H1	0x0
1838	chr14	102485774	102486912	+	DYNC1H1	0x0
1839	chr14	102513570	102514767	+	DYNC1H1	0x0
1840	chr14	102515579	102516643	+	DYNC1H1	0x0
1841	chr14	102547003	102548556	-	HSP90AA1	0x2
1842	chr14	102551792	102552968	-	HSP90AA1	0x2
1843	chr14	102792163	102793304	+	ZNF839	0x0
1844	chr14	102797439	102798576	+	ZNF839	0x0
1845	chr14	102972147	102973298	-	ANKRD9	0x0
1846	chr14	103284894	103286072	+	TRAF3	0x2
1847	chr14	103375057	103376164	+	TRAF3	0x2
1848	chr14	103601516	103602707	+	TNFAIP2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1849	chr14	103803650	103804881	+	EIF5	0x0
1850	chr14	103803650	103804881	+	SNORA28	0x0
1851	chr14	103985494	103987405	-	CKB	0x0
1852	chr14	104131617	104132836	+	KLC1	0x0
1853	chr14	104378332	104379524	-	C14orf2	0x0
1854	chr14	104479474	104480652	+	TDRD9	0x0
1855	chr14	105235359	105236649	-	AKT1	0x2
1856	chr14	105715971	105717135	-	BRF1	0x1
1857	chr14	105716708	105717810	+	BTBD6	0x0
1858	chr14	105752951	105754079	-	BRF1	0x1
1859	chr14	105849686	105850785	+	PACS2	0x0
1860	chr14	105926114	105927310	+	MTA1	0x2
1861	chr14	105934900	105936046	+	MTA1	0x2
1862	chr15	21936754	21937923	-	LOC646214	0x0
1863	chr15	24925724	24926901	+	C15orf2	0x2
1864	chr15	25683452	25684651	-	UBE3A	0x4
1865	chr15	25781530	25782728	+	SNORD109A	0x4
1866	chr15	25781530	25782728	+	SNORD109B	0x4
1867	chr15	28491389	28492502	-	HERC2	0x2
1868	chr15	28505439	28506582	-	HERC2	0x2
1869	chr15	29335946	29337183	+	APBA2	0x0
1870	chr15	29345646	29346846	+	APBA2	0x0
1871	chr15	31745052	31746201	-	OTUD7A	0x0
1872	chr15	34251063	34252240	-	AVEN	0x0
1873	chr15	34633527	34634962	-	NOP10	0x0
1874	chr15	34781617	34782779	-	GOLGA8B	0x0
1875	chr15	37014652	37015883	+	C15orf41	0x0
1876	chr15	37255197	37256324	-	MEIS2	0x0
1877	chr15	40833292	40834457	-	MRPL42P5	0x0
1878	chr15	41036799	41038022	-	FAM82A2	0x0
1879	chr15	41270810	41271987	-	INO80	0x0
1880	chr15	41315423	41316571	-	INO80	0x0
1881	chr15	41683649	41684911	-	NDUFAF1	0x0
1882	chr15	41987838	41989218	+	MGA	0x2
1883	chr15	42002771	42004041	+	MGA	0x2
1884	chr15	42620396	42621594	+	GANC	0x0
1885	chr15	42706180	42707487	-	ZFP106	0x0
1886	chr15	42962748	42963944	+	STARD9	0x0
1887	chr15	43283722	43284928	-	UBR1	0x2
1888	chr15	44038200	44039385	+	PDIA3	0x0
1889	chr15	44093201	44094397	+	C15orf63	0x0
1890	chr15	44093201	44094397	+	SERF2-C15ORF63	0x0
1891	chr15	44243568	44244787	-	FRMD5	0x0
1892	chr15	44707143	44708328	+	CASC4	0x0
1893	chr15	44853224	44854435	+	EIF3J	0x0
1894	chr15	44855288	44856463	+	EIF3J	0x0
1895	chr15	45039370	45040570	+	TRIM69	0x0
1896	chr15	45490204	45491403	-	SHF	0x0
1897	chr15	45492010	45493176	-	SHF	0x0
1898	chr15	45492781	45493978	+	DUOX1	0x0
1899	chr15	47619874	47621023	+	SEMA6D	0x0
1900	chr15	47699587	47700788	+	SEMA6D	0x0
1901	chr15	48729413	48730591	-	FBN1	0x0
1902	chr15	49170975	49172607	+	EID1	0x2
1903	chr15	51223596	51224840	+	AP4E1	0x0
1904	chr15	52841907	52843027	-	ARPP19	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1905	chr15	55874281	55875380	-	PYGO1	0x0
1906	chr15	59040732	59041932	-	ADAM10	0x2
1907	chr15	59431774	59432875	+	CCNB2	0x0
1908	chr15	59968844	59970052	-	BNIP2	0x0
1909	chr15	60576764	60577938	+	FOXB1	0x0
1910	chr15	61501060	61510500	-	RORA	0x0
1911	chr15	64791589	64792900	+	ZNF609	0x0
1912	chr15	64856192	64857385	+	ZNF609	0x0
1913	chr15	65587813	65589092	+	KBTBD13	0x0
1914	chr15	65596449	65597712	+	KBTBD13	0x0
1915	chr15	66433059	66434274	-	MEGF11	0x0
1916	chr15	66496826	66498012	-	MEGF11	0x0
1917	chr15	66637503	66638647	-	SCARNA14	0x0
1918	chr15	66639053	66640252	-	SCARNA14	0x0
1919	chr15	66792791	66794211	-	RPL4	0x0
1920	chr15	66792791	66794211	-	SNORD18C	0x0
1921	chr15	66794418	66796231	-	RPL4	0x0
1922	chr15	66794418	66796231	-	SNORD16	0x0
1923	chr15	66794418	66796231	-	SNORD18A	0x0
1924	chr15	66794418	66796231	-	SNORD18B	0x0
1925	chr15	67511428	67512557	-	AAGAB	0x0
1926	chr15	68496759	68497953	-	CALML4	0x0
1927	chr15	68499340	68500439	-	CLN6	0x0
1928	chr15	68572922	68574070	+	FEM1B	0x0
1929	chr15	69070758	69072796	-	ANP32A	0x1
1930	chr15	69079609	69080756	-	ANP32A	0x1
1931	chr15	69100468	69101612	-	ANP32A-IT1	0x0
1932	chr15	69494074	69495240	+	MIR548H4	0x0
1933	chr15	69738521	69739744	+	KIF23	0x0
1934	chr15	69747224	69748423	+	RPLP1	0x0
1935	chr15	70389486	70390685	-	TLE3	0x0
1936	chr15	70481875	70483051	+	C15orf50	0x0
1937	chr15	71456865	71458080	-	CT62	0x0
1938	chr15	72337357	72338555	+	SENP8	0x0
1939	chr15	72486311	72487490	-	GRAMD2	0x0
1940	chr15	72490926	72492479	-	PKM2	0x0
1941	chr15	72546097	72547249	-	PARP6	0x0
1942	chr15	72766136	72767238	+	ARIH1	0x0
1943	chr15	73043229	73044383	-	ADPGK	0x0
1944	chr15	73408453	73409650	+	NEO1	0x1
1945	chr15	74851876	74853097	+	ARID3B	0x1
1946	chr15	75132127	75133316	-	ULK3	0x0
1947	chr15	75628401	75629629	+	COMMD4	0x0
1948	chr15	76584313	76585531	-	ETFA	0x0
1949	chr15	77224273	77225393	+	RCN2	0x1
1950	chr15	77337848	77339156	-	TSPAN3	0x0
1951	chr15	77362838	77363961	-	TSPAN3	0x0
1952	chr15	77969913	77971109	-	LINGO1	0x0
1953	chr15	78833666	78834832	+	PSMA4	0x0
1954	chr15	78881867	78883066	+	CHRNA5	0x0
1955	chr15	78884931	78886120	+	CHRNA5	0x0
1956	chr15	79152336	79153574	+	MORF4L1	0x0
1957	chr15	80993689	80994882	+	FAM108C1	0x0
1958	chr15	81270066	81271359	-	MESDC2	0x0
1959	chr15	81557467	81558641	-	STARD5	0x0
1960	chr15	82466075	82467253	-	EFTUD1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1961	chr15	83684818	83686067	-	BTBD1	0x0
1962	chr15	83857545	83858740	-	HDGFRP3	0x0
1963	chr15	84515575	84516733	-	LOC388152	0x0
1964	chr15	84819674	84820905	+	LOC100505679	0x0
1965	chr15	85234210	85235385	-	SEC11A	0x0
1966	chr15	85337100	85338312	+	ZNF592	0x0
1967	chr15	85628321	85629513	+	PDE8A	0x0
1968	chr15	86111157	86112347	+	AKAP13	0x2
1969	chr15	86260146	86261296	+	AKAP13	0x2
1970	chr15	88654304	88655504	+	LOC283738	0x0
1971	chr15	89743411	89744512	+	ABHD2	0x0
1972	chr15	89825525	89826904	+	FANCI	0x0
1973	chr15	89859503	89860736	+	FANCI	0x0
1974	chr15	89877748	89878974	+	FANCI	0x0
1975	chr15	90146668	90147889	+	C15orf42	0x0
1976	chr15	90610429	90611599	+	ZNF710	0x0
1977	chr15	90814312	90815850	+	NGRN	0x0
1978	chr15	90907212	90908788	+	ZNF774	0x0
1979	chr15	91185812	91187013	+	CRTC3	0x2
1980	chr15	91425207	91426364	+	FURIN	0x0
1981	chr15	91432876	91434053	-	HDDC3	0x0
1982	chr15	91478248	91479432	+	UNC45A	0x0
1983	chr15	91516850	91517974	-	PRC1	0x2
1984	chr15	93255471	93256642	+	ASB9P1	0x0
1985	chr15	93586832	93588055	-	RGMA	0x0
1986	chr15	96288506	96289758	+	LOC145820	0x0
1987	chr15	100648661	100649816	-	ADAMTS17	0x0
1988	chr15	100765299	100766413	-	ADAMTS17	0x0
1989	chr15	100870564	100871790	-	ADAMTS17	0x0
1990	chr15	101480773	101482171	+	LRRK1	0x2
1991	chr15	101825007	101826228	-	SNRPA1	0x0
1992	chr15	102181636	102182846	-	TM2D3	0x0
1993	chr16	143816	144957	+	MPG	0x0
1994	chr16	235472	236640	-	LUC7L	0x0
1995	chr16	342848	344050	-	AXIN1	0x1
1996	chr16	396145	397340	-	AXIN1	0x1
1997	chr16	448859	451026	+	NME4	0x0
1998	chr16	589506	590634	+	MIR3176	0x0
1999	chr16	595185	596399	+	SOLH	0x0
2000	chr16	601507	602707	+	SOLH	0x0
2001	chr16	683792	685117	-	C16orf13	0x0
2002	chr16	723557	724706	+	RHOT2	0x0
2003	chr16	733573	734707	-	JMJD8	0x0
2004	chr16	733573	734707	-	WDR24	0x0
2005	chr16	783112	784246	-	NARFL	0x0
2006	chr16	787182	788296	-	NARFL	0x0
2007	chr16	841316	842543	+	CHTF18	0x0
2008	chr16	941830	943035	-	LMF1	0x0
2009	chr16	1419680	1420859	-	UNKL	0x0
2010	chr16	1509920	1511053	-	CLCN7	0x0
2011	chr16	1793752	1795078	+	MAPK8IP3	0x2
2012	chr16	2011358	2012506	+	NDUFB10	0x0
2013	chr16	2012334	2013692	-	RPS2	0x0
2014	chr16	2012334	2013692	-	SNORA10	0x0
2015	chr16	2012334	2013692	-	SNORA64	0x0
2016	chr16	2127155	2128344	+	TSC2	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2017	chr16	2129738	2130819	+	TSC2	0x1
2018	chr16	2204448	2205682	-	SNORD60	0x0
2019	chr16	2262814	2263925	-	PGP	0x0
2020	chr16	2302820	2304024	-	RNPS1	0x0
2021	chr16	2325778	2326930	-	ABCA3	0x0
2022	chr16	2507661	2508867	+	CCNF	0x0
2023	chr16	2551481	2552720	+	TBC1D24	0x0
2024	chr16	2669190	2670380	-	ERVK13-1	0x0
2025	chr16	2816749	2818757	+	SRRM2	0x0
2026	chr16	3103594	3104769	-	CCDC64B	0x0
2027	chr16	3135604	3136834	+	IL32	0x0
2028	chr16	3183893	3185039	-	MGC3771	0x0
2029	chr16	3206822	3207998	-	MGC3771	0x0
2030	chr16	3707612	3708771	-	TRAP1	0x0
2031	chr16	3738655	3739754	-	TRAP1	0x0
2032	chr16	3776638	3777807	-	CREBBP	0x1
2033	chr16	3853492	3854682	-	CREBBP	0x1
2034	chr16	3899742	3901495	-	CREBBP	0x1
2035	chr16	4312072	4313247	-	TFAP4	0x0
2036	chr16	4585148	4586317	-	C16orf5	0x0
2037	chr16	4631453	4632577	-	FAM100A	0x0
2038	chr16	4780498	4781691	-	ANKS3	0x0
2039	chr16	4809968	4811154	-	ZNF500	0x0
2040	chr16	4930725	4931953	+	UBN1	0x0
2041	chr16	9202390	9203489	+	C16orf72	0x0
2042	chr16	9732686	9733886	+	MIR548X	0x0
2043	chr16	10623788	10625100	-	EMP2	0x0
2044	chr16	11118150	11119355	+	CLEC16A	0x0
2045	chr16	11795285	11796473	-	TXNDC11	0x0
2046	chr16	11982629	11983709	-	GSPT1	0x0
2047	chr16	11989914	11991031	-	GSPT1	0x0
2048	chr16	14247481	14248682	+	MKL2	0x0
2049	chr16	15154201	15155400	-	RRN3	0x0
2050	chr16	15224518	15225828	-	MIR3180-4	0x0
2051	chr16	15959530	15960686	-	FOPNL	0x0
2052	chr16	16103077	16104257	+	ABCC1	0x0
2053	chr16	16180120	16181312	+	ABCC1	0x0
2054	chr16	16231673	16232855	+	ABCC1	0x0
2055	chr16	18367186	18368355	+	ABCC6P1	0x0
2056	chr16	18795494	18796703	-	RPS15A	0x0
2057	chr16	21964106	21965352	+	UQCRC2	0x2
2058	chr16	22206429	22207666	-	CDR2	0x0
2059	chr16	22236504	22237625	+	EEF2K	0x0
2060	chr16	23154325	23155505	-	USP31	0x0
2061	chr16	23443115	23444292	+	SCNN1B	0x0
2062	chr16	23455520	23456673	-	COG7	0x0
2063	chr16	23518784	23519913	-	GGA2	0x0
2064	chr16	26772167	26773347	-	NSMCE1	0x0
2065	chr16	28109306	28110513	-	XPO6	0x0
2066	chr16	28165013	28166113	-	XPO6	0x0
2067	chr16	28172868	28174090	+	SBK1	0x0
2068	chr16	28178211	28179388	-	XPO6	0x0
2069	chr16	28222170	28223312	-	XPO6	0x0
2070	chr16	28488127	28489342	-	CLN3	0x0
2071	chr16	28502619	28503773	-	CLN3	0x0
2072	chr16	28735596	28736768	+	EIF3C	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2073	chr16	28735596	28736768	+	EIF3CL	0x0
2074	chr16	29620126	29621279	-	SLC7A5P1	0x0
2075	chr16	29818410	29819625	+	MAZ	0x0
2076	chr16	29821157	29822740	+	MAZ	0x0
2077	chr16	29830643	29831878	+	C16orf53	0x0
2078	chr16	29830643	29831878	+	MVP	0x0
2079	chr16	30076596	30077792	+	ALDOA	0x0
2080	chr16	30078033	30079171	+	ALDOA	0x0
2081	chr16	30079608	30080725	+	ALDOA	0x0
2082	chr16	30345960	30347162	-	LOC595101	0x0
2083	chr16	30367895	30369061	-	TBC1D10B	0x0
2084	chr16	30369950	30371830	-	TBC1D10B	0x0
2085	chr16	30482481	30483615	+	ITGAL	0x0
2086	chr16	30662533	30663730	+	PRR14	0x0
2087	chr16	30680929	30682096	+	FBRS	0x0
2088	chr16	30721321	30722534	+	SNORA30	0x0
2089	chr16	30721321	30722534	+	SRCAP	0x0
2090	chr16	30734492	30735698	+	SRCAP	0x0
2091	chr16	30749886	30751115	+	SRCAP	0x0
2092	chr16	30762261	30763449	+	PHKG2	0x0
2093	chr16	30785855	30786949	+	RNF40	0x0
2094	chr16	30898461	30899560	-	BCL7C	0x0
2095	chr16	30995147	30996395	+	SETD1A	0x0
2096	chr16	31055455	31056660	+	STX4	0x0
2097	chr16	31101627	31103190	-	VKORC1	0x0
2098	chr16	33959014	33960199	-	LINC00273	0x0
2099	chr16	33963060	33964589	+	LOC283914	0x0
2100	chr16	46946475	46947651	+	GPT2	0x0
2101	chr16	46949560	46950994	+	GPT2	0x0
2102	chr16	47161753	47162900	-	NETO2	0x0
2103	chr16	47176155	47177315	-	NETO2	0x0
2104	chr16	47502596	47503917	+	PHKB	0x0
2105	chr16	47530809	47531908	+	PHKB	0x0
2106	chr16	48277848	48278972	+	LONP2	0x0
2107	chr16	48387030	48388180	+	LONP2	0x0
2108	chr16	49557027	49558211	-	ZNF423	0x0
2109	chr16	49604532	49605679	-	ZNF423	0x0
2110	chr16	50138880	50140042	+	HEATR3	0x0
2111	chr16	53468212	53469426	+	RBL2	0x1
2112	chr16	54018126	54019355	+	FTO	0x0
2113	chr16	57333351	57334551	+	ARL2BP	0x0
2114	chr16	57333796	57335000	-	PLLP	0x0
2115	chr16	57770451	57771687	+	KATNB1	0x0
2116	chr16	58194850	58196051	-	CSNK2A2	0x0
2117	chr16	58506204	58507370	+	NDRG4	0x1
2118	chr16	58581850	58583095	-	SNORA46	0x0
2119	chr16	58593207	58594416	-	CNOT1	0x2
2120	chr16	58593207	58594416	-	SNORA50	0x0
2121	chr16	58636236	58637361	-	CNOT1	0x2
2122	chr16	59573507	59574718	+	SETD6	0x0
2123	chr16	61776537	61777739	-	CDH8	0x0
2124	chr16	66583830	66585064	+	CKLF	0x0
2125	chr16	66583830	66585064	+	CKLF-CMTM1	0x0
2126	chr16	66651623	66652756	-	CMTM4	0x0
2127	chr16	66857453	66858552	-	NAE1	0x0
2128	chr16	67355018	67356243	-	KCTD19	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2129	chr16	67644395	67645577	-	ACD	0x4
2130	chr16	67644742	67646514	+	CTCF	0x1
2131	chr16	67670055	67671257	+	CTCF	0x1
2132	chr16	68155794	68157476	+	NFATC3	0x0
2133	chr16	68537173	68538388	+	ZFP90	0x0
2134	chr16	69362090	69363244	-	COG8	0x0
2135	chr16	69362090	69363244	-	PDF	0x0
2136	chr16	69375976	69377216	+	NIP7	0x0
2137	chr16	69641676	69642775	+	NFAT5	0x0
2138	chr16	70282376	70283535	-	EXOSC6	0x0
2139	chr16	70380666	70382034	+	DDX19A	0x0
2140	chr16	70412278	70413437	-	ST3GAL2	0x0
2141	chr16	70567748	70568934	+	SF3B3	0x0
2142	chr16	70598735	70599882	+	SF3B3	0x0
2143	chr16	70600812	70601947	+	SF3B3	0x0
2144	chr16	70724351	70725450	-	VAC14	0x0
2145	chr16	72238271	72239450	-	PMFBP1	0x0
2146	chr16	72984070	72985255	-	ZFHX3	0x1
2147	chr16	72990914	72992079	-	ZFHX3	0x1
2148	chr16	72992940	72994069	-	ZFHX3	0x1
2149	chr16	73047809	73049165	-	ZFHX3	0x1
2150	chr16	74714271	74715389	-	MLKL	0x0
2151	chr16	75289855	75291011	-	BCAR1	0x0
2152	chr16	79630494	79631584	-	MAF	0x1
2153	chr16	81030333	81031467	-	CMC2	0x0
2154	chr16	81744479	81745663	+	CMIP	0x0
2155	chr16	81995033	81996350	+	PLCG2	0x2
2156	chr16	82195015	82196190	-	MPHOSPH6	0x0
2157	chr16	84216501	84217600	-	TAF1C	0x0
2158	chr16	84734892	84736093	+	USP10	0x0
2159	chr16	84778008	84779365	+	USP10	0x0
2160	chr16	85244625	85245831	+	LOC400548	0x0
2161	chr16	85394186	85395412	+	LINC00311	0x0
2162	chr16	85443986	85445195	+	LINC00311	0x0
2163	chr16	85660061	85661260	+	KIAA0182	0x0
2164	chr16	85808485	85809616	-	COX4NB	0x0
2165	chr16	87364296	87365490	-	FBXO31	0x1
2166	chr16	87398201	87399306	-	FBXO31	0x1
2167	chr16	87469465	87470642	-	ZCCHC14	0x0
2168	chr16	87737922	87739118	-	KLHDC4	0x0
2169	chr16	88060540	88061765	+	BANP	0x1
2170	chr16	88083221	88084320	+	BANP	0x1
2171	chr16	88817646	88818825	-	PIEZO1	0x0
2172	chr16	88872808	88873963	+	CDT1	0x0
2173	chr16	89164503	89165709	+	ACSF3	0x0
2174	chr16	89371092	89372297	-	ANKRD11	0x0
2175	chr16	89497144	89498290	-	ANKRD11	0x0
2176	chr16	89543379	89550500	-	ANKRD11	0x0
2177	chr16	89595342	89596458	+	SPG7	0x0
2178	chr16	89627259	89628503	+	RPL13	0x0
2179	chr16	89627259	89628503	+	SNORD68	0x0
2180	chr16	89629746	89630946	+	RPL13	0x0
2181	chr16	89720957	89722136	+	C16orf55	0x0
2182	chr16	89759982	89761224	+	CDK10	0x0
2183	chr16	89762227	89763431	-	SPATA2L	0x0
2184	chr16	89783657	89784775	+	LOC100128881	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2185	chr16	89803908	89805002	+	ZNF276	0x0
2186	chr16	89804541	89805669	-	FANCA	0x2
2187	chr16	89830638	89831758	-	FANCA	0x2
2188	chr16	89835725	89837364	-	FANCA	0x2
2189	chr16	89851003	89852132	-	FANCA	0x2
2190	chr16	89960891	89962086	+	TCF25	0x0
2191	chr16	89966465	89967671	+	TCF25	0x0
2192	chr16	89975246	89976652	+	TCF25	0x0
2193	chr16	90019017	90020436	+	DEF8	0x0
2194	chr16	90027401	90028606	+	DEF8	0x0
2195	chr16	90071461	90072626	-	DBNDD1	0x0
2196	chr16	90094687	90095934	+	GAS8	0x0
2197	chr17	420039	421215	-	VPS53	0x1
2198	chr17	421588	422752	-	VPS53	0x1
2199	chr17	809734	810881	-	NXN	0x0
2200	chr17	877224	878419	+	TIMM22	0x0
2201	chr17	906054	907251	+	TIMM22	0x0
2202	chr17	907914	909091	-	ABR	0x0
2203	chr17	975303	976505	-	ABR	0x0
2204	chr17	1247548	1249295	-	YWHAE	0x2
2205	chr17	1302901	1304079	-	YWHAE	0x2
2206	chr17	1367797	1369135	-	MYO1C	0x0
2207	chr17	1870297	1871457	-	RTN4RL1	0x0
2208	chr17	2091648	2092874	+	SRR	0x0
2209	chr17	2202637	2203736	-	SMG6	0x0
2210	chr17	2231890	2233069	-	SNORD91B	0x0
2211	chr17	2231890	2233069	-	TSR1	0x0
2212	chr17	2289272	2290479	-	MNT	0x0
2213	chr17	2758169	2759392	+	RAP1GAP2	0x0
2214	chr17	3727428	3728604	-	C17orf85	0x0
2215	chr17	3774868	3776203	-	CAMKK1	0x0
2216	chr17	3989255	3990394	-	ZZEF1	0x2
2217	chr17	4848985	4850149	-	PFN1	0x1
2218	chr17	4927219	4928332	+	KIF1C	0x2
2219	chr17	5011951	5013308	-	ZNF232	0x0
2220	chr17	5192114	5193285	+	RABEP1	0x2
2221	chr17	5347087	5348274	-	DHX33	0x0
2222	chr17	7128624	7130033	-	DVL2	0x0
2223	chr17	7143329	7144561	-	GABARAP	0x1
2224	chr17	7214768	7215867	+	EIF5A	0x2
2225	chr17	7310728	7311838	+	NLGN2	0x0
2226	chr17	7477573	7478698	+	EIF4A1	0x0
2227	chr17	7477573	7478698	+	SENP3-EIF4A1	0x0
2228	chr17	7477573	7478698	+	SNORA48	0x0
2229	chr17	7479570	7481901	+	EIF4A1	0x0
2230	chr17	7479570	7481901	+	SENP3-EIF4A1	0x0
2231	chr17	7479570	7481901	+	SNORA67	0x0
2232	chr17	7479570	7481901	+	SNORD10	0x0
2233	chr17	7571798	7572976	-	TP53	0x1
2234	chr17	7759946	7761139	-	LSMD1	0x0
2235	chr17	7809090	7810209	+	CHD3	0x2
2236	chr17	7809090	7810209	+	SCARNA21	0x0
2237	chr17	7848570	7849762	+	CNTROB	0x0
2238	chr17	8023063	8024273	-	HES7	0x0
2239	chr17	8023683	8024894	+	MIR4314	0x0
2240	chr17	8076195	8077469	-	TMEM107	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2241	chr17	8089692	8090869	+	MIR3676	0x0
2242	chr17	8089692	8090869	+	MIR4521	0x0
2243	chr17	8377996	8379137	-	MYH10	0x0
2244	chr17	14608210	14609470	-	CDRT15	0x0
2245	chr17	15918092	15919219	+	TTC19	0x0
2246	chr17	16132196	16133391	+	PIGL	0x0
2247	chr17	16343991	16345208	+	C17orf76-AS1	0x0
2248	chr17	16343991	16345208	+	SNORD65	0x0
2249	chr17	17089072	17090238	+	MPRIP	0x0
2250	chr17	17286493	17287902	-	COPS3	0x2
2251	chr17	17634942	17636091	+	RAI1	0x0
2252	chr17	17999746	18000896	+	DRG2	0x0
2253	chr17	18111909	18113101	+	ALKBH5	0x0
2254	chr17	18177405	18178544	-	TOP3A	0x0
2255	chr17	18562696	18563882	-	ZNF286B	0x0
2256	chr17	18964696	18965964	+	SLC5A10	0x0
2257	chr17	19015303	19016503	-	GRAP	0x0
2258	chr17	19090777	19092061	+	GRAPL	0x0
2259	chr17	19092840	19094050	-	GRAP	0x0
2260	chr17	19349188	19350394	-	MFAP4	0x0
2261	chr17	19355037	19356234	+	RNF112	0x0
2262	chr17	19568464	19569565	+	ALDH3A2	0x0
2263	chr17	20903023	20904171	-	USP22	0x0
2264	chr17	26368250	26369432	+	NLK	0x0
2265	chr17	26794566	26795779	+	SLC13A2	0x0
2266	chr17	26918992	26920362	-	SPAG5	0x0
2267	chr17	26959602	26960700	-	KIAA0100	0x0
2268	chr17	27047016	27048207	+	RPL23A	0x0
2269	chr17	27047016	27048207	+	SNORD42B	0x0
2270	chr17	27049068	27051266	+	RPL23A	0x0
2271	chr17	27049068	27051266	+	SNORD42A	0x0
2272	chr17	27049068	27051266	+	SNORD4A	0x0
2273	chr17	27049068	27051266	+	SNORD4B	0x0
2274	chr17	27076052	27077263	+	TRAF4	0x0
2275	chr17	27134427	27135693	-	C17orf63	0x0
2276	chr17	27206815	27207989	-	FLOT2	0x0
2277	chr17	27250434	27251617	-	PHF12	0x0
2278	chr17	27330860	27332058	-	SEZ6	0x0
2279	chr17	27586017	27587151	-	NUFIP2	0x0
2280	chr17	27589485	27590890	-	NUFIP2	0x0
2281	chr17	27597552	27598763	-	NUFIP2	0x0
2282	chr17	27613073	27614247	-	NUFIP2	0x0
2283	chr17	27620125	27621304	-	NUFIP2	0x0
2284	chr17	27876749	27877967	+	TAOK1	0x0
2285	chr17	28793244	28794488	+	CPD	0x2
2286	chr17	29151064	29152280	-	CRLF3	0x0
2287	chr17	29876577	29877796	+	MIR193A	0x0
2288	chr17	30178363	30179685	-	C17orf79	0x0
2289	chr17	30322093	30323192	+	SUZ12	0x2
2290	chr17	30323258	30324460	+	SUZ12	0x2
2291	chr17	30327053	30328256	+	SUZ12	0x2
2292	chr17	30701748	30703107	+	ZNF207	0x0
2293	chr17	30729721	30730945	+	ZNF207	0x0
2294	chr17	31149233	31150434	+	TMEM98	0x0
2295	chr17	33338521	33339709	-	RAD51L3-RFFL	0x0
2296	chr17	33338521	33339709	-	RFFL	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2297	chr17	33477601	33478846	-	NLE1	0x0
2298	chr17	34005816	34007062	+	AP2B1	0x0
2299	chr17	34051812	34052960	+	AP2B1	0x0
2300	chr17	34216112	34217346	+	TAF15	0x0
2301	chr17	34867890	34869254	-	MYO19	0x0
2302	chr17	35463729	35464880	-	ACACA	0x0
2303	chr17	35609261	35610459	-	ACACA	0x0
2304	chr17	36907500	36908659	-	PCGF2	0x1
2305	chr17	36923201	36924315	-	PIP4K2B	0x0
2306	chr17	36933509	36934767	-	PIP4K2B	0x0
2307	chr17	37008384	37009879	-	RPL23	0x0
2308	chr17	37008384	37009879	-	SNORA21	0x0
2309	chr17	37310065	37311369	-	ARL5C	0x0
2310	chr17	37360307	37361530	+	RPL19	0x0
2311	chr17	38187243	38188407	-	MED24	0x0
2312	chr17	38292372	38293524	+	MSL1	0x0
2313	chr17	38544516	38546023	-	TOP2A	0x0
2314	chr17	38546963	38548087	-	TOP2A	0x0
2315	chr17	38555669	38556813	-	TOP2A	0x0
2316	chr17	39623661	39624919	+	LOC100505782	0x0
2317	chr17	39682054	39683217	-	KRT19	0x0
2318	chr17	39919253	39920390	-	JUP	0x1
2319	chr17	39976137	39977291	+	FKBP10	0x0
2320	chr17	40022691	40023931	-	ACLY	0x0
2321	chr17	40041357	40042582	-	ACLY	0x0
2322	chr17	40051029	40052128	-	ACLY	0x0
2323	chr17	40066060	40067304	-	ACLY	0x0
2324	chr17	40150541	40151724	-	DNAJC7	0x0
2325	chr17	40276463	40277602	-	RAB5C	0x0
2326	chr17	40997873	40999063	+	AOC2	0x0
2327	chr17	41166535	41167621	-	VAT1	0x0
2328	chr17	41464126	41465330	-	LOC100130581	0x0
2329	chr17	41477626	41478857	+	ARL4D	0x0
2330	chr17	41893195	41894405	-	MPP3	0x1
2331	chr17	42124839	42126012	-	LSM12	0x0
2332	chr17	42143070	42144243	-	LSM12	0x0
2333	chr17	42269530	42270800	-	ATXN7L3	0x0
2334	chr17	42283758	42284942	-	UBTF	0x0
2335	chr17	42291123	42292222	-	UBTF	0x0
2336	chr17	42429663	42430895	+	GRN	0x0
2337	chr17	42472130	42475225	-	GPATCH8	0x0
2338	chr17	42563669	42564836	-	GPATCH8	0x0
2339	chr17	42858464	42859563	+	ADAM11	0x0
2340	chr17	42927693	42928792	-	EFTUD2	0x0
2341	chr17	43011561	43012778	-	KIF18B	0x0
2342	chr17	43112655	43113866	-	DCAKD	0x0
2343	chr17	43127402	43129550	-	DCAKD	0x0
2344	chr17	43158651	43159849	+	NMT1	0x0
2345	chr17	43188503	43189680	-	PLCD3	0x0
2346	chr17	43552039	43553599	-	MIR4315-1	0x0
2347	chr17	43552039	43553599	-	MIR4315-2	0x0
2348	chr17	43552039	43553599	-	PLEKHM1	0x0
2349	chr17	44107289	44109182	-	KANSL1	0x0
2350	chr17	44121458	44122619	-	KANSL1	0x0
2351	chr17	44143350	44144558	-	KANSL1	0x0
2352	chr17	44235813	44236965	-	KANSL1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2353	chr17	44248825	44250127	-	KANSL1	0x0
2354	chr17	44892011	44893187	+	WNT9B	0x0
2355	chr17	45700639	45701871	+	NPEPPS	0x0
2356	chr17	45740976	45743040	+	KPNB1	0x0
2357	chr17	45749870	45751463	+	KPNB1	0x0
2358	chr17	45759557	45760750	+	KPNB1	0x0
2359	chr17	46048089	46049200	+	CDK5RAP3	0x0
2360	chr17	46146996	46148371	-	CBX1	0x0
2361	chr17	46555948	46557104	+	HOXB-AS3	0x0
2362	chr17	46672630	46673780	-	HOXB6	0x0
2363	chr17	46674823	46676013	-	HOXB6	0x0
2364	chr17	46689629	46690750	-	HOXB8	0x0
2365	chr17	46698671	46699886	-	HOXB9	0x0
2366	chr17	47026177	47027373	-	SNF8	0x0
2367	chr17	47102139	47103238	+	IGF2BP1	0x0
2368	chr17	47103331	47104443	+	IGF2BP1	0x0
2369	chr17	47128290	47131034	+	IGF2BP1	0x0
2370	chr17	47269322	47270552	+	ABI3	0x2
2371	chr17	47370381	47371514	-	ZNF652	0x0
2372	chr17	47438823	47439984	-	ZNF652	0x0
2373	chr17	47698699	47699875	-	SPOP	0x2
2374	chr17	48211639	48212824	-	PPP1R9B	0x0
2375	chr17	48458394	48459935	-	LRRC59	0x0
2376	chr17	49238557	49239765	+	NME1	0x1
2377	chr17	49238557	49239765	+	NME1-NME2	0x0
2378	chr17	49243309	49244511	+	NME1-NME2	0x0
2379	chr17	49243309	49244511	+	NME2	0x0
2380	chr17	50173256	50174452	+	UTP18	0x0
2381	chr17	54908462	54909643	-	C17orf67	0x0
2382	chr17	54965631	54966927	-	TRIM25	0x0
2383	chr17	55536824	55538020	+	MSI2	0x0
2384	chr17	55756729	55757945	+	MSI2	0x0
2385	chr17	55760969	55762149	+	MSI2	0x0
2386	chr17	55866332	55867485	+	MSI2	0x0
2387	chr17	56078023	56079230	-	SRSF1	0x2
2388	chr17	56081814	56083329	-	SRSF1	0x2
2389	chr17	56083848	56084941	-	SRSF1	0x2
2390	chr17	56566533	56567635	-	MTMR4	0x0
2391	chr17	56902493	56903592	+	PPM1E	0x2
2392	chr17	57188247	57189567	-	SKA2	0x0
2393	chr17	57317303	57318598	+	GDPD1	0x0
2394	chr17	57474126	57475693	+	YPEL2	0x0
2395	chr17	57684974	57686173	+	DHX40	0x0
2396	chr17	57771333	57772704	+	CLTC	0x2
2397	chr17	57808269	57809459	+	VMP1	0x0
2398	chr17	57957769	57958998	-	TUBD1	0x0
2399	chr17	58010067	58011229	+	RPS6KB1	0x2
2400	chr17	58308321	58309557	-	SCARNA20	0x0
2401	chr17	58448595	58449725	-	USP32	0x0
2402	chr17	58710732	58711871	+	PPM1D	0x2
2403	chr17	59275968	59277116	+	BCAS3	0x0
2404	chr17	59316760	59318001	+	BCAS3	0x0
2405	chr17	59432076	59433255	-	NACA2	0x0
2406	chr17	59821357	59822521	-	BRIP1	0x2
2407	chr17	60023113	60024212	-	MED13	0x0
2408	chr17	60086819	60087918	-	MED13	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2409	chr17	60100732	60101884	-	MED13	0x0
2410	chr17	60458542	60459757	+	EFCAB3	0x0
2411	chr17	60480366	60481496	-	TBC1D3P2	0x0
2412	chr17	60555248	60556357	-	TBC1D3P2	0x0
2413	chr17	60610210	60611437	+	TLK2	0x0
2414	chr17	60641806	60643010	+	TLK2	0x0
2415	chr17	61043429	61044634	+	TANC2	0x0
2416	chr17	61554766	61555995	+	ACE	0x2
2417	chr17	61668036	61669123	+	DCAF7	0x0
2418	chr17	61706281	61707494	+	MAP3K3	0x0
2419	chr17	61799111	61800221	-	STRADA	0x0
2420	chr17	61823148	61824382	-	CCDC47	0x0
2421	chr17	61909439	61910644	-	SMARCD2	0x0
2422	chr17	62134563	62135698	-	ERN1	0x0
2423	chr17	62222870	62224324	+	SNORA76	0x0
2424	chr17	62222870	62224324	+	SNORD104	0x0
2425	chr17	62247937	62249096	-	TEX2	0x0
2426	chr17	62496606	62498485	-	DDX5	0x2
2427	chr17	62496606	62498485	-	MIR3064	0x0
2428	chr17	62496606	62498485	-	MIR5047	0x0
2429	chr17	62498499	62499684	-	DDX5	0x2
2430	chr17	62575922	62577102	-	SMURF2	0x2
2431	chr17	62942866	62944035	-	AMZ2P1	0x0
2432	chr17	64263301	64264539	+	PRKCA	0x0
2433	chr17	64436881	64438060	+	PRKCA	0x0
2434	chr17	64530427	64531606	+	PRKCA	0x0
2435	chr17	65168688	65169857	-	HELZ	0x0
2436	chr17	65292355	65293532	-	PSMD12	0x0
2437	chr17	65336211	65337416	-	PSMD12	0x0
2438	chr17	65409593	65410812	+	PITPNC1	0x0
2439	chr17	65736243	65737466	+	SNORA38B	0x0
2440	chr17	65821694	65822893	+	BPTF	0x2
2441	chr17	65849813	65851009	+	BPTF	0x2
2442	chr17	65959757	65960975	+	BPTF	0x2
2443	chr17	66015434	66016611	-	C17orf58	0x0
2444	chr17	66042188	66043393	+	KPNA2	0x0
2445	chr17	66122069	66123217	+	LOC100499466	0x0
2446	chr17	66527202	66528626	+	PRKAR1A	0x1
2447	chr17	72199262	72200454	+	RPL38	0x0
2448	chr17	72833367	72834565	+	TMEM104	0x0
2449	chr17	73029927	73031118	-	ATP5H	0x0
2450	chr17	73037405	73038494	+	KCTD2	0x0
2451	chr17	73131557	73132694	-	HN1	0x0
2452	chr17	73178426	73179605	-	SUMO2	0x0
2453	chr17	73218498	73219694	+	NUP85	0x0
2454	chr17	73227391	73228588	+	NUP85	0x0
2455	chr17	73313814	73314889	-	GRB2	0x2
2456	chr17	73455722	73456919	+	KIAA0195	0x0
2457	chr17	73773957	73775044	-	H3F3B	0x0
2458	chr17	73807721	73808921	+	UNK	0x0
2459	chr17	73895087	73896240	-	MRPL38	0x0
2460	chr17	73937435	73938595	-	ACOX1	0x0
2461	chr17	74077015	74078380	-	EXOC7	0x0
2462	chr17	74084980	74086079	-	EXOC7	0x0
2463	chr17	74086438	74087537	-	EXOC7	0x0
2464	chr17	74138610	74139786	-	RNF157	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2465	chr17	74140038	74141515	-	RNF157	0x0
2466	chr17	74288029	74289169	-	QRICH2	0x0
2467	chr17	74326348	74327468	-	PRPSAP1	0x0
2468	chr17	74391748	74392886	-	UBE2O	0x2
2469	chr17	74554334	74555523	+	LOC100507246	0x0
2470	chr17	74554334	74555523	+	SNORD1C	0x0
2471	chr17	74559655	74561651	+	LOC100507246	0x0
2472	chr17	74670186	74671261	-	MXRA7	0x0
2473	chr17	74671792	74672890	-	MXRA7	0x0
2474	chr17	74731497	74732605	-	MIR636	0x0
2475	chr17	74731497	74732605	-	SRSF2	0x2
2476	chr17	75084818	75086125	+	LINC00338	0x0
2477	chr17	75084818	75086125	+	SCARNA16	0x0
2478	chr17	75084818	75086125	+	SEC14L1	0x0
2479	chr17	75157550	75158929	-	MIR4316	0x0
2480	chr17	75437613	75438794	+	SEPT9	0x2
2481	chr17	75495129	75496821	+	SEPT9	0x2
2482	chr17	75816292	75817394	-	FLJ45079	0x0
2483	chr17	76027252	76028462	+	TNRC6C	0x0
2484	chr17	76105054	76106203	+	TNRC6C	0x0
2485	chr17	76219271	76221106	+	BIRC5	0x0
2486	chr17	76396238	76397436	+	PGS1	0x0
2487	chr17	76670230	76671405	-	CYTH1	0x0
2488	chr17	76706536	76707691	-	CYTH1	0x0
2489	chr17	76810010	76811142	-	USP36	0x0
2490	chr17	76848640	76849834	-	TIMP2	0x0
2491	chr17	76968262	76969430	-	LGALS3BP	0x0
2492	chr17	76987582	76988709	-	CANT1	0x2
2493	chr17	77081695	77082911	+	ENGASE	0x0
2494	chr17	77751447	77752559	+	CBX2	0x0
2495	chr17	77908923	77910604	-	TBC1D16	0x0
2496	chr17	77911036	77912202	-	TBC1D16	0x0
2497	chr17	78079141	78080240	+	GAA	0x0
2498	chr17	78441438	78444535	-	NPTX1	0x0
2499	chr17	78518341	78519546	+	RPTOR	0x0
2500	chr17	78521208	78522403	+	RPTOR	0x0
2501	chr17	78900830	78902034	+	RPTOR	0x0
2502	chr17	79180215	79181398	-	AZI1	0x0
2503	chr17	79222243	79223442	+	C17orf89	0x0
2504	chr17	79224181	79225386	-	SLC38A10	0x0
2505	chr17	79231888	79233044	-	SLC38A10	0x0
2506	chr17	79249251	79250465	-	SLC38A10	0x0
2507	chr17	79362635	79363814	-	MIR4740	0x0
2508	chr17	79431650	79432774	+	BAHCC1	0x0
2509	chr17	79476602	79478114	-	ACTG1	0x0
2510	chr17	79480417	79481633	-	ACTG1	0x0
2511	chr17	79503071	79504238	-	C17orf70	0x0
2512	chr17	79516997	79518173	-	C17orf70	0x0
2513	chr17	79524060	79525921	-	NPLOC4	0x0
2514	chr17	79538509	79539655	-	NPLOC4	0x0
2515	chr17	79571064	79572231	-	NPLOC4	0x0
2516	chr17	79660352	79661562	+	HGS	0x0
2517	chr17	79668356	79669552	+	HGS	0x0
2518	chr17	79686704	79687912	+	SLC25A10	0x0
2519	chr17	79766882	79768094	+	GCGR	0x0
2520	chr17	79779775	79780909	-	FAM195B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2521	chr17	79785791	79787099	-	FAM195B	0x0
2522	chr17	79800553	79801723	-	P4HB	0x0
2523	chr17	79802990	79804345	-	P4HB	0x0
2524	chr17	79824534	79825654	+	ANAPC11	0x0
2525	chr17	79839418	79840516	-	ALYREF	0x0
2526	chr17	79842416	79844483	-	ALYREF	0x0
2527	chr17	79845379	79846425	-	ALYREF	0x0
2528	chr17	79851805	79853110	+	ANAPC11	0x0
2529	chr17	79872229	79873547	-	SIRT7	0x0
2530	chr17	79957605	79958704	+	ASPSCR1	0x0
2531	chr17	79990233	79991418	+	RAC3	0x0
2532	chr17	80007055	80008185	-	RFNG	0x0
2533	chr17	80008514	80009655	-	RFNG	0x0
2534	chr17	80020966	80022173	-	DUS1L	0x0
2535	chr17	80035753	80036898	-	FASN	0x0
2536	chr17	80038577	80039772	-	FASN	0x0
2537	chr17	80041094	80042193	-	FASN	0x0
2538	chr17	80048397	80049582	-	FASN	0x0
2539	chr17	80051030	80052507	-	FASN	0x0
2540	chr17	80055526	80056564	-	FASN	0x0
2541	chr17	80093530	80094678	-	CCDC57	0x0
2542	chr17	80111293	80112455	-	CCDC57	0x0
2543	chr17	80203472	80204534	-	CSNK1D	0x0
2544	chr17	80212410	80213512	-	CSNK1D	0x0
2545	chr17	80221639	80222776	-	CSNK1D	0x0
2546	chr17	80540194	80541386	+	FOXK2	0x0
2547	chr17	80552134	80553370	+	FOXK2	0x0
2548	chr17	80559523	80560801	+	FOXK2	0x0
2549	chr17	80572648	80573867	-	WDR45L	0x0
2550	chr17	80675431	80676530	+	FN3KRP	0x0
2551	chr17	80723624	80724793	+	TBCD	0x0
2552	chr17	80725741	80726938	+	TBCD	0x0
2553	chr17	80879768	80880945	+	TBCD	0x0
2554	chr17	80922711	80923915	-	B3GNTL1	0x0
2555	chr18	261064	262183	-	THOC1	0x0
2556	chr18	319122	320335	-	COLEC12	0x0
2557	chr18	421767	422978	-	COLEC12	0x0
2558	chr18	721629	722906	-	YES1	0x0
2559	chr18	759931	761128	-	YES1	0x0
2560	chr18	2380851	2382070	+	NDC80	0x2
2561	chr18	5840188	5841409	+	MIR3976	0x0
2562	chr18	6301429	6302684	-	L3MBTL4	0x1
2563	chr18	6310997	6312174	-	L3MBTL4	0x1
2564	chr18	9399920	9401153	+	TWSG1	0x0
2565	chr18	9524016	9525208	+	RALBP1	0x0
2566	chr18	9535748	9536953	+	RALBP1	0x0
2567	chr18	9569916	9571148	-	PPP4R1	0x0
2568	chr18	9710586	9711734	+	RAB31	0x0
2569	chr18	9861621	9862813	+	RAB31	0x0
2570	chr18	9953971	9955154	+	VAPA	0x0
2571	chr18	10532844	10534018	+	NAPG	0x0
2572	chr18	12309965	12311147	+	TUBB6	0x0
2573	chr18	12446096	12447328	-	SPIRE1	0x0
2574	chr18	12455237	12456416	-	SPIRE1	0x0
2575	chr18	12546141	12547368	-	SPIRE1	0x0
2576	chr18	12934265	12935389	+	SEH1L	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2577	chr18	13681472	13682627	-	FAM210A	0x0
2578	chr18	19348091	19349274	+	MIB1	0x0
2579	chr18	19353015	19354226	+	MIB1	0x0
2580	chr18	19358990	19360117	+	MIB1	0x0
2581	chr18	19409262	19410364	+	MIB1	0x0
2582	chr18	19446390	19447573	+	MIB1	0x0
2583	chr18	20714978	20716166	+	CABLES1	0x1
2584	chr18	20780816	20782005	+	CABLES1	0x1
2585	chr18	21191142	21192365	+	LAMA3	0x0
2586	chr18	21938451	21939627	-	OSBPL1A	0x0
2587	chr18	23597385	23598512	-	SS18	0x0
2588	chr18	29204767	29205899	-	B4GALT6	0x0
2589	chr18	29298411	29299551	+	TTR	0x0
2590	chr18	29451847	29452976	-	TRAPPC8	0x0
2591	chr18	29691209	29692408	+	RNF138	0x0
2592	chr18	31433808	31435029	-	NOL4	0x0
2593	chr18	31608188	31609387	+	ASXL3	0x0
2594	chr18	32470630	32471818	+	DTNA	0x2
2595	chr18	33571402	33572486	-	RPRD1A	0x0
2596	chr18	33594761	33595888	-	RPRD1A	0x0
2597	chr18	34478931	34480136	+	KIAA1328	0x0
2598	chr18	34701645	34702810	+	KIAA1328	0x0
2599	chr18	36880605	36881780	-	LOC647946	0x0
2600	chr18	37308446	37309672	-	LOC647946	0x0
2601	chr18	37324791	37325970	-	LOC647946	0x0
2602	chr18	42374366	42375584	+	SETBP1	0x0
2603	chr18	43668976	43670384	-	ATP5A1	0x0
2604	chr18	43671168	43672337	-	ATP5A1	0x0
2605	chr18	43953766	43954965	+	RNF165	0x0
2606	chr18	45422404	45423676	-	SMAD2	0x1
2607	chr18	47015074	47016220	-	RPL17	0x0
2608	chr18	47015074	47016220	-	RPL17-C18ORF32	0x0
2609	chr18	47015074	47016220	-	SNORD58C	0x0
2610	chr18	47017102	47018645	-	RPL17	0x0
2611	chr18	47017102	47018645	-	RPL17-C18ORF32	0x0
2612	chr18	47017102	47018645	-	SNORD58A	0x0
2613	chr18	47017102	47018645	-	SNORD58B	0x0
2614	chr18	47340026	47341285	+	SCARNA17	0x0
2615	chr18	48558068	48559169	+	SMAD4	0x1
2616	chr18	48702628	48703803	-	MEX3C	0x0
2617	chr18	51748117	51749303	-	SNORA37	0x0
2618	chr18	54269694	54270879	-	TXNL1	0x0
2619	chr18	54433380	54434591	+	WDR7	0x0
2620	chr18	55143632	55144824	+	ONECUT2	0x0
2621	chr18	55150433	55151555	+	ONECUT2	0x0
2622	chr18	55269173	55270333	-	NARS	0x0
2623	chr18	56806600	56807800	+	SEC11C	0x0
2624	chr18	56995198	56996412	-	LMAN1	0x0
2625	chr18	60865174	60866368	-	BCL2	0x2
2626	chr18	60997925	60999189	-	KDSR	0x0
2627	chr18	61056709	61057890	-	VPS4B	0x0
2628	chr18	65183056	65184215	-	DSEL	0x0
2629	chr18	66525652	66526789	+	CCDC102B	0x0
2630	chr18	67140788	67141996	+	DOK6	0x0
2631	chr18	68179463	68180631	+	SOCS6	0x0
2632	chr18	71958541	71959718	-	CYB5A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2633	chr18	72370379	72371580	+	ZNF407	0x2
2634	chr18	72673866	72675068	+	ZNF407	0x2
2635	chr18	74153275	74154425	-	ZNF516	0x0
2636	chr18	77169917	77171163	+	NFATC1	0x0
2637	chr18	77226859	77228067	+	NFATC1	0x0
2638	chr18	77740134	77741271	-	TXNL4A	0x0
2639	chr18	77772388	77773636	+	RBFA	0x0
2640	chr18	77869933	77871914	+	ADNP2	0x0
2641	chr19	433713	434965	-	SHC2	0x0
2642	chr19	572067	573237	+	BSG	0x0
2643	chr19	582401	583822	+	BSG	0x0
2644	chr19	647243	648413	-	RNF126	0x0
2645	chr19	660054	661181	-	RNF126	0x0
2646	chr19	738533	739809	+	PALM	0x0
2647	chr19	797449	798548	+	PTBP1	0x0
2648	chr19	807100	808347	+	PTBP1	0x0
2649	chr19	811324	812518	+	PTBP1	0x0
2650	chr19	863453	864557	-	MED16	0x0
2651	chr19	864586	865775	-	MED16	0x0
2652	chr19	876524	877713	-	MED16	0x0
2653	chr19	896103	897244	-	R3HDM4	0x0
2654	chr19	916775	917954	+	KISS1R	0x0
2655	chr19	974159	975320	+	ARID3A	0x0
2656	chr19	1009824	1010928	-	C19orf6	0x0
2657	chr19	1087248	1088492	-	POLR2E	0x0
2658	chr19	1106011	1107109	+	GPX4	0x0
2659	chr19	1144281	1145432	-	SBNO2	0x0
2660	chr19	1159004	1160170	-	SBNO2	0x0
2661	chr19	1231861	1233081	-	C19orf26	0x0
2662	chr19	1252042	1253161	-	C19orf26	0x0
2663	chr19	1258064	1259192	+	MIDN	0x0
2664	chr19	1271892	1273420	+	CIRBP	0x0
2665	chr19	1383048	1384244	+	NDUFS7	0x0
2666	chr19	1408226	1409407	+	DAZAP1	0x0
2667	chr19	1576222	1578329	-	MBD3	0x0
2668	chr19	1584613	1587222	-	MBD3	0x0
2669	chr19	1591066	1592308	-	MBD3	0x0
2670	chr19	1609021	1611339	-	TCF3	0x2
2671	chr19	1852619	1853804	-	KLF16	0x0
2672	chr19	1985081	1986305	-	BTBD2	0x0
2673	chr19	2037117	2039388	-	MKNK2	0x0
2674	chr19	2194712	2195943	+	DOT1L	0x0
2675	chr19	2206903	2208036	+	DOT1L	0x0
2676	chr19	2230429	2232621	+	DOT1L	0x0
2677	chr19	2232946	2234118	-	MIR1227	0x0
2678	chr19	2232946	2234118	-	PLEKHJ1	0x0
2679	chr19	2248798	2250016	+	AMH	0x1
2680	chr19	2271337	2273780	+	OAZ1	0x0
2681	chr19	2323614	2324827	-	LSM7	0x0
2682	chr19	2327666	2328831	-	LSM7	0x0
2683	chr19	2426336	2427443	-	TIMM13	0x0
2684	chr19	2428253	2431164	-	LMNB2	0x0
2685	chr19	2754228	2756106	-	SGTA	0x0
2686	chr19	3023431	3024607	-	TLE2	0x0
2687	chr19	3121993	3123177	+	GNA11	0x2
2688	chr19	3208205	3209304	+	NCLN	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2689	chr19	3434561	3435750	+	NFIC	0x0
2690	chr19	3621899	3623077	-	C19orf29	0x0
2691	chr19	3660460	3661587	-	PIP5K1C	0x0
2692	chr19	3975699	3978729	-	EEF2	0x0
2693	chr19	3978771	3979956	-	EEF2	0x0
2694	chr19	3980845	3983477	-	EEF2	0x0
2695	chr19	3980845	3983477	-	SNORD37	0x0
2696	chr19	4027433	4028579	+	PIAS4	0x0
2697	chr19	4034724	4035823	+	PIAS4	0x0
2698	chr19	4047304	4048448	-	ZBTB7A	0x0
2699	chr19	4055272	4056464	-	ZBTB7A	0x0
2700	chr19	4062229	4063364	-	ZBTB7A	0x0
2701	chr19	4101878	4102995	-	MAP2K2	0x0
2702	chr19	4110028	4111458	-	MAP2K2	0x0
2703	chr19	4116961	4118119	-	MAP2K2	0x0
2704	chr19	4310496	4311645	+	FSD1	0x0
2705	chr19	4322332	4323445	+	FSD1	0x0
2706	chr19	4359894	4360966	-	SH3GL1	0x2
2707	chr19	4366582	4367670	-	SH3GL1	0x2
2708	chr19	4429995	4431094	+	CHAF1A	0x0
2709	chr19	4440953	4442054	+	CHAF1A	0x0
2710	chr19	4561124	4562302	-	SEMA6B	0x0
2711	chr19	4654640	4655802	+	TNFAIP8L1	0x0
2712	chr19	4657317	4658465	-	C19orf10	0x0
2713	chr19	4917576	4918740	+	UHRF1	0x0
2714	chr19	4939459	4940559	+	UHRF1	0x0
2715	chr19	4944246	4945392	+	UHRF1	0x0
2716	chr19	4985938	4987096	+	KDM4B	0x0
2717	chr19	5046939	5048139	+	KDM4B	0x0
2718	chr19	5133469	5134656	+	KDM4B	0x0
2719	chr19	5134771	5135966	+	KDM4B	0x0
2720	chr19	5205586	5206716	-	PTPRS	0x2
2721	chr19	5266837	5267994	-	PTPRS	0x2
2722	chr19	5273735	5274901	-	PTPRS	0x2
2723	chr19	5325308	5326490	-	PTPRS	0x2
2724	chr19	5336090	5337290	-	PTPRS	0x2
2725	chr19	5566085	5567294	-	PLAC2	0x0
2726	chr19	5652831	5654001	+	SAFB	0x1
2727	chr19	5667676	5668949	+	SAFB	0x1
2728	chr19	5667701	5668881	-	C19orf70	0x0
2729	chr19	5679163	5680303	-	C19orf70	0x0
2730	chr19	5689972	5692190	+	RPL36	0x0
2731	chr19	5709498	5710708	-	LONP1	0x0
2732	chr19	5805513	5806703	+	NRTN	0x0
2733	chr19	6012390	6013607	-	RFX2	0x2
2734	chr19	6210117	6211258	-	MLLT1	0x2
2735	chr19	6211446	6213296	-	MLLT1	0x2
2736	chr19	6221935	6223135	-	MLLT1	0x2
2737	chr19	6413133	6415362	-	KHSRP	0x2
2738	chr19	6453951	6455214	-	SLC25A23	0x0
2739	chr19	6493985	6495204	-	TUBB4A	0x0
2740	chr19	7114169	7115339	-	INSR	0x0
2741	chr19	7124438	7125655	-	INSR	0x0
2742	chr19	7988914	7990981	-	CTXN1	0x0
2743	chr19	7991707	7992856	-	TIMM44	0x0
2744	chr19	8024767	8025863	-	ELAVL1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2745	chr19	8026719	8028012	-	ELAVL1	0x0
2746	chr19	8468497	8469678	+	RAB11B	0x0
2747	chr19	8553318	8554417	+	HNRNPM	0x0
2748	chr19	9680260	9681437	-	ZNF121	0x0
2749	chr19	9784612	9785787	-	ZNF562	0x0
2750	chr19	9937238	9938414	-	FBXL12	0x0
2751	chr19	9938053	9939209	+	UBL5	0x0
2752	chr19	9950227	9951326	+	PIN1	0x0
2753	chr19	10217776	10218974	+	PPAN	0x0
2754	chr19	10217776	10218974	+	PPAN-P2RY11	0x0
2755	chr19	10217776	10218974	+	SNORD105	0x0
2756	chr19	10227061	10228280	-	EIF3G	0x0
2757	chr19	10243711	10244899	-	DNMT1	0x4
2758	chr19	10250997	10252088	-	DNMT1	0x4
2759	chr19	10369710	10370861	+	MRPL4	0x0
2760	chr19	10421479	10422676	-	FDX1L	0x0
2761	chr19	10427503	10428656	-	RAVER1	0x0
2762	chr19	10463325	10464506	-	TYK2	0x0
2763	chr19	10501355	10502667	-	CDC37	0x0
2764	chr19	10777886	10779078	+	ILF3	0x0
2765	chr19	10795337	10796433	+	ILF3	0x0
2766	chr19	10800973	10802039	+	ILF3	0x0
2767	chr19	11032246	11033452	+	CARM1	0x0
2768	chr19	11082469	11083677	+	SMARCA4	0x1
2769	chr19	11107671	11108841	+	SMARCA4	0x1
2770	chr19	11133693	11134778	+	SMARCA4	0x1
2771	chr19	11223722	11224919	+	LDLR	0x0
2772	chr19	11257228	11258356	-	SPC24	0x0
2773	chr19	11455424	11456815	-	TMEM205	0x0
2774	chr19	11474649	11475822	+	LPPR2	0x0
2775	chr19	11518907	11520144	+	PRKCSH	0x0
2776	chr19	11546281	11547487	+	PRKCSH	0x0
2777	chr19	11560498	11562101	+	PRKCSH	0x0
2778	chr19	11663922	11665073	-	ELOF1	0x0
2779	chr19	11925496	11926700	+	ZNF440	0x0
2780	chr19	12698834	12699974	-	ZNF490	0x0
2781	chr19	12809813	12812031	-	TNPO2	0x0
2782	chr19	12813855	12815063	-	TNPO2	0x0
2783	chr19	12821562	12822732	-	TNPO2	0x0
2784	chr19	12825352	12826594	-	TNPO2	0x0
2785	chr19	12840942	12842171	-	C19orf43	0x0
2786	chr19	13038666	13039865	-	FARSA	0x0
2787	chr19	13040558	13041695	-	FARSA	0x0
2788	chr19	13054508	13055694	+	CALR	0x2
2789	chr19	13135373	13136566	+	NFIX	0x0
2790	chr19	13219864	13221182	-	TRMT1	0x0
2791	chr19	13229656	13230815	+	NACC1	0x0
2792	chr19	13249505	13250603	+	NACC1	0x0
2793	chr19	13264394	13265575	+	IER2	0x0
2794	chr19	13883248	13884372	+	MRI1	0x0
2795	chr19	13923224	13924434	+	ZSWIM4	0x0
2796	chr19	14198159	14199558	-	SAMD1	0x0
2797	chr19	14200909	14202105	-	SAMD1	0x0
2798	chr19	14293844	14294997	-	LPHN1	0x2
2799	chr19	14579728	14580828	+	PKN1	0x2
2800	chr19	14581976	14583102	+	PKN1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2801	chr19	14588668	14589819	-	GIPC1	0x0
2802	chr19	14625659	14626906	-	DNAJB1	0x0
2803	chr19	14732536	14733997	+	CLEC17A	0x0
2804	chr19	15270591	15271715	-	NOTCH3	0x0
2805	chr19	15465179	15466371	-	AKAP8	0x2
2806	chr19	15468886	15470088	-	AKAP8	0x2
2807	chr19	15513523	15514703	-	AKAP8L	0x0
2808	chr19	16212928	16214130	+	TPM4	0x0
2809	chr19	16345227	16346378	+	AP1M1	0x0
2810	chr19	16376027	16377201	-	CIB3	0x0
2811	chr19	16470042	16471169	-	EPS15L1	0x0
2812	chr19	16651975	16653236	-	CHERP	0x0
2813	chr19	16737773	16738944	-	MED26	0x0
2814	chr19	16790289	16791467	+	TMEM38A	0x0
2815	chr19	17212335	17213596	+	MYO9B	0x0
2816	chr19	17391547	17392710	+	ANKLE1	0x0
2817	chr19	17416651	17417847	+	MRPL34	0x0
2818	chr19	17692166	17693768	+	GLT25D1	0x0
2819	chr19	17874502	17875704	+	FCHO1	0x0
2820	chr19	17972879	17974106	+	RPL18A	0x0
2821	chr19	17972879	17974106	+	SNORA68	0x0
2822	chr19	18245096	18246253	+	MAST3	0x0
2823	chr19	18390080	18391372	-	JUND	0x0
2824	chr19	18418226	18419383	-	LSM4	0x0
2825	chr19	18546682	18547816	-	ISYNA1	0x0
2826	chr19	18649873	18651098	-	FKBP8	0x0
2827	chr19	18652180	18653326	-	FKBP8	0x0
2828	chr19	18679220	18680543	+	KXD1	0x0
2829	chr19	18884271	18885435	+	CRTC1	0x2
2830	chr19	19035880	19037084	+	DDX49	0x0
2831	chr19	19108089	19109247	-	SUGP2	0x0
2832	chr19	19120195	19121638	-	SUGP2	0x0
2833	chr19	19152147	19153382	+	ARMC6	0x0
2834	chr19	19170255	19171474	+	ARMC6	0x0
2835	chr19	19246414	19248580	-	TMEM161A	0x0
2836	chr19	19407380	19408591	-	SUGP1	0x0
2837	chr19	19515851	19517059	+	GATAD2A	0x0
2838	chr19	19565218	19566440	+	GATAD2A	0x0
2839	chr19	19606355	19607510	+	GATAD2A	0x0
2840	chr19	19618774	19619862	+	GATAD2A	0x0
2841	chr19	19641808	19642907	+	YJEFN3	0x0
2842	chr19	19709318	19710495	-	PBX4	0x0
2843	chr19	21207859	21209170	+	ZNF430	0x0
2844	chr19	21289831	21291024	+	ZNF714	0x0
2845	chr19	22877044	22878262	-	ZNF99	0x0
2846	chr19	24009538	24011365	+	RPSAP58	0x0
2847	chr19	24183115	24184722	-	LOC100101266	0x0
2848	chr19	30499618	30500671	+	URI1	0x0
2849	chr19	30824657	30825856	+	ZNF536	0x2
2850	chr19	33077622	33078844	+	PDCD5	0x0
2851	chr19	33188805	33189954	+	NUDT19	0x0
2852	chr19	33460137	33461317	-	CEP89	0x0
2853	chr19	33791628	33792820	-	CEBPA	0x1
2854	chr19	34304490	34305768	+	KCTD15	0x0
2855	chr19	34718119	34719264	+	LSM14A	0x0
2856	chr19	34858984	34860104	+	GPI	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2857	chr19	34890809	34892921	+	GPI	0x0
2858	chr19	34925241	34926410	+	UBA2	0x0
2859	chr19	34940655	34941844	+	UBA2	0x0
2860	chr19	35503647	35504748	+	GRAMD1A	0x0
2861	chr19	35769770	35771106	+	USF2	0x0
2862	chr19	36065946	36067217	+	TMEM147	0x0
2863	chr19	36123827	36124926	+	RBM42	0x0
2864	chr19	36148991	36150113	+	COX6B1	0x0
2865	chr19	36212927	36214148	+	MLL4	0x0
2866	chr19	36582377	36583533	+	WDR62	0x0
2867	chr19	36631344	36632542	+	CAPNS1	0x0
2868	chr19	38431494	38432690	+	SIPA1L3	0x0
2869	chr19	39326617	39327844	-	HNRNPL	0x0
2870	chr19	39337434	39338533	-	HNRNPL	0x0
2871	chr19	39410724	39412282	-	SARS2	0x0
2872	chr19	39676724	39677915	+	PAK4	0x0
2873	chr19	39797108	39798331	-	LRFN1	0x0
2874	chr19	39888164	39889343	+	MED29	0x2
2875	chr19	39902265	39903407	-	MIR4530	0x0
2876	chr19	39923315	39924524	-	RPS16	0x0
2877	chr19	39976373	39977573	+	TIMM50	0x0
2878	chr19	40324585	40325684	-	DYRK1B	0x0
2879	chr19	40324585	40325684	-	FBL	0x0
2880	chr19	40697581	40698898	+	MAP3K10	0x0
2881	chr19	40738955	40740117	-	AKT2	0x2
2882	chr19	40783554	40784768	-	MIR641	0x0
2883	chr19	40784791	40786415	-	MIR641	0x0
2884	chr19	40789643	40791062	-	AKT2	0x2
2885	chr19	40821326	40822426	-	C19orf47	0x0
2886	chr19	40826618	40827833	-	C19orf47	0x0
2887	chr19	40871081	40872319	+	PLD3	0x0
2888	chr19	41307405	41308504	+	EGLN2	0x0
2889	chr19	41307405	41308504	+	RAB4B-EGLN2	0x0
2890	chr19	41313315	41314483	+	EGLN2	0x0
2891	chr19	41313315	41314483	+	RAB4B-EGLN2	0x0
2892	chr19	41784451	41785650	+	HNRNPUL1	0x0
2893	chr19	41800880	41802017	+	HNRNPUL1	0x0
2894	chr19	41812393	41813671	+	HNRNPUL1	0x0
2895	chr19	41815425	41816747	-	TGFB1	0x1
2896	chr19	41829951	41831140	+	CCDC97	0x0
2897	chr19	42069747	42070918	-	CEACAM4	0x0
2898	chr19	42364262	42365484	+	RPS19	0x0
2899	chr19	42375951	42377127	+	RPS19	0x0
2900	chr19	42751641	42752823	-	ERF	0x1
2901	chr19	42792581	42793913	+	CIC	0x2
2902	chr19	42838329	42840427	+	MEGF8	0x0
2903	chr19	42853211	42854995	+	MEGF8	0x0
2904	chr19	42881170	42882304	+	MEGF8	0x0
2905	chr19	42937196	42938377	+	MEGF8	0x0
2906	chr19	43909808	43910977	+	TEX101	0x0
2907	chr19	44046898	44048117	-	XRCC1	0x0
2908	chr19	44111103	44112238	-	ZNF428	0x0
2909	chr19	44677729	44678937	+	ZNF226	0x2
2910	chr19	45489903	45491113	+	CLPTM1	0x0
2911	chr19	45637271	45638417	+	PPP1R37	0x0
2912	chr19	45981284	45982504	-	RTN2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2913	chr19	46055463	46056676	-	OPA3	0x0
2914	chr19	46191155	46192341	-	SNRPD2	0x0
2915	chr19	46285399	46290500	-	DMPK	0x0
2916	chr19	46285399	46290500	-	DMWD	0x0
2917	chr19	46361925	46363145	+	FOXA3	0x0
2918	chr19	46403964	46405141	-	MYPOP	0x0
2919	chr19	46441853	46443027	-	NOVA2	0x0
2920	chr19	47112545	47113889	+	CALM3	0x0
2921	chr19	47219629	47220775	-	PRKD2	0x0
2922	chr19	47230409	47231590	-	STRN4	0x0
2923	chr19	47234518	47235724	-	STRN4	0x0
2924	chr19	47277768	47279296	-	SLC1A5	0x0
2925	chr19	47287026	47288125	-	SLC1A5	0x0
2926	chr19	47290828	47292007	-	SLC1A5	0x0
2927	chr19	47421491	47422610	+	ARHGAP35	0x1
2928	chr19	47505828	47507452	+	ARHGAP35	0x1
2929	chr19	47571603	47572761	-	ZC3H4	0x0
2930	chr19	47633618	47634854	+	SAE1	0x0
2931	chr19	47857790	47859035	+	DHX34	0x0
2932	chr19	47884204	47885407	+	DHX34	0x0
2933	chr19	47995135	47996311	-	NAPA	0x0
2934	chr19	48179700	48180894	+	GLTSCR1	0x1
2935	chr19	48258914	48260113	+	GLTSCR2	0x1
2936	chr19	48258914	48260113	+	SNORD23	0x0
2937	chr19	48287091	48288282	+	SEPW1	0x0
2938	chr19	48426524	48427748	+	SNAR-A10	0x0
2939	chr19	48426524	48427748	+	SNAR-A11	0x0
2940	chr19	48426524	48427748	+	SNAR-A14	0x0
2941	chr19	48426524	48427748	+	SNAR-A3	0x0
2942	chr19	48426524	48427748	+	SNAR-A4	0x0
2943	chr19	48426524	48427748	+	SNAR-A5	0x0
2944	chr19	48426524	48427748	+	SNAR-A6	0x0
2945	chr19	48426524	48427748	+	SNAR-A7	0x0
2946	chr19	48426524	48427748	+	SNAR-A8	0x0
2947	chr19	48426524	48427748	+	SNAR-A9	0x0
2948	chr19	48638772	48639948	-	LIG1	0x0
2949	chr19	48640427	48641526	-	LIG1	0x0
2950	chr19	48642529	48643725	-	LIG1	0x0
2951	chr19	48704862	48706055	-	CARD8	0x0
2952	chr19	48885682	48886906	-	KDELR1	0x0
2953	chr19	48893193	48894425	-	KDELR1	0x0
2954	chr19	49118619	49120644	-	RPL18	0x0
2955	chr19	49297824	49298967	-	BCAT2	0x0
2956	chr19	49303599	49304778	-	BCAT2	0x0
2957	chr19	49425423	49426724	+	NUCB1	0x0
2958	chr19	49469028	49470166	+	FTL	0x0
2959	chr19	49471950	49473128	-	GYS1	0x0
2960	chr19	49588237	49589435	+	SNRNP70	0x0
2961	chr19	49592075	49593223	+	SNRNP70	0x0
2962	chr19	49607258	49608427	+	SNRNP70	0x0
2963	chr19	49645121	49646312	+	PPFIA3	0x0
2964	chr19	49670843	49672015	+	TRPM4	0x0
2965	chr19	49863523	49864822	-	TEAD2	0x0
2966	chr19	49955965	49957142	+	ALDH16A1	0x0
2967	chr19	49992705	49993802	+	RPL13A	0x0
2968	chr19	49992705	49993802	+	RPL13AP5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2969	chr19	49992705	49993802	+	SNORD32A	0x0
2970	chr19	49994537	49995624	+	RPL13A	0x0
2971	chr19	49994537	49995624	+	RPL13AP5	0x0
2972	chr19	50000608	50001855	+	RPS11	0x0
2973	chr19	50000608	50001855	+	SNORD35B	0x0
2974	chr19	50002222	50003374	+	RPS11	0x0
2975	chr19	50028948	50030116	+	FCGRT	0x0
2976	chr19	50098847	50100070	+	PRR12	0x0
2977	chr19	50104606	50105797	+	PRR12	0x0
2978	chr19	50125677	50126919	+	PRR12	0x0
2979	chr19	50359518	50362672	+	PTOV1	0x0
2980	chr19	50409664	50411091	-	NUP62	0x0
2981	chr19	52381165	52382302	-	ZNF577	0x0
2982	chr19	52729015	52730190	+	PPP2R1A	0x2
2983	chr19	53226284	53227434	-	ZNF611	0x0
2984	chr19	54462756	54463932	+	CACNG8	0x0
2985	chr19	54605893	54607047	+	NDUFA3	0x0
2986	chr19	54704517	54705652	+	RPS9	0x0
2987	chr19	54710900	54712000	+	RPS9	0x0
2988	chr19	54969341	54970479	+	LENG8	0x0
2989	chr19	54972309	54973633	+	LENG8	0x0
2990	chr19	55559299	55560476	-	RDH13	0x0
2991	chr19	55897400	55898599	+	RPL28	0x0
2992	chr19	55899145	55900296	+	RPL28	0x0
2993	chr19	55900600	55901783	+	RPL28	0x0
2994	chr19	55945818	55947059	+	ZNF628	0x0
2995	chr19	55978495	55979717	+	ZNF628	0x0
2996	chr19	55997742	55999096	+	NAT14	0x0
2997	chr19	56090628	56091988	-	ZNF579	0x0
2998	chr19	56172904	56173985	+	U2AF2	0x2
2999	chr19	56185234	56186475	+	U2AF2	0x2
3000	chr19	56667669	56668775	+	ZNF444	0x0
3001	chr19	57725909	57727008	+	ZNF264	0x4
3002	chr19	57910640	57911792	+	ZNF548	0x0
3003	chr19	57973839	57975442	-	ZNF772	0x0
3004	chr19	57979307	57980462	-	ZNF772	0x0
3005	chr19	58217480	58218587	+	ZNF551	0x0
3006	chr19	58280064	58281258	+	ZNF586	0x0
3007	chr19	58295632	58296837	+	ZNF586	0x0
3008	chr19	58378068	58379253	+	ZNF587	0x0
3009	chr19	58455718	58456894	-	ZNF256	0x0
3010	chr19	58874297	58875496	+	A1BG-AS1	0x0
3011	chr19	58904215	58905433	+	RPS5	0x0
3012	chr19	59024596	59025774	-	ZBTB45	0x0
3013	chr19	59061179	59062583	+	TRIM28	0x0
3014	chr19	59066969	59068097	-	UBE2M	0x0
3015	chr19	59069120	59070278	-	UBE2M	0x0
3016	chr2	1216356	1217585	+	SNTG2	0x0
3017	chr2	1636731	1637920	-	PXDN	0x2
3018	chr2	2363834	2365034	-	MYT1L	0x0
3019	chr2	3320034	3321188	-	TSSC1	0x0
3020	chr2	8869616	8870757	-	KIDINS220	0x0
3021	chr2	8994807	8995934	-	MBOAT2	0x0
3022	chr2	8997799	8999023	-	MBOAT2	0x0
3023	chr2	9757076	9758210	-	YWHAQ	0x2
3024	chr2	10586337	10587409	-	SNORA80B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3025	chr2	11724384	11725662	+	GREB1	0x0
3026	chr2	11906920	11908110	+	LPIN1	0x0
3027	chr2	15653200	15654333	-	NBAS	0x0
3028	chr2	16639823	16641013	+	MYCN	0x2
3029	chr2	17942106	17943268	+	GEN1	0x2
3030	chr2	20232436	20233529	-	LAPTM4A	0x0
3031	chr2	20417746	20419143	-	SDC1	0x0
3032	chr2	20501494	20502666	-	PUM2	0x0
3033	chr2	20680167	20681308	+	RHOB	0x1
3034	chr2	23629735	23630885	+	KLHL29	0x0
3035	chr2	23644452	23645882	+	KLHL29	0x0
3036	chr2	23675495	23676607	+	KLHL29	0x0
3037	chr2	24079710	24080888	-	ATAD2B	0x0
3038	chr2	24289952	24291126	-	SF3B14	0x0
3039	chr2	25004382	25005586	+	CENPO	0x0
3040	chr2	25452998	25454097	-	DNMT3A	0x2
3041	chr2	25961435	25962615	-	ASXL2	0x0
3042	chr2	26250444	26251731	-	KIF3C	0x0
3043	chr2	26256446	26257646	+	RAB10	0x0
3044	chr2	26617976	26619180	+	EPT1	0x0
3045	chr2	27273066	27274339	+	AGBL5	0x0
3046	chr2	27355797	27356988	-	PREB	0x0
3047	chr2	27456383	27457481	+	CAD	0x0
3048	chr2	27477080	27478216	-	SLC30A3	0x0
3049	chr2	28974355	28975566	+	PPP1CB	0x0
3050	chr2	29135977	29137186	+	SNORD92	0x0
3051	chr2	29135977	29137186	+	WDR43	0x0
3052	chr2	29148700	29149881	+	WDR43	0x0
3053	chr2	29150294	29151499	+	WDR43	0x0
3054	chr2	29388281	29389489	+	CLIP4	0x0
3055	chr2	30723323	30724519	+	LCLAT1	0x0
3056	chr2	32140854	32141953	-	MEMO1	0x0
3057	chr2	32248479	32249699	-	DPY30	0x0
3058	chr2	33726765	33727887	+	RASGRP3	0x0
3059	chr2	33739891	33741064	-	FAM98A	0x0
3060	chr2	35845713	35846891	-	LOC100288911	0x0
3061	chr2	36667962	36669182	+	CRIM1	0x0
3062	chr2	36669204	36670402	+	CRIM1	0x0
3063	chr2	37080343	37081493	-	STRN	0x0
3064	chr2	37326947	37328278	-	EIF2AK2	0x1
3065	chr2	37332097	37333466	-	EIF2AK2	0x1
3066	chr2	38708654	38710070	+	GALM	0x0
3067	chr2	39220563	39221718	-	SOS1	0x2
3068	chr2	39281328	39282494	-	SOS1	0x2
3069	chr2	40424638	40425802	-	SLC8A1	0x0
3070	chr2	40655162	40656518	-	SLC8A1	0x0
3071	chr2	42417346	42418501	+	EML4	0x2
3072	chr2	42469322	42470470	+	EML4	0x2
3073	chr2	42930426	42931526	+	MTA3	0x0
3074	chr2	42991030	42992261	+	MTA3	0x0
3075	chr2	43628334	43629550	+	LOC100129726	0x0
3076	chr2	43707207	43708335	-	THADA	0x0
3077	chr2	43753054	43754275	-	THADA	0x0
3078	chr2	44127543	44128682	-	LRPPRC	0x0
3079	chr2	44133422	44134551	-	LRPPRC	0x0
3080	chr2	44428084	44429242	+	PPM1B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3081	chr2	44588997	44590196	+	CAMKMT	0x0
3082	chr2	44842666	44843896	+	CAMKMT	0x0
3083	chr2	45704492	45705671	-	SRBD1	0x0
3084	chr2	45789231	45790428	-	SRBD1	0x0
3085	chr2	46113133	46114336	+	PRKCE	0x0
3086	chr2	47387070	47388219	-	CALM2	0x0
3087	chr2	47389236	47390372	-	CALM2	0x0
3088	chr2	47401791	47404187	-	CALM2	0x0
3089	chr2	54084744	54085904	+	ERLEC1	0x0
3090	chr2	55198969	55200096	-	RTN4	0x0
3091	chr2	55209139	55210248	-	RTN4	0x0
3092	chr2	55276912	55278085	-	RTN4	0x0
3093	chr2	55455389	55456529	-	C2orf63	0x0
3094	chr2	55460782	55461826	+	MIR4426	0x0
3095	chr2	55460782	55461826	+	RPS27A	0x0
3096	chr2	56256982	56258160	-	MIR216B	0x0
3097	chr2	58426661	58427856	-	FANCL	0x0
3098	chr2	60775743	60776943	+	PAPOLG	0x0
3099	chr2	61105229	61106424	+	REL	0x2
3100	chr2	61129741	61130952	+	REL	0x2
3101	chr2	61152233	61153452	+	REL	0x2
3102	chr2	61441647	61442807	-	USP34	0x0
3103	chr2	61718705	61720082	-	XPO1	0x2
3104	chr2	61729986	61731165	-	XPO1	0x2
3105	chr2	61764394	61765670	-	XPO1	0x2
3106	chr2	61891926	61893148	+	COMMD1	0x4
3107	chr2	62109913	62111078	-	CCT4	0x0
3108	chr2	63185727	63186942	+	EHBP1	0x0
3109	chr2	65496944	65498205	+	ACTR2	0x0
3110	chr2	65629603	65630801	-	SPRED2	0x0
3111	chr2	69266676	69267880	+	ANTXR1	0x0
3112	chr2	69977480	69978670	+	ANXA4	0x0
3113	chr2	69998942	70000138	+	ANXA4	0x0
3114	chr2	70065682	70066781	+	GMCL1	0x0
3115	chr2	70130919	70132148	+	SNRNP27	0x0
3116	chr2	70166448	70167626	-	ASPRV1	0x0
3117	chr2	70439959	70441087	-	TIA1	0x0
3118	chr2	70451212	70453245	-	TIA1	0x0
3119	chr2	70462729	70463934	-	TIA1	0x0
3120	chr2	70475116	70476306	-	TIA1	0x0
3121	chr2	70506910	70508076	+	PCYOX1	0x0
3122	chr2	71605045	71606241	+	ZNF638	0x2
3123	chr2	71660699	71661885	+	ZNF638	0x2
3124	chr2	72403769	72404907	-	EXOC6B	0x0
3125	chr2	72880523	72881715	-	EXOC6B	0x0
3126	chr2	73314836	73316011	-	RAB11FIP5	0x0
3127	chr2	73466265	73467475	+	CCT7	0x0
3128	chr2	73471196	73472298	+	CCT7	0x0
3129	chr2	74379504	74380719	-	MOB1A	0x1
3130	chr2	74472451	74473668	-	SLC4A5	0x0
3131	chr2	74604733	74605908	-	DCTN1	0x0
3132	chr2	74651919	74653107	+	WDR54	0x0
3133	chr2	74719416	74720610	+	TTC31	0x0
3134	chr2	74756938	74758134	+	HTRA2	0x1
3135	chr2	75886605	75887676	+	MRPL19	0x0
3136	chr2	76671803	76673078	-	LRRTM4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3137	chr2	78928161	78929528	+	REG3G	0x0
3138	chr2	82813926	82815121	+	LOC1720	0x0
3139	chr2	85547533	85548789	-	TGOLN2	0x0
3140	chr2	85549172	85550284	-	TGOLN2	0x0
3141	chr2	85571106	85572305	-	RETSAT	0x0
3142	chr2	85596349	85597520	+	ELMOD3	0x0
3143	chr2	85768172	85769384	+	MAT2A	0x0
3144	chr2	85770203	85771928	+	MAT2A	0x0
3145	chr2	86362432	86363688	+	PTCD3	0x0
3146	chr2	86362432	86363688	+	SNORD94	0x0
3147	chr2	96850183	96852632	-	STARD7	0x0
3148	chr2	96873373	96874629	-	STARD7	0x0
3149	chr2	96886991	96888202	+	LOC285033	0x0
3150	chr2	96917577	96918862	-	TMEM127	0x1
3151	chr2	96934086	96935241	-	TMEM127	0x1
3152	chr2	96934811	96935966	+	CIAO1	0x0
3153	chr2	96939147	96940246	+	CIAO1	0x0
3154	chr2	96964067	96965248	-	SNRNP200	0x0
3155	chr2	97028996	97030194	+	NCAPH	0x0
3156	chr2	97271741	97273016	-	KANSL3	0x0
3157	chr2	97504664	97505839	-	ANKRD23	0x0
3158	chr2	97528436	97529590	-	SEMA4C	0x0
3159	chr2	97532383	97533489	-	SEMA4C	0x0
3160	chr2	97688627	97689804	-	FAM178B	0x0
3161	chr2	97830818	97832001	+	ANKRD36	0x0
3162	chr2	98443952	98445069	+	ZAP70	0x0
3163	chr2	98611751	98612927	+	VWA3B	0x0
3164	chr2	99213766	99214929	-	COA5	0x0
3165	chr2	99327874	99329169	-	MGAT4A	0x0
3166	chr2	100505174	100506343	-	AFF3	0x2
3167	chr2	101621869	101623334	+	RPL31	0x0
3168	chr2	101634848	101636020	+	RPL31	0x0
3169	chr2	101753040	101754214	-	TBC1D8	0x0
3170	chr2	101914253	101915427	-	RNF149	0x0
3171	chr2	102471880	102473077	+	MAP4K4	0x2
3172	chr2	105470160	105471496	+	POU3F3	0x0
3173	chr2	105546628	105547807	+	POU3F3	0x0
3174	chr2	105908127	105909296	-	TGFBRAP1	0x0
3175	chr2	109182877	109184117	+	LIMS1	0x0
3176	chr2	109350228	109351366	+	RANBP2	0x0
3177	chr2	109380433	109381480	+	RANBP2	0x0
3178	chr2	111433698	111434876	-	BUB1	0x0
3179	chr2	113278429	113279578	+	TTL	0x2
3180	chr2	113288452	113289542	+	TTL	0x2
3181	chr2	113420264	113421422	+	SLC20A1	0x0
3182	chr2	114201793	114202983	+	CBWD2	0x0
3183	chr2	114567960	114569149	-	SLC35F5	0x0
3184	chr2	114708764	114709972	+	ACTR3	0x0
3185	chr2	115694554	115695736	-	LOC389023	0x0
3186	chr2	115694749	115695961	+	DPP10	0x2
3187	chr2	116999724	117000945	+	DPP10	0x2
3188	chr2	121387744	121388900	-	LOC84931	0x0
3189	chr2	121498659	121499846	+	GLI2	0x0
3190	chr2	121572475	121573681	+	GLI2	0x0
3191	chr2	121721345	121722544	+	GLI2	0x0
3192	chr2	122158585	122159790	-	CLASP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3193	chr2	122287903	122289168	+	RNU4ATAC	0x0
3194	chr2	122326393	122327567	-	CLASP1	0x0
3195	chr2	122363177	122364331	-	CLASP1	0x0
3196	chr2	122522653	122523768	+	TSN	0x0
3197	chr2	128014354	128015560	-	ERCC3	0x2
3198	chr2	128033246	128034430	-	ERCC3	0x2
3199	chr2	128144821	128146023	-	MIR4783	0x0
3200	chr2	128263658	128264859	-	IWS1	0x0
3201	chr2	128605078	128606215	-	POLR2D	0x0
3202	chr2	128740898	128742002	-	SAP130	0x0
3203	chr2	128916619	128917760	+	UGGT1	0x2
3204	chr2	130913803	130915004	-	SMPD4	0x0
3205	chr2	130939357	130940573	+	MZT2B	0x0
3206	chr2	131094151	131095309	-	CCDC115	0x0
3207	chr2	131104509	131105707	+	IMP4	0x2
3208	chr2	131132081	131133280	+	PTPN18	0x0
3209	chr2	131805917	131807019	-	FAM168B	0x0
3210	chr2	131899453	131900659	+	PLEKHB2	0x0
3211	chr2	132245207	132246346	-	MIR4784	0x0
3212	chr2	132273057	132274242	+	LOC150776	0x0
3213	chr2	133011758	133013847	-	MIR663B	0x0
3214	chr2	133026440	133027503	-	ANKRD30BL	0x0
3215	chr2	133027871	133029879	-	ANKRD30BL	0x0
3216	chr2	133741826	133742980	-	NCKAP5	0x0
3217	chr2	134916352	134917556	+	MIR3679	0x0
3218	chr2	135211232	135212359	+	MGAT5	0x0
3219	chr2	136508474	136509745	+	UBXN4	0x0
3220	chr2	136613864	136615023	-	MCM6	0x0
3221	chr2	138786081	138787300	+	HNMT	0x0
3222	chr2	142231057	142232282	+	KYNU	0x0
3223	chr2	142246188	142247397	+	KYNU	0x0
3224	chr2	142469274	142470500	-	LRP1B	0x1
3225	chr2	142536923	142538099	-	LRP1B	0x1
3226	chr2	142742729	142743935	-	LRP1B	0x1
3227	chr2	148729810	148730961	-	ORC4	0x0
3228	chr2	149402018	149403220	+	EPC2	0x0
3229	chr2	151218773	151219905	+	LYPD6	0x0
3230	chr2	152318973	152320151	+	RIF1	0x0
3231	chr2	152802350	152803566	-	CACNB4	0x0
3232	chr2	152846132	152847415	-	CACNB4	0x0
3233	chr2	153193327	153194477	+	FMNL2	0x0
3234	chr2	153205934	153207116	+	FMNL2	0x0
3235	chr2	153524942	153526351	-	PRPF40A	0x0
3236	chr2	154729764	154730960	+	GALNT13	0x0
3237	chr2	154818140	154819320	+	GALNT13	0x0
3238	chr2	154819642	154820805	+	GALNT13	0x0
3239	chr2	155410346	155411541	+	GALNT13	0x0
3240	chr2	157033856	157035046	-	NR4A2	0x0
3241	chr2	157312157	157313327	+	GPD2	0x0
3242	chr2	158155010	158156187	-	ERMN	0x0
3243	chr2	159346768	159348023	+	PKP4	0x0
3244	chr2	160087070	160088269	+	TANC1	0x0
3245	chr2	161130286	161131453	-	RBMS1	0x0
3246	chr2	161264377	161265530	-	MIR4785	0x0
3247	chr2	162207621	162208841	+	PSMD14	0x0
3248	chr2	162979680	162980900	+	SLC4A10	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3249	chr2	164457179	164458356	-	FIGN	0x0
3250	chr2	165583619	165584827	-	COBLL1	0x0
3251	chr2	166908003	166909181	-	SCN1A	0x0
3252	chr2	167036660	167037847	-	SCN9A	0x2
3253	chr2	168004968	168006187	+	XIRP2	0x2
3254	chr2	168193128	168194318	+	XIRP2	0x2
3255	chr2	168810454	168811655	-	STK39	0x0
3256	chr2	169629883	169632194	+	CERS6	0x0
3257	chr2	169708092	169709241	-	SPC25	0x0
3258	chr2	169718770	169719869	-	SPC25	0x0
3259	chr2	170745999	170747207	+	UBR3	0x2
3260	chr2	170803991	170805188	+	UBR3	0x2
3261	chr2	171822195	171823294	+	GORASP2	0x0
3262	chr2	172513412	172514608	+	DYNC1I2	0x0
3263	chr2	172964494	172965794	-	DLX2	0x0
3264	chr2	172973378	172974581	+	DLX1	0x0
3265	chr2	174812507	174813692	-	SP3	0x0
3266	chr2	175345813	175347006	-	GPR155	0x0
3267	chr2	175584480	175585720	+	SCRN3	0x0
3268	chr2	176793434	176794543	-	KIAA1715	0x0
3269	chr2	176845051	176846246	-	KIAA1715	0x0
3270	chr2	176889001	176890223	+	HOXD13	0x2
3271	chr2	177039955	177041231	-	HOXD-AS1	0x0
3272	chr2	177065262	177066455	-	HOXD-AS1	0x0
3273	chr2	178084124	178085352	+	HNRNPA3	0x0
3274	chr2	178111555	178112777	-	MIR3128	0x0
3275	chr2	178256942	178258132	+	AGPS	0x0
3276	chr2	179403300	179404432	+	LOC100506866	0x0
3277	chr2	179468434	179469583	+	LOC100506866	0x0
3278	chr2	179487035	179488248	+	LOC100506866	0x0
3279	chr2	183595170	183596369	+	DNAJC10	0x0
3280	chr2	183789780	183790961	-	NCKAP1	0x0
3281	chr2	183887963	183889156	-	NCKAP1	0x0
3282	chr2	185472545	185473764	+	ZNF804A	0x0
3283	chr2	187072084	187073267	-	ZSWIM2	0x0
3284	chr2	187167909	187169130	-	ZSWIM2	0x0
3285	chr2	187310259	187311409	-	ZSWIM2	0x0
3286	chr2	189271930	189273039	+	GULP1	0x0
3287	chr2	190317882	190319095	+	WDR75	0x0
3288	chr2	191887589	191888807	+	GLS	0x0
3289	chr2	197657125	197658291	-	GTF3C3	0x2
3290	chr2	197752015	197753239	-	PGAP1	0x0
3291	chr2	198256448	198257650	-	SF3B1	0x2
3292	chr2	198353229	198354328	-	HSPD1	0x0
3293	chr2	198367444	198368643	+	HSPE1	0x0
3294	chr2	198399765	198400920	+	HSPE1-MOB4	0x0
3295	chr2	198399765	198400920	+	MOB4	0x0
3296	chr2	200245869	200247024	-	SATB2	0x2
3297	chr2	200297611	200298794	-	SATB2	0x2
3298	chr2	201687403	201688597	+	BZW1	0x0
3299	chr2	201845865	201847050	-	FAM126B	0x0
3300	chr2	202346553	202347750	+	STRADB	0x0
3301	chr2	202485617	202487245	-	TMEM237	0x0
3302	chr2	202490564	202491687	-	TMEM237	0x0
3303	chr2	202625507	202626945	-	ALS2	0x2
3304	chr2	203157232	203158427	+	NOP58	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3305	chr2	203157232	203158427	+	SNORD11	0x0
3306	chr2	203160339	203161446	+	NOP58	0x0
3307	chr2	203729600	203730792	-	ICA1L	0x0
3308	chr2	203925103	203926329	+	NBEAL1	0x0
3309	chr2	204235230	204236550	+	ABI2	0x1
3310	chr2	204293056	204294163	+	ABI2	0x1
3311	chr2	205628833	205630031	+	PARD3B	0x0
3312	chr2	206613569	206614766	+	NRP2	0x0
3313	chr2	206765021	206766246	+	NRP2	0x0
3314	chr2	206889787	206890980	+	EEF1B2	0x0
3315	chr2	206997122	206998292	-	NDUFS1	0x0
3316	chr2	207026124	207027613	+	EEF1B2	0x0
3317	chr2	207026124	207027613	+	SNORA41	0x0
3318	chr2	207026124	207027613	+	SNORD51	0x0
3319	chr2	209221075	209222274	+	PIKFYVE	0x0
3320	chr2	211512125	211513352	+	CPS1	0x2
3321	chr2	212399831	212401039	+	CPS1	0x2
3322	chr2	212428216	212429388	-	ERBB4	0x1
3323	chr2	213214823	213215916	-	MIR548F2	0x0
3324	chr2	213238740	213239938	-	MIR548F2	0x0
3325	chr2	213329050	213330269	-	MIR548F2	0x0
3326	chr2	213336293	213337490	-	MIR548F2	0x0
3327	chr2	213390114	213391313	-	ERBB4	0x1
3328	chr2	216995072	216996232	+	XRCC5	0x0
3329	chr2	217069580	217070799	+	XRCC5	0x0
3330	chr2	217363468	217365329	+	RPL37A	0x0
3331	chr2	217365531	217366649	+	RPL37A	0x0
3332	chr2	217383074	217384232	+	RPL37A	0x0
3333	chr2	217431845	217433045	+	IGFBP2	0x0
3334	chr2	217538206	217540299	-	IGFBP5	0x1
3335	chr2	218286440	218287567	-	DIRC3	0x0
3336	chr2	218400358	218401552	-	DIRC3	0x0
3337	chr2	219109965	219111160	+	ARPC2	0x0
3338	chr2	219134612	219135878	+	PNKD	0x0
3339	chr2	219365160	219366302	-	USP37	0x0
3340	chr2	219525952	219527133	+	BCS1L	0x0
3341	chr2	220047566	220048764	+	FAM134A	0x0
3342	chr2	220083700	220085128	-	ABCB6	0x0
3343	chr2	220083700	220085128	-	ATG9A	0x0
3344	chr2	220431286	220432550	-	OBSL1	0x0
3345	chr2	223084400	223085617	-	PAX3	0x2
3346	chr2	223771341	223772508	+	ACSL3	0x2
3347	chr2	225337375	225338590	-	CUL3	0x1
3348	chr2	225357124	225358316	-	CUL3	0x1
3349	chr2	225362717	225363887	-	CUL3	0x1
3350	chr2	225449421	225450594	-	CUL3	0x1
3351	chr2	228627217	228628393	-	SLC19A3	0x0
3352	chr2	230015177	230016385	+	FBXO36	0x0
3353	chr2	230723204	230724432	-	TRIP12	0x0
3354	chr2	231684657	231685792	+	CAB39	0x0
3355	chr2	231742416	231743651	+	ITM2C	0x0
3356	chr2	231895330	231896507	-	LOC348761	0x0
3357	chr2	232319052	232321792	-	NCL	0x0
3358	chr2	232319052	232321792	-	SNORA75	0x0
3359	chr2	232319052	232321792	-	SNORD20	0x0
3360	chr2	232324517	232325714	-	NCL	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3361	chr2	232324517	232325714	-	SNORD82	0x0
3362	chr2	232328602	232329702	-	NCL	0x0
3363	chr2	232576047	232577235	+	PTMA	0x0
3364	chr2	233936152	233937371	+	INPP5D	0x0
3365	chr2	234183893	234185136	+	SCARNA5	0x0
3366	chr2	234196971	234198139	+	SCARNA6	0x0
3367	chr2	234379111	234380348	+	DGKD	0x0
3368	chr2	236707724	236708823	+	AGAP1	0x0
3369	chr2	237084009	237085207	+	AGAP1	0x0
3370	chr2	237828105	237829302	-	COL6A3	0x0
3371	chr2	237994178	237995402	+	COPS8	0x0
3372	chr2	238640130	238641441	+	LRRFIP1	0x2
3373	chr2	238977416	238978680	+	SCLY	0x0
3374	chr2	238977416	238978680	+	UBE2F-SCLY	0x0
3375	chr2	240566799	240567975	+	LOC150935	0x0
3376	chr2	240927842	240929122	-	NDUFA10	0x0
3377	chr2	241438874	241440090	-	ANKMY1	0x0
3378	chr2	241463023	241464122	-	ANKMY1	0x0
3379	chr2	241464673	241465805	-	ANKMY1	0x0
3380	chr2	241537146	241538345	+	CAPN10	0x0
3381	chr2	241653284	241655521	-	KIF1A	0x2
3382	chr2	241680148	241681373	-	KIF1A	0x2
3383	chr2	241696785	241697921	-	KIF1A	0x2
3384	chr2	242168371	242169557	-	HDLBP	0x2
3385	chr2	242172844	242174023	+	ANO7	0x0
3386	chr2	242254254	242255441	+	SEPT2	0x0
3387	chr2	242280235	242282090	+	SEPT2	0x0
3388	chr2	242291056	242292245	+	SEPT2	0x0
3389	chr2	242292246	242293356	+	SEPT2	0x0
3390	chr2	242434431	242435563	-	STK25	0x0
3391	chr2	242684886	242686231	+	D2HGDH	0x0
3392	chr2	242699828	242700961	+	D2HGDH	0x0
3393	chr20	308144	309463	+	SOX12	0x0
3394	chr20	463505	464699	-	CSNK2A1	0x0
3395	chr20	1161617	1162788	-	TMEM74B	0x0
3396	chr20	1349577	1351191	-	FKBP1A	0x0
3397	chr20	1918344	1919624	+	SIRPA	0x0
3398	chr20	2443060	2444241	-	SNORD119	0x0
3399	chr20	2443060	2444241	-	SNRPB	0x0
3400	chr20	2447764	2448925	-	SNRPB	0x0
3401	chr20	2635175	2636402	+	NOP56	0x0
3402	chr20	2635175	2636402	+	SNORA51	0x0
3403	chr20	2637038	2638212	+	NOP56	0x0
3404	chr20	2637038	2638212	+	SNORD56	0x0
3405	chr20	2637038	2638212	+	SNORD57	0x0
3406	chr20	3145220	3146658	-	ProSAPiP1	0x0
3407	chr20	3733763	3734862	-	C20orf27	0x0
3408	chr20	4004220	4005516	+	PANK2	0x0
3409	chr20	4152647	4153818	-	ADRA1D	0x0
3410	chr20	5060684	5061856	-	C20orf30	0x0
3411	chr20	5164963	5166161	+	CDS2	0x0
3412	chr20	6559171	6560272	+	BMP2	0x1
3413	chr20	8864641	8865840	+	PLCB1	0x0
3414	chr20	9172099	9173278	+	PLCB4	0x2
3415	chr20	11905246	11906565	+	BTBD3	0x0
3416	chr20	11972785	11974015	+	BTBD3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3417	chr20	17930389	17931587	-	SNX5	0x0
3418	chr20	17942784	17944058	-	SNORD17	0x0
3419	chr20	18245801	18247009	-	DZANK1	0x0
3420	chr20	18485060	18486248	+	SEC23B	0x0
3421	chr20	25515364	25516505	-	NINL	0x0
3422	chr20	25845882	25847080	+	LOC100134868	0x0
3423	chr20	26188218	26190630	-	LOC284801	0x0
3424	chr20	26188218	26190630	-	MIR663A	0x0
3425	chr20	29620241	29621478	+	FRG1B	0x0
3426	chr20	30373619	30374717	+	TPX2	0x0
3427	chr20	30754487	30755598	+	TM9SF4	0x0
3428	chr20	30927750	30928849	+	KIF3B	0x0
3429	chr20	30953660	30954792	+	ASXL1	0x1
3430	chr20	31379762	31380979	+	DNMT3B	0x0
3431	chr20	31436868	31438511	+	MAPRE1	0x0
3432	chr20	31940667	31941815	-	CDK5RAP1	0x0
3433	chr20	31974725	31975863	-	CDK5RAP1	0x0
3434	chr20	32263513	32264643	-	E2F1	0x1
3435	chr20	32273238	32274483	-	E2F1	0x1
3436	chr20	32867650	32868912	-	AHCY	0x0
3437	chr20	33027471	33028640	+	ITCH	0x2
3438	chr20	33361081	33362271	-	NCOA6	0x2
3439	chr20	33530007	33531300	-	GSS	0x0
3440	chr20	33610313	33611516	-	TRPC4AP	0x0
3441	chr20	33866251	33867414	-	EIF6	0x0
3442	chr20	34091229	34092435	+	CEP250	0x0
3443	chr20	34144721	34145900	+	ERGIC3	0x0
3444	chr20	34218394	34219612	-	CPNE1	0x0
3445	chr20	34233085	34234229	-	RBM12	0x0
3446	chr20	34288156	34289329	+	ROMO1	0x0
3447	chr20	34301632	34302837	-	RBM39	0x0
3448	chr20	34312012	34313213	-	RBM39	0x0
3449	chr20	34430845	34432061	+	PHF20	0x0
3450	chr20	34633445	34634576	-	LOC647979	0x0
3451	chr20	34636380	34637538	-	LOC647979	0x0
3452	chr20	35221533	35222724	+	TGIF2	0x0
3453	chr20	35281129	35282335	-	NDRG3	0x0
3454	chr20	35422398	35423497	-	KIAA0889	0x0
3455	chr20	35443437	35444575	-	KIAA0889	0x0
3456	chr20	35466846	35467976	-	KIAA0889	0x0
3457	chr20	35485069	35486168	-	KIAA0889	0x0
3458	chr20	35519588	35520734	-	SAMHD1	0x0
3459	chr20	35857418	35858593	+	RPN2	0x0
3460	chr20	36064875	36066076	-	BLCAP	0x5
3461	chr20	36145828	36146964	-	BLCAP	0x5
3462	chr20	36147195	36148377	-	BLCAP	0x5
3463	chr20	36603038	36604247	-	TTI1	0x0
3464	chr20	37047754	37049031	-	LOC388796	0x0
3465	chr20	37053360	37054538	-	SNORA71B	0x0
3466	chr20	37055441	37056553	-	SNORA71A	0x0
3467	chr20	37062007	37063212	-	LOC388796	0x0
3468	chr20	37062007	37063212	-	SNORA71D	0x0
3469	chr20	37189919	37191130	+	RALGAPB	0x0
3470	chr20	37389853	37390980	+	ACTR5	0x0
3471	chr20	37500902	37502082	+	PPP1R16B	0x0
3472	chr20	37960926	37962082	-	LOC339568	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3473	chr20	39652337	39653562	+	TOP1	0x2
3474	chr20	39751537	39752686	+	TOP1	0x2
3475	chr20	39755510	39756646	+	TOP1	0x2
3476	chr20	42086469	42087562	+	SRSF6	0x2
3477	chr20	42101122	42102269	+	SRSF6	0x2
3478	chr20	42139312	42140444	-	GTSF1L	0x0
3479	chr20	42142857	42143994	+	L3MBTL1	0x0
3480	chr20	42225881	42227031	+	IFT52	0x0
3481	chr20	42320252	42321487	+	MYBL2	0x0
3482	chr20	42635354	42636553	+	TOX2	0x0
3483	chr20	43380554	43381761	-	RIMS4	0x0
3484	chr20	43535683	43536777	+	YWHAB	0x2
3485	chr20	44469990	44471179	-	ACOT8	0x0
3486	chr20	44498416	44499609	+	ZSWIM3	0x0
3487	chr20	44557368	44558519	-	PLTP	0x0
3488	chr20	45892219	45893412	-	ZMYND8	0x0
3489	chr20	47896310	47897875	+	SNORD12	0x0
3490	chr20	47896310	47897875	+	SNORD12B	0x0
3491	chr20	47896310	47897875	+	ZNFX1-AS1	0x0
3492	chr20	47964535	47965725	+	ZNFX1-AS1	0x0
3493	chr20	48288304	48289481	-	B4GALT5	0x0
3494	chr20	48697546	48698670	-	TMEM189-UBE2V1	0x0
3495	chr20	48697546	48698670	-	UBE2V1	0x0
3496	chr20	48706461	48707619	-	TMEM189-UBE2V1	0x0
3497	chr20	48706461	48707619	-	UBE2V1	0x0
3498	chr20	49541256	49542400	-	ADNP	0x0
3499	chr20	50216789	50217980	-	ATP9A	0x0
3500	chr20	50512575	50513768	-	SALL4	0x0
3501	chr20	50656896	50658253	-	ZFP64	0x2
3502	chr20	50702728	50703853	-	ZFP64	0x2
3503	chr20	50704408	50705579	-	ZFP64	0x2
3504	chr20	51687704	51688904	+	TSHZ2	0x2
3505	chr20	57022743	57023963	+	VAPB	0x0
3506	chr20	57233979	57235189	+	STX16	0x0
3507	chr20	57233979	57235189	+	STX16-NPEPL1	0x0
3508	chr20	57465380	57466479	+	GNAS	0x6
3509	chr20	57479961	57481011	+	GNAS	0x6
3510	chr20	57483814	57485692	+	GNAS	0x6
3511	chr20	57608841	57609971	-	SLMO2	0x0
3512	chr20	60513126	60514302	-	MIR1257	0x0
3513	chr20	60588238	60589418	-	TAF4	0x0
3514	chr20	60639005	60640133	-	TAF4	0x0
3515	chr20	60848232	60849342	+	OSBPL2	0x0
3516	chr20	60906798	60907895	-	LAMA5	0x0
3517	chr20	60906798	60907895	-	MIR4758	0x0
3518	chr20	60934764	60935941	-	LAMA5	0x0
3519	chr20	60941458	60942635	-	LAMA5	0x0
3520	chr20	60962350	60964070	+	RPS21	0x0
3521	chr20	61431286	61432436	+	C20orf20	0x4
3522	chr20	61478722	61479897	-	TCFL5	0x0
3523	chr20	61907455	61908654	+	ARFGAP1	0x0
3524	chr20	62289653	62290799	+	RTEL1	0x0
3525	chr20	62289653	62290799	+	RTEL1-TNFRSF6B	0x0
3526	chr20	62338006	62339157	-	ARFRP1	0x0
3527	chr20	62365427	62366595	+	ZGPAT	0x0
3528	chr20	62373279	62374403	+	SLC2A4RG	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3529	chr20	62527170	62528378	+	DNAJC5	0x0
3530	chr20	62545422	62546619	+	MIR941-1	0x0
3531	chr20	62573549	62574693	-	MIR647	0x0
3532	chr20	62582519	62583704	-	UCKL1	0x0
3533	chr20	62599061	62600188	-	ZNF512B	0x0
3534	chr20	62612010	62613160	+	PRPF6	0x0
3535	chr21	16016413	16017631	+	ABCC13	0x0
3536	chr21	17691360	17692529	+	LINC00478	0x0
3537	chr21	17923872	17925099	+	MIRLET7C	0x1
3538	chr21	18939729	18940861	+	CXADR	0x0
3539	chr21	18965434	18966673	-	BTG3	0x0
3540	chr21	19808934	19810061	-	TMPRSS15	0x0
3541	chr21	20716989	20718110	+	CHODL	0x0
3542	chr21	27096387	27097500	-	ATP5J	0x0
3543	chr21	27253244	27254417	-	APP	0x0
3544	chr21	27422807	27423993	-	APP	0x0
3545	chr21	27483816	27484951	-	APP	0x0
3546	chr21	27542144	27543260	-	APP	0x0
3547	chr21	28127783	28128979	+	MIR4759	0x0
3548	chr21	28208989	28210463	-	ADAMTS1	0x2
3549	chr21	28216087	28217212	-	ADAMTS1	0x2
3550	chr21	28337808	28339033	-	ADAMTS5	0x0
3551	chr21	30425923	30427216	+	USP16	0x2
3552	chr21	30698361	30699558	+	BACH1	0x0
3553	chr21	31014916	31016114	+	GRIK1-AS2	0x0
3554	chr21	32638350	32639765	-	TIAM1	0x2
3555	chr21	33036141	33037340	+	SOD1	0x0
3556	chr21	33040334	33041539	+	SOD1	0x0
3557	chr21	33089295	33090522	-	SCAF4	0x0
3558	chr21	33748942	33750183	-	SNORA80	0x0
3559	chr21	33984133	33985269	-	C21orf59	0x0
3560	chr21	34719386	34720535	+	IFNAR1	0x0
3561	chr21	35030387	35031585	+	ITSN1	0x0
3562	chr21	35127217	35128385	+	ITSN1	0x0
3563	chr21	35275722	35276821	-	ATP5O	0x0
3564	chr21	35466827	35468201	+	SLC5A3	0x0
3565	chr21	36145165	36146372	+	LOC100506385	0x0
3566	chr21	37717977	37719131	+	MORC3	0x0
3567	chr21	37784041	37785217	+	CHAF1B	0x0
3568	chr21	37788598	37789672	+	CHAF1B	0x0
3569	chr21	38567541	38568686	+	TTC3	0x0
3570	chr21	38574002	38575432	+	TTC3	0x0
3571	chr21	38596923	38598132	-	DSCR3	0x0
3572	chr21	38632627	38633808	-	DSCR3	0x0
3573	chr21	40197423	40198595	+	ETS2	0x0
3574	chr21	40517282	40518471	-	PSMG1	0x0
3575	chr21	40718385	40719530	-	HMGN1	0x0
3576	chr21	42749811	42750988	+	MX2	0x2
3577	chr21	44268392	44269583	-	WDR4	0x0
3578	chr21	44479625	44480758	-	CBS	0x0
3579	chr21	44984500	44985920	+	RRP1B	0x0
3580	chr21	45090405	45091504	+	RRP1B	0x0
3581	chr21	45179520	45180696	+	PDXK	0x0
3582	chr21	45221421	45222618	+	RRP1	0x0
3583	chr21	45337879	45339028	+	AGPAT3	0x0
3584	chr21	45393639	45394947	+	AGPAT3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3585	chr21	45559550	45560770	+	C21orf33	0x0
3586	chr21	46188735	46189879	-	UBE2G2	0x2
3587	chr21	46225809	46226932	-	SUMO3	0x0
3588	chr21	46708339	46709547	+	LOC642852	0x0
3589	chr21	46893600	46894927	+	COL18A1	0x1
3590	chr21	46949302	46950441	-	SLC19A1	0x0
3591	chr21	46952281	46953369	-	SLC19A1	0x0
3592	chr21	46955505	46956592	-	SLC19A1	0x0
3593	chr21	47424319	47425504	+	COL6A1	0x0
3594	chr21	47547608	47548806	+	COL6A2	0x0
3595	chr21	47608898	47610162	-	LSS	0x0
3596	chr21	47738047	47739198	-	C21orf58	0x0
3597	chr22	18314151	18315281	-	MICAL3	0x0
3598	chr22	18571125	18572217	+	PEX26	0x0
3599	chr22	18954229	18955424	+	DGCR5	0x0
3600	chr22	19162785	19163956	-	SLC25A1	0x0
3601	chr22	19283535	19284762	+	MRPL40	0x0
3602	chr22	19362273	19363409	-	HIRA	0x0
3603	chr22	19822965	19824171	-	C22orf29	0x0
3604	chr22	19946011	19947236	+	COMT	0x0
3605	chr22	19949534	19950733	+	COMT	0x0
3606	chr22	19967218	19968536	-	ARVCF	0x0
3607	chr22	20842383	20843522	-	KLHL22	0x0
3608	chr22	21287555	21289058	+	CRKL	0x0
3609	chr22	21306986	21308085	+	CRKL	0x0
3610	chr22	21742936	21744308	+	RIMBP3B	0x0
3611	chr22	21742936	21744308	+	RIMBP3C	0x0
3612	chr22	22210386	22211557	-	MAPK1	0x0
3613	chr22	22672503	22673700	+	LOC96610	0x0
3614	chr22	23522226	23523427	+	BCR	0x1
3615	chr22	23980518	23981697	-	GUSBP11	0x0
3616	chr22	24236041	24237608	+	MIF	0x0
3617	chr22	24438704	24439858	+	CABIN1	0x0
3618	chr22	24907612	24908737	+	UPB1	0x0
3619	chr22	24936646	24937830	-	C22orf13	0x0
3620	chr22	24967397	24968547	+	SNRPD3	0x0
3621	chr22	25529046	25530177	+	KIAA1671	0x0
3622	chr22	25776890	25778026	-	LRP5L	0x0
3623	chr22	26104005	26105227	+	ADRBK2	0x0
3624	chr22	27282576	27283773	-	CRYBB1	0x0
3625	chr22	28248228	28249383	-	PITPNB	0x0
3626	chr22	28629801	28630944	-	TTC28	0x0
3627	chr22	28763509	28764779	-	TTC28	0x0
3628	chr22	28814029	28815169	-	TTC28	0x0
3629	chr22	28852585	28853737	-	TTC28	0x0
3630	chr22	28888395	28889599	-	TTC28	0x0
3631	chr22	29356334	29357530	+	ZNRF3	0x0
3632	chr22	29538797	29539902	+	KREMEN1	0x2
3633	chr22	29541059	29542208	+	KREMEN1	0x2
3634	chr22	29725923	29727091	-	AP1B1	0x0
3635	chr22	29727713	29730500	-	AP1B1	0x0
3636	chr22	29727713	29730500	-	MIR3653	0x0
3637	chr22	29727713	29730500	-	SNORD125	0x0
3638	chr22	31371430	31372477	+	TUG1	0x0
3639	chr22	31556509	31557707	+	RNF185	0x0
3640	chr22	32226093	32227273	+	DEPDC5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3641	chr22	32894134	32895276	+	FBXO7	0x0
3642	chr22	33777348	33778521	-	LARGE	0x0
3643	chr22	34297389	34298523	-	LARGE	0x0
3644	chr22	34315651	34316828	-	LARGE	0x0
3645	chr22	35681160	35682395	+	HMGXB4	0x0
3646	chr22	35690280	35691464	+	HMGXB4	0x0
3647	chr22	35839585	35840776	+	MCM5	0x0
3648	chr22	36137244	36138456	-	RBFOX2	0x0
3649	chr22	36138942	36140500	-	RBFOX2	0x0
3650	chr22	36214874	36216032	-	RBFOX2	0x0
3651	chr22	36395321	36396462	-	RBFOX2	0x0
3652	chr22	36677011	36678199	-	MYH9	0x2
3653	chr22	36680665	36681891	-	MYH9	0x2
3654	chr22	36704808	36705986	-	MYH9	0x2
3655	chr22	37803544	37804731	-	ELFN2	0x0
3656	chr22	38007253	38008489	+	GGA1	0x2
3657	chr22	38200770	38201857	+	H1F0	0x0
3658	chr22	38313130	38314351	+	MICALL1	0x0
3659	chr22	38616456	38617636	-	TMEM184B	0x0
3660	chr22	38690099	38691306	-	CSNK1E	0x0
3661	chr22	38691643	38692846	-	CSNK1E	0x0
3662	chr22	38851091	38852298	+	KDELR3	0x0
3663	chr22	38879086	38881782	-	DDX17	0x0
3664	chr22	38896636	38897754	-	DDX17	0x0
3665	chr22	39079245	39080420	+	TOMM22	0x0
3666	chr22	39126436	39127627	+	GTPBP1	0x0
3667	chr22	39258060	39259789	-	CBX6	0x0
3668	chr22	39709252	39710490	-	RPL3	0x0
3669	chr22	39709252	39710490	-	SNORD83B	0x0
3670	chr22	39710669	39711896	-	RPL3	0x0
3671	chr22	39710669	39711896	-	SNORD83A	0x0
3672	chr22	39713023	39714106	-	RPL3	0x0
3673	chr22	39714525	39715679	-	RPL3	0x0
3674	chr22	39714525	39715679	-	SNORD43	0x0
3675	chr22	39824331	39825448	+	TAB1	0x0
3676	chr22	40603841	40604999	+	TNRC6B	0x0
3677	chr22	41032643	41033828	+	MCHR1	0x2
3678	chr22	41322022	41323150	+	XPNPEP3	0x0
3679	chr22	41348974	41350206	+	RBX1	0x1
3680	chr22	41367993	41369234	+	RBX1	0x1
3681	chr22	41650943	41652115	-	RANGAP1	0x0
3682	chr22	41672402	41673555	-	RANGAP1	0x0
3683	chr22	41830391	41831584	-	TOB2	0x0
3684	chr22	41921316	41922493	-	POLR3H	0x0
3685	chr22	41931206	41932394	-	POLR3H	0x0
3686	chr22	41989044	41990224	-	PMM1	0x0
3687	chr22	42017457	42018631	+	XRCC6	0x0
3688	chr22	42031586	42032802	+	XRCC6	0x0
3689	chr22	42070194	42071398	-	NHP2L1	0x0
3690	chr22	42205327	42206535	+	CCDC134	0x0
3691	chr22	42224006	42225166	+	CCDC134	0x0
3692	chr22	42228697	42229797	+	SREBF2	0x0
3693	chr22	42244116	42245325	+	SREBF2	0x0
3694	chr22	42301585	42303689	+	SREBF2	0x0
3695	chr22	42390611	42391960	+	SEPT3	0x0
3696	chr22	42605304	42606458	-	TCF20	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3697	chr22	42911537	42912665	-	RRP7A	0x0
3698	chr22	42960739	42961876	-	RRP7B	0x0
3699	chr22	43010681	43011963	+	RNU12	0x0
3700	chr22	43014427	43015900	-	CYB5R3	0x0
3701	chr22	44403105	44404301	+	PARVB	0x0
3702	chr22	45364086	45365225	-	PHF21B	0x0
3703	chr22	45568661	45569815	+	NUP50	0x0
3704	chr22	45580847	45581958	+	NUP50	0x0
3705	chr22	45921134	45922335	+	FBLN1	0x0
3706	chr22	46088330	46089523	+	ATXN10	0x0
3707	chr22	46124715	46126044	+	ATXN10	0x0
3708	chr22	46134049	46135230	+	ATXN10	0x0
3709	chr22	46156733	46157865	+	MIR4762	0x0
3710	chr22	46268284	46269464	+	ATXN10	0x0
3711	chr22	46483698	46484878	+	MIRLET7BHG	0x0
3712	chr22	46494420	46495618	+	MIRLET7BHG	0x0
3713	chr22	46634509	46635753	+	PPARA	0x0
3714	chr22	46781824	46783035	-	CELSR1	0x0
3715	chr22	46946646	46947830	-	CELSR1	0x0
3716	chr22	47270127	47271321	+	TBC1D22A	0x0
3717	chr22	50205194	50206352	-	BRD1	0x0
3718	chr22	50210282	50211470	-	BRD1	0x0
3719	chr22	50713376	50714569	-	PLXNB2	0x0
3720	chr22	50719855	50721037	-	PLXNB2	0x0
3721	chr22	50831729	50832913	+	PPP6R2	0x0
3722	chr22	50904081	50906314	-	SBF1	0x0
3723	chr22	50970887	50972085	+	NCAPH2	0x0
3724	chr22	51063279	51064390	-	ARSA	0x0
3725	chr3	3186604	3187841	+	TRNT1	0x0
3726	chr3	8024180	8025374	-	LOC100288428	0x0
3727	chr3	8265114	8266333	+	LMCD1	0x0
3728	chr3	9431261	9432805	-	LOC440944	0x0
3729	chr3	9486201	9487428	+	SETD5	0x0
3730	chr3	9857220	9858434	+	TTLL3	0x0
3731	chr3	10167287	10168486	+	BRK1	0x0
3732	chr3	10321861	10323056	+	TATDN2	0x0
3733	chr3	11401512	11402751	+	ATG7	0x0
3734	chr3	11597538	11598649	-	VGLL4	0x0
3735	chr3	12064814	12066017	+	SYN2	0x2
3736	chr3	12147964	12149112	+	SYN2	0x2
3737	chr3	12560059	12561224	+	TSEN2	0x0
3738	chr3	12625214	12626361	-	RAF1	0x2
3739	chr3	12844503	12845700	+	CAND2	0x0
3740	chr3	12881152	12882451	-	RPL32	0x0
3741	chr3	12881152	12882451	-	SNORA7A	0x0
3742	chr3	12982633	12983771	-	IQSEC1	0x0
3743	chr3	13035839	13037016	-	IQSEC1	0x0
3744	chr3	13280722	13281919	-	NUP210	0x2
3745	chr3	13313379	13314536	-	NUP210	0x2
3746	chr3	13357743	13359380	-	NUP210	0x2
3747	chr3	13783339	13784537	+	LOC285375	0x0
3748	chr3	14199493	14200692	-	XPC	0x2
3749	chr3	15483124	15484230	+	EAF1	0x0
3750	chr3	15779482	15780795	+	BTD	0x0
3751	chr3	15885578	15886855	-	ANKRD28	0x0
3752	chr3	16275601	16276775	+	GALNTL2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3753	chr3	16459402	16460560	-	RFTN1	0x0
3754	chr3	17052965	17054111	+	PLCL2	0x0
3755	chr3	20025601	20026775	+	RAB5A	0x0
3756	chr3	23383956	23385109	+	MIR548AC	0x0
3757	chr3	23436605	23437832	+	MIR548AC	0x0
3758	chr3	23925735	23926895	+	UBE2E1	0x0
3759	chr3	23932123	23933247	+	UBE2E1	0x0
3760	chr3	23960126	23962663	+	RPL15	0x0
3761	chr3	23995512	23996762	+	NR1D2	0x0
3762	chr3	25639039	25640283	-	TOP2B	0x0
3763	chr3	29587021	29588218	+	RBMS3	0x0
3764	chr3	31269659	31270890	+	STT3B	0x0
3765	chr3	31620850	31622065	+	STT3B	0x0
3766	chr3	31699275	31700456	+	STT3B	0x0
3767	chr3	31945766	31946935	-	OSBPL10	0x0
3768	chr3	32078480	32079674	+	ZNF860	0x0
3769	chr3	32411082	32412230	+	CMTM8	0x0
3770	chr3	32599973	32601163	-	DYNC1LI1	0x0
3771	chr3	32609995	32611224	-	DYNC1LI1	0x0
3772	chr3	32938215	32939410	+	TRIM71	0x0
3773	chr3	33128714	33129913	-	TMPPE	0x0
3774	chr3	33173472	33174713	+	CRTAP	0x0
3775	chr3	33643362	33644461	-	CLASP2	0x0
3776	chr3	33873618	33874717	+	PDCD6IP	0x0
3777	chr3	36726163	36727403	+	STAC	0x0
3778	chr3	37080825	37081931	+	MLH1	0x1
3779	chr3	37189849	37191014	-	LRRFIP2	0x0
3780	chr3	37465287	37466386	+	C3orf35	0x0
3781	chr3	38427202	38428303	+	XYLB	0x0
3782	chr3	38668691	38669899	-	SCN5A	0x2
3783	chr3	39449312	39450619	+	RPSA	0x0
3784	chr3	39449312	39450619	+	SNORA6	0x0
3785	chr3	39452000	39454062	+	RPSA	0x0
3786	chr3	39452000	39454062	+	SNORA62	0x0
3787	chr3	40352965	40354173	+	EIF1B	0x0
3788	chr3	40504882	40506079	+	RPL14	0x0
3789	chr3	40522637	40523826	+	ZNF619	0x0
3790	chr3	40713594	40714769	+	ZNF621	0x0
3791	chr3	41268246	41269401	+	CTNNB1	0x2
3792	chr3	41280979	41282170	+	CTNNB1	0x2
3793	chr3	42172215	42173420	+	TRAK1	0x0
3794	chr3	42262814	42263984	+	TRAK1	0x0
3795	chr3	42627709	42628944	+	SS18L2	0x0
3796	chr3	42661569	42662722	+	NKTR	0x0
3797	chr3	42825272	42826470	-	HIGD1A	0x0
3798	chr3	43369372	43370583	+	SNRK	0x0
3799	chr3	43513438	43514642	+	SNRK	0x0
3800	chr3	43735287	43736484	+	ABHD5	0x0
3801	chr3	44534839	44536016	-	ZNF445	0x0
3802	chr3	44672062	44673163	+	ZNF197	0x0
3803	chr3	44879232	44880427	+	KIF15	0x0
3804	chr3	45532675	45533841	+	LARS2	0x0
3805	chr3	45696671	45697833	+	LIMD1	0x1
3806	chr3	45729920	45731109	-	LOC644714	0x0
3807	chr3	47030877	47031967	+	NBEAL2	0x0
3808	chr3	47050355	47051532	+	NBEAL2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3809	chr3	47450648	47451750	+	PTPN23	0x0
3810	chr3	47466455	47467633	-	SCAP	0x0
3811	chr3	47469475	47470674	-	SCAP	0x0
3812	chr3	47529404	47530562	-	C3orf75	0x0
3813	chr3	47603307	47604405	-	CSPG5	0x0
3814	chr3	47627164	47629184	-	SMARCC1	0x0
3815	chr3	47703473	47704650	-	SMARCC1	0x0
3816	chr3	47719118	47720319	-	SMARCC1	0x0
3817	chr3	47892891	47895011	-	MAP4	0x0
3818	chr3	47932060	47933280	-	MAP4	0x0
3819	chr3	47985416	47986611	-	MAP4	0x0
3820	chr3	48313866	48315070	+	ZNF589	0x0
3821	chr3	48455708	48456825	-	PLXNB1	0x0
3822	chr3	48460349	48461527	-	PLXNB1	0x0
3823	chr3	48730604	48732071	-	IP6K2	0x0
3824	chr3	48784557	48786041	-	PRKAR2A	0x0
3825	chr3	48978026	48979203	+	ARIH2	0x0
3826	chr3	49049998	49051180	+	WDR6	0x0
3827	chr3	49059757	49060931	+	NDUFAF3	0x0
3828	chr3	49298828	49299995	-	C3orf62	0x0
3829	chr3	49306933	49308097	+	MIR4271	0x0
3830	chr3	49396629	49397880	-	RHOA	0x1
3831	chr3	49462515	49463654	-	NICN1	0x0
3832	chr3	49515374	49516569	+	DAG1	0x0
3833	chr3	49570399	49571592	+	DAG1	0x0
3834	chr3	49736551	49737732	+	RNF123	0x0
3835	chr3	50263689	50264867	+	SLC38A3	0x2
3836	chr3	50773542	50774742	+	DOCK3	0x0
3837	chr3	51042193	51043377	+	DOCK3	0x0
3838	chr3	51242911	51244156	+	DOCK3	0x0
3839	chr3	51347120	51348316	+	DOCK3	0x0
3840	chr3	51572431	51573592	+	RAD54L2	0x0
3841	chr3	51697732	51698844	+	RAD54L2	0x0
3842	chr3	51727913	51729115	-	IQCF6	0x0
3843	chr3	52002235	52003383	-	ABHD14B	0x0
3844	chr3	52027879	52028994	-	RPL29	0x0
3845	chr3	52561632	52562808	-	NT5DC2	0x0
3846	chr3	52569766	52570959	+	C3orf78	0x0
3847	chr3	52635477	52636633	-	PBRM1	0x1
3848	chr3	52713144	52714273	-	PBRM1	0x1
3849	chr3	52728009	52729194	-	GLT8D1	0x0
3850	chr3	53260228	53261442	-	TKT	0x0
3851	chr3	53327386	53328534	-	DCP1A	0x0
3852	chr3	53893275	53894463	-	ACTR8	0x0
3853	chr3	56105579	56106778	+	CCDC66	0x0
3854	chr3	56253146	56254314	-	ERC2	0x0
3855	chr3	56657136	56658267	-	FAM208A	0x0
3856	chr3	56692410	56693565	+	CCDC66	0x0
3857	chr3	56712433	56713636	-	FAM208A	0x0
3858	chr3	58066827	58068032	+	FLNB	0x2
3859	chr3	59526653	59527853	-	FHIT	0x1
3860	chr3	59803894	59805090	-	FHIT	0x1
3861	chr3	60392540	60393686	-	FHIT	0x1
3862	chr3	60740685	60741849	-	FHIT	0x1
3863	chr3	61079221	61080390	-	FHIT	0x1
3864	chr3	61684302	61685482	-	ID2B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3865	chr3	61728103	61729326	-	ID2B	0x0
3866	chr3	61781350	61782617	+	PTPRG	0x0
3867	chr3	61821361	61822559	+	PTPRG	0x0
3868	chr3	62252507	62253654	+	PTPRG	0x0
3869	chr3	63530565	63531774	+	SYNPR	0x0
3870	chr3	63898015	63899478	+	ATXN7	0x0
3871	chr3	64081176	64082354	-	PRICKLE2	0x0
3872	chr3	65581623	65582779	-	MAGI1	0x0
3873	chr3	69061262	69062419	-	C3orf64	0x0
3874	chr3	69109074	69110269	-	UBA3	0x0
3875	chr3	69383812	69385009	-	FRMD4B	0x0
3876	chr3	69937863	69939029	+	MITF	0x2
3877	chr3	71049846	71051051	-	FOXP1	0x1
3878	chr3	71310174	71311273	-	FOXP1	0x1
3879	chr3	71803897	71805392	+	GPR27	0x0
3880	chr3	72440865	72442047	-	RYBP	0x0
3881	chr3	73159615	73160858	+	PPP4R2	0x0
3882	chr3	75467516	75468695	-	FAM86DP	0x0
3883	chr3	75778673	75780352	-	ZNF717	0x0
3884	chr3	76067180	76068297	+	MIR4273	0x0
3885	chr3	76116679	76117859	+	MIR4273	0x0
3886	chr3	77588421	77589624	-	ROBO1	0x2
3887	chr3	78210509	78211683	+	ROBO2	0x2
3888	chr3	78725364	78726526	-	ROBO1	0x2
3889	chr3	78776220	78777399	-	ROBO1	0x2
3890	chr3	78965685	78966835	-	ROBO1	0x2
3891	chr3	79746721	79747916	+	ROBO2	0x2
3892	chr3	87302575	87303778	+	CHMP2B	0x2
3893	chr3	88188033	88189234	+	ZNF654	0x0
3894	chr3	93845492	93846677	+	NSUN3	0x0
3895	chr3	96070305	96071474	+	EPHA6	0x0
3896	chr3	96336252	96337451	-	MINA	0x0
3897	chr3	96706235	96707403	+	EPHA6	0x0
3898	chr3	98298899	98300073	-	CPOX	0x0
3899	chr3	98514482	98515659	-	DCBLD2	0x0
3900	chr3	99674284	99675721	+	C3orf26	0x0
3901	chr3	100083078	100084175	-	TOMM70A	0x0
3902	chr3	101294947	101296226	-	SENP7	0x0
3903	chr3	101311953	101313173	+	PCNP	0x0
3904	chr3	101427409	101428630	+	LOC285359	0x0
3905	chr3	101523677	101524892	+	FAM55C	0x0
3906	chr3	105577927	105579124	-	CBLB	0x2
3907	chr3	112728872	112730023	-	C3orf17	0x0
3908	chr3	112731024	112732187	-	C3orf17	0x0
3909	chr3	113351035	113352266	+	SIDT1	0x0
3910	chr3	113409806	113410988	-	KIAA2018	0x0
3911	chr3	113437715	113438865	-	NAA50	0x0
3912	chr3	113439795	113440972	-	NAA50	0x0
3913	chr3	113528980	113530968	+	ATP6V1A	0x0
3914	chr3	113782739	113783838	+	QTRTD1	0x0
3915	chr3	114068620	114069796	-	ZBTB20	0x0
3916	chr3	119247667	119248873	+	TIMMDC1	0x0
3917	chr3	119509622	119510841	+	NR1I2	0x0
3918	chr3	119812267	119813380	-	GSK3B	0x2
3919	chr3	120434017	120435211	-	RABL3	0x0
3920	chr3	120955706	120956915	-	POLQ	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3921	chr3	122841602	122842804	+	PDIA5	0x0
3922	chr3	124988538	124989715	-	ZNF148	0x0
3923	chr3	125165792	125166986	-	SNX4	0x2
3924	chr3	125797486	125798706	-	SLC41A3	0x0
3925	chr3	125833502	125834789	-	ALDH1L1	0x4
3926	chr3	126180019	126181440	-	ZXDC	0x0
3927	chr3	126183659	126184858	-	ZXDC	0x0
3928	chr3	126322569	126323774	-	TXNRD3	0x0
3929	chr3	126707552	126708763	+	PLXNA1	0x0
3930	chr3	127380537	127381652	+	PODXL2	0x0
3931	chr3	127788558	127790058	+	SEC61A1	0x0
3932	chr3	127793410	127794585	-	RUVBL1	0x2
3933	chr3	128198861	128200036	-	GATA2	0x2
3934	chr3	128207961	128209161	+	DNAJB8-AS1	0x0
3935	chr3	128338243	128339419	-	RPN1	0x2
3936	chr3	128451591	128452997	+	RAB7A	0x0
3937	chr3	128531822	128533064	+	RAB7A	0x0
3938	chr3	128953745	128954950	+	COPG1	0x0
3939	chr3	129273522	129274695	-	PLXND1	0x0
3940	chr3	129296466	129297816	-	PLXND1	0x0
3941	chr3	129309709	129310948	+	H1FOO	0x2
3942	chr3	130462865	130464003	-	PIK3R4	0x0
3943	chr3	131197366	131198647	-	SNORA58	0x0
3944	chr3	131947407	131948608	-	CPNE4	0x0
3945	chr3	132293236	132294410	-	ACAD11	0x0
3946	chr3	132293236	132294410	-	NPHP3-ACAD11	0x0
3947	chr3	132394900	132396036	+	UBA5	0x0
3948	chr3	132809501	132810699	+	TMEM108	0x0
3949	chr3	133361690	133362902	-	TOPBP1	0x0
3950	chr3	133875654	133876850	-	RYK	0x0
3951	chr3	134501746	134502960	-	KY	0x0
3952	chr3	134713228	134714454	+	EPHB1	0x2
3953	chr3	136676705	136677925	+	IL20RB	0x0
3954	chr3	141324383	141325571	+	RASA2	0x0
3955	chr3	141644100	141645202	+	ATP1B3	0x0
3956	chr3	142047179	142048291	-	XRN1	0x1
3957	chr3	142391861	142393182	+	PLS1	0x0
3958	chr3	142774866	142776027	+	U2SURP	0x0
3959	chr3	143553099	143554255	-	SLC9A9	0x0
3960	chr3	148748280	148749431	-	HLTF	0x1
3961	chr3	148757934	148759261	-	HLTF	0x1
3962	chr3	149672385	149673561	-	PFN2	0x0
3963	chr3	149682334	149684418	-	PFN2	0x0
3964	chr3	149685647	149686790	-	PFN2	0x0
3965	chr3	149699572	149700765	-	PFN2	0x0
3966	chr3	150261659	150262838	-	SERP1	0x0
3967	chr3	150381802	150383036	+	SELT	0x0
3968	chr3	150905323	150906552	+	MED12L	0x2
3969	chr3	152019844	152021041	+	MBNL1	0x0
3970	chr3	152525159	152526317	-	TMEM14E	0x0
3971	chr3	154006950	154008133	-	DHX36	0x0
3972	chr3	154017847	154018991	-	DHX36	0x0
3973	chr3	155610832	155611932	+	GMPS	0x2
3974	chr3	156258040	156259216	-	SSR3	0x0
3975	chr3	156259638	156260819	-	SSR3	0x0
3976	chr3	159505029	159506215	+	IQCJ-SCHIP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3977	chr3	159505029	159506215	+	SCHIP1	0x0
3978	chr3	160101112	160102239	-	IFT80	0x0
3979	chr3	160135040	160136208	+	SMC4	0x0
3980	chr3	160145967	160147164	+	SMC4	0x0
3981	chr3	160151049	160152148	+	SMC4	0x0
3982	chr3	160232247	160233581	-	KPNA4	0x0
3983	chr3	160232247	160233581	-	SCARNA7	0x0
3984	chr3	161146335	161147562	-	SPTSSB	0x0
3985	chr3	162751663	162752835	+	OTOL1	0x0
3986	chr3	167812547	167813770	-	GOLIM4	0x0
3987	chr3	168916004	168917153	-	MECOM	0x0
3988	chr3	169016868	169018187	-	MECOM	0x0
3989	chr3	169248357	169249556	-	MECOM	0x0
3990	chr3	169257396	169258572	-	MECOM	0x0
3991	chr3	169276218	169277388	-	MECOM	0x0
3992	chr3	169300966	169302116	-	MECOM	0x0
3993	chr3	169321337	169322504	-	MECOM	0x0
3994	chr3	169481843	169483395	-	TERC	0x0
3995	chr3	169489439	169490639	+	MYNN	0x0
3996	chr3	169712126	169713251	+	SEC62	0x0
3997	chr3	169811003	169812221	-	PHC3	0x0
3998	chr3	170113003	170114159	+	SKIL	0x0
3999	chr3	173662250	173663437	+	NLGN1	0x2
4000	chr3	174095052	174096268	+	NLGN1	0x2
4001	chr3	174689747	174690921	-	SPATA16	0x0
4002	chr3	175180913	175182083	+	NAALADL2	0x0
4003	chr3	176738627	176739772	-	TBL1XR1	0x2
4004	chr3	178724112	178725336	-	ZMAT3	0x0
4005	chr3	178897509	178898703	+	PIK3CA	0x2
4006	chr3	179040437	179041633	+	ZNF639	0x2
4007	chr3	179089083	179090273	+	MFN1	0x0
4008	chr3	179113461	179114610	-	GNB4	0x2
4009	chr3	179117003	179118152	-	GNB4	0x2
4010	chr3	179305509	179306667	+	ACTL6A	0x0
4011	chr3	179879102	179880325	-	PEX5L	0x0
4012	chr3	180631103	180632281	-	DNAJC19	0x0
4013	chr3	181540082	181541351	-	FLJ46066	0x0
4014	chr3	182582782	182583964	+	ATP11B	0x0
4015	chr3	182750101	182751276	-	MCCC1	0x0
4016	chr3	183169134	183170340	+	LOC100505687	0x0
4017	chr3	183353570	183354694	+	KLHL24	0x0
4018	chr3	183398003	183399122	+	KLHL24	0x0
4019	chr3	183580621	183581759	-	PARL	0x0
4020	chr3	183744592	183745798	-	ABCC5	0x0
4021	chr3	183854121	183855271	+	EIF2B5	0x0
4022	chr3	183867148	183868604	+	EIF2B5	0x0
4023	chr3	183890038	183891239	+	DVL3	0x0
4024	chr3	183900738	183902213	+	AP2M1	0x0
4025	chr3	184039630	184040778	+	EIF4G1	0x0
4026	chr3	184042919	184044133	+	EIF4G1	0x0
4027	chr3	184042919	184044133	+	SNORD66	0x0
4028	chr3	184051974	184053512	+	EIF4G1	0x0
4029	chr3	184084326	184085542	+	POLR2H	0x0
4030	chr3	184427867	184429119	-	MAGEF1	0x0
4031	chr3	184429133	184430288	-	MAGEF1	0x0
4032	chr3	184563055	184564277	+	VPS8	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4033	chr3	185347678	185348961	+	SENP2	0x0
4034	chr3	185361867	185363192	-	IGF2BP2	0x0
4035	chr3	185439837	185441123	-	IGF2BP2	0x0
4036	chr3	185505712	185506895	-	IGF2BP2	0x0
4037	chr3	185634368	185635555	-	TRA2B	0x0
4038	chr3	185649515	185650644	-	TRA2B	0x0
4039	chr3	185653526	185654615	-	TRA2B	0x0
4040	chr3	186503929	186505190	+	EIF4A2	0x2
4041	chr3	186503929	186505190	+	MIR1248	0x0
4042	chr3	186503929	186505190	+	SNORA63	0x0
4043	chr3	186503929	186505190	+	SNORA81	0x0
4044	chr3	186507201	186508333	-	RFC4	0x0
4045	chr3	186617309	186618709	+	ST6GAL1	0x0
4046	chr3	186759892	186761084	+	ST6GAL1	0x0
4047	chr3	187388143	187389326	+	LOC100131635	0x0
4048	chr3	192515576	192516752	-	MB21D2	0x0
4049	chr3	193855605	193856801	+	HES1	0x4
4050	chr3	194125256	194126390	-	ATP13A3	0x0
4051	chr3	194171170	194172310	-	ATP13A3	0x0
4052	chr3	194386411	194387704	-	LSG1	0x0
4053	chr3	195776095	195777234	-	TFRC	0x2
4054	chr3	195962385	195963505	-	PCYT1A	0x0
4055	chr3	196074014	196075163	-	UBXN7	0x0
4056	chr3	196081421	196082538	-	UBXN7	0x0
4057	chr3	196118165	196119364	-	UBXN7	0x0
4058	chr3	196119861	196121051	-	UBXN7	0x0
4059	chr3	196511321	196512475	-	CEP19	0x0
4060	chr3	196728214	196729390	-	MFI2	0x0
4061	chr3	196842301	196843472	-	DLG1	0x1
4062	chr3	197281533	197282691	+	FYTTD1	0x0
4063	chr3	197679722	197680920	+	RPL35A	0x0
4064	chr3	197682245	197683345	+	RPL35A	0x0
4065	chr4	1209320	1210535	-	CTBP1	0x1
4066	chr4	1218742	1219931	-	CTBP1	0x1
4067	chr4	1231531	1232630	-	CTBP1	0x1
4068	chr4	1234606	1235835	-	CTBP1	0x1
4069	chr4	1342835	1343966	+	KIAA1530	0x4
4070	chr4	1672052	1673244	-	FAM53A	0x0
4071	chr4	1694014	1695533	-	SLBP	0x0
4072	chr4	1713372	1714566	-	SLBP	0x0
4073	chr4	1726499	1727631	+	TACC3	0x0
4074	chr4	1738532	1739923	+	TACC3	0x0
4075	chr4	1746121	1747254	+	TACC3	0x0
4076	chr4	1805357	1806534	+	FGFR3	0x2
4077	chr4	1813767	1815003	-	LETM1	0x2
4078	chr4	1824830	1826025	-	LETM1	0x2
4079	chr4	1918109	1919304	+	WHSC1	0x2
4080	chr4	1936420	1937586	+	WHSC1	0x2
4081	chr4	1957214	1958422	+	WHSC1	0x2
4082	chr4	1975823	1977043	+	SCARNA22	0x0
4083	chr4	1975823	1977043	+	WHSC1	0x2
4084	chr4	1981796	1982993	+	WHSC1	0x2
4085	chr4	2067921	2069165	+	NAT8L	0x0
4086	chr4	2077034	2078212	-	POLN	0x0
4087	chr4	2248957	2250057	-	MXD4	0x0
4088	chr4	2581395	2582619	+	FAM193A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4089	chr4	2827638	2829176	+	SH3BP2	0x0
4090	chr4	2906074	2907292	+	ADD1	0x0
4091	chr4	2940758	2941861	-	NOP14	0x0
4092	chr4	3252082	3253256	-	HTT-AS1	0x0
4093	chr4	4683894	4685085	+	LOC100507266	0x0
4094	chr4	5818067	5819249	+	EVC	0x0
4095	chr4	6200362	6201539	-	JAKMIP1	0x0
4096	chr4	6642990	6644560	+	MRFAP1	0x0
4097	chr4	6709345	6710474	-	MRFAP1L1	0x0
4098	chr4	6998419	6999606	+	TBC1D14	0x0
4099	chr4	7033051	7034321	+	TBC1D14	0x0
4100	chr4	7583649	7584931	+	SORCS2	0x0
4101	chr4	8459163	8460338	+	METTL19	0x0
4102	chr4	11684050	11685227	-	HS3ST1	0x0
4103	chr4	13426350	13427562	-	RAB28	0x0
4104	chr4	13731061	13732284	+	LOC152742	0x0
4105	chr4	17625172	17626370	+	MED28	0x0
4106	chr4	17819468	17820625	+	NCAPG	0x0
4107	chr4	17838682	17839842	+	NCAPG	0x0
4108	chr4	17841200	17842430	+	NCAPG	0x0
4109	chr4	18013434	18014610	-	LCORL	0x0
4110	chr4	18576184	18577360	-	LCORL	0x0
4111	chr4	20253069	20255107	+	SLIT2	0x1
4112	chr4	20357968	20359022	+	SLIT2-IT1	0x0
4113	chr4	20377297	20378395	+	SLIT2-IT1	0x0
4114	chr4	20414007	20415155	+	SLIT2-IT1	0x0
4115	chr4	20420764	20421861	+	SLIT2-IT1	0x0
4116	chr4	20526965	20528169	+	SLIT2	0x1
4117	chr4	20554935	20556122	+	SLIT2	0x1
4118	chr4	20590724	20591907	+	SLIT2	0x1
4119	chr4	20621379	20622480	+	SLIT2	0x1
4120	chr4	25251620	25252796	+	PI4K2B	0x0
4121	chr4	25278154	25279346	+	PI4K2B	0x0
4122	chr4	25748638	25749824	-	SEL1L3	0x0
4123	chr4	26416536	26417741	+	RBPJ	0x0
4124	chr4	27023705	27024866	+	STIM2	0x0
4125	chr4	30525911	30527106	-	CCKAR	0x2
4126	chr4	30724060	30725257	+	PCDH7	0x2
4127	chr4	30732429	30733530	+	PCDH7	0x2
4128	chr4	30737453	30738629	+	PCDH7	0x2
4129	chr4	30755239	30756386	+	PCDH7	0x2
4130	chr4	37437853	37439050	-	RELL1	0x0
4131	chr4	37634961	37637224	-	RELL1	0x0
4132	chr4	38618668	38619867	+	KLF3	0x0
4133	chr4	39114266	39115366	+	KLHL5	0x0
4134	chr4	39276035	39277181	+	WDR19	0x0
4135	chr4	39286725	39287909	+	WDR19	0x0
4136	chr4	39708907	39710122	+	UBE2K	0x0
4137	chr4	39782183	39783294	+	UBE2K	0x0
4138	chr4	39978528	39979627	-	PDS5A	0x0
4139	chr4	40601188	40602333	-	RBM47	0x0
4140	chr4	41259046	41260283	+	UCHL1	0x1
4141	chr4	41264120	41265319	+	UCHL1	0x1
4142	chr4	41269710	41270980	+	UCHL1	0x1
4143	chr4	42088879	42090056	+	SLC30A9	0x0
4144	chr4	42202449	42203618	+	SLC30A9	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4145	chr4	43411605	43412801	-	ATP8A1	0x0
4146	chr4	46893136	46894294	-	COX7B2	0x0
4147	chr4	47708099	47709348	+	ATP10D	0x0
4148	chr4	47882394	47883542	-	NFXL1	0x0
4149	chr4	48413731	48414890	+	SLAIN2	0x0
4150	chr4	48438539	48439739	+	SLAIN2	0x0
4151	chr4	48862472	48863658	+	OCIAD1	0x0
4152	chr4	52734129	52735328	+	DCUN1D4	0x0
4153	chr4	53461921	53463125	-	USP46	0x0
4154	chr4	54283388	54284590	+	FIP1L1	0x2
4155	chr4	54953571	54954744	+	GSX2	0x0
4156	chr4	55841774	55842881	-	KDR	0x2
4157	chr4	56280443	56281494	+	TMEM165	0x0
4158	chr4	56962978	56964223	+	CEP135	0x0
4159	chr4	57325750	57327992	+	PAICS	0x0
4160	chr4	58383343	58384447	+	LOC255130	0x0
4161	chr4	59221215	59222390	-	IGFBP7	0x1
4162	chr4	62093328	62094523	+	LPHN3	0x2
4163	chr4	62551899	62553121	+	LPHN3	0x2
4164	chr4	62774206	62775380	+	LPHN3	0x2
4165	chr4	66438864	66440463	+	LOC100144602	0x0
4166	chr4	68294835	68295976	-	CENPC1	0x0
4167	chr4	68321540	68322718	-	CENPC1	0x0
4168	chr4	69097071	69098228	-	TMPRSS11B	0x0
4169	chr4	70296091	70297349	-	UGT2B4	0x0
4170	chr4	71553746	71554940	+	UTP3	0x0
4171	chr4	73941209	73942338	-	ANKRD17	0x0
4172	chr4	73956544	73957661	-	ANKRD17	0x0
4173	chr4	73986039	73987204	-	ANKRD17	0x0
4174	chr4	74079369	74080510	-	ANKRD17	0x0
4175	chr4	74102690	74103817	-	ANKRD17	0x0
4176	chr4	74109735	74110834	-	ANKRD17	0x0
4177	chr4	76569124	76570342	-	G3BP2	0x0
4178	chr4	76648143	76649358	-	G3BP2	0x0
4179	chr4	76660425	76661657	+	USO1	0x0
4180	chr4	76733874	76735088	+	USO1	0x0
4181	chr4	76806599	76808121	+	USO1	0x0
4182	chr4	77265081	77266329	+	FAM47E-STBD1	0x0
4183	chr4	77265081	77266329	+	STBD1	0x0
4184	chr4	77372618	77373794	+	SHROOM3	0x2
4185	chr4	77766703	77767861	-	SOWAHB	0x0
4186	chr4	77768802	77770022	+	SHROOM3	0x2
4187	chr4	77958275	77959447	+	SEPT11	0x0
4188	chr4	77967833	77969064	-	CCNI	0x0
4189	chr4	77969179	77970319	-	CCNI	0x0
4190	chr4	77976650	77978723	-	CCNI	0x0
4191	chr4	79053658	79054798	-	CNOT6L	0x0
4192	chr4	79175849	79177015	+	FRAS1	0x0
4193	chr4	79205034	79206238	+	FRAS1	0x0
4194	chr4	79410767	79411878	+	FRAS1	0x0
4195	chr4	79438573	79439806	+	FRAS1	0x0
4196	chr4	79734146	79735341	+	BMP2K	0x0
4197	chr4	79840005	79841132	-	PAQR3	0x0
4198	chr4	80274113	80275302	-	NAA11	0x0
4199	chr4	83268298	83269488	-	HNRNPD	0x0
4200	chr4	83274558	83275765	-	HNRNPD	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4201	chr4	83280150	83281278	-	HNRNPD	0x0
4202	chr4	83343963	83345140	-	HNRPDL	0x0
4203	chr4	83347069	83348169	-	HNRPDL	0x0
4204	chr4	83550678	83551963	-	SCD5	0x0
4205	chr4	83818751	83819908	-	LOC100499177	0x0
4206	chr4	86021366	86022519	+	WDFY3-AS2	0x0
4207	chr4	87393257	87394403	-	MAPK10	0x0
4208	chr4	87515041	87516221	+	PTPN13	0x0
4209	chr4	87653247	87654357	+	PTPN13	0x0
4210	chr4	87870545	87871718	-	LOC100506746	0x0
4211	chr4	87940038	87941259	+	AFF1	0x0
4212	chr4	88099083	88100238	-	KLHL8	0x0
4213	chr4	88137806	88138917	-	KLHL8	0x0
4214	chr4	89777339	89778499	-	FAM13A	0x2
4215	chr4	89954916	89956116	-	FAM13A	0x2
4216	chr4	90663937	90665134	+	LOC644248	0x0
4217	chr4	93531591	93532768	+	GRID2	0x0
4218	chr4	95416050	95417252	+	PDLIM5	0x0
4219	chr4	95575127	95576327	+	PDLIM5	0x0
4220	chr4	96396095	96397271	-	UNC5C	0x1
4221	chr4	99563213	99564313	-	TSPAN5	0x0
4222	chr4	99850331	99851505	+	METAP1	0x0
4223	chr4	100868849	100870090	-	H2AFZ	0x0
4224	chr4	103717651	103719025	-	UBE2D3	0x0
4225	chr4	104725398	104726574	-	TACR3	0x0
4226	chr4	106026648	106027830	+	TET2	0x1
4227	chr4	106057841	106059021	-	PPA2	0x0
4228	chr4	106344162	106345353	-	PPA2	0x0
4229	chr4	106852779	106853976	+	NPNT	0x0
4230	chr4	107208670	107209801	-	TBCK	0x0
4231	chr4	107868851	107870051	-	DKK2	0x2
4232	chr4	107923941	107925121	-	DKK2	0x2
4233	chr4	109564721	109565921	+	OSTC	0x0
4234	chr4	109760830	109762023	-	COL25A1	0x2
4235	chr4	110104521	110105697	-	COL25A1	0x2
4236	chr4	110608918	110610063	+	CCDC109B	0x0
4237	chr4	110650525	110651689	-	PLA2G12A	0x0
4238	chr4	111068841	111070012	-	ELOVL6	0x2
4239	chr4	113708823	113709979	-	MIR302B	0x0
4240	chr4	113785324	113786500	+	ANK2	0x2
4241	chr4	114146722	114148054	+	ANK2	0x2
4242	chr4	114341014	114342181	+	ANK2	0x2
4243	chr4	114437818	114438997	-	CAMK2D	0x0
4244	chr4	114662153	114663347	-	CAMK2D	0x0
4245	chr4	119199757	119201059	+	SNHG8	0x0
4246	chr4	119199757	119201059	+	SNORA24	0x0
4247	chr4	120157972	120159202	+	USP53	0x0
4248	chr4	120476269	120477447	-	PDE5A	0x0
4249	chr4	121587880	121589054	+	PP12613	0x0
4250	chr4	122588643	122590042	-	ANXA5	0x0
4251	chr4	122606909	122608071	-	ANXA5	0x0
4252	chr4	123750558	123751842	+	FGF2	0x0
4253	chr4	128754661	128755882	+	HSPA4L	0x0
4254	chr4	128850808	128851989	-	MFSD8	0x0
4255	chr4	136916515	136917744	-	PCDH18	0x2
4256	chr4	140045828	140047021	-	ELF2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4257	chr4	140300081	140301298	+	NAA15	0x0
4258	chr4	140427948	140429133	-	SETD7	0x0
4259	chr4	140429601	140430909	-	SETD7	0x0
4260	chr4	140618700	140619799	-	MAML3	0x0
4261	chr4	140805551	140806871	-	MAML3	0x0
4262	chr4	141349704	141350880	-	CLGN	0x0
4263	chr4	142154608	142155762	+	ZNF330	0x0
4264	chr4	143315717	143316925	-	INPP4B	0x1
4265	chr4	144257623	144258821	+	GAB1	0x6
4266	chr4	144270075	144271461	-	FREM3	0x0
4267	chr4	144346149	144347318	+	GAB1	0x6
4268	chr4	146018918	146020143	+	ABCE1	0x2
4269	chr4	146427241	146428425	+	SMAD1	0x0
4270	chr4	146822800	146823918	-	ZNF827	0x0
4271	chr4	149180417	149181814	-	NR3C2	0x0
4272	chr4	149265208	149266372	-	NR3C2	0x0
4273	chr4	149356392	149357576	-	NR3C2	0x0
4274	chr4	151185305	151186711	-	LRBA	0x0
4275	chr4	151871001	151872180	-	LRBA	0x0
4276	chr4	152024415	152025614	+	RPS3A	0x0
4277	chr4	152024415	152025614	+	SNORD73A	0x0
4278	chr4	152041252	152042409	-	SH3D19	0x0
4279	chr4	152591367	152592570	-	PET112	0x0
4280	chr4	153448757	153449897	-	FBXW7	0x1
4281	chr4	154169920	154171208	+	TRIM2	0x0
4282	chr4	154472765	154473974	+	KIAA0922	0x0
4283	chr4	155457250	155458379	-	PLRG1	0x0
4284	chr4	158688599	158689776	-	FAM198B	0x0
4285	chr4	159636841	159637978	-	PPID	0x0
4286	chr4	164045004	164046132	-	NAF1	0x0
4287	chr4	164077750	164078946	-	NAF1	0x0
4288	chr4	166213819	166215040	-	GK3P	0x0
4289	chr4	166263567	166264776	+	MSMO1	0x0
4290	chr4	167021877	167023098	+	TLL1	0x0
4291	chr4	167063135	167064378	+	TLL1	0x0
4292	chr4	169925827	169927030	+	PALLD	0x0
4293	chr4	170332145	170333366	-	NEK1	0x0
4294	chr4	170427527	170428695	-	NEK1	0x0
4295	chr4	174252351	174253786	-	HMGB2	0x0
4296	chr4	174254588	174255755	-	HMGB2	0x0
4297	chr4	175219945	175221126	+	CEP44	0x0
4298	chr4	175275109	175276324	+	CEP44	0x0
4299	chr4	176423626	176424847	+	ADAM29	0x2
4300	chr4	176842074	176843173	-	GPM6A	0x0
4301	chr4	177240631	177241730	+	SPCS3	0x0
4302	chr4	177252721	177253795	+	SPCS3	0x0
4303	chr4	177495908	177497008	-	VEGFC	0x0
4304	chr4	181405460	181406582	-	LINC00290	0x0
4305	chr4	183403106	183404347	+	ODZ3	0x0
4306	chr4	183608768	183609957	+	ODZ3	0x0
4307	chr4	184185650	184186805	+	WWC2	0x0
4308	chr4	184206594	184207757	+	WWC2	0x0
4309	chr4	184236991	184238138	+	WWC2	0x0
4310	chr4	185598395	185599560	+	CCDC111	0x0
4311	chr4	185612026	185613243	+	CCDC111	0x0
4312	chr4	186284166	186285356	+	SNX25	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4313	chr4	187548781	187550336	-	FAT1	0x1
4314	chr4	187595179	187596294	-	FAT1	0x1
4315	chr4	187627324	187628579	-	FAT1	0x1
4316	chr4	187628672	187630961	-	FAT1	0x1
4317	chr5	256042	257241	+	SDHA	0x1
4318	chr5	465016	466156	+	EXOC3	0x0
4319	chr5	475184	476283	+	EXOC3	0x0
4320	chr5	616400	617529	+	CEP72	0x0
4321	chr5	619661	620917	+	CEP72	0x0
4322	chr5	855260	856450	-	ZDHHC11	0x0
4323	chr5	881928	883115	-	BRD9	0x0
4324	chr5	984575	985775	-	LOC100506688	0x0
4325	chr5	1011265	1012552	+	NKD2	0x0
4326	chr5	1059288	1060478	+	NKD2	0x0
4327	chr5	1317484	1318925	-	CLPTM1L	0x0
4328	chr5	2099419	2100621	+	NDUFS6	0x0
4329	chr5	5433872	5435049	+	KIAA0947	0x0
4330	chr5	6367854	6369079	-	MED10	0x0
4331	chr5	6599311	6600462	-	NSUN2	0x0
4332	chr5	6732256	6733453	+	PAPD7	0x0
4333	chr5	6742830	6744075	+	PAPD7	0x0
4334	chr5	6847884	6849102	-	MIR4278	0x0
4335	chr5	7054525	7055680	-	MIR4454	0x0
4336	chr5	10277925	10279202	-	CMBL	0x0
4337	chr5	10374162	10375376	+	MARCH6	0x0
4338	chr5	10379681	10380780	+	MARCH6	0x0
4339	chr5	10400598	10401855	+	MARCH6	0x0
4340	chr5	10415135	10416313	+	MARCH6	0x0
4341	chr5	10425959	10427183	+	MARCH6	0x0
4342	chr5	14420879	14422105	+	TRIO	0x0
4343	chr5	14482958	14484167	+	TRIO	0x0
4344	chr5	14508432	14509594	+	TRIO	0x0
4345	chr5	14701374	14702535	-	ANKH	0x0
4346	chr5	14750666	14751845	-	ANKH	0x0
4347	chr5	15822964	15824180	+	FBXL7	0x0
4348	chr5	18800477	18801690	+	BASP1	0x0
4349	chr5	20304100	20305276	-	CDH18	0x4
4350	chr5	21527696	21528894	+	GUSBP1	0x0
4351	chr5	31455998	31457175	-	DROSHA	0x2
4352	chr5	31488619	31489794	-	DROSHA	0x2
4353	chr5	32124537	32125869	-	GOLPH3	0x0
4354	chr5	32143298	32144538	-	GOLPH3	0x0
4355	chr5	32378698	32379827	-	ZFR	0x0
4356	chr5	32601050	32602364	+	SUB1	0x0
4357	chr5	33161873	33163111	+	LOC340113	0x0
4358	chr5	33452823	33453991	+	TARS	0x0
4359	chr5	34068024	34069192	-	C1QTNF3	0x0
4360	chr5	34801788	34803022	+	RAI14	0x0
4361	chr5	36146478	36147695	-	MIR580	0x0
4362	chr5	36931288	36932498	+	NIPBL	0x0
4363	chr5	37107160	37108354	-	C5orf42	0x0
4364	chr5	37290557	37291656	-	NUP155	0x0
4365	chr5	37644395	37645575	+	WDR70	0x0
4366	chr5	38966651	38967862	-	RICTOR	0x0
4367	chr5	40714019	40715191	-	TTC33	0x0
4368	chr5	40834076	40835225	-	RPL37	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4369	chr5	41920550	41921732	+	C5orf51	0x0
4370	chr5	43290478	43291600	-	HMGCS1	0x0
4371	chr5	44816488	44817669	+	MRPS30	0x0
4372	chr5	53348060	53349257	-	ARL15	0x0
4373	chr5	54964571	54965747	-	SLC38A9	0x0
4374	chr5	55281035	55282211	-	IL6ST	0x2
4375	chr5	56239517	56240829	-	MIER3	0x2
4376	chr5	56464363	56465567	-	MIER3	0x2
4377	chr5	60163431	60164583	-	ERCC8	0x0
4378	chr5	60195168	60196367	-	ERCC8	0x0
4379	chr5	60280264	60281431	+	NDUFAF2	0x0
4380	chr5	60454911	60456125	-	C5orf43	0x0
4381	chr5	60629614	60630713	+	ZSWIM6	0x0
4382	chr5	60778117	60779343	+	ZSWIM6	0x0
4383	chr5	60838057	60839254	+	ZSWIM6	0x0
4384	chr5	64017997	64019153	-	SREK1IP1	0x0
4385	chr5	64826677	64827834	-	CENPK	0x0
4386	chr5	64854223	64855425	-	CENPK	0x0
4387	chr5	65474521	65475620	+	SREK1	0x0
4388	chr5	65929854	65931080	+	MAST4	0x0
4389	chr5	68169262	68170459	+	SLC30A5	0x0
4390	chr5	68470301	68471848	+	CCNB1	0x0
4391	chr5	68534620	68535809	+	CDK7	0x0
4392	chr5	71146171	71147505	+	CARTPT	0x0
4393	chr5	71501197	71502296	+	MAP1B	0x2
4394	chr5	71558941	71560151	-	MRPS27	0x0
4395	chr5	72153426	72154546	+	TNPO1	0x2
4396	chr5	72188374	72189602	+	TNPO1	0x2
4397	chr5	72206009	72207217	+	TNPO1	0x2
4398	chr5	72293664	72294858	+	FCHO2	0x0
4399	chr5	72798331	72799514	+	BTF3	0x0
4400	chr5	73923248	73924390	-	ENC1	0x0
4401	chr5	75630962	75632158	-	F2RL2	0x2
4402	chr5	75775909	75777085	-	F2RL2	0x2
4403	chr5	76375769	76376916	-	SNORA47	0x0
4404	chr5	76727954	76729712	-	WDR41	0x0
4405	chr5	77301561	77302684	-	AP3B1	0x0
4406	chr5	77435096	77436266	-	AP3B1	0x0
4407	chr5	77528492	77529643	-	AP3B1	0x0
4408	chr5	78734358	78735466	-	HOMER1	0x0
4409	chr5	79548465	79549683	+	SPZ1	0x0
4410	chr5	80183593	80184748	+	MSH3	0x2
4411	chr5	80484785	80485962	-	LOC100131067	0x0
4412	chr5	80628317	80629455	-	ACOT12	0x0
4413	chr5	81570830	81571946	-	RPS23	0x0
4414	chr5	81573146	81574245	-	RPS23	0x0
4415	chr5	82254994	82256171	-	TMEM167A	0x0
4416	chr5	82359469	82360601	-	SCARNA18	0x0
4417	chr5	86569424	86570609	+	RASA1	0x2
4418	chr5	89768753	89769931	-	MBLAC2	0x0
4419	chr5	90105888	90107164	+	GPR98	0x0
4420	chr5	92929548	92930740	+	NR2F1	0x0
4421	chr5	93018311	93019965	-	POU5F2	0x0
4422	chr5	93131269	93132417	-	FAM172A	0x0
4423	chr5	94173902	94175063	-	MCTP1	0x0
4424	chr5	95158511	95159640	+	RHOBTB3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4425	chr5	95239923	95241132	-	ELL2	0x0
4426	chr5	96323354	96324453	+	LNPEP	0x0
4427	chr5	100068452	100069649	+	FAM174A	0x0
4428	chr5	101637845	101639040	+	PAM	0x0
4429	chr5	102087133	102088329	-	SLCO6A1	0x0
4430	chr5	102212164	102213379	+	PAM	0x0
4431	chr5	107002182	107003311	-	EFNA5	0x1
4432	chr5	108229675	108230841	-	HP07349	0x0
4433	chr5	108349997	108351209	-	HP07349	0x0
4434	chr5	109034853	109036078	-	PJA2	0x0
4435	chr5	109146662	109147860	+	MAN2A1	0x0
4436	chr5	109930841	109932041	-	TMEM232	0x0
4437	chr5	110458675	110459862	+	WDR36	0x0
4438	chr5	111496683	111497883	+	EPB41L4A-AS1	0x0
4439	chr5	111496683	111497883	+	SNORA13	0x0
4440	chr5	112349145	112350420	+	DCP2	0x0
4441	chr5	112382879	112384028	-	MCC	0x1
4442	chr5	112599748	112600940	-	MCC	0x1
4443	chr5	118172992	118174184	-	DTWD2	0x0
4444	chr5	118417262	118418446	+	DMXL1	0x0
4445	chr5	118499717	118500922	+	DMXL1	0x0
4446	chr5	122358764	122359921	-	PPIC	0x0
4447	chr5	122698012	122699206	-	CEP120	0x0
4448	chr5	122880801	122882021	+	CSNK1G3	0x0
4449	chr5	122990432	122991632	+	CSNK1G3	0x0
4450	chr5	123981877	123983264	-	ZNF608	0x0
4451	chr5	123998470	123999607	-	ZNF608	0x0
4452	chr5	126112381	126113578	+	LMNB1	0x0
4453	chr5	126153331	126154530	+	LMNB1	0x0
4454	chr5	126889467	126890663	+	PRRC1	0x0
4455	chr5	127276736	127277912	-	FLJ33630	0x0
4456	chr5	129449539	129450732	+	CHSY3	0x0
4457	chr5	130524747	130525947	+	LYRM7	0x0
4458	chr5	130746679	130747856	-	RAPGEF6	0x0
4459	chr5	130760870	130762039	-	RAPGEF6	0x0
4460	chr5	130771334	130772508	-	RAPGEF6	0x0
4461	chr5	130959540	130960717	-	RAPGEF6	0x0
4462	chr5	130977720	130978819	-	FNIP1	0x0
4463	chr5	131515897	131517099	+	PDLIM4	0x1
4464	chr5	131803299	131804500	+	C5orf56	0x0
4465	chr5	132202774	132203870	+	UQCRQ	0x0
4466	chr5	133307460	133308834	-	VDAC1	0x0
4467	chr5	133311749	133312912	-	VDAC1	0x0
4468	chr5	133492617	133493834	-	SKP1	0x0
4469	chr5	133532291	133533413	-	PPP2CA	0x0
4470	chr5	134076563	134077772	+	CAMLG	0x0
4471	chr5	134115176	134117473	+	DDX46	0x0
4472	chr5	134159669	134160855	+	DDX46	0x0
4473	chr5	134259234	134260405	+	MIR4461	0x0
4474	chr5	134262142	134263369	-	PITX1	0x0
4475	chr5	134355468	134356654	-	PITX1	0x0
4476	chr5	134570673	134571870	+	CATSPER3	0x0
4477	chr5	134669500	134670677	-	H2AFY	0x0
4478	chr5	137033418	137034620	-	KLHL3	0x0
4479	chr5	137087973	137089077	-	HNRNPA0	0x0
4480	chr5	137289730	137290854	-	FAM13B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4481	chr5	137666391	137667527	-	CDC25C	0x2
4482	chr5	137771267	137772439	+	KDM3B	0x1
4483	chr5	137781466	137783078	+	REEP2	0x0
4484	chr5	137842197	137843338	-	ETF1	0x0
4485	chr5	137896165	137897367	-	HSPA9	0x0
4486	chr5	137896165	137897367	-	SNORD63	0x0
4487	chr5	138119261	138120454	+	CTNNA1	0x0
4488	chr5	138613928	138615224	+	MATR3	0x0
4489	chr5	138613928	138615224	+	SNHG4	0x0
4490	chr5	138613928	138615224	+	SNORA74A	0x0
4491	chr5	138664683	138665785	+	MATR3	0x0
4492	chr5	138697052	138698264	+	PAIP2	0x0
4493	chr5	138955660	138956759	+	UBE2D2	0x0
4494	chr5	139907953	139909087	+	ANKHD1	0x0
4495	chr5	139907953	139909087	+	ANKHD1-EIF4EBP3	0x0
4496	chr5	139935676	139936843	-	SRA1	0x0
4497	chr5	139942922	139944119	-	APBB3	0x0
4498	chr5	139947150	139948368	+	SLC35A4	0x0
4499	chr5	140026517	140027657	-	NDUFA2	0x0
4500	chr5	140090322	140091532	+	VTRNA1-1	0x0
4501	chr5	140097951	140099191	+	VTRNA1-2	0x0
4502	chr5	140105202	140106473	+	VTRNA1-3	0x0
4503	chr5	140697652	140699013	-	TAF7	0x0
4504	chr5	140882980	140884167	+	PCDHGA1	0x0
4505	chr5	140882980	140884167	+	PCDHGA10	0x0
4506	chr5	140882980	140884167	+	PCDHGA11	0x0
4507	chr5	140882980	140884167	+	PCDHGA12	0x0
4508	chr5	140882980	140884167	+	PCDHGA2	0x0
4509	chr5	140882980	140884167	+	PCDHGA3	0x0
4510	chr5	140882980	140884167	+	PCDHGA4	0x0
4511	chr5	140882980	140884167	+	PCDHGA5	0x0
4512	chr5	140882980	140884167	+	PCDHGA6	0x0
4513	chr5	140882980	140884167	+	PCDHGA7	0x0
4514	chr5	140882980	140884167	+	PCDHGA8	0x0
4515	chr5	140882980	140884167	+	PCDHGA9	0x0
4516	chr5	140882980	140884167	+	PCDHGB1	0x0
4517	chr5	140882980	140884167	+	PCDHGB2	0x0
4518	chr5	140882980	140884167	+	PCDHGB3	0x0
4519	chr5	140882980	140884167	+	PCDHGB4	0x0
4520	chr5	140882980	140884167	+	PCDHGB5	0x0
4521	chr5	140882980	140884167	+	PCDHGB6	0x0
4522	chr5	140882980	140884167	+	PCDHGB7	0x0
4523	chr5	140882980	140884167	+	PCDHGC3	0x0
4524	chr5	140882980	140884167	+	PCDHGC4	0x0
4525	chr5	140882980	140884167	+	PCDHGC5	0x2
4526	chr5	140894240	140895404	-	DIAPH1	0x2
4527	chr5	140958099	140959290	-	DIAPH1	0x2
4528	chr5	141005206	141006359	-	HDAC3	0x1
4529	chr5	141313659	141314784	+	KIAA0141	0x0
4530	chr5	141379710	141380830	-	GNPDA1	0x0
4531	chr5	142659520	142660619	-	NR3C1	0x0
4532	chr5	145485049	145486259	-	PLAC8L1	0x0
4533	chr5	145828942	145830154	+	TCERG1	0x2
4534	chr5	145934974	145936167	+	TCERG1	0x2
4535	chr5	146770912	146772858	-	DPYSL3	0x0
4536	chr5	147695170	147696363	+	SPINK7	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4537	chr5	149221294	149222492	+	PPARGC1B	0x0
4538	chr5	149379189	149380405	+	HMGXB3	0x0
4539	chr5	149391310	149392467	+	HMGXB3	0x0
4540	chr5	149409668	149410825	+	HMGXB3	0x0
4541	chr5	149823257	149824472	-	RPS14	0x0
4542	chr5	149826726	149827839	-	RPS14	0x0
4543	chr5	149933323	149934522	+	NDST1	0x0
4544	chr5	150088157	150089605	-	DCTN4	0x0
4545	chr5	150305903	150307127	+	IRGM	0x0
4546	chr5	151166977	151168088	+	G3BP1	0x2
4547	chr5	151176282	151177428	+	G3BP1	0x2
4548	chr5	151183068	151184445	+	G3BP1	0x2
4549	chr5	151988029	151989202	+	G3BP1	0x2
4550	chr5	154184861	154185960	+	LARP1	0x0
4551	chr5	154194245	154195970	+	LARP1	0x0
4552	chr5	155271898	155273116	+	SGCD	0x0
4553	chr5	157258473	157259663	-	CLINT1	0x0
4554	chr5	157403274	157404503	-	CLINT1	0x0
4555	chr5	159519658	159520837	-	PWWP2A	0x0
4556	chr5	162917770	162918943	+	HMMR	0x0
4557	chr5	164286793	164287987	+	MAT2B	0x0
4558	chr5	167979735	167980834	-	PANK3	0x0
4559	chr5	170532740	170533963	+	RANBP17	0x2
4560	chr5	170631767	170632976	+	RANBP17	0x2
4561	chr5	170650569	170651816	+	RANBP17	0x2
4562	chr5	170814307	170815505	+	NPM1	0x2
4563	chr5	170833000	170834240	+	NPM1	0x2
4564	chr5	170836987	170838202	+	NPM1	0x2
4565	chr5	170864262	170865494	+	FGF18	0x0
4566	chr5	171636089	171637261	-	UBTD2	0x0
4567	chr5	172402266	172403402	+	RPL26L1	0x0
4568	chr5	172447180	172448424	+	ATP6V0E1	0x0
4569	chr5	172447180	172448424	+	SNORA74B	0x0
4570	chr5	174541243	174542729	-	FLJ16171	0x0
4571	chr5	174954262	174955476	+	SFXN1	0x0
4572	chr5	175046803	175047922	-	DRD1	0x0
4573	chr5	176348311	176349451	-	UIMC1	0x0
4574	chr5	176729779	176730956	-	RAB24	0x2
4575	chr5	176868941	176870106	+	GRK6	0x0
4576	chr5	176881538	176882733	+	PRR7	0x0
4577	chr5	176883596	176884716	-	DBN1	0x2
4578	chr5	176964393	176966567	-	FAM193B	0x0
4579	chr5	177058987	177060287	-	LOC202181	0x0
4580	chr5	177310372	177311573	+	LOC728554	0x0
4581	chr5	177379634	177380812	+	FAM153C	0x0
4582	chr5	177656564	177657732	-	AGXT2L2	0x0
4583	chr5	179049534	179050703	-	HNRNPH1	0x0
4584	chr5	179132092	179133317	+	CANX	0x0
4585	chr5	179155733	179157832	+	CANX	0x0
4586	chr5	179251620	179252771	+	SQSTM1	0x0
4587	chr5	179673716	179674848	-	MAPK9	0x0
4588	chr5	180206560	180207717	-	MGAT1	0x0
4589	chr5	180528261	180529516	+	BTNL9	0x0
4590	chr5	180634178	180635408	+	TRIM41	0x0
4591	chr5	180644693	180645829	-	MIR4638	0x0
4592	chr5	180665592	180666691	-	GNB2L1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4593	chr5	180667997	180669448	-	GNB2L1	0x0
4594	chr5	180667997	180669448	-	SNORD96A	0x0
4595	chr5	180669745	180671450	-	GNB2L1	0x0
4596	chr5	180669745	180671450	-	SNORD95	0x0
4597	chr6	350525	351808	+	DUSP22	0x1
4598	chr6	694363	695593	+	IRF4	0x2
4599	chr6	1392055	1393297	+	FOXF2	0x0
4600	chr6	2249565	2250764	+	LOC100508120	0x0
4601	chr6	2959958	2961063	-	SERPINB6	0x0
4602	chr6	2999751	3000981	+	NQO2	0x0
4603	chr6	3224108	3225372	-	TUBB2B	0x0
4604	chr6	3343107	3344230	-	SLC22A23	0x0
4605	chr6	4061321	4062476	+	PRPF4B	0x2
4606	chr6	4427628	4428908	+	CDYL	0x2
4607	chr6	4891386	4893097	+	CDYL	0x2
4608	chr6	5305109	5306287	-	LYRM4	0x0
4609	chr6	5819194	5820380	+	FARS2	0x0
4610	chr6	6006440	6007652	-	NRN1	0x0
4611	chr6	7281986	7283116	-	SSR1	0x0
4612	chr6	7289208	7290341	-	SSR1	0x0
4613	chr6	7312770	7313892	-	SSR1	0x0
4614	chr6	7338944	7340205	-	CAGE1	0x0
4615	chr6	7417091	7418291	+	RIOK1	0x0
4616	chr6	7567486	7568687	+	DSP	0x0
4617	chr6	10397277	10398503	-	TFAP2A	0x1
4618	chr6	10790794	10791948	+	TMEM14B	0x0
4619	chr6	11120447	11121644	+	C6orf228	0x0
4620	chr6	11135447	11136546	+	C6orf228	0x0
4621	chr6	12094830	12095971	+	HIVEP1	0x0
4622	chr6	12513934	12515138	+	PHACTR1	0x0
4623	chr6	13213750	13214999	+	PHACTR1	0x0
4624	chr6	13374363	13375494	-	GFOD1	0x0
4625	chr6	13486586	13487751	-	GFOD1	0x0
4626	chr6	13646093	13647202	-	RANBP9	0x0
4627	chr6	13787360	13788567	-	CCDC90A	0x0
4628	chr6	15011581	15012776	+	JARID2	0x2
4629	chr6	15416602	15417810	+	JARID2	0x2
4630	chr6	16326605	16327827	-	ATXN1	0x0
4631	chr6	16747172	16748334	-	ATXN1	0x0
4632	chr6	17615189	17616505	-	NUP153	0x0
4633	chr6	18224189	18225654	-	DEK	0x2
4634	chr6	18264094	18265258	-	DEK	0x2
4635	chr6	19839163	19840388	+	ID4	0x1
4636	chr6	20452761	20453860	+	E2F3	0x2
4637	chr6	20556060	20557162	+	CDKAL1	0x0
4638	chr6	21593746	21594950	+	SOX4	0x0
4639	chr6	21595334	21596486	+	SOX4	0x0
4640	chr6	24417797	24418997	+	MRS2	0x0
4641	chr6	24718988	24720133	-	C6orf62	0x0
4642	chr6	26020508	26021702	+	HIST1H3A	0x0
4643	chr6	26026615	26027821	-	HIST1H4B	0x0
4644	chr6	26031448	26032740	-	HIST1H3B	0x0
4645	chr6	26056020	26057248	-	HIST1H1C	0x2
4646	chr6	26103864	26105124	+	HIST1H4C	0x0
4647	chr6	26156035	26157248	+	HIST1H1E	0x2
4648	chr6	26157864	26159045	+	HIST1H2BD	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4649	chr6	26198776	26199974	-	HIST1H2AD	0x0
4650	chr6	26198776	26199974	-	HIST1H3D	0x0
4651	chr6	26204313	26205679	+	HIST1H4E	0x0
4652	chr6	26216601	26217833	+	HIST1H2AE	0x0
4653	chr6	26250095	26251233	-	HIST1H3F	0x0
4654	chr6	26284906	26286305	-	HIST1H4H	0x0
4655	chr6	26305137	26306335	-	HIST1H4H	0x0
4656	chr6	26327842	26329088	+	BTN3A2	0x0
4657	chr6	26520899	26522108	+	HCG11	0x0
4658	chr6	26537187	26538396	+	HMGN4	0x0
4659	chr6	26553894	26554993	+	HMGN4	0x0
4660	chr6	26556236	26557446	+	HMGN4	0x0
4661	chr6	26568500	26569739	+	HMGN4	0x0
4662	chr6	26575282	26576489	+	ABT1	0x0
4663	chr6	26576788	26577992	+	ABT1	0x0
4664	chr6	26594507	26595750	+	ABT1	0x0
4665	chr6	27077095	27078239	-	HIST1H2BJ	0x0
4666	chr6	27100256	27101388	+	HIST1H2AG	0x0
4667	chr6	27114034	27115196	-	HIST1H2BK	0x0
4668	chr6	27125338	27126535	+	MIR3143	0x0
4669	chr6	27177100	27178332	+	PRSS16	0x0
4670	chr6	27181083	27182248	-	HIST1H2BK	0x0
4671	chr6	27182391	27183627	+	PRSS16	0x0
4672	chr6	27197707	27198928	-	POM121L2	0x0
4673	chr6	27261107	27262319	+	VN1R10P	0x0
4674	chr6	27262686	27263839	+	VN1R10P	0x0
4675	chr6	27265242	27266405	+	VN1R10P	0x0
4676	chr6	27470978	27472096	+	ZNF391	0x2
4677	chr6	27514942	27516154	-	ZNF184	0x0
4678	chr6	27520641	27521851	-	ZNF184	0x0
4679	chr6	27550661	27551841	-	ZNF184	0x0
4680	chr6	27569815	27570892	-	ZNF184	0x0
4681	chr6	27572845	27574055	-	ZNF184	0x0
4682	chr6	27618069	27619288	-	HIST1H2BL	0x0
4683	chr6	27637768	27638977	-	HIST1H2BL	0x0
4684	chr6	27758556	27759782	-	HIST1H2BL	0x0
4685	chr6	27860016	27861423	-	HIST1H2AM	0x0
4686	chr6	27860839	27861988	+	HIST1H2BO	0x2
4687	chr6	28180242	28181509	+	ZNF193	0x0
4688	chr6	28426989	28428187	-	ZSCAN23	0x0
4689	chr6	28625465	28626614	-	SCAND3	0x0
4690	chr6	28641012	28642197	-	SCAND3	0x0
4691	chr6	28663157	28664356	-	SCAND3	0x0
4692	chr6	28677791	28678990	+	GPX5	0x0
4693	chr6	28696501	28697715	+	GPX5	0x0
4694	chr6	28702649	28703851	-	LOC401242	0x0
4695	chr6	28714933	28716164	+	GPX5	0x0
4696	chr6	28725595	28726811	-	LOC401242	0x0
4697	chr6	28757006	28758172	-	LOC401242	0x0
4698	chr6	28769969	28771216	-	LOC401242	0x0
4699	chr6	28784408	28785655	-	LOC401242	0x0
4700	chr6	28863440	28864678	-	TRIM27	0x2
4701	chr6	28865423	28866591	-	TRIM27	0x2
4702	chr6	28908284	28909530	+	LOC100129636	0x0
4703	chr6	28911814	28913011	+	LOC100129636	0x0
4704	chr6	28918286	28919467	+	LOC100129636	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4705	chr6	29593377	29594477	-	GABBR1	0x2
4706	chr6	29912705	29913935	+	HLA-A	0x2
4707	chr6	30174258	30175638	-	TRIM26	0x0
4708	chr6	30513886	30515122	-	GNL1	0x0
4709	chr6	30680109	30681208	-	MDC1	0x0
4710	chr6	30681230	30682456	-	MDC1	0x0
4711	chr6	30691823	30693561	+	TUBB	0x2
4712	chr6	30831650	30832824	+	DDR1	0x0
4713	chr6	30846909	30848085	+	DDR1	0x0
4714	chr6	31130402	31131596	+	TCF19	0x0
4715	chr6	31496068	31497234	-	ATP6V1G2-DDX39B	0x0
4716	chr6	31496068	31497234	-	DDX39B	0x0
4717	chr6	31501739	31502906	-	ATP6V1G2-DDX39B	0x0
4718	chr6	31501739	31502906	-	DDX39B	0x0
4719	chr6	31507750	31508843	-	ATP6V1G2-DDX39B	0x0
4720	chr6	31507750	31508843	-	DDX39B	0x0
4721	chr6	31588657	31589786	+	PRRC2A	0x0
4722	chr6	31590298	31591538	+	PRRC2A	0x0
4723	chr6	31590298	31591538	+	SNORA38	0x0
4724	chr6	31613730	31614837	-	BAG6	0x0
4725	chr6	31703631	31704808	-	CLIC1	0x0
4726	chr6	31746849	31748039	-	VARS	0x0
4727	chr6	31760008	31761205	-	VARS	0x0
4728	chr6	31782864	31784065	+	HSPA1A	0x0
4729	chr6	31784919	31786234	+	HSPA1A	0x0
4730	chr6	31797179	31798469	+	HSPA1B	0x0
4731	chr6	31804278	31805485	+	C6orf48	0x0
4732	chr6	31804278	31805485	+	SNORD52	0x0
4733	chr6	32086135	32087386	-	ATF6B	0x0
4734	chr6	32148451	32149554	+	RNF5	0x0
4735	chr6	32148451	32149554	+	RNF5P1	0x0
4736	chr6	33239916	33241022	+	RPS18	0x0
4737	chr6	33243018	33244197	+	RPS18	0x0
4738	chr6	33266967	33268141	-	RGL2	0x0
4739	chr6	33266967	33268141	-	TAPBP	0x0
4740	chr6	33654767	33655866	+	ITPR3	0x2
4741	chr6	33738948	33740183	-	LEMD2	0x0
4742	chr6	34204449	34205642	+	HMGA1	0x2
4743	chr6	34213068	34214379	+	HMGA1	0x2
4744	chr6	34249271	34250682	-	NUDT3	0x0
4745	chr6	34249271	34250682	-	RPS10-NUDT3	0x0
4746	chr6	34388259	34389415	-	RPS10	0x0
4747	chr6	34388259	34389415	-	RPS10-NUDT3	0x0
4748	chr6	34390262	34391440	-	RPS10	0x0
4749	chr6	34390262	34391440	-	RPS10-NUDT3	0x0
4750	chr6	34556452	34557600	-	C6orf106	0x0
4751	chr6	34826547	34827779	+	UHRF1BP1	0x0
4752	chr6	35032311	35033701	+	ANKS1A	0x0
4753	chr6	35451550	35452727	-	TEAD3	0x0
4754	chr6	35523396	35524603	+	RPL10A	0x0
4755	chr6	35853153	35854414	-	SRPK1	0x0
4756	chr6	36198642	36199909	+	BRPF3	0x0
4757	chr6	36569808	36571036	+	SRSF3	0x2
4758	chr6	36894856	36896000	+	C6orf89	0x0
4759	chr6	37358228	37359440	+	RNF8	0x0
4760	chr6	38041182	38042392	+	ZFAND3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4761	chr6	41761912	41763042	-	USP49	0x0
4762	chr6	42236613	42237790	-	TRERF1	0x0
4763	chr6	42423307	42424509	+	UBR2	0x0
4764	chr6	42856085	42857313	+	RPL7L1	0x0
4765	chr6	42923667	42925068	-	PEX6	0x0
4766	chr6	42988024	42989312	+	KLHDC3	0x0
4767	chr6	43026492	43027669	-	MRPL2	0x0
4768	chr6	43037667	43038876	+	KLC4	0x0
4769	chr6	43095792	43096991	+	PTK7	0x0
4770	chr6	43171690	43172872	+	CUL9	0x0
4771	chr6	44081319	44082523	-	MRPL14	0x0
4772	chr6	44094272	44095453	-	MRPL14	0x0
4773	chr6	44219220	44220481	+	HSP90AB1	0x2
4774	chr6	44266391	44267567	-	AARS2	0x0
4775	chr6	44408477	44410722	+	CDC5L	0x0
4776	chr6	44995610	44996776	-	SUPT3H	0x0
4777	chr6	46111643	46112793	+	ENPP4	0x0
4778	chr6	46622408	46623507	+	SLC25A27	0x0
4779	chr6	47251283	47252411	-	TNFRSF21	0x0
4780	chr6	47253341	47254576	-	TNFRSF21	0x0
4781	chr6	52349296	52350448	+	EFHC1	0x0
4782	chr6	52849480	52850704	-	GSTA4	0x0
4783	chr6	52855044	52856169	-	GSTA4	0x0
4784	chr6	52859885	52861330	+	FBXO9	0x0
4785	chr6	52957213	52958430	+	FBXO9	0x0
4786	chr6	53083552	53084753	+	FBXO9	0x0
4787	chr6	53132185	53133289	-	ELOVL5	0x0
4788	chr6	56399463	56400610	-	DST	0x2
4789	chr6	57034314	57035512	+	ZNF451	0x0
4790	chr6	57053896	57055230	-	RAB23	0x2
4791	chr6	63921356	63922581	+	PTP4A1	0x0
4792	chr6	64290668	64291881	+	PTP4A1	0x0
4793	chr6	71225073	71226176	+	FAM135A	0x0
4794	chr6	73448473	73449706	+	KCNQ5	0x2
4795	chr6	74197008	74198113	-	EEF1A1	0x1
4796	chr6	74227963	74229065	-	EEF1A1	0x1
4797	chr6	74229688	74230876	-	EEF1A1	0x1
4798	chr6	74309553	74310681	-	SLC17A5	0x2
4799	chr6	75946972	75948118	-	COX7A2	0x0
4800	chr6	77993678	77994796	-	HTR1B	0x0
4801	chr6	79665318	79666472	-	PHIP	0x2
4802	chr6	79769656	79770833	-	PHIP	0x2
4803	chr6	80656541	80657733	-	ELOVL4	0x0
4804	chr6	80751306	80752707	+	TTK	0x2
4805	chr6	83706974	83708136	-	UBE3D	0x0
4806	chr6	83787687	83788905	+	DOPEY1	0x0
4807	chr6	84942245	84943434	-	KIAA1009	0x0
4808	chr6	86323454	86325410	-	SYNCRIP	0x0
4809	chr6	86333179	86334327	-	SYNCRIP	0x0
4810	chr6	86339764	86340907	-	SYNCRIP	0x0
4811	chr6	86386454	86387828	-	SNHG5	0x0
4812	chr6	86386454	86387828	-	SNORD50A	0x1
4813	chr6	86386454	86387828	-	SNORD50B	0x0
4814	chr6	87896838	87898031	+	ZNF292	0x0
4815	chr6	88268955	88270163	-	RARS2	0x0
4816	chr6	88271871	88273026	-	RARS2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4817	chr6	89512421	89513595	-	RNGTT	0x0
4818	chr6	89772705	89773936	-	SRSF12	0x0
4819	chr6	90036427	90037576	-	UBE2J1	0x0
4820	chr6	90103175	90104299	-	RRAGD	0x0
4821	chr6	90180489	90181711	+	ANKRD6	0x0
4822	chr6	90190795	90191990	+	ANKRD6	0x0
4823	chr6	90319964	90321150	+	ANKRD6	0x0
4824	chr6	90352660	90354462	-	MDN1	0x0
4825	chr6	90377219	90378421	-	MDN1	0x0
4826	chr6	91224962	91226062	-	MAP3K7	0x0
4827	chr6	91327958	91329132	+	MIR4464	0x0
4828	chr6	94045719	94046894	-	EPHA7	0x2
4829	chr6	94268127	94269325	+	TSG1	0x0
4830	chr6	97632526	97633664	-	MMS22L	0x0
4831	chr6	97683639	97684802	-	MMS22L	0x0
4832	chr6	97685918	97687017	-	MMS22L	0x0
4833	chr6	97719552	97720728	-	MMS22L	0x0
4834	chr6	100028547	100029746	-	CCNC	0x1
4835	chr6	100905416	100906563	-	SIM1	0x0
4836	chr6	101135519	101136729	-	ASCC3	0x0
4837	chr6	101146910	101148133	-	ASCC3	0x0
4838	chr6	105544496	105545608	-	BVES	0x0
4839	chr6	106730913	106732080	-	ATG5	0x0
4840	chr6	106896710	106897932	+	AIM1	0x4
4841	chr6	107388384	107389560	-	BEND3	0x0
4842	chr6	107969104	107970332	+	SOBP	0x0
4843	chr6	108984597	108986174	+	FOXO3	0x1
4844	chr6	109688249	109689435	-	CD164	0x0
4845	chr6	111193860	111195060	+	AMD1	0x0
4846	chr6	111210899	111212106	+	AMD1	0x0
4847	chr6	111588017	111589142	+	KIAA1919	0x0
4848	chr6	111653808	111654975	-	REV3L	0x0
4849	chr6	111793412	111794582	-	REV3L	0x0
4850	chr6	111904428	111905605	+	TRAF3IP2-AS1	0x0
4851	chr6	111982194	111983390	-	FYN	0x0
4852	chr6	113292154	113293373	+	RFPL4B	0x0
4853	chr6	114178112	114179330	+	MARCKS	0x0
4854	chr6	114181875	114183039	+	MARCKS	0x0
4855	chr6	116579247	116580527	-	TSPYL4	0x0
4856	chr6	116598668	116599891	-	TSPYL1	0x0
4857	chr6	117034886	117036007	+	KPNA5	0x2
4858	chr6	118031778	118032913	+	NUS1	0x0
4859	chr6	118332249	118333446	+	SLC35F1	0x0
4860	chr6	118554121	118555276	-	CEP85L	0x0
4861	chr6	119177072	119178279	-	MCM9	0x0
4862	chr6	119393192	119394423	-	MIR548B	0x0
4863	chr6	121007221	121008447	+	GJA1	0x1
4864	chr6	121769727	121770978	+	GJA1	0x1
4865	chr6	121900967	121902148	-	C6orf170	0x2
4866	chr6	123065973	123067206	+	PKIB	0x0
4867	chr6	124217186	124218234	+	NKAIN2	0x0
4868	chr6	125596639	125597850	-	HDDC2	0x0
4869	chr6	126299287	126300490	+	HINT3	0x0
4870	chr6	126359698	126360815	+	TRMT11	0x0
4871	chr6	126371294	126372445	+	TRMT11	0x0
4872	chr6	126500603	126501839	+	TRMT11	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4873	chr6	126524483	126525677	+	CENPW	0x0
4874	chr6	131215651	131216815	-	EPB41L2	0x0
4875	chr6	131337192	131338291	-	EPB41L2	0x0
4876	chr6	131517695	131518893	+	AKAP7	0x0
4877	chr6	131978592	131979749	+	ENPP3	0x0
4878	chr6	132381098	132382233	+	LOC100507254	0x0
4879	chr6	133135538	133137071	+	RPS12	0x0
4880	chr6	133135538	133137071	+	SNORD101	0x0
4881	chr6	133137377	133138573	+	RPS12	0x0
4882	chr6	133137377	133138573	+	SNORA33	0x0
4883	chr6	133137377	133138573	+	SNORD100	0x0
4884	chr6	135776476	135777666	-	AHI1	0x0
4885	chr6	135792205	135793369	-	AHI1	0x0
4886	chr6	136580786	136583058	-	BCLAF1	0x2
4887	chr6	136609769	136610922	-	BCLAF1	0x2
4888	chr6	136950837	136951945	+	PEX7	0x0
4889	chr6	136985366	136986559	-	MAP3K5	0x2
4890	chr6	137516718	137517919	-	IFNGR1	0x0
4891	chr6	138411876	138413053	-	PERP	0x0
4892	chr6	139471071	139472211	+	HECA	0x1
4893	chr6	143770410	143771612	+	PEX3	0x0
4894	chr6	144024630	144025793	+	PHACTR2	0x0
4895	chr6	144080177	144081352	+	PHACTR2	0x0
4896	chr6	144092907	144094059	+	PHACTR2	0x0
4897	chr6	144415589	144416776	-	SF3B5	0x0
4898	chr6	144691525	144692844	-	SF3B5	0x0
4899	chr6	145503291	145504468	+	UTRN	0x0
4900	chr6	148180382	148181555	+	SAMD5	0x0
4901	chr6	148864652	148865751	+	SASH1	0x1
4902	chr6	149114303	149115527	+	UST	0x0
4903	chr6	149373105	149374324	+	UST	0x0
4904	chr6	149731584	149732938	+	TAB2	0x0
4905	chr6	149771073	149772242	-	ZC3H12D	0x0
4906	chr6	149887280	149888487	+	C6orf72	0x0
4907	chr6	150070386	150071604	+	PCMT1	0x0
4908	chr6	150131824	150133021	+	PCMT1	0x0
4909	chr6	151007810	151008958	+	PLEKHG1	0x0
4910	chr6	151230797	151231991	+	MTHFD1L	0x0
4911	chr6	151715338	151716552	+	AKAP12	0x1
4912	chr6	153602990	153604390	-	RGS17	0x0
4913	chr6	153741015	153742253	+	OPRM1	0x0
4914	chr6	154510891	154512064	+	OPRM1	0x0
4915	chr6	157099272	157100482	+	ARID1B	0x2
4916	chr6	157297408	157298585	+	ARID1B	0x2
4917	chr6	158501709	158502885	+	SYNJ2	0x0
4918	chr6	158732582	158734565	+	TULP4	0x0
4919	chr6	158836738	158837951	+	TULP4	0x0
4920	chr6	159005798	159006993	+	TMEM181	0x0
4921	chr6	159010147	159011345	+	TMEM181	0x0
4922	chr6	159222196	159223361	-	EZR	0x2
4923	chr6	160100679	160101871	-	SOD2	0x1
4924	chr6	160147489	160148641	-	LOC100129518	0x0
4925	chr6	160199235	160200470	-	TCP1	0x0
4926	chr6	160200704	160201944	-	SNORA20	0x0
4927	chr6	160200704	160201944	-	TCP1	0x0
4928	chr6	161574255	161575389	-	AGPAT4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4929	chr6	161693681	161694857	-	AGPAT4	0x0
4930	chr6	163729635	163730813	-	LOC285796	0x0
4931	chr6	163992894	163994954	+	QKI	0x0
4932	chr6	167096615	167097792	-	RPS6KA2	0x1
4933	chr6	167232349	167233545	-	RPS6KA2	0x1
4934	chr6	167431288	167432414	+	FGFR1OP	0x2
4935	chr6	169717516	169718713	-	THBS2	0x0
4936	chr6	169959010	169960179	-	WDR27	0x0
4937	chr6	170063733	170065042	-	WDR27	0x0
4938	chr6	170107201	170108322	-	PHF10	0x0
4939	chr6	170108331	170109430	-	PHF10	0x0
4940	chr6	170109684	170110800	-	PHF10	0x0
4941	chr6	170715138	170716380	+	FAM120B	0x0
4942	chr6	170793708	170794808	+	TBP	0x0
4943	chr7	716322	717533	-	PRKAR1B	0x0
4944	chr7	793397	794759	+	HEATR2	0x0
4945	chr7	882031	883164	+	SUN1	0x0
4946	chr7	1114643	1115856	-	C7orf50	0x0
4947	chr7	1148073	1149265	-	C7orf50	0x0
4948	chr7	2209517	2210716	-	MAD1L1	0x1
4949	chr7	2335042	2336261	-	SNX8	0x0
4950	chr7	2419510	2420742	+	EIF3B	0x0
4951	chr7	2653169	2654343	+	IQCE	0x0
4952	chr7	2702439	2704021	+	TTYH3	0x0
4953	chr7	2762696	2763886	-	GNA12	0x0
4954	chr7	2765610	2766723	-	GNA12	0x0
4955	chr7	3038321	3039532	+	AMZ1	0x0
4956	chr7	3152398	3153597	-	CARD11	0x2
4957	chr7	3297158	3298337	-	CARD11	0x2
4958	chr7	3347392	3348543	+	SDK1	0x0
4959	chr7	3613078	3614275	+	SDK1	0x0
4960	chr7	3998820	4000014	+	SDK1	0x0
4961	chr7	4118598	4119714	+	SDK1	0x0
4962	chr7	5253679	5254827	+	WIPI2	0x0
4963	chr7	5269929	5271252	+	WIPI2	0x0
4964	chr7	5347601	5348689	-	TNRC18	0x0
4965	chr7	5351989	5353124	-	TNRC18	0x0
4966	chr7	5395880	5397015	-	TNRC18	0x0
4967	chr7	5433553	5434723	-	TNRC18	0x0
4968	chr7	5450755	5451944	-	TNRC18	0x0
4969	chr7	5536480	5537661	-	MIR589	0x0
4970	chr7	5540860	5542057	-	FBXL18	0x0
4971	chr7	5566668	5567958	-	ACTB	0x2
4972	chr7	5685864	5687035	-	RNF216	0x0
4973	chr7	6025876	6027098	-	PMS2	0x1
4974	chr7	6098042	6099244	-	EIF2AK1	0x0
4975	chr7	6380025	6381233	-	C7orf70	0x0
4976	chr7	6441838	6444007	+	RAC1	0x0
4977	chr7	6500568	6501811	-	KDELR2	0x0
4978	chr7	7882404	7883601	+	LOC729852	0x0
4979	chr7	8112486	8113702	+	GLCCI1	0x0
4980	chr7	8127283	8128479	+	GLCCI1	0x0
4981	chr7	11137465	11138681	+	PHF14	0x0
4982	chr7	12024744	12025924	-	THSD7A	0x0
4983	chr7	12915824	12917060	+	ARL4A	0x0
4984	chr7	15781909	15783031	+	LOC100506025	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4985	chr7	16739862	16741056	+	BZW2	0x0
4986	chr7	16823462	16824630	+	TSPAN13	0x0
4987	chr7	22895658	22896857	+	SNORD93	0x0
4988	chr7	23224278	23225503	+	NUPL2	0x0
4989	chr7	23239252	23240488	+	NUPL2	0x0
4990	chr7	23446198	23447358	-	IGF2BP3	0x0
4991	chr7	23530465	23531648	+	RPS2P32	0x0
4992	chr7	24731533	24732682	+	MPP6	0x0
4993	chr7	25988340	25989530	-	MIR148A	0x0
4994	chr7	26230917	26232469	-	HNRNPA2B1	0x2
4995	chr7	26236459	26237797	-	HNRNPA2B1	0x2
4996	chr7	26239671	26241083	-	HNRNPA2B1	0x2
4997	chr7	26241519	26242615	+	CBX3	0x0
4998	chr7	26364063	26365261	+	SNX10	0x0
4999	chr7	26706811	26708082	-	SKAP2	0x0
5000	chr7	27202973	27204085	-	HOXA10-HOXA9	0x0
5001	chr7	27202973	27204085	-	HOXA9	0x2
5002	chr7	27205067	27206183	-	HOXA9	0x2
5003	chr7	28081190	28082374	-	JAZF1	0x2
5004	chr7	28179077	28180280	-	JAZF1	0x2
5005	chr7	28832876	28834100	+	CREB5	0x0
5006	chr7	28843490	28844709	+	CREB5	0x0
5007	chr7	29960439	29961649	-	SCRN1	0x0
5008	chr7	30199055	30200368	+	C7orf41	0x0
5009	chr7	30201709	30202892	+	C7orf41	0x0
5010	chr7	30401633	30402869	+	ZNRF2	0x0
5011	chr7	32602085	32603255	+	AVL9	0x0
5012	chr7	32768061	32769271	+	ZNRF2P1	0x0
5013	chr7	34970565	34971769	-	DPY19L1	0x0
5014	chr7	35187334	35188527	-	DPY19L2P1	0x0
5015	chr7	35943851	35945050	+	SEPT7	0x0
5016	chr7	37474190	37475366	+	GPR141	0x0
5017	chr7	38764683	38766032	-	VPS41	0x0
5018	chr7	38767749	38768941	-	VPS41	0x0
5019	chr7	40046956	40048149	+	CDK13	0x0
5020	chr7	40122300	40123482	+	CDK13	0x0
5021	chr7	40716495	40717647	+	C7orf10	0x0
5022	chr7	43664776	43665987	-	C7orf44	0x0
5023	chr7	43676994	43678133	-	C7orf44	0x0
5024	chr7	43688077	43689239	-	C7orf44	0x0
5025	chr7	43755954	43757114	-	C7orf44	0x0
5026	chr7	44017403	44018614	-	POLR2J4	0x0
5027	chr7	44156210	44157388	-	POLD2	0x0
5028	chr7	44252240	44253901	+	YKT6	0x0
5029	chr7	44422977	44425078	-	NUDCD3	0x0
5030	chr7	44506929	44508226	+	OGDH	0x0
5031	chr7	44615133	44616293	-	DDX56	0x0
5032	chr7	44867630	44869296	-	H2AFV	0x0
5033	chr7	44869491	44870653	-	H2AFV	0x0
5034	chr7	44871384	44872476	-	H2AFV	0x0
5035	chr7	45024431	45025655	-	SNHG15	0x0
5036	chr7	45024431	45025655	-	SNORA9	0x0
5037	chr7	45055716	45056839	+	CCM2	0x0
5038	chr7	45143432	45145126	-	SNORA5A	0x0
5039	chr7	45143432	45145126	-	SNORA5C	0x0
5040	chr7	45143432	45145126	-	TBRG4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5041	chr7	45631850	45633046	+	ADCY1	0x2
5042	chr7	45687751	45688961	+	ADCY1	0x2
5043	chr7	47883015	47884214	-	PKD1L1	0x0
5044	chr7	48329866	48330965	+	ABCA13	0x0
5045	chr7	51125959	51127160	-	COBL	0x0
5046	chr7	51140419	51141571	-	COBL	0x0
5047	chr7	53573745	53575001	+	POM121L12	0x0
5048	chr7	53843321	53844539	+	POM121L12	0x0
5049	chr7	55712928	55714027	+	LANCL2	0x0
5050	chr7	55992166	55993377	+	ZNF713	0x0
5051	chr7	56047818	56048984	+	GBAS	0x0
5052	chr7	56050957	56052136	+	GBAS	0x0
5053	chr7	56066418	56067572	+	GBAS	0x0
5054	chr7	56111114	56112302	-	PSPH	0x0
5055	chr7	56122829	56124002	+	CCT6A	0x0
5056	chr7	56125566	56126665	+	CCT6A	0x0
5057	chr7	56130833	56132038	+	CCT6A	0x0
5058	chr7	56130833	56132038	+	SUMF2	0x0
5059	chr7	56168775	56169951	-	CHCHD2	0x0
5060	chr7	63806388	63807524	+	ZNF736	0x0
5061	chr7	64512487	64513689	+	CCT6P3	0x0
5062	chr7	65220022	65221173	+	CCT6P1	0x0
5063	chr7	65220022	65221173	+	SNORA22	0x0
5064	chr7	66444580	66445777	+	TYW1	0x0
5065	chr7	66452731	66453910	-	SBDS	0x2
5066	chr7	66461505	66462727	+	TYW1	0x0
5067	chr7	66696321	66697506	-	PMS2P4	0x0
5068	chr7	66732088	66733253	-	PMS2P4	0x0
5069	chr7	68526830	68528282	+	AUTS2	0x0
5070	chr7	69137623	69139895	+	AUTS2	0x0
5071	chr7	69150855	69152052	+	AUTS2	0x0
5072	chr7	69890680	69891884	+	AUTS2	0x0
5073	chr7	69944884	69946122	+	AUTS2	0x0
5074	chr7	70095006	70096231	+	AUTS2	0x0
5075	chr7	70158630	70159729	+	AUTS2	0x0
5076	chr7	70162406	70163506	+	AUTS2	0x0
5077	chr7	70228678	70229863	+	AUTS2	0x0
5078	chr7	72210226	72211362	-	TYW1B	0x0
5079	chr7	72384475	72385573	+	POM121	0x0
5080	chr7	72855521	72856620	-	BAZ1B	0x0
5081	chr7	72892223	72893442	-	BAZ1B	0x0
5082	chr7	73028896	73030065	-	MLXIPL	0x0
5083	chr7	73609735	73611412	+	EIF4H	0x0
5084	chr7	74011007	74012204	+	GTF2IRD1	0x0
5085	chr7	75013767	75014967	+	TRIM73	0x0
5086	chr7	75013767	75014967	+	TRIM74	0x0
5087	chr7	75616282	75617424	-	TMEM120A	0x0
5088	chr7	75677085	75678284	+	MDH2	0x0
5089	chr7	75695075	75696451	+	MDH2	0x0
5090	chr7	76183802	76184974	+	LOC100133091	0x0
5091	chr7	77288076	77289291	+	PTPN12	0x1
5092	chr7	77325584	77329262	+	RSBN1L	0x0
5093	chr7	77409754	77411102	+	RSBN1L	0x0
5094	chr7	77444662	77445817	+	PHTF2	0x0
5095	chr7	77819775	77820999	+	RPL13AP17	0x0
5096	chr7	84217800	84218994	-	SEMA3A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5097	chr7	85957572	85958791	+	GRM3	0x2
5098	chr7	91745871	91747042	-	CYP51A1	0x0
5099	chr7	92121693	92122871	-	PEX1	0x0
5100	chr7	94259800	94260938	-	SGCE	0x4
5101	chr7	94277985	94279186	-	SGCE	0x4
5102	chr7	95182157	95183355	+	ASB4	0x4
5103	chr7	97500925	97502164	-	ASNS	0x0
5104	chr7	97822980	97824146	+	LMTK2	0x0
5105	chr7	98571475	98572623	+	TRRAP	0x2
5106	chr7	98580407	98581636	+	TRRAP	0x2
5107	chr7	99040246	99041345	+	CPSF4	0x0
5108	chr7	99055334	99056509	-	ATP5J2	0x0
5109	chr7	99063102	99064286	-	ATP5J2	0x0
5110	chr7	99063102	99064286	-	ATP5J2-PTCD1	0x0
5111	chr7	99070753	99071852	+	ZNF789	0x0
5112	chr7	99090314	99091491	-	ZNF394	0x0
5113	chr7	99164579	99165769	+	ZNF655	0x0
5114	chr7	99620568	99621775	+	ZKSCAN1	0x0
5115	chr7	99696493	99697583	-	MCM7	0x0
5116	chr7	99766778	99767983	-	GPC2	0x0
5117	chr7	100027125	100028311	+	MEPCE	0x0
5118	chr7	100171876	100172981	-	LRCH4	0x0
5119	chr7	100177762	100178920	-	LRCH4	0x0
5120	chr7	100880641	100881974	-	CLDN15	0x0
5121	chr7	100895195	100896397	+	ZNHIT1	0x0
5122	chr7	101518509	101519697	+	CUX1	0x2
5123	chr7	101614007	101615204	+	CUX1	0x2
5124	chr7	101870302	101871497	+	CUX1	0x2
5125	chr7	102090409	102091726	+	ORAI2	0x0
5126	chr7	102103915	102105079	-	ALKBH4	0x0
5127	chr7	102273284	102274466	-	POLR2J2	0x0
5128	chr7	102776284	102777472	-	RPL19P12	0x0
5129	chr7	102956740	102957866	-	DNAJC2	0x0
5130	chr7	102959728	102960926	-	DNAJC2	0x0
5131	chr7	102987648	102988747	+	PSMC2	0x0
5132	chr7	103017293	103018395	+	PSMC2	0x0
5133	chr7	104183926	104185102	-	LOC645591	0x0
5134	chr7	104989419	104990519	-	SRPK2	0x0
5135	chr7	105130826	105131959	-	PUS7	0x0
5136	chr7	105730920	105732237	-	SYPL1	0x0
5137	chr7	106966970	106968196	-	COG5	0x0
5138	chr7	107392326	107393492	+	CBLL1	0x0
5139	chr7	107579969	107581118	-	LAMB1	0x0
5140	chr7	107604477	107605657	-	LAMB1	0x0
5141	chr7	107641647	107642890	-	LAMB1	0x0
5142	chr7	107788055	107789246	-	NRCAM	0x1
5143	chr7	109647779	109648956	-	EIF3IP1	0x0
5144	chr7	111928314	111929569	+	ZNF277	0x0
5145	chr7	112094112	112095341	+	IFRD1	0x0
5146	chr7	113813661	113814849	+	FOXP2	0x0
5147	chr7	113873613	113874725	+	FOXP2	0x0
5148	chr7	116655877	116657135	+	ST7-OT4	0x0
5149	chr7	116864291	116865488	+	ST7	0x1
5150	chr7	121022060	121023221	-	FAM3C	0x0
5151	chr7	123181470	123182631	-	NDUFA5	0x0
5152	chr7	126826996	126828167	-	GRM8	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5153	chr7	127002369	127003478	-	ZNF800	0x0
5154	chr7	127011169	127012346	-	ZNF800	0x0
5155	chr7	127292221	127293424	+	SND1	0x0
5156	chr7	127304238	127305368	+	SND1	0x0
5157	chr7	127717944	127719181	+	SND1	0x0
5158	chr7	128045356	128046535	-	IMPDH1	0x0
5159	chr7	128144617	128145843	+	METTL2B	0x0
5160	chr7	128268899	128270067	+	FLJ45340	0x0
5161	chr7	128294201	128295432	+	FLJ45340	0x0
5162	chr7	128336957	128338351	+	FAM71F2	0x0
5163	chr7	128410338	128411503	+	CALU	0x0
5164	chr7	128626267	128627427	-	TNPO3	0x0
5165	chr7	128804197	128805297	+	TSPAN33	0x0
5166	chr7	128828291	128829490	+	SMO	0x1
5167	chr7	128844598	128846620	+	SMO	0x1
5168	chr7	128956910	128958109	+	AHCYL2	0x0
5169	chr7	129249052	129250217	-	MIR182	0x0
5170	chr7	129771754	129772914	+	KLHDC10	0x0
5171	chr7	132719105	132721265	-	CHCHD3	0x0
5172	chr7	134126762	134127961	-	AKR1B1	0x1
5173	chr7	134446424	134447609	-	AKR1B1	0x1
5174	chr7	134653877	134655027	+	CALD1	0x0
5175	chr7	135262978	135264232	+	NUP205	0x0
5176	chr7	135299192	135300395	+	NUP205	0x0
5177	chr7	135564469	135565613	-	LUZP6	0x0
5178	chr7	135564469	135565613	-	MTPN	0x0
5179	chr7	135612497	135613615	-	LUZP6	0x0
5180	chr7	135612497	135613615	-	MTPN	0x0
5181	chr7	135631923	135633117	-	LUZP6	0x0
5182	chr7	135631923	135633117	-	MTPN	0x0
5183	chr7	137561561	137562688	-	CREB3L2	0x2
5184	chr7	137593795	137594957	-	CREB3L2	0x2
5185	chr7	137641335	137642504	-	CREB3L2	0x2
5186	chr7	138229348	138230509	+	TRIM24	0x1
5187	chr7	138601353	138602530	-	KIAA1549	0x0
5188	chr7	138708377	138709573	-	ZC3HAV1L	0x0
5189	chr7	139060142	139061336	+	LUC7L2	0x0
5190	chr7	139091472	139092571	+	LUC7L2	0x0
5191	chr7	139163207	139164420	-	KLRG2	0x0
5192	chr7	139252540	139254304	-	HIPK2	0x1
5193	chr7	139255381	139257357	-	HIPK2	0x1
5194	chr7	139415555	139417089	-	HIPK2	0x1
5195	chr7	139991958	139993146	-	SLC37A3	0x0
5196	chr7	140578969	140580149	-	BRAF	0x2
5197	chr7	140608227	140609407	-	BRAF	0x2
5198	chr7	140949281	140950478	+	LOC100507421	0x0
5199	chr7	140989729	140990945	+	LOC100507421	0x0
5200	chr7	141427256	141428517	+	WEE2	0x0
5201	chr7	142828739	142829949	-	OR6W1P	0x0
5202	chr7	148517064	148518265	-	EZH2	0x2
5203	chr7	148637989	148639256	+	CUL1	0x1
5204	chr7	148683652	148684931	-	PDIA4	0x2
5205	chr7	148815628	148816762	-	ZNF425	0x0
5206	chr7	148822219	148823398	-	ZNF425	0x0
5207	chr7	148875639	148876808	+	ZNF398	0x0
5208	chr7	149187521	149188679	-	ZNF746	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5209	chr7	149281240	149282410	+	KRBA1	0x0
5210	chr7	149361344	149362611	+	KRBA1	0x0
5211	chr7	149387704	149388911	-	ZNF767	0x0
5212	chr7	149411854	149413217	+	KRBA1	0x0
5213	chr7	149575886	149577679	+	ATP6V0E2	0x0
5214	chr7	150070282	150071455	+	REPIN1	0x0
5215	chr7	150815954	150817053	+	AGAP3	0x0
5216	chr7	150910175	150911551	-	ABCF2	0x0
5217	chr7	150967839	150969008	-	SMARCD3	0x0
5218	chr7	151215094	151216312	-	RHEB	0x0
5219	chr7	151921067	151922240	-	MLL3	0x2
5220	chr7	152097427	152098632	-	MLL3	0x2
5221	chr7	155099915	155101047	+	INSIG1	0x0
5222	chr7	155250236	155251340	+	EN2	0x0
5223	chr7	155572294	155573527	+	RBM33	0x0
5224	chr7	156473215	156474319	-	LMBR1	0x0
5225	chr7	157131140	157132337	+	DNAJB6	0x0
5226	chr7	157207302	157208421	+	DNAJB6	0x0
5227	chr7	158482226	158483355	-	NCAPG2	0x0
5228	chr7	158523818	158524891	-	ESYT2	0x0
5229	chr7	158526068	158527207	-	ESYT2	0x0
5230	chr8	171812	172992	-	RPL23AP53	0x0
5231	chr8	650437	651644	-	ERICH1	0x0
5232	chr8	1728071	1729269	+	CLN8	0x2
5233	chr8	1851872	1853143	+	ARHGEF10	0x2
5234	chr8	1892421	1893656	+	ARHGEF10	0x2
5235	chr8	8719116	8720272	-	MFHAS1	0x1
5236	chr8	9522657	9523873	+	TNKS	0x0
5237	chr8	10543587	10544750	+	C8orf74	0x0
5238	chr8	10553225	10554430	-	SOX7	0x1
5239	chr8	10989659	10990816	-	XKR6	0x0
5240	chr8	11018991	11020365	-	XKR6	0x0
5241	chr8	11179720	11180920	+	MTMR9	0x0
5242	chr8	14088163	14089374	-	SGCZ	0x0
5243	chr8	14466831	14468007	-	SGCZ	0x0
5244	chr8	15608483	15609698	+	TUSC3	0x1
5245	chr8	16969800	16970982	+	EFHA2	0x0
5246	chr8	16973468	16974591	+	EFHA2	0x0
5247	chr8	17020725	17021901	+	ZDHHC2	0x1
5248	chr8	17528806	17529982	-	MTUS1	0x1
5249	chr8	17600589	17601753	-	MTUS1	0x1
5250	chr8	21783081	21784262	+	XPO7	0x2
5251	chr8	22273079	22274302	+	SLC39A14	0x0
5252	chr8	22278525	22279701	+	SLC39A14	0x0
5253	chr8	22993341	22994750	-	TNFRSF10D	0x0
5254	chr8	23001245	23002452	-	TNFRSF10D	0x0
5255	chr8	23118432	23119876	+	CHMP7	0x0
5256	chr8	23933949	23935207	-	STC1	0x2
5257	chr8	26466443	26467884	+	DPYSL2	0x0
5258	chr8	26513085	26514287	+	DPYSL2	0x0
5259	chr8	27626561	27627757	-	CCDC25	0x0
5260	chr8	27642609	27643794	+	ESCO2	0x0
5261	chr8	27661194	27662353	+	ESCO2	0x0
5262	chr8	28610258	28611360	+	EXTL3	0x1
5263	chr8	28925365	28926640	-	KIF13B	0x0
5264	chr8	28973920	28975219	-	KIF13B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5265	chr8	29191850	29193027	-	DUSP4	0x0
5266	chr8	29926842	29927959	-	TMEM66	0x0
5267	chr8	30535411	30536703	-	GSR	0x0
5268	chr8	30918443	30919643	+	WRN	0x2
5269	chr8	30941596	30942794	+	WRN	0x2
5270	chr8	30973889	30975103	+	WRN	0x2
5271	chr8	33307984	33309159	-	FUT10	0x0
5272	chr8	33370435	33371696	+	MAK16	0x0
5273	chr8	33405399	33406500	-	RNF122	0x0
5274	chr8	37351279	37352488	-	LOC728024	0x0
5275	chr8	37548760	37549962	-	LOC728024	0x0
5276	chr8	37555657	37556832	+	ZNF703	0x0
5277	chr8	37610997	37612138	+	ERLIN2	0x0
5278	chr8	37734373	37735537	-	RAB11FIP1	0x0
5279	chr8	37896767	37897965	+	EIF4EBP1	0x0
5280	chr8	37964730	37965937	+	ASH2L	0x0
5281	chr8	38238788	38240521	-	WHSC1L1	0x1
5282	chr8	41789279	41790380	-	KAT6A	0x2
5283	chr8	42069466	42070659	+	AP3M2	0x0
5284	chr8	42751527	42752702	-	RNF170	0x0
5285	chr8	48454145	48455421	+	KIAA0146	0x0
5286	chr8	48690474	48691581	-	PRKDC	0x0
5287	chr8	48719526	48720712	-	PRKDC	0x0
5288	chr8	56698693	56699907	+	TGS1	0x0
5289	chr8	56702837	56704080	+	TGS1	0x0
5290	chr8	56792545	56793692	+	LYN	0x0
5291	chr8	56986406	56987620	-	RPS20	0x0
5292	chr8	56986406	56987620	-	SNORD54	0x0
5293	chr8	59361453	59362789	+	UBXN2B	0x0
5294	chr8	59495823	59497028	-	NSMAF	0x0
5295	chr8	60367861	60369092	+	SDCBP	0x0
5296	chr8	61141149	61142305	-	CA8	0x0
5297	chr8	61380988	61382139	-	CA8	0x0
5298	chr8	61428976	61430164	+	RAB2A	0x0
5299	chr8	62558694	62559890	-	ASPH	0x0
5300	chr8	65062889	65064025	-	LOC401463	0x0
5301	chr8	67025014	67026251	+	DNAJC5B	0x0
5302	chr8	67834131	67835343	-	SNHG6	0x0
5303	chr8	67834131	67835343	-	SNORD87	0x0
5304	chr8	67854441	67855579	-	TCF24	0x0
5305	chr8	69218262	69219475	+	C8orf34	0x0
5306	chr8	69628958	69630158	+	C8orf34	0x0
5307	chr8	70601758	70603154	-	SLCO5A1	0x0
5308	chr8	71015648	71016846	-	NCOA2	0x2
5309	chr8	71485199	71486420	-	TRAM1	0x0
5310	chr8	72549549	72550725	-	MSC	0x0
5311	chr8	73557323	73558542	+	KCNB2	0x0
5312	chr8	74558696	74559805	-	STAU2	0x0
5313	chr8	77776192	77777558	+	ZFHX4	0x2
5314	chr8	80676493	80677670	-	HEY1	0x2
5315	chr8	80708218	80709377	+	STMN2	0x0
5316	chr8	81039463	81040687	-	TPD52	0x0
5317	chr8	84510943	84512141	-	C8orf59	0x0
5318	chr8	86191435	86192537	+	CA13	0x0
5319	chr8	87528903	87530098	+	CPNE3	0x0
5320	chr8	95406717	95407924	-	RAD54B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5321	chr8	95854520	95855619	+	INTS8	0x0
5322	chr8	98672727	98673911	+	MTDH	0x0
5323	chr8	98817057	98818222	+	LAPTM4B	0x0
5324	chr8	98827727	98828903	+	LAPTM4B	0x0
5325	chr8	101485556	101486759	-	ANKRD46	0x0
5326	chr8	101714872	101716041	-	PABPC1	0x2
5327	chr8	101724361	101725581	-	PABPC1	0x2
5328	chr8	101727184	101728357	-	PABPC1	0x2
5329	chr8	101729540	101730664	-	PABPC1	0x2
5330	chr8	101733058	101734450	-	PABPC1	0x2
5331	chr8	102149814	102150984	+	FLJ42969	0x0
5332	chr8	103423528	103424664	-	UBR5	0x2
5333	chr8	103845897	103847028	-	AZIN1	0x0
5334	chr8	106914349	106915532	-	ABRA	0x0
5335	chr8	107709298	107710494	-	ABRA	0x0
5336	chr8	110281595	110282791	-	NUDCD1	0x0
5337	chr8	110353471	110354647	+	ENY2	0x0
5338	chr8	116563419	116564599	-	TRPS1	0x0
5339	chr8	119396638	119397854	-	SAMD12	0x0
5340	chr8	120743496	120744716	-	TAF2	0x2
5341	chr8	120874372	120875604	+	DEPTOR	0x0
5342	chr8	121501990	121503167	+	MTBP	0x0
5343	chr8	124025136	124026313	-	DERL1	0x0
5344	chr8	124053823	124055003	-	DERL1	0x0
5345	chr8	124095937	124097121	+	WDR67	0x0
5346	chr8	124250286	124251573	-	C8orf76	0x0
5347	chr8	124250286	124251573	-	ZHX1-C8ORF76	0x0
5348	chr8	124511119	124512309	-	FBXO32	0x1
5349	chr8	124826019	124827118	+	FAM91A1	0x0
5350	chr8	125503049	125504257	+	RNF139	0x0
5351	chr8	126257758	126258960	+	NSMCE2	0x0
5352	chr8	126467614	126468814	+	TRIB1	0x2
5353	chr8	126584427	126585626	+	TRIB1	0x2
5354	chr8	128752709	128753881	+	MYC	0x2
5355	chr8	128878369	128879800	+	PVT1	0x0
5356	chr8	128902427	128903666	+	PVT1	0x0
5357	chr8	129006031	129007240	+	PVT1	0x0
5358	chr8	129232188	129233396	+	MIR1208	0x0
5359	chr8	131369782	131370944	-	ASAP1	0x0
5360	chr8	134249222	134250405	-	NDRG1	0x1
5361	chr8	135602264	135603445	-	ZFAT	0x4
5362	chr8	136484515	136485664	+	KHDRBS3	0x0
5363	chr8	141539629	141540966	-	EIF2C2	0x0
5364	chr8	141706964	141708108	-	PTK2	0x0
5365	chr8	144390951	144392074	-	TOP1MT	0x0
5366	chr8	144589736	144590895	-	ZC3H3	0x0
5367	chr8	144623760	144624957	+	GSDMD	0x0
5368	chr8	144656550	144657716	-	NAPRT1	0x0
5369	chr8	144665432	144666631	-	EEF1D	0x0
5370	chr8	144668416	144669512	-	EEF1D	0x0
5371	chr8	144671344	144672503	-	EEF1D	0x0
5372	chr8	144872867	144874212	-	SCRIB	0x1
5373	chr8	144995170	144996345	-	PLEC	0x0
5374	chr8	144996673	144997860	-	PLEC	0x0
5375	chr8	145512299	145513597	-	BOP1	0x0
5376	chr8	145514906	145516064	+	HSF1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5377	chr8	145735164	145736323	+	MFSD3	0x0
5378	chr8	145975673	145976844	-	ZNF251	0x0
5379	chr8	146014646	146015821	-	RPL8	0x0
5380	chr8	146016941	146018035	-	RPL8	0x0
5381	chr9	579222	580422	+	KANK1	0x1
5382	chr9	583912	585146	+	KANK1	0x1
5383	chr9	2358753	2359971	+	SMARCA2	0x1
5384	chr9	3214212	3215432	+	KCNV2	0x0
5385	chr9	3508378	3509541	-	RFX3	0x0
5386	chr9	4826335	4827507	+	RCL1	0x0
5387	chr9	4833549	4834747	+	RCL1	0x0
5388	chr9	5734043	5735202	+	KIAA1432	0x0
5389	chr9	9441508	9442749	+	KDM4C	0x0
5390	chr9	13124573	13125772	-	MPDZ	0x0
5391	chr9	14611622	14612784	-	ZDHHC21	0x0
5392	chr9	14640065	14641279	-	ZDHHC21	0x0
5393	chr9	14921661	14922812	-	FREM1	0x0
5394	chr9	15482841	15484138	-	PSIP1	0x2
5395	chr9	15505342	15506551	-	PSIP1	0x2
5396	chr9	16828016	16829203	-	BNC2	0x0
5397	chr9	17413189	17414414	+	CNTLN	0x0
5398	chr9	17440398	17441554	-	BNC2	0x0
5399	chr9	19055113	19056309	-	HAUS6	0x0
5400	chr9	19063173	19064362	-	HAUS6	0x0
5401	chr9	19063173	19064362	-	SCARNA8	0x0
5402	chr9	19372260	19373473	+	DENND4C	0x0
5403	chr9	19375853	19377070	-	RPS6	0x0
5404	chr9	19377873	19380410	-	RPS6	0x0
5405	chr9	19383288	19384499	+	DENND4C	0x0
5406	chr9	20429737	20430924	-	MLLT3	0x2
5407	chr9	20548245	20549446	-	MIR4474	0x0
5408	chr9	20786340	20787535	+	KIAA1797	0x0
5409	chr9	20810807	20811984	-	MLLT3	0x2
5410	chr9	20896813	20898020	+	KIAA1797	0x0
5411	chr9	20923117	20924315	+	KIAA1797	0x0
5412	chr9	21332177	21333335	-	KLHL9	0x0
5413	chr9	21698742	21700024	+	MTAP	0x1
5414	chr9	21861943	21863042	+	MTAP	0x1
5415	chr9	21867924	21869151	+	MTAP	0x1
5416	chr9	21903931	21905084	+	MTAP	0x1
5417	chr9	22081029	22082228	+	CDKN2B-AS1	0x0
5418	chr9	25676769	25677898	-	TUSC1	0x0
5419	chr9	26658888	26660011	+	IFT74	0x0
5420	chr9	26935048	26936169	-	PLAA	0x0
5421	chr9	28707158	28708331	-	LINGO2	0x0
5422	chr9	28846936	28848152	-	MIR876	0x0
5423	chr9	33011499	33012677	-	APTX	0x0
5424	chr9	33023893	33025172	-	SMU1	0x0
5425	chr9	33038376	33039941	+	DNAJA1	0x0
5426	chr9	33318207	33319380	+	NFX1	0x0
5427	chr9	33916595	33917697	+	UBE2R2	0x0
5428	chr9	33952273	33953373	-	SNORD121A	0x0
5429	chr9	33952273	33953373	-	UBAP2	0x0
5430	chr9	33955557	33956731	-	UBAP2	0x0
5431	chr9	33960256	33961456	-	UBAP2	0x0
5432	chr9	33963170	33964252	-	UBAP2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5433	chr9	34011964	34013151	-	UBAP2	0x0
5434	chr9	34016524	34017695	-	UBAP2	0x0
5435	chr9	34049409	34050630	+	SNORD121B	0x0
5436	chr9	34087271	34088491	-	DCAF12	0x0
5437	chr9	34185383	34186545	+	UBAP1	0x0
5438	chr9	34282012	34283214	-	KIF24	0x0
5439	chr9	34634177	34635546	-	SIGMAR1	0x0
5440	chr9	35101379	35102543	-	STOML2	0x0
5441	chr9	35398409	35399768	+	UNC13B	0x0
5442	chr9	35547214	35548291	+	RUSC2	0x0
5443	chr9	35657197	35658583	-	RMRP	0x0
5444	chr9	35705464	35707665	-	TLN1	0x2
5445	chr9	35712376	35713551	-	TLN1	0x2
5446	chr9	35737757	35738923	-	GBA2	0x0
5447	chr9	35748405	35749597	-	GBA2	0x0
5448	chr9	36211270	36212469	+	CLTA	0x0
5449	chr9	36215412	36216592	-	GNE	0x0
5450	chr9	37161890	37162980	+	ZCCHC7	0x0
5451	chr9	37180719	37181818	+	ZCCHC7	0x0
5452	chr9	37394697	37395893	+	GRHPR	0x0
5453	chr9	37425972	37427149	+	GRHPR	0x0
5454	chr9	37757009	37758131	+	RG9MTD3	0x0
5455	chr9	37776759	37777892	-	EXOSC3	0x0
5456	chr9	38392326	38393556	+	ALDH1B1	0x0
5457	chr9	38406249	38407526	-	IGFBPL1	0x1
5458	chr9	38408287	38409466	-	IGFBPL1	0x1
5459	chr9	38542057	38543182	-	ANKRD18A	0x0
5460	chr9	38548716	38549888	-	ANKRD18A	0x0
5461	chr9	45454163	45455328	+	FAM27A	0x0
5462	chr9	66862489	66863606	-	LOC286297	0x0
5463	chr9	72276359	72277573	-	APBA1	0x4
5464	chr9	72802958	72804155	-	LOC100507244	0x0
5465	chr9	74319441	74320649	-	TMEM2	0x0
5466	chr9	77639260	77640400	-	C9orf41	0x0
5467	chr9	79000589	79001744	-	RFK	0x0
5468	chr9	79186185	79187441	+	GCNT1	0x0
5469	chr9	80333954	80335131	-	GNAQ	0x2
5470	chr9	80461575	80462760	-	GNAQ	0x2
5471	chr9	80526971	80528160	-	GNAQ	0x2
5472	chr9	80624392	80625619	-	GNAQ	0x2
5473	chr9	81149233	81150432	+	PSAT1	0x0
5474	chr9	82201319	82202535	+	TLE4	0x2
5475	chr9	84036070	84037267	+	FAM75D5	0x0
5476	chr9	84250539	84251853	-	TLE1	0x0
5477	chr9	84486792	84487991	-	TLE1	0x0
5478	chr9	85827443	85828601	-	FRMD3	0x0
5479	chr9	86186741	86188057	-	FRMD3	0x0
5480	chr9	86292867	86294079	-	UBQLN1	0x0
5481	chr9	86582599	86583805	-	HNRNPK	0x0
5482	chr9	86598602	86599787	+	RMI1	0x0
5483	chr9	88260737	88261915	-	AGTPBP1	0x0
5484	chr9	88307117	88308237	-	AGTPBP1	0x0
5485	chr9	90115188	90116387	+	DAPK1	0x1
5486	chr9	91925658	91926817	+	CKS2	0x0
5487	chr9	94053627	94054823	-	AUH	0x0
5488	chr9	94666775	94667954	-	ROR2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5489	chr9	95017779	95019585	-	IARS	0x0
5490	chr9	95026780	95027945	-	IARS	0x0
5491	chr9	95148146	95149332	+	CENPP	0x0
5492	chr9	95289868	95290971	+	CENPP	0x0
5493	chr9	96054324	96055449	+	WNK2	0x1
5494	chr9	96259226	96260410	+	FAM120A	0x1
5495	chr9	96260521	96261610	+	FAM120A	0x1
5496	chr9	96304540	96306154	+	FAM120A	0x1
5497	chr9	96425818	96426994	+	PHF2	0x0
5498	chr9	97626912	97628116	+	MIR2278	0x0
5499	chr9	97747161	97748371	+	C9orf3	0x0
5500	chr9	98205195	98206341	-	PTCH1	0x1
5501	chr9	98666745	98667943	+	C9orf102	0x0
5502	chr9	98703213	98704414	+	C9orf102	0x0
5503	chr9	98864832	98866024	-	LOC158434	0x0
5504	chr9	99541077	99542255	-	ZNF510	0x0
5505	chr9	100434963	100436183	+	NCBP1	0x0
5506	chr9	100443119	100444445	+	NCBP1	0x0
5507	chr9	100777282	100778579	+	ANP32B	0x0
5508	chr9	101495339	101496482	-	ANKS6	0x0
5509	chr9	103086818	103087997	-	TEX10	0x0
5510	chr9	105967533	105968751	+	CYLC2	0x0
5511	chr9	108456322	108457519	+	TMEM38B	0x0
5512	chr9	108535853	108537110	+	TMEM38B	0x0
5513	chr9	108651081	108652249	+	TMEM38B	0x0
5514	chr9	110089577	110090784	+	RAD23B	0x0
5515	chr9	111650030	111651171	-	IKBKAP	0x0
5516	chr9	111778364	111779477	-	C9orf5	0x0
5517	chr9	111780160	111781373	-	C9orf5	0x0
5518	chr9	111790148	111791333	-	C9orf5	0x0
5519	chr9	111812360	111813518	-	C9orf5	0x0
5520	chr9	113016565	113017668	-	TXN	0x0
5521	chr9	113170031	113171232	+	AKAP2	0x0
5522	chr9	113170031	113171232	+	PALM2-AKAP2	0x0
5523	chr9	113740724	113741947	-	LPAR1	0x0
5524	chr9	114176345	114177492	-	KIAA0368	0x0
5525	chr9	114696644	114697810	+	UGCG	0x0
5526	chr9	114796115	114797308	-	SUSD1	0x0
5527	chr9	114802856	114804030	-	SUSD1	0x0
5528	chr9	114980670	114981806	-	PTBP3	0x0
5529	chr9	114993295	114994445	-	PTBP3	0x0
5530	chr9	115013987	115015217	+	HSDL2	0x0
5531	chr9	115248759	115249937	+	KIAA1958	0x0
5532	chr9	115260536	115261678	+	KIAA1958	0x0
5533	chr9	115335902	115337364	+	KIAA1958	0x0
5534	chr9	115346600	115347807	+	KIAA1958	0x0
5535	chr9	115424721	115426125	+	KIAA1958	0x0
5536	chr9	115448029	115450211	-	C9orf80	0x0
5537	chr9	115469920	115471091	-	C9orf80	0x0
5538	chr9	115531377	115532567	+	SNX30	0x0
5539	chr9	115682177	115683415	+	SNX30	0x0
5540	chr9	116023582	116024730	+	SLC31A1	0x0
5541	chr9	116792285	116793484	+	ZNF618	0x0
5542	chr9	116815803	116817028	+	ZNF618	0x0
5543	chr9	116991103	116992232	+	COL27A1	0x0
5544	chr9	117068821	117069994	+	COL27A1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5545	chr9	117359969	117361206	+	ATP6V1G1	0x0
5546	chr9	117370634	117371856	-	LOC100505478	0x0
5547	chr9	120844756	120846132	-	ASTN2	0x0
5548	chr9	123227241	123228507	-	CDK5RAP2	0x0
5549	chr9	123618193	123619372	-	PHF19	0x0
5550	chr9	124101279	124102449	-	STOM	0x0
5551	chr9	124544477	124545706	+	DAB2IP	0x1
5552	chr9	124546847	124548061	+	DAB2IP	0x1
5553	chr9	125641926	125643151	-	RC3H2	0x0
5554	chr9	125641926	125643151	-	SNORD90	0x0
5555	chr9	125842673	125843822	+	RABGAP1	0x0
5556	chr9	126021388	126022620	-	STRBP	0x0
5557	chr9	127115305	127116453	-	PSMB7	0x0
5558	chr9	127194668	127195860	+	GPR144	0x0
5559	chr9	127362373	127363500	-	NR6A1	0x0
5560	chr9	127619641	127620905	-	RPL35	0x0
5561	chr9	128099141	128100376	+	GAPVD1	0x0
5562	chr9	128620793	128622016	+	PBX3	0x0
5563	chr9	128985818	128987014	-	NRON	0x0
5564	chr9	129456477	129457634	+	LMX1B	0x4
5565	chr9	129461350	129462503	+	LMX1B	0x4
5566	chr9	129567385	129568582	+	ZBTB43	0x0
5567	chr9	130209656	130210776	-	RPL12	0x0
5568	chr9	130547783	130548996	+	CDK9	0x0
5569	chr9	130547783	130548996	+	MIR2861	0x0
5570	chr9	130547783	130548996	+	MIR3960	0x0
5571	chr9	130630132	130631339	-	AK1	0x0
5572	chr9	130647627	130648808	-	ST6GALNAC6	0x0
5573	chr9	130886273	130887511	-	PTGES2	0x0
5574	chr9	131101823	131103019	-	TRUB2	0x0
5575	chr9	131369703	131371031	+	SPTAN1	0x2
5576	chr9	131457332	131458528	+	SET	0x2
5577	chr9	131517208	131518346	-	ZER1	0x0
5578	chr9	131668747	131669926	+	LRRC8A	0x0
5579	chr9	131679585	131680770	+	LRRC8A	0x0
5580	chr9	131727918	131729140	+	NUP188	0x0
5581	chr9	131732532	131733679	+	NUP188	0x0
5582	chr9	131770371	131771456	-	SH3GLB2	0x0
5583	chr9	131773181	131774253	-	SH3GLB2	0x0
5584	chr9	131832278	131833404	+	FAM73B	0x0
5585	chr9	132266292	132267491	+	LOC100506190	0x0
5586	chr9	132395806	132396981	+	METTL11A	0x0
5587	chr9	132400461	132402140	-	ASB6	0x0
5588	chr9	132650535	132651858	-	FNBP1	0x2
5589	chr9	132899707	132901024	+	GPR107	0x0
5590	chr9	132995682	132998198	+	NCS1	0x0
5591	chr9	133576846	133578028	+	EXOSC2	0x0
5592	chr9	133580429	133581619	+	EXOSC2	0x0
5593	chr9	133690736	133691950	+	ABL1	0x2
5594	chr9	133924803	133925919	+	LAMC3	0x0
5595	chr9	133996060	133997384	+	AIF1L	0x0
5596	chr9	134287069	134288195	+	PRRC2B	0x0
5597	chr9	134304953	134306142	+	PRRC2B	0x0
5598	chr9	134313808	134315037	+	PRRC2B	0x0
5599	chr9	134319022	134320189	+	PRRC2B	0x0
5600	chr9	134371214	134373009	+	PRRC2B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5601	chr9	134374644	134375968	+	PRRC2B	0x0
5602	chr9	134451766	134453602	-	RAPGEF1	0x0
5603	chr9	134857136	134858315	-	MED27	0x0
5604	chr9	134913794	134914897	-	MED27	0x0
5605	chr9	135139556	135140719	-	SETX	0x0
5606	chr9	135275910	135277087	-	TTF1	0x0
5607	chr9	135483943	135485086	-	DDX31	0x0
5608	chr9	135784782	135785881	-	TSC1	0x1
5609	chr9	135924729	135925906	+	GTF3C5	0x0
5610	chr9	135973592	135974691	-	RALGDS	0x2
5611	chr9	135998700	136000170	-	RALGDS	0x2
5612	chr9	136020317	136021667	-	RALGDS	0x2
5613	chr9	136203824	136205001	-	SURF6	0x0
5614	chr9	136216397	136217914	+	RPL7A	0x0
5615	chr9	136216397	136217914	+	SNORD36A	0x0
5616	chr9	136216397	136217914	+	SNORD36B	0x0
5617	chr9	136216397	136217914	+	SNORD36C	0x0
5618	chr9	136228108	136230784	-	SURF4	0x0
5619	chr9	136474800	136475979	-	FAM163B	0x0
5620	chr9	137023421	137024790	+	WDR5	0x0
5621	chr9	137029029	137030228	-	RNU6ATAC	0x0
5622	chr9	137305770	137306997	+	RXRA	0x0
5623	chr9	138264957	138266133	+	PPP1R26	0x0
5624	chr9	138651228	138652408	-	CAMSAP1	0x0
5625	chr9	138772916	138775474	-	CAMSAP1	0x0
5626	chr9	138835556	138836655	-	UBAC1	0x0
5627	chr9	139098581	139099758	-	QSOX2	0x0
5628	chr9	139248624	139249755	+	GPSM1	0x0
5629	chr9	139252436	139253615	+	GPSM1	0x0
5630	chr9	139270387	139271514	-	SNAPC4	0x0
5631	chr9	139300843	139302303	-	SDCCAG3	0x0
5632	chr9	139306000	139307223	+	PMPCA	0x0
5633	chr9	139326284	139327462	-	INPP5E	0x0
5634	chr9	139334317	139335518	-	SEC16A	0x0
5635	chr9	139355237	139356585	-	SEC16A	0x0
5636	chr9	139369167	139370266	-	SEC16A	0x0
5637	chr9	139608470	139609690	+	FAM69B	0x0
5638	chr9	139618664	139619796	-	SNHG7	0x0
5639	chr9	139620014	139621238	-	SNHG7	0x0
5640	chr9	139620014	139621238	-	SNORA17	0x0
5641	chr9	139620014	139621238	-	SNORA43	0x0
5642	chr9	139686353	139687562	+	TMEM141	0x0
5643	chr9	139716292	139717458	+	C9orf86	0x0
5644	chr9	139725678	139726811	+	C9orf86	0x0
5645	chr9	139734812	139735981	+	C9orf86	0x0
5646	chr9	139743402	139744501	+	PHPT1	0x4
5647	chr9	139827010	139828223	+	TRAF2	0x0
5648	chr9	139901384	139902524	-	ABCA2	0x0
5649	chr9	139904579	139905686	-	ABCA2	0x0
5650	chr9	139908105	139909204	-	ABCA2	0x0
5651	chr9	139911510	139912639	-	ABCA2	0x0
5652	chr9	139916992	139918141	-	ABCA2	0x0
5653	chr9	139936983	139939048	-	NPDC1	0x0
5654	chr9	139939110	139940262	-	NPDC1	0x0
5655	chr9	139956840	139958016	-	SAPCD2	0x0
5656	chr9	139972957	139974872	+	UAP1L1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5657	chr9	140001474	140002681	+	MAN1B1	0x0
5658	chr9	140078233	140079809	-	ANAPC2	0x0
5659	chr9	140082995	140084194	+	SSNA1	0x0
5660	chr9	140100452	140101634	+	NDOR1	0x0
5661	chr9	140136707	140137882	+	TUBB4B	0x0
5662	chr9	140147472	140148671	+	C9orf173	0x0
5663	chr9	140169601	140170815	+	C9orf167	0x0
5664	chr9	140279070	140280213	-	EXD3	0x0
5665	chr9	140342309	140343845	-	NELF	0x0
5666	chr9	140351347	140352478	-	NELF	0x0
5667	chr9	140375375	140376591	-	PNPLA7	0x0
5668	chr9	140481200	140482329	-	ZMYND19	0x0
5669	chr9	140484130	140485265	-	ZMYND19	0x0
5670	chr9	140637806	140638965	+	EHMT1	0x0
5671	chr9	140729130	140730908	+	EHMT1	0x0
5672	chr9	141054281	141055394	+	TUBBP5	0x0
5673	chr9	141132390	141133605	+	FAM157B	0x0
5674	chrX	3522243	3523476	-	PRKX	0x2
5675	chrX	6340101	6341264	-	MIR4770	0x0
5676	chrX	8326354	8327513	+	VCX3B	0x2
5677	chrX	9543660	9544882	+	TBL1X	0x0
5678	chrX	9571405	9572643	+	TBL1X	0x0
5679	chrX	9862050	9863191	+	SHROOM2	0x0
5680	chrX	11010346	11011488	-	ARHGAP6	0x0
5681	chrX	14629215	14630428	-	FANCB	0x0
5682	chrX	14876727	14877909	-	FANCB	0x0
5683	chrX	15421374	15422561	-	PIR-FIGF	0x0
5684	chrX	17091194	17092417	+	REPS2	0x0
5685	chrX	17300438	17301635	+	NHS	0x0
5686	chrX	18372174	18373364	-	SCML2	0x0
5687	chrX	20153607	20154922	-	EIF1AX	0x0
5688	chrX	20153607	20154922	-	SCARNA9L	0x0
5689	chrX	21576566	21577762	+	CNKSR2	0x0
5690	chrX	22229861	22231058	+	PHEX	0x0
5691	chrX	24095005	24096156	+	EIF2S3	0x0
5692	chrX	24175280	24176442	+	ZFX	0x0
5693	chrX	24196894	24198305	+	ZFX	0x0
5694	chrX	24761177	24763241	+	POLA1	0x0
5695	chrX	24761177	24763241	+	SCARNA23	0x0
5696	chrX	24977492	24978688	+	POLA1	0x0
5697	chrX	27399828	27401046	-	SMEK3P	0x0
5698	chrX	29000399	29001566	-	DCAF8L1	0x0
5699	chrX	30648152	30649398	+	GK	0x0
5700	chrX	34233500	34234721	+	FAM47B	0x0
5701	chrX	39645752	39646886	-	BCOR	0x2
5702	chrX	40464569	40465726	+	ATP6AP2	0x0
5703	chrX	41092038	41093252	+	USP9X	0x0
5704	chrX	41207726	41208825	+	DDX3X	0x1
5705	chrX	44736213	44737379	+	KDM6A	0x2
5706	chrX	46299524	46300707	-	ZNF674	0x0
5707	chrX	47081266	47082479	+	CDK16	0x0
5708	chrX	47088062	47089227	+	CDK16	0x0
5709	chrX	47495209	47496359	-	ELK1	0x0
5710	chrX	47665780	47667007	+	ZNF81	0x0
5711	chrX	47746834	47748055	+	ZNF81	0x0
5712	chrX	48435453	48436647	+	RBM3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5713	chrX	48462703	48463818	+	WDR13	0x0
5714	chrX	48831187	48832583	-	GRIPAP1	0x0
5715	chrX	49126721	49127934	+	PPP1R3F	0x0
5716	chrX	49857672	49858823	+	CLCN5	0x2
5717	chrX	51936036	51937238	+	MAGED4	0x0
5718	chrX	51936036	51937238	+	MAGED4B	0x0
5719	chrX	53106605	53107796	+	GPR173	0x0
5720	chrX	53134334	53135497	+	TSPYL2	0x0
5721	chrX	53405372	53407332	-	SMC1A	0x0
5722	chrX	53569946	53571046	-	HUWE1	0x0
5723	chrX	53618943	53620070	-	HUWE1	0x0
5724	chrX	53673766	53675041	-	HUWE1	0x0
5725	chrX	53792619	53793775	-	HUWE1	0x0
5726	chrX	54594744	54595938	+	GNL3L	0x0
5727	chrX	54596140	54597311	+	GNL3L	0x0
5728	chrX	56992161	56993336	-	SPIN3	0x0
5729	chrX	68004807	68006025	+	EFNB1	0x0
5730	chrX	68379551	68380728	-	PJA1	0x0
5731	chrX	68891771	68893024	+	EDA	0x0
5732	chrX	69380277	69381519	+	IGBP1	0x0
5733	chrX	69531191	69532421	+	KIF4A	0x0
5734	chrX	69691179	69692344	+	DLG3	0x2
5735	chrX	69720649	69721848	+	DLG3	0x2
5736	chrX	70182424	70183623	+	FOXO4	0x1
5737	chrX	70507281	70508462	-	ZMYM3	0x0
5738	chrX	70520333	70521503	+	NONO	0x2
5739	chrX	70602894	70604095	+	TAF1	0x2
5740	chrX	70861969	70863207	+	ACRC	0x0
5741	chrX	71570013	71571157	-	HDAC8	0x0
5742	chrX	71596356	71597548	-	HDAC8	0x0
5743	chrX	71769793	71770972	-	HDAC8	0x0
5744	chrX	73046559	73048327	-	XIST	0x4
5745	chrX	73052516	73053845	-	XIST	0x4
5746	chrX	73057033	73059270	-	XIST	0x4
5747	chrX	73062806	73063994	-	XIST	0x4
5748	chrX	73069685	73073030	-	XIST	0x4
5749	chrX	73170342	73171562	+	JPX	0x0
5750	chrX	73430482	73431552	-	MIR421	0x0
5751	chrX	73436680	73437810	-	MIR421	0x0
5752	chrX	73482382	73483604	-	FTX	0x0
5753	chrX	73494914	73496013	-	FTX	0x0
5754	chrX	76923431	76924656	-	ATRX	0x2
5755	chrX	77081697	77082848	-	MAGT1	0x0
5756	chrX	77105733	77106914	-	MAGT1	0x0
5757	chrX	79927079	79928302	-	BRWD3	0x0
5758	chrX	81950478	81951677	-	RPS6KA6	0x1
5759	chrX	85340420	85341609	-	CHM	0x0
5760	chrX	96438715	96439906	+	DIAPH2	0x0
5761	chrX	99410666	99411825	-	PCDH19	0x0
5762	chrX	100289732	100290890	-	TRMT2B	0x0
5763	chrX	100654698	100655907	-	GLA	0x0
5764	chrX	100668386	100669571	+	HNRNPH2	0x0
5765	chrX	100668386	100669571	+	RPL36A-HNRNPH2	0x0
5766	chrX	100678736	100679933	+	ARMCX4	0x0
5767	chrX	102108868	102110010	+	LOC100287765	0x0
5768	chrX	102185541	102186736	+	RAB40AL	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5769	chrX	102632229	102633433	+	NGFRAP1	0x0
5770	chrX	102930316	102931634	-	MORF4L2	0x0
5771	chrX	103407200	103408423	+	FAM199X	0x0
5772	chrX	103416323	103417521	+	FAM199X	0x0
5773	chrX	105855261	105856451	+	CXorf57	0x0
5774	chrX	106164212	106165373	-	RIPPLY1	0x0
5775	chrX	106184082	106185253	-	MORC4	0x0
5776	chrX	106236843	106238032	-	MORC4	0x0
5777	chrX	106296930	106298133	-	RBM41	0x0
5778	chrX	106312517	106313695	-	RBM41	0x0
5779	chrX	106351735	106352899	-	RBM41	0x0
5780	chrX	106956061	106957210	-	TSC22D3	0x0
5781	chrX	107083544	107084738	+	MID2	0x0
5782	chrX	107330418	107331641	-	PSMD10	0x0
5783	chrX	107692109	107693273	+	COL4A5	0x0
5784	chrX	107755369	107756586	+	COL4A5	0x0
5785	chrX	107962711	107965128	-	IRS4	0x2
5786	chrX	107965833	107966886	-	IRS4	0x2
5787	chrX	107978161	107979977	-	IRS4	0x2
5788	chrX	108296815	108298321	+	COL4A5	0x0
5789	chrX	108885425	108886557	-	ACSL4	0x0
5790	chrX	109418043	109419259	+	TMEM164	0x0
5791	chrX	109419535	109421324	+	TMEM164	0x0
5792	chrX	109440950	109442127	-	AMMECR1	0x0
5793	chrX	110928049	110929158	+	ALG13	0x0
5794	chrX	111556247	111557485	+	ZCCHC16	0x0
5795	chrX	112018826	112019925	-	AMOT	0x0
5796	chrX	112832649	112833826	-	AMOT	0x0
5797	chrX	114388539	114389720	-	LRCH2	0x0
5798	chrX	114860238	114861417	-	LRCH2	0x0
5799	chrX	114883597	114884758	+	PLS3	0x0
5800	chrX	114937422	114938740	+	PLS3	0x0
5801	chrX	114952760	114953901	-	LRCH2	0x0
5802	chrX	115033924	115035353	-	CXorf61	0x0
5803	chrX	115051152	115052326	-	CXorf61	0x0
5804	chrX	115108241	115109440	-	CXorf61	0x0
5805	chrX	117333430	117334585	-	KLHL13	0x0
5806	chrX	117512110	117513293	+	WDR44	0x0
5807	chrX	118151592	118152740	+	LONRF3	0x0
5808	chrX	118377285	118378507	+	PGRMC1	0x0
5809	chrX	118557172	118558436	+	SLC25A43	0x0
5810	chrX	118603146	118604243	+	SLC25A5	0x0
5811	chrX	118717249	118718392	+	UBE2A	0x2
5812	chrX	118919904	118921072	-	RPL39	0x0
5813	chrX	119005351	119006450	+	NDUFA1	0x0
5814	chrX	119390792	119391981	+	ZBTB33	0x0
5815	chrX	119658057	119660511	-	CUL4B	0x0
5816	chrX	122736393	122737568	-	THOC2	0x0
5817	chrX	123041693	123042887	+	XIAP	0x0
5818	chrX	123095598	123096767	+	STAG2	0x0
5819	chrX	123234731	123236864	+	STAG2	0x0
5820	chrX	128705605	128706804	+	OCRL	0x0
5821	chrX	128725857	128727037	+	OCRL	0x0
5822	chrX	129065075	129066245	-	ZDHHC9	0x0
5823	chrX	129535551	129536727	-	GPR119	0x0
5824	chrX	129538199	129539389	+	RBMX2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5825	chrX	130882834	130884008	-	LOC286467	0x0
5826	chrX	130889093	130890323	-	LOC286467	0x0
5827	chrX	130902059	130903202	-	LOC286467	0x0
5828	chrX	130917396	130918579	-	LOC286467	0x0
5829	chrX	130927787	130929004	-	LOC286467	0x0
5830	chrX	131198110	131199259	+	MST4	0x0
5831	chrX	131337023	131338180	-	RAP2C	0x0
5832	chrX	131512145	131513234	-	MBNL3	0x0
5833	chrX	131760858	131762133	-	HS6ST2	0x0
5834	chrX	132081206	132082401	-	HS6ST2	0x0
5835	chrX	132435951	132437179	-	GPC4	0x0
5836	chrX	132804697	132805894	+	CCDC160	0x0
5837	chrX	133682855	133684020	-	MIR424	0x0
5838	chrX	133683746	133684962	+	LOC100506757	0x0
5839	chrX	133693934	133695138	+	LOC100506757	0x0
5840	chrX	133750415	133751607	-	PLAC1	0x0
5841	chrX	133904208	133905344	-	FAM122B	0x0
5842	chrX	134169327	134170543	+	FAM127A	0x0
5843	chrX	134685389	134686586	+	DDX26B	0x0
5844	chrX	134700591	134701697	+	DDX26B	0x0
5845	chrX	134704442	134705586	+	DDX26B	0x0
5846	chrX	135044994	135047017	-	MMGT1	0x0
5847	chrX	135292161	135293316	+	FHL1	0x0
5848	chrX	135894541	135895736	-	ARHGEF6	0x0
5849	chrX	135960801	135962006	-	RBMX	0x1
5850	chrX	135960801	135962006	-	SNORD61	0x0
5851	chrX	138051867	138053046	+	LOC100129662	0x0
5852	chrX	138822633	138823803	-	ATP11C	0x0
5853	chrX	139806745	139807946	+	RP1-177G6.2	0x0
5854	chrX	144138226	144139456	+	SPANXN1	0x0
5855	chrX	147024021	147025185	+	FMR1	0x0
5856	chrX	147743371	147744594	+	AFF2	0x2
5857	chrX	148615669	148616861	-	LOC100131434	0x0
5858	chrX	148622764	148623954	+	CXorf40A	0x0
5859	chrX	149101387	149102530	-	CXorf40B	0x0
5860	chrX	149283200	149284299	+	LOC100272228	0x0
5861	chrX	149932765	149933963	+	MTMR1	0x0
5862	chrX	149934398	149936217	-	CD99L2	0x0
5863	chrX	150156335	150157614	+	HMGB3	0x0
5864	chrX	150347357	150348535	+	GPR50	0x0
5865	chrX	152138729	152139828	+	ZNF185	0x0
5866	chrX	152615120	152616281	+	ZNF275	0x0
5867	chrX	152712573	152713786	-	HAUS7	0x0
5868	chrX	152907741	152908844	+	DUSP9	0x2
5869	chrX	152931282	152932454	+	DUSP9	0x2
5870	chrX	152961002	152962294	+	SLC6A8	0x0
5871	chrX	153061339	153062580	+	SSR4	0x0
5872	chrX	153212601	153214292	-	HCFC1	0x0
5873	chrX	153229508	153230711	-	HCFC1	0x0
5874	chrX	153275908	153277630	-	IRAK1	0x0
5875	chrX	153282970	153284121	-	IRAK1	0x0
5876	chrX	153290837	153291997	-	MECP2	0x0
5877	chrX	153329200	153330332	-	MECP2	0x0
5878	chrX	153582804	153583968	-	FLNA	0x2
5879	chrX	153590352	153591533	-	FLNA	0x2
5880	chrX	153607528	153608725	+	EMD	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5881	chrX	153626228	153627408	+	RPL10	0x1
5882	chrX	153648801	153649993	+	TAZ	0x0
5883	chrX	153656522	153657630	+	ATP6AP1	0x0
5884	chrX	153663803	153666133	+	ATP6AP1	0x0
5885	chrX	153663803	153666133	+	GDI1	0x0
5886	chrX	153670936	153672130	+	GDI1	0x0
5887	chrX	153677138	153678294	+	FAM50A	0x0
5888	chrX	153736962	153738109	-	FAM3A	0x0
5889	chrX	153743942	153745077	-	FAM3A	0x0
5890	chrX	153996235	153997439	+	DKC1	0x0
5891	chrX	153996235	153997439	+	SNORA36A	0x0
5892	chrX	154002693	154003854	+	DKC1	0x0
5893	chrX	154002693	154003854	+	SNORA56	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
57	chr1	10006837	10008034	+	NMNAT1	0x0
58	chr1	10210619	10211845	+	UBE4B	0x1
59	chr1	10212128	10213323	+	UBE4B	0x1
60	chr1	10219898	10221032	+	UBE4B	0x1
61	chr1	10437072	10438185	+	KIF1B	0x1
62	chr1	10517254	10518437	-	DFFA	0x0
63	chr1	10519910	10521155	-	DFFA	0x0
64	chr1	11082896	11084096	+	TARDBP	0x0
65	chr1	11086612	11087712	+	TARDBP	0x0
66	chr1	11114167	11115339	-	SRM	0x0
67	chr1	11166821	11168000	-	MTOR	0x0
68	chr1	11190033	11191197	-	MTOR	0x0
69	chr1	11845848	11847032	-	MTHFR	0x0
70	chr1	11967643	11968911	+	PLOD1	0x0
71	chr1	11969319	11970555	-	KIAA2013	0x0
72	chr1	12024759	12025894	+	PLOD1	0x0
73	chr1	12071654	12072919	+	MFN2	0x0
74	chr1	12081168	12082397	+	MIIP	0x0
75	chr1	12337286	12338484	+	VPS13D	0x0
76	chr1	12496061	12497240	-	DHRS3	0x0
77	chr1	12534409	12535606	+	VPS13D	0x0
78	chr1	12828806	12829927	+	PRAMEF12	0x0
79	chr1	15931136	15932327	+	DDI2	0x0
80	chr1	16046315	16047483	+	PLEKHM2	0x0
81	chr1	16158644	16159843	-	FLJ37453	0x0
82	chr1	16163602	16164745	+	SPEN	0x0
83	chr1	16176405	16177587	+	SPEN	0x0
84	chr1	16198975	16200210	+	SPEN	0x0
85	chr1	16202208	16203403	+	SPEN	0x0
86	chr1	16256261	16257458	+	SPEN	0x0
87	chr1	16263796	16264969	+	SPEN	0x0
88	chr1	16265815	16266883	+	SPEN	0x0
89	chr1	16780855	16781964	-	CROCCP3	0x0
90	chr1	16846525	16847742	-	CROCCP3	0x0
91	chr1	16871860	16873033	-	NBPF1	0x0
92	chr1	17004176	17005430	-	ESPNP	0x0
93	chr1	17053194	17054426	+	MIR3675	0x0
94	chr1	17186168	17187363	+	CROCC	0x2
95	chr1	17187862	17189092	+	CROCC	0x2
96	chr1	17733274	17734587	-	RCC2	0x0
97	chr1	17748766	17749972	-	RCC2	0x0
98	chr1	19207589	19208765	-	ALDH4A1	0x0
99	chr1	19407485	19408666	-	UBR4	0x0
100	chr1	19467661	19468839	-	UBR4	0x0
101	chr1	19480827	19482021	-	UBR4	0x0
102	chr1	19510062	19511162	-	UBR4	0x0
103	chr1	19518563	19519634	-	UBR4	0x0
104	chr1	19625557	19627771	-	AKR7A2	0x0
105	chr1	19934145	19935669	+	C1orf151-NBL1	0x0
106	chr1	19934145	19935669	+	MINOS1	0x0
107	chr1	21068879	21070073	-	HP1BP3	0x0
108	chr1	21101451	21102605	-	HP1BP3	0x0
109	chr1	21112219	21113345	-	HP1BP3	0x0
110	chr1	21180924	21182129	-	EIF4G3	0x0
111	chr1	21219529	21220598	-	EIF4G3	0x0
112	chr1	21357497	21358722	-	EIF4G3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
113	chr1	21368009	21369192	-	EIF4G3	0x0
114	chr1	21469103	21470320	-	EIF4G3	0x0
115	chr1	21483420	21484575	-	EIF4G3	0x0
116	chr1	21499884	21501032	-	EIF4G3	0x0
117	chr1	22022042	22023220	-	USP48	0x0
118	chr1	22090919	22092045	-	USP48	0x0
119	chr1	22175614	22176789	-	HSPG2	0x0
120	chr1	22418197	22419329	+	CDC42	0x2
121	chr1	22438373	22439541	+	CDC42	0x2
122	chr1	23604893	23606066	-	HNRNPR	0x0
123	chr1	23611267	23612409	-	HNRNPR	0x0
124	chr1	23636297	23637464	-	HNRNPR	0x0
125	chr1	23664466	23665686	-	HNRNPR	0x0
126	chr1	23696173	23697372	+	C1orf213	0x0
127	chr1	24018563	24019764	+	RPL11	0x0
128	chr1	24035667	24036809	+	RPL11	0x0
129	chr1	24053341	24054440	+	TCEB3	0x0
130	chr1	24055464	24056625	+	TCEB3	0x0
131	chr1	24086902	24088096	-	LOC100506963	0x0
132	chr1	24121383	24122585	+	LYPLA2	0x0
133	chr1	24321543	24322767	+	PNRC2	0x0
134	chr1	24795527	24796626	+	NIPAL3	0x0
135	chr1	25168610	25169758	+	CLIC4	0x0
136	chr1	25686991	25688242	+	TMEM50A	0x0
137	chr1	26142500	26144914	+	SEPN1	0x0
138	chr1	26226551	26228033	-	STMN1	0x0
139	chr1	26799856	26800971	+	HMGN2	0x0
140	chr1	27212259	27213402	-	GPN2	0x0
141	chr1	27435519	27436813	-	SLC9A1	0x0
142	chr1	27586882	27588101	+	WDTC1	0x0
143	chr1	27632491	27633959	+	WDTC1	0x0
144	chr1	27730967	27732179	-	WASF2	0x0
145	chr1	27732345	27740500	-	WASF2	0x0
146	chr1	28240102	28241240	-	RPA2	0x0
147	chr1	28298923	28300079	-	EYA3	0x0
148	chr1	28352695	28353858	-	EYA3	0x0
149	chr1	28833307	28835831	+	RCC1	0x0
150	chr1	28833307	28835831	+	SNHG3	0x0
151	chr1	28904692	28908087	-	SNHG12	0x0
152	chr1	28904692	28908087	-	SNORA16A	0x0
153	chr1	28904692	28908087	-	SNORA44	0x0
154	chr1	28904692	28908087	-	SNORA61	0x0
155	chr1	28904692	28908087	-	SNORD99	0x0
156	chr1	28974564	28975822	+	RNU11	0x0
157	chr1	29247305	29248543	+	EPB41	0x1
158	chr1	29308535	29309673	-	TMEM200B	0x0
159	chr1	29444554	29446232	+	EPB41	0x1
160	chr1	29474230	29475417	-	SRSF4	0x0
161	chr1	29480719	29481895	-	SRSF4	0x0
162	chr1	30305391	30306547	-	MECR	0x0
163	chr1	31316149	31317342	+	LOC100129196	0x0
164	chr1	31467449	31468593	-	PUM1	0x0
165	chr1	31478154	31479311	-	PUM1	0x0
166	chr1	32203368	32204547	-	BAI2	0x1
167	chr1	32228432	32229591	-	BAI2	0x1
168	chr1	32507902	32509306	+	KHDRBS1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
169	chr1	32640327	32641537	+	KPNA6	0x0
170	chr1	32661663	32662812	+	TXLNA	0x0
171	chr1	32689077	32690271	+	EIF3I	0x0
172	chr1	32800031	32801234	-	MARCKSL1	0x0
173	chr1	33051782	33052957	+	ZBTB8A	0x0
174	chr1	33086866	33088028	-	ZBTB8OS	0x0
175	chr1	33474529	33475637	-	AK2	0x0
176	chr1	33765318	33766520	+	ZNF362	0x0
177	chr1	34029443	34030618	-	CSMD2	0x0
178	chr1	35316677	35317863	-	C1orf212	0x0
179	chr1	35648193	35650636	-	SFPQ	0x2
180	chr1	35651800	35652899	-	SFPQ	0x2
181	chr1	35656343	35657533	-	SFPQ	0x2
182	chr1	36031642	36032886	+	NCDN	0x0
183	chr1	36063797	36064965	-	PSMB2	0x0
184	chr1	36307953	36309152	+	EIF2C4	0x0
185	chr1	36388167	36389851	+	EIF2C1	0x0
186	chr1	36614384	36615568	-	TRAPPC3	0x0
187	chr1	36807748	36808925	-	STK40	0x0
188	chr1	39469513	39470715	+	AKIRIN1	0x0
189	chr1	39493910	39495136	+	NDUFS5	0x0
190	chr1	40029630	40030729	-	PABPC4	0x0
191	chr1	40032527	40033665	-	PABPC4	0x0
192	chr1	40032527	40033665	-	SNORA55	0x0
193	chr1	40041718	40042871	-	PABPC4	0x0
194	chr1	40413156	40414381	+	MFSD2A	0x1
195	chr1	40428168	40429524	+	MFSD2A	0x1
196	chr1	40537396	40538555	+	CAP1	0x0
197	chr1	40537899	40539087	-	PPT1	0x0
198	chr1	40598294	40599496	+	RLF	0x0
199	chr1	40930541	40931733	+	ZNF643	0x0
200	chr1	41476871	41478119	+	CTPS	0x0
201	chr1	41608008	41609172	-	SCMH1	0x0
202	chr1	41919561	41920665	+	LOC100507178	0x0
203	chr1	42641695	42642843	-	FOXJ3	0x0
204	chr1	42643332	42644469	-	FOXJ3	0x0
205	chr1	43161880	43162989	+	YBX1	0x0
206	chr1	43167147	43168350	+	YBX1	0x0
207	chr1	44125402	44126640	+	KDM4A	0x0
208	chr1	44170298	44171502	+	KDM4A	0x0
209	chr1	44369888	44371081	+	ST3GAL3	0x0
210	chr1	44371265	44372436	+	ST3GAL3	0x0
211	chr1	44442659	44443906	+	ATP6V0B	0x0
212	chr1	44911247	44912431	+	RNF220	0x0
213	chr1	45062534	45063657	-	TMEM53	0x0
214	chr1	45186916	45188147	-	TMEM53	0x0
215	chr1	45196159	45197386	-	BEST4	0x0
216	chr1	45240987	45242949	+	RPS8	0x0
217	chr1	45240987	45242949	+	SNORD46	0x0
218	chr1	45240987	45242949	+	SNORD55	0x0
219	chr1	45242965	45244687	+	RPS8	0x0
220	chr1	45242965	45244687	+	SNORD38A	0x0
221	chr1	45242965	45244687	+	SNORD38B	0x0
222	chr1	45284993	45286220	-	PTCH2	0x1
223	chr1	46125981	46127259	-	GPBP1L1	0x0
224	chr1	46148262	46149412	-	GPBP1L1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
225	chr1	46654276	46655502	-	POMGNT1	0x0
226	chr1	46859410	46860537	+	FAAH	0x0
227	chr1	47745459	47746710	-	STIL	0x0
228	chr1	47774668	47775846	-	STIL	0x0
229	chr1	49275861	49277039	-	BEND5	0x0
230	chr1	51049850	51051026	-	FAF1	0x0
231	chr1	51189287	51190509	-	FAF1	0x0
232	chr1	51715868	51717079	-	TTC39A	0x0
233	chr1	51787282	51788462	-	TTC39A	0x0
234	chr1	52379262	52380464	-	RAB3B	0x0
235	chr1	52438512	52439715	+	BTF3L4	0x0
236	chr1	52826661	52827803	-	CC2D1B	0x0
237	chr1	52837435	52838617	-	ORC1	0x2
238	chr1	53336515	53337624	+	ZYG11A	0x0
239	chr1	53349000	53350130	+	ZYG11A	0x0
240	chr1	53367018	53368216	+	ZYG11A	0x0
241	chr1	53491985	53493213	+	SCP2	0x0
242	chr1	53716288	53717467	-	LRP8	0x0
243	chr1	55315885	55317555	-	DHCR24	0x0
244	chr1	57129718	57130907	+	PRKAA2	0x0
245	chr1	59248014	59249266	-	JUN	0x2
246	chr1	60868316	60869493	+	HOOK1	0x0
247	chr1	61663674	61664848	+	NFIA	0x0
248	chr1	63182476	63183613	-	DOCK7	0x0
249	chr1	65008049	65009293	+	CACHD1	0x0
250	chr1	65234621	65235845	+	RAVER2	0x0
251	chr1	65523304	65524453	-	MIR101-1	0x1
252	chr1	65523304	65524453	-	MIR3671	0x0
253	chr1	67873676	67875700	-	SERBP1	0x0
254	chr1	67878205	67879389	-	SERBP1	0x0
255	chr1	67887368	67888559	-	SERBP1	0x0
256	chr1	68166950	68168313	-	GNG12	0x0
257	chr1	68273081	68274225	-	GNG12	0x0
258	chr1	70067427	70068625	+	LRRC7	0x0
259	chr1	70686727	70688033	+	SRSF11	0x2
260	chr1	76252214	76253404	+	RABGGTB	0x0
261	chr1	76252214	76253404	+	SNORD45C	0x0
262	chr1	77554193	77555417	-	PIGK	0x0
263	chr1	78170124	78171311	-	USP33	0x0
264	chr1	78410310	78411448	-	FUBP1	0x2
265	chr1	78434297	78435474	-	FUBP1	0x2
266	chr1	82403020	82404264	+	LPHN2	0x2
267	chr1	84570348	84571545	+	PRKACB	0x0
268	chr1	84966968	84968146	-	GNG5	0x0
269	chr1	85330676	85331965	-	LPAR3	0x0
270	chr1	85610552	85611775	-	SYDE2	0x0
271	chr1	86057408	86058620	+	CYR61	0x0
272	chr1	86079240	86080418	-	ZNHIT6	0x0
273	chr1	87426543	87427773	+	HS2ST1	0x0
274	chr1	87511146	87512431	+	HS2ST1	0x0
275	chr1	89255594	89256826	+	PKN2	0x0
276	chr1	89259619	89260755	+	PKN2	0x0
277	chr1	89270987	89272231	+	PKN2	0x0
278	chr1	90341079	90342295	+	LRRC8D	0x0
279	chr1	90472119	90473511	+	ZNF326	0x0
280	chr1	91363596	91364776	-	ZNF644	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
281	chr1	91852202	91853725	-	HFM1	0x0
282	chr1	92326566	92327783	-	TGFBR3	0x1
283	chr1	92724108	92725226	-	GLMN	0x0
284	chr1	92975994	92977194	-	EVI5	0x0
285	chr1	93588727	93590210	+	MTF2	0x0
286	chr1	93618375	93619763	-	TMED5	0x0
287	chr1	93803508	93804686	-	LOC100131564	0x0
288	chr1	93810953	93812167	+	DR1	0x0
289	chr1	94312549	94313776	+	MIR760	0x0
290	chr1	94899930	94901140	+	ABCD3	0x0
291	chr1	95401336	95402708	+	LOC729970	0x0
292	chr1	96690973	96692200	+	PTBP2	0x0
293	chr1	96911938	96913259	+	PTBP2	0x0
294	chr1	98628031	98629273	+	LOC729987	0x0
295	chr1	100139712	100140929	+	PALMD	0x0
296	chr1	100547299	100548483	+	HIAT1	0x0
297	chr1	101486719	101487914	-	DPH5	0x0
298	chr1	102251585	102252999	-	OLFM3	0x0
299	chr1	103507706	103508886	-	COL11A1	0x2
300	chr1	108112882	108114057	-	VAV3	0x0
301	chr1	109241985	109243695	+	PRPF38B	0x0
302	chr1	109604746	109605960	-	TAF13	0x0
303	chr1	109642240	109643797	+	SCARNA2	0x0
304	chr1	109852954	109854306	-	SORT1	0x0
305	chr1	110563994	110565230	+	AHCYL1	0x0
306	chr1	110881918	110883020	+	RBM15	0x2
307	chr1	110889786	110890938	+	RBM15	0x2
308	chr1	111983105	111984257	-	WDR77	0x0
309	chr1	112001663	112002811	+	ATP5F1	0x0
310	chr1	112186658	112187879	+	RAP1A	0x1
311	chr1	112198778	112199981	+	RAP1A	0x1
312	chr1	113212803	113214334	+	CAPZA1	0x0
313	chr1	113454053	113456912	-	SLC16A1	0x0
314	chr1	113459502	113460782	-	SLC16A1	0x0
315	chr1	113552218	113553398	+	LRIG2	0x0
316	chr1	113711026	113712272	+	LRIG2	0x0
317	chr1	114216414	114217630	+	MAGI3	0x0
318	chr1	115248058	115249362	-	NRAS	0x2
319	chr1	115259278	115261005	-	CSDE1	0x0
320	chr1	115259278	115261005	-	NRAS	0x2
321	chr1	115268298	115269476	-	CSDE1	0x0
322	chr1	115269811	115271040	+	SYCP1	0x0
323	chr1	115272477	115273735	-	CSDE1	0x0
324	chr1	115277451	115278611	-	CSDE1	0x0
325	chr1	116915330	116916732	+	ATP1A1	0x0
326	chr1	116926045	116927247	+	ATP1A1	0x0
327	chr1	116932313	116933518	+	ATP1A1	0x0
328	chr1	116946522	116947737	+	ATP1A1	0x0
329	chr1	117452059	117453257	+	PTGFRN	0x0
330	chr1	117640591	117641790	+	TTF2	0x0
331	chr1	117910253	117911401	+	MAN1A2	0x0
332	chr1	117944308	117945714	+	MAN1A2	0x0
333	chr1	117993522	117994752	+	MAN1A2	0x0
334	chr1	118530435	118531631	-	SPAG17	0x0
335	chr1	120543418	120544633	-	NOTCH2	0x2
336	chr1	144055799	144057061	+	SRGAP2P2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
337	chr1	144857432	144858775	-	PDE4DIP	0x2
338	chr1	144881054	144882227	-	PDE4DIP	0x2
339	chr1	144900376	144901530	-	PDE4DIP	0x2
340	chr1	144921748	144923136	-	PDE4DIP	0x2
341	chr1	145115870	145116991	+	SEC22B	0x0
342	chr1	145382265	145383487	+	NBPF10	0x0
343	chr1	145394939	145396145	-	POLR3GL	0x0
344	chr1	145508701	145509914	+	RBM8A	0x0
345	chr1	145510390	145511633	+	RBM8A	0x0
346	chr1	145577621	145578843	+	PIAS3	0x0
347	chr1	146555618	146556791	-	LOC728989	0x0
348	chr1	147510499	147511710	-	PDZK1P1	0x0
349	chr1	147825129	147826328	+	GPR89C	0x0
350	chr1	147993651	147994895	+	GPR89C	0x0
351	chr1	148240938	148242186	+	NBPF15	0x0
352	chr1	148247512	148248779	+	NBPF15	0x0
353	chr1	148344173	148345590	-	PPIAL4D	0x0
354	chr1	148344173	148345590	-	PPIAL4F	0x0
355	chr1	149193532	149194786	-	HIST2H2BF	0x0
356	chr1	149223492	149224764	-	HIST2H2BF	0x0
357	chr1	149229993	149231191	-	HIST2H2BF	0x0
358	chr1	149294107	149295294	-	HIST2H2BF	0x0
359	chr1	149298025	149299210	-	HIST2H2BF	0x0
360	chr1	149513523	149514749	-	HIST2H2BF	0x0
361	chr1	149803642	149804974	+	HIST2H4A	0x0
362	chr1	149803642	149804974	+	HIST2H4B	0x0
363	chr1	149822551	149824705	+	HIST2H2AA3	0x0
364	chr1	149822551	149824705	+	HIST2H2AA4	0x0
365	chr1	149822551	149824705	+	HIST2H3A	0x0
366	chr1	149822551	149824705	+	HIST2H3C	0x0
367	chr1	149857574	149858794	-	HIST2H2BE	0x0
368	chr1	149858006	149859450	+	HIST2H2AC	0x0
369	chr1	150190301	150191593	-	ANP32E	0x0
370	chr1	150208744	150210050	+	CA14	0x0
371	chr1	150324926	150326093	+	PRPF3	0x0
372	chr1	150418223	150419437	+	RPRD2	0x0
373	chr1	150445729	150446920	+	RPRD2	0x0
374	chr1	150464353	150465522	+	TARS2	0x0
375	chr1	150470489	150471707	+	TARS2	0x0
376	chr1	150548808	150549982	-	MCL1	0x0
377	chr1	150592648	150593816	-	ENSA	0x0
378	chr1	150594619	150595719	-	ENSA	0x0
379	chr1	150815378	150816598	-	ARNT	0x2
380	chr1	150901999	150903198	+	SETDB1	0x0
381	chr1	150937624	150938971	-	CERS2	0x0
382	chr1	151024631	151025836	-	CDC42SE1	0x0
383	chr1	151148459	151149816	-	TMOD4	0x0
384	chr1	151148459	151149816	-	VPS72	0x0
385	chr1	151214030	151215213	+	PIP5K1A	0x0
386	chr1	151377945	151379168	-	POGZ	0x0
387	chr1	151415600	151416737	-	POGZ	0x0
388	chr1	151424674	151425882	-	POGZ	0x0
389	chr1	151669554	151671784	+	SNX27	0x0
390	chr1	153608927	153610327	+	CHTOP	0x0
391	chr1	153637282	153638518	-	ILF2	0x0
392	chr1	153949216	153950397	-	JTB	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
393	chr1	154179204	154180520	-	C1orf43	0x0
394	chr1	154223078	154224555	+	UBAP2L	0x0
395	chr1	154229465	154230671	+	UBAP2L	0x0
396	chr1	154231629	154232898	+	UBAP2L	0x0
397	chr1	154554155	154556592	-	ADAR	0x0
398	chr1	154573661	154574860	-	ADAR	0x0
399	chr1	154744040	154745218	-	KCNN3	0x2
400	chr1	155092389	155093588	+	EFNA1	0x1
401	chr1	155216724	155217968	-	FAM189B	0x0
402	chr1	155222866	155224055	-	FAM189B	0x0
403	chr1	155238484	155239665	-	CLK2	0x0
404	chr1	155281808	155283956	+	FDPS	0x0
405	chr1	155387707	155388905	-	ASH1L	0x0
406	chr1	155392166	155393369	-	ASH1L	0x0
407	chr1	155628831	155630008	-	YY1AP1	0x0
408	chr1	155717315	155718435	-	GON4L	0x0
409	chr1	155734656	155735997	-	GON4L	0x0
410	chr1	155889121	155890387	-	SNORA42	0x0
411	chr1	155895194	155896426	-	KIAA0907	0x0
412	chr1	155895194	155896426	-	SCARNA4	0x0
413	chr1	155978393	155979751	-	SSR2	0x0
414	chr1	156005184	156006501	-	UBQLN4	0x0
415	chr1	156046144	156047385	-	MEX3A	0x0
416	chr1	156049971	156051157	-	MEX3A	0x0
417	chr1	156083983	156085214	+	LMNA	0x0
418	chr1	156711443	156713262	-	HDGF	0x0
419	chr1	159147726	159148925	+	CADM3	0x1
420	chr1	159887640	159888903	-	TAGLN2	0x0
421	chr1	160247969	160249354	-	PEX19	0x0
422	chr1	160323451	160324651	+	NCSTN	0x0
423	chr1	160964965	160966160	-	F11R	0x0
424	chr1	160967011	160968217	-	F11R	0x0
425	chr1	161140861	161142038	-	B4GALT3	0x0
426	chr1	161195560	161196876	+	TOMM40L	0x0
427	chr1	161287359	161288596	+	SDHC	0x2
428	chr1	161296677	161298830	+	SDHC	0x2
429	chr1	161409368	161410591	-	C1orf192	0x0
430	chr1	161500321	161501624	+	HSPA6	0x4
431	chr1	161581923	161583137	+	HSPA7	0x0
432	chr1	161590868	161592139	+	HSPA7	0x0
433	chr1	162470267	162471488	+	UHMK1	0x0
434	chr1	164569061	164570291	+	PBX1	0x2
435	chr1	165825882	165827031	+	UCK2	0x0
436	chr1	165878681	165880175	+	UCK2	0x0
437	chr1	166245062	166246377	-	FAM78B	0x0
438	chr1	166716741	166718458	+	POGK	0x0
439	chr1	166822396	166823563	+	POGK	0x0
440	chr1	167876363	167877573	-	ADCY10	0x0
441	chr1	168024779	168025960	-	GPR161	0x0
442	chr1	168218537	168219697	+	SFT2D2	0x0
443	chr1	169894169	169895391	-	KIFAP3	0x0
444	chr1	171470726	171471915	+	PRRC2C	0x0
445	chr1	171509758	171510953	+	PRRC2C	0x0
446	chr1	173760137	173761357	+	KLHL20	0x0
447	chr1	173832715	173837436	-	GAS5	0x1
448	chr1	173832715	173837436	-	SNORD44	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
449	chr1	173832715	173837436	-	SNORD47	0x0
450	chr1	173832715	173837436	-	SNORD74	0x0
451	chr1	173832715	173837436	-	SNORD75	0x0
452	chr1	173832715	173837436	-	SNORD76	0x0
453	chr1	173832715	173837436	-	SNORD77	0x0
454	chr1	173832715	173837436	-	SNORD78	0x0
455	chr1	173832715	173837436	-	SNORD79	0x0
456	chr1	173832715	173837436	-	SNORD80	0x0
457	chr1	173832715	173837436	-	SNORD81	0x0
458	chr1	173903892	173905070	-	RC3H1	0x0
459	chr1	173906989	173908288	-	RC3H1	0x0
460	chr1	174158307	174159546	+	RABGAP1L	0x0
461	chr1	178567950	178569162	+	C1orf220	0x0
462	chr1	178842862	178844097	+	RALGPS2	0x0
463	chr1	178886248	178887421	+	RALGPS2	0x0
464	chr1	179189773	179190983	-	ABL2	0x2
465	chr1	179813512	179814723	-	TOR1AIP2	0x0
466	chr1	179833159	179835492	-	TOR1AIP2	0x0
467	chr1	180080290	180081489	+	CEP350	0x0
468	chr1	180245669	180246855	-	LOC100527964	0x0
469	chr1	180737011	180738229	+	XPR1	0x0
470	chr1	180751452	180752652	+	XPR1	0x0
471	chr1	180944787	180946000	-	STX6	0x0
472	chr1	182352152	182354225	-	GLUL	0x0
473	chr1	182357155	182358347	-	GLUL	0x0
474	chr1	182822589	182823780	+	DHX9	0x0
475	chr1	182843646	182844797	+	DHX9	0x0
476	chr1	183451618	183452866	+	SMG7	0x0
477	chr1	183521166	183522365	+	SMG7	0x0
478	chr1	183599093	183600275	-	ARPC5	0x0
479	chr1	185029958	185031201	+	RNF2	0x0
480	chr1	185266746	185267923	-	IVNS1ABP	0x0
481	chr1	186341227	186342433	+	C1orf27	0x0
482	chr1	190328252	190329522	-	FAM5C	0x0
483	chr1	193054036	193055950	+	TROVE2	0x0
484	chr1	194881379	194882556	-	KCNT2	0x0
485	chr1	196246079	196247256	-	KCNT2	0x0
486	chr1	196454168	196455378	-	KCNT2	0x0
487	chr1	197123904	197125081	-	ZBTB41	0x2
488	chr1	198189561	198190790	+	NEK7	0x0
489	chr1	201104044	201105241	-	TMEM9	0x0
490	chr1	201263563	201264762	+	PKP1	0x0
491	chr1	201844844	201846017	+	IPO9	0x0
492	chr1	201846540	201847715	+	IPO9	0x0
493	chr1	202102898	202104120	-	ARL8A	0x0
494	chr1	202112029	202113216	-	ARL8A	0x0
495	chr1	202428654	202429874	+	PPP1R12B	0x0
496	chr1	203292770	203293990	+	BTG2	0x1
497	chr1	203765008	203766264	+	ZC3H11A	0x0
498	chr1	204061645	204062843	+	SOX13	0x0
499	chr1	204082926	204084098	+	SOX13	0x0
500	chr1	204475098	204476336	+	MDM4	0x2
501	chr1	204475595	204476748	-	PIK3C2B	0x0
502	chr1	204506187	204507372	+	MDM4	0x2
503	chr1	204522274	204523452	+	MDM4	0x2
504	chr1	204530962	204532206	-	LRRN2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
505	chr1	205217339	205218722	+	TMCC2	0x0
506	chr1	205273122	205274318	-	NUAK2	0x0
507	chr1	205592298	205593497	-	ELK4	0x2
508	chr1	205682685	205686265	-	NUCKS1	0x0
509	chr1	205686535	205687953	-	NUCKS1	0x0
510	chr1	205718529	205719853	-	NUCKS1	0x0
511	chr1	206518541	206519779	+	SRGAP2	0x0
512	chr1	206895521	206896732	+	MAPKAPK2	0x0
513	chr1	206905648	206907237	+	MAPKAPK2	0x0
514	chr1	207285121	207286300	+	C4BPA	0x0
515	chr1	210029291	210030488	+	DIEXF	0x0
516	chr1	211712199	211713383	-	SLC30A1	0x0
517	chr1	212265961	212267203	+	DTL	0x0
518	chr1	212273532	212274725	+	DTL	0x0
519	chr1	212792678	212793986	+	ATF3	0x0
520	chr1	212964633	212965882	+	TATDN3	0x0
521	chr1	214371742	214372972	+	SMYD2	0x0
522	chr1	214529737	214530959	-	PTPN14	0x4
523	chr1	215758835	215760082	+	KCTD3	0x0
524	chr1	216707533	216708744	-	ESRRG	0x0
525	chr1	216938284	216939482	+	SPATA17	0x0
526	chr1	217781474	217782701	-	GPATCH2	0x0
527	chr1	219464873	219466060	+	LYPLAL1	0x0
528	chr1	220290576	220291740	+	RNU5F-1	0x0
529	chr1	220343726	220344909	-	RAB3GAP2	0x0
530	chr1	220373343	220374520	-	MIR664	0x0
531	chr1	220373343	220374520	-	SNORA36B	0x0
532	chr1	220411787	220412985	-	RAB3GAP2	0x0
533	chr1	224186371	224187597	+	FBXO28	0x0
534	chr1	224458091	224459318	-	NVL	0x0
535	chr1	224487715	224488892	-	NVL	0x0
536	chr1	224621339	224622694	-	WDR26	0x0
537	chr1	224632047	224633294	+	CNIH4	0x0
538	chr1	225227059	225228271	+	DNAH14	0x0
539	chr1	225395058	225396267	+	DNAH14	0x0
540	chr1	225589675	225591446	-	LBR	0x0
541	chr1	225683421	225684835	-	ENAH	0x0
542	chr1	225699878	225701146	-	ENAH	0x0
543	chr1	225832972	225834130	-	ENAH	0x0
544	chr1	225839667	225840854	-	ENAH	0x0
545	chr1	225840886	225842085	-	ENAH	0x0
546	chr1	225976535	225978191	+	SRP9	0x0
547	chr1	226053350	226054557	-	TMEM63A	0x0
548	chr1	226231274	226232493	+	H3F3A	0x0
549	chr1	226308957	226310189	+	H3F3A	0x0
550	chr1	226308957	226310189	+	H3F3AP4	0x0
551	chr1	226332364	226333539	-	ACBD3	0x0
552	chr1	226548198	226550310	-	PARP1	0x0
553	chr1	226633087	226634318	+	C1orf95	0x0
554	chr1	226764909	226766092	+	C1orf95	0x0
555	chr1	227174238	227175480	+	ADCK3	0x0
556	chr1	228246176	228247405	+	WNT3A	0x0
557	chr1	228268372	228269597	-	C1orf35	0x0
558	chr1	228286031	228287395	+	ARF1	0x1
559	chr1	228460035	228461227	+	OBSCN	0x6
560	chr1	228464213	228465383	+	OBSCN	0x6

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
561	chr1	228479225	228480392	+	OBSCN	0x6
562	chr1	228588834	228589997	-	TRIM11	0x0
563	chr1	228742937	228744191	+	RHOU	0x0
564	chr1	228763318	228764571	-	HIST3H2A	0x0
565	chr1	228822584	228823835	+	DUSP5P	0x0
566	chr1	229452464	229453715	+	SPHAR	0x0
567	chr1	229829043	229830261	+	URB2	0x0
568	chr1	230376361	230377564	+	GALNT2	0x0
569	chr1	231076229	231077435	-	TTC13	0x0
570	chr1	231089569	231090749	-	TTC13	0x0
571	chr1	231113282	231114478	-	TTC13	0x0
572	chr1	231400510	231401943	+	GNPAT	0x0
573	chr1	231694808	231696046	+	TSNAX	0x0
574	chr1	231694808	231696046	+	TSNAX-DISC1	0x0
575	chr1	231990122	231991288	+	DISC1	0x0
576	chr1	233514316	233515555	+	KIAA1804	0x2
577	chr1	233518262	233519476	+	KIAA1804	0x2
578	chr1	233520067	233521316	+	KIAA1804	0x2
579	chr1	234492209	234493429	-	TARBP1	0x0
580	chr1	234496426	234497849	+	C1orf31	0x0
581	chr1	234563407	234565919	-	TARBP1	0x0
582	chr1	234585710	234586893	-	TARBP1	0x0
583	chr1	234605372	234606597	-	TARBP1	0x0
584	chr1	234610314	234611484	-	TARBP1	0x0
585	chr1	234613342	234614518	-	TARBP1	0x0
586	chr1	234741314	234743389	-	IRF2BP2	0x0
587	chr1	234745312	234746411	-	IRF2BP2	0x0
588	chr1	235272366	235273548	-	TOMM20	0x0
589	chr1	235273910	235275525	-	TOMM20	0x0
590	chr1	235290593	235291716	-	SNORA14B	0x0
591	chr1	235460844	235462024	-	ARID4B	0x0
592	chr1	235601456	235602682	+	TBCE	0x0
593	chr1	235796415	235797938	-	GNG4	0x0
594	chr1	236380467	236381595	-	ERO1LB	0x0
595	chr1	236430556	236431809	+	GPR137B	0x0
596	chr1	236646542	236647719	+	EDARADD	0x0
597	chr1	236706956	236708213	-	HEATR1	0x0
598	chr1	236961224	236962464	+	MTR	0x0
599	chr1	236975460	236976657	+	MTR	0x0
600	chr1	237007214	237008501	+	MTR	0x0
601	chr1	237765743	237767229	+	RYR2	0x2
602	chr1	243663467	243665403	-	AKT3	0x2
603	chr1	244586559	244587735	-	ADSS	0x0
604	chr1	244871059	244872312	+	PPPDE1	0x0
605	chr1	245013374	245014444	-	HNRNPU	0x2
606	chr1	245016406	245017772	-	HNRNPU	0x2
607	chr1	245020748	245021936	-	HNRNPU	0x2
608	chr1	245026904	245028090	-	HNRNPU	0x2
609	chr1	245106873	245108219	+	EFCAB2	0x0
610	chr1	245382092	245383296	+	KIF26B	0x0
611	chr1	246197368	246198550	-	SMYD3	0x0
612	chr1	246349541	246350748	-	SMYD3	0x0
613	chr1	246636841	246638018	-	SMYD3	0x0
614	chr1	247318878	247320068	-	ZNF124	0x0
615	chr1	247322465	247323700	-	ZNF124	0x0
616	chr1	247326069	247327168	-	ZNF124	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
617	chr1	247453655	247454860	-	ZNF496	0x0
618	chr1	247613596	247614816	+	NLRP3	0x2
619	chr1	249167501	249168976	+	ZNF672	0x0
620	chr10	327413	328640	-	DIP2C	0x0
621	chr10	666729	667894	-	DIP2C	0x0
622	chr10	717319	718546	-	DIP2C	0x0
623	chr10	851188	852361	-	LARP4B	0x0
624	chr10	857811	858983	-	LARP4B	0x0
625	chr10	897946	899153	-	LARP4B	0x0
626	chr10	915522	916733	-	LARP4B	0x0
627	chr10	1037878	1039077	+	GTPBP4	0x1
628	chr10	1177466	1178635	+	WDR37	0x0
629	chr10	3143076	3144273	+	PFKP	0x2
630	chr10	5498718	5499855	+	NET1	0x0
631	chr10	5894873	5896267	-	ANKRD16	0x0
632	chr10	7284973	7286228	-	SFMBT2	0x4
633	chr10	7318329	7319540	-	SFMBT2	0x4
634	chr10	7327265	7328458	-	SFMBT2	0x4
635	chr10	7361094	7362349	-	SFMBT2	0x4
636	chr10	7388629	7389823	-	SFMBT2	0x4
637	chr10	7884436	7885634	+	TAF3	0x0
638	chr10	8034661	8035813	+	TAF3	0x0
639	chr10	10817881	10819050	-	SFTA1P	0x0
640	chr10	11375072	11376197	+	CELF2	0x0
641	chr10	11529210	11530389	-	USP6NL	0x0
642	chr10	12139258	12140488	+	DHTKD1	0x0
643	chr10	12141598	12142790	+	DHTKD1	0x0
644	chr10	12193739	12194931	+	SEC61A2	0x0
645	chr10	13769281	13770472	+	PRPF18	0x0
646	chr10	15254670	15255759	-	FAM171A1	0x0
647	chr10	15677400	15678528	-	ITGA8	0x0
648	chr10	15885198	15886387	-	FAM188A	0x1
649	chr10	16512344	16513511	+	PTER	0x0
650	chr10	16517452	16518631	+	PTER	0x0
651	chr10	17271274	17272447	+	VIM	0x0
652	chr10	17278801	17280000	+	VIM	0x0
653	chr10	17658065	17659244	-	PTPLA	0x0
654	chr10	17693625	17694846	+	STAM	0x0
655	chr10	18731218	18732413	+	CACNB2	0x0
656	chr10	18969440	18970539	+	ARL5B	0x0
657	chr10	21442123	21443301	-	C10orf113	0x0
658	chr10	21453958	21455156	+	LOC100128511	0x0
659	chr10	21934560	21935750	+	MLLT10	0x0
660	chr10	21944578	21945780	+	MLLT10	0x0
661	chr10	21974309	21975409	+	MLLT10	0x0
662	chr10	22221492	22222711	+	MLLT10	0x0
663	chr10	22517892	22519075	-	EBLN1	0x0
664	chr10	27046890	27048090	+	PDSS1	0x0
665	chr10	27112344	27113521	-	ABI1	0x2
666	chr10	27414860	27416037	-	YME1L1	0x0
667	chr10	27422424	27423599	-	YME1L1	0x0
668	chr10	27430769	27431910	-	YME1L1	0x0
669	chr10	27484861	27486047	-	ACBD5	0x0
670	chr10	27529727	27530930	-	ACBD5	0x0
671	chr10	27828011	27829181	+	RAB18	0x0
672	chr10	28840201	28841312	+	WAC	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
673	chr10	28896605	28897768	+	WAC	0x0
674	chr10	30601620	30602784	-	MTPAP	0x0
675	chr10	32197132	32198312	-	ARHGAP12	0x0
676	chr10	32298882	32300844	-	KIF5B	0x2
677	chr10	32307631	32308819	-	KIF5B	0x2
678	chr10	32599864	32601121	-	EPC1	0x2
679	chr10	33532312	33533462	-	NRP1	0x0
680	chr10	34682668	34684029	-	PARD3	0x0
681	chr10	34931805	34940500	-	PARD3	0x0
682	chr10	35005954	35007146	-	PARD3	0x0
683	chr10	35674327	35675517	+	CCNY	0x0
684	chr10	38104286	38105423	-	ZNF248	0x0
685	chr10	38410549	38411702	+	ZNF37A	0x2
686	chr10	38726021	38727193	+	LOC399744	0x0
687	chr10	42987909	42989114	+	LOC84856	0x0
688	chr10	43047320	43048711	-	ZNF37BP	0x0
689	chr10	45950107	45951270	-	MARCH8	0x0
690	chr10	48205645	48206744	+	AGAP9	0x0
691	chr10	49862031	49863217	-	ARHGAP22	0x0
692	chr10	50910581	50911972	-	OGDHL	0x0
693	chr10	51387116	51388251	+	MSMB	0x1
694	chr10	51591654	51592946	-	TIMM23	0x0
695	chr10	51748030	51749191	+	AGAP6	0x0
696	chr10	52141798	52142974	-	SGMS1	0x0
697	chr10	52789097	52790200	+	PRKG1	0x0
698	chr10	52938396	52939541	+	PRKG1	0x0
699	chr10	52980093	52981305	+	PRKG1	0x0
700	chr10	52999596	53000733	+	MIR605	0x0
701	chr10	53089007	53090231	+	MIR605	0x0
702	chr10	53134151	53135349	+	MIR605	0x0
703	chr10	53342480	53343660	+	PRKG1	0x0
704	chr10	53412101	53413200	+	PRKG1	0x0
705	chr10	53426903	53428121	+	PRKG1	0x0
706	chr10	57419102	57420322	-	ZWINT	0x0
707	chr10	57526788	57528007	-	ZWINT	0x0
708	chr10	58117180	58118473	-	ZWINT	0x0
709	chr10	61550012	61551187	-	CCDC6	0x0
710	chr10	61646660	61647838	-	CCDC6	0x0
711	chr10	61799473	61800681	-	ANK3	0x2
712	chr10	62471757	62472934	-	ANK3	0x2
713	chr10	62553173	62554457	+	CDK1	0x0
714	chr10	62670575	62671753	-	RHOBTB1	0x0
715	chr10	63447839	63449050	+	C10orf107	0x0
716	chr10	63976408	63977620	-	RTKN2	0x0
717	chr10	65006684	65007886	-	JMJD1C	0x0
718	chr10	65256338	65257454	-	JMJD1C	0x0
719	chr10	65283600	65284816	+	REEP3	0x0
720	chr10	65358845	65360025	+	REEP3	0x0
721	chr10	65381754	65383090	+	REEP3	0x0
722	chr10	67420760	67421880	-	CTNNA3	0x4
723	chr10	69090896	69092095	-	CTNNA3	0x4
724	chr10	69523738	69525755	+	SIRT1	0x0
725	chr10	69556175	69557381	-	DNAJC12	0x0
726	chr10	70101826	70103014	+	HNRNPH3	0x0
727	chr10	70128501	70129686	-	RUFY2	0x0
728	chr10	70153037	70154136	-	RUFY2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
729	chr10	70227468	70228610	-	DNA2	0x0
730	chr10	70286378	70287515	-	SLC25A16	0x0
731	chr10	70416334	70417482	+	TET1	0x0
732	chr10	70425287	70426442	+	TET1	0x0
733	chr10	70458278	70459445	+	TET1	0x0
734	chr10	70514348	70515593	+	CCAR1	0x0
735	chr10	70514348	70515593	+	SNORD98	0x0
736	chr10	70521337	70522505	+	CCAR1	0x0
737	chr10	70526118	70527353	+	CCAR1	0x0
738	chr10	70547382	70548611	+	CCAR1	0x0
739	chr10	70719311	70720548	+	DDX21	0x0
740	chr10	70742633	70743716	+	DDX21	0x0
741	chr10	71213672	71214905	+	TSPAN15	0x0
742	chr10	71968827	71969932	-	PPA1	0x0
743	chr10	72090161	72091301	-	LRRC20	0x0
744	chr10	72179181	72180412	+	EIF4EBP2	0x0
745	chr10	72182095	72183256	+	EIF4EBP2	0x0
746	chr10	72186344	72188291	+	EIF4EBP2	0x0
747	chr10	72226248	72227487	+	KIAA1274	0x0
748	chr10	72327126	72328451	+	KIAA1274	0x0
749	chr10	72603792	72604923	+	SGPL1	0x0
750	chr10	72638485	72639719	+	SGPL1	0x0
751	chr10	73059524	73060994	+	UNC5B	0x1
752	chr10	73575664	73577723	-	PSAP	0x0
753	chr10	73769977	73771076	+	CHST3	0x0
754	chr10	73771572	73773721	+	CHST3	0x0
755	chr10	74226979	74228171	-	MICU1	0x0
756	chr10	74645466	74646663	+	MCU	0x0
757	chr10	74761035	74762200	-	P4HA1	0x0
758	chr10	74853987	74855251	-	P4HA1	0x0
759	chr10	75008449	75009792	-	MRPS16	0x0
760	chr10	75262821	75263997	-	USP54	0x0
761	chr10	75433909	75435129	-	AGAP5	0x0
762	chr10	75456729	75457933	-	AGAP5	0x0
763	chr10	75536646	75537837	+	FUT11	0x0
764	chr10	75545273	75546461	+	KIAA0913	0x0
765	chr10	75558239	75559455	+	KIAA0913	0x0
766	chr10	75623611	75624834	-	CAMK2G	0x0
767	chr10	75828203	75829447	+	VCL	0x1
768	chr10	76102005	76103155	+	ADK	0x0
769	chr10	76602446	76603781	+	KAT6B	0x2
770	chr10	76870831	76872021	+	SAMD8	0x0
771	chr10	76936412	76937545	+	SAMD8	0x0
772	chr10	76983205	76984301	+	VDAC2	0x0
773	chr10	76994299	76995499	-	COMTD1	0x0
774	chr10	76995165	76996322	+	VDAC2	0x0
775	chr10	77160413	77161591	-	ZNF503	0x0
776	chr10	77550216	77551415	+	C10orf11	0x0
777	chr10	79514310	79515493	-	DLG5	0x2
778	chr10	79550701	79552113	-	DLG5	0x2
779	chr10	79580656	79581853	-	DLG5	0x2
780	chr10	79729156	79730355	-	POLR3A	0x2
781	chr10	79794606	79795831	+	RPS24	0x0
782	chr10	79796462	79797625	+	RPS24	0x0
783	chr10	79799824	79800997	+	RPS24	0x0
784	chr10	80146596	80147772	-	POLR3A	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
785	chr10	81572099	81573257	-	SFTPD	0x0
786	chr10	81686310	81687409	+	MBL1P	0x0
787	chr10	81885271	81886500	+	PLAC9	0x0
788	chr10	85911939	85913402	+	GHITM	0x0
789	chr10	87571839	87573088	-	GRID1	0x2
790	chr10	87811722	87812914	+	LOC100507470	0x0
791	chr10	88126165	88127381	+	OPN4	0x0
792	chr10	88256073	88257291	-	WAPAL	0x0
793	chr10	88266884	88268077	-	WAPAL	0x0
794	chr10	88648778	88650011	+	BMPR1A	0x2
795	chr10	89312084	89313511	+	MINPP1	0x0
796	chr10	89512707	89513915	-	ATAD1	0x0
797	chr10	89542693	89544610	-	ATAD1	0x0
798	chr10	89727592	89728794	+	PTEN	0x1
799	chr10	90999167	91000389	-	LIPA	0x0
800	chr10	91144482	91145707	-	SLC16A12	0x0
801	chr10	92986428	92987533	+	PCGF5	0x0
802	chr10	93576218	93577444	+	TNKS2	0x0
803	chr10	93756841	93758040	+	BTAF1	0x0
804	chr10	94044068	94045250	-	CPEB3	0x0
805	chr10	94092672	94093873	+	MARCH5	0x0
806	chr10	94193802	94195017	-	MARK2P9	0x0
807	chr10	94685206	94686408	+	EXOC6	0x0
808	chr10	96108489	96109640	-	NOC3L	0x0
809	chr10	96117423	96118595	-	NOC3L	0x0
810	chr10	96122067	96123244	-	NOC3L	0x0
811	chr10	96349622	96350815	+	HELLS	0x0
812	chr10	96362603	96364743	+	HELLS	0x0
813	chr10	96370239	96371467	+	HELLS	0x0
814	chr10	97888941	97890188	+	ZNF518A	0x2
815	chr10	98038160	98039356	+	DNTT	0x0
816	chr10	98281270	98282442	-	TM9SF3	0x0
817	chr10	98352618	98353841	-	PIK3AP1	0x0
818	chr10	98560827	98562069	-	PIK3AP1	0x0
819	chr10	98619000	98620163	+	LCOR	0x0
820	chr10	98697481	98698689	+	LCOR	0x0
821	chr10	99200150	99201299	-	EXOSC1	0x0
822	chr10	99211300	99212538	+	ZDHHC16	0x0
823	chr10	99220768	99221879	-	MMS19	0x0
824	chr10	99257035	99258187	-	MMS19	0x0
825	chr10	99434051	99435229	-	AVPI1	0x2
826	chr10	99486666	99487852	+	MARVELD1	0x0
827	chr10	99620012	99621179	+	GOLGA7B	0x0
828	chr10	101106408	101107648	+	CNNM1	0x0
829	chr10	101189707	101190895	-	GOT1	0x0
830	chr10	101198213	101199432	+	CNNM1	0x0
831	chr10	101446019	101447252	+	ENTPD7	0x0
832	chr10	101909566	101910739	-	ERLIN1	0x0
833	chr10	101996380	101997710	-	CWF19L1	0x0
834	chr10	101996380	101997710	-	SNORA12	0x0
835	chr10	102012574	102013761	-	CWF19L1	0x0
836	chr10	102121124	102123864	+	SCD	0x0
837	chr10	102123929	102124967	+	SCD	0x0
838	chr10	102312573	102313722	+	HIF1AN	0x0
839	chr10	102510249	102511465	+	PAX2	0x0
840	chr10	102588417	102589613	+	PAX2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
841	chr10	102740219	102741347	-	MRPL43	0x0
842	chr10	102746626	102747726	-	MRPL43	0x0
843	chr10	102826216	102827396	+	KAZALD1	0x0
844	chr10	103066793	103067972	+	BTRC	0x0
845	chr10	103124035	103125312	-	LBX1	0x0
846	chr10	103432736	103433950	-	FBXW4	0x0
847	chr10	103732741	103733962	-	C10orf76	0x0
848	chr10	103870177	103871418	-	LDB1	0x6
849	chr10	103903555	103904683	+	PPRC1	0x0
850	chr10	104350740	104351950	+	SUFU	0x1
851	chr10	104391364	104392863	+	SUFU	0x1
852	chr10	104618319	104619522	+	C10orf32	0x0
853	chr10	104618319	104619522	+	C10orf32-AS3MT	0x0
854	chr10	104703041	104704186	+	CNNM2	0x0
855	chr10	104841572	104842768	+	CNNM2	0x0
856	chr10	104929881	104931142	-	NT5C2	0x0
857	chr10	104936094	104937308	+	LOC729020	0x0
858	chr10	104966476	104967641	-	NT5C2	0x0
859	chr10	105071657	105072830	-	PCGF6	0x0
860	chr10	105236366	105237543	-	CALHM3	0x0
861	chr10	105354565	105355675	-	SH3PXD2A	0x0
862	chr10	105359058	105360157	-	SH3PXD2A	0x0
863	chr10	105402766	105403933	-	SH3PXD2A	0x0
864	chr10	105753471	105754685	+	SLK	0x0
865	chr10	105797373	105798600	+	SLK	0x0
866	chr10	108729213	108730449	+	SORCS3	0x0
867	chr10	111825059	111826221	+	ADD3	0x0
868	chr10	112045697	112046917	+	MXI1	0x1
869	chr10	112541004	112542127	+	RBM20	0x0
870	chr10	112556693	112557891	+	RBM20	0x0
871	chr10	112601898	112603122	-	LOC282997	0x0
872	chr10	114300308	114301485	+	VTI1A	0x2
873	chr10	114430666	114431996	+	VTI1A	0x2
874	chr10	114575897	114577131	+	VTI1A	0x2
875	chr10	114803679	114804834	+	TCF7L2	0x1
876	chr10	114810783	114812085	+	TCF7L2	0x1
877	chr10	114832960	114834173	+	TCF7L2	0x1
878	chr10	114994467	114995686	+	TCF7L2	0x1
879	chr10	116191291	116192572	-	ABLIM1	0x0
880	chr10	116192892	116194131	-	ABLIM1	0x0
881	chr10	116194170	116195533	-	ABLIM1	0x0
882	chr10	116482750	116483970	+	FAM160B1	0x0
883	chr10	116726306	116727502	+	TRUB1	0x0
884	chr10	118432853	118434126	-	HSPA12A	0x0
885	chr10	118659202	118660345	-	KIAA1598	0x0
886	chr10	118672336	118673543	-	KIAA1598	0x0
887	chr10	119040865	119042286	-	PDZD8	0x0
888	chr10	119133806	119134993	-	PDZD8	0x0
889	chr10	119613911	119615133	-	RAB11FIP2	0x0
890	chr10	120444662	120445977	-	C10orf46	0x0
891	chr10	120801317	120802788	-	EIF3A	0x2
892	chr10	120827133	120828353	+	NANOS1	0x0
893	chr10	120829962	120831338	-	EIF3A	0x2
894	chr10	120928180	120929329	-	PRDX3	0x0
895	chr10	121334411	121335594	-	TIAL1	0x0
896	chr10	121335956	121337136	-	TIAL1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
897	chr10	121608403	121609588	-	MCMBP	0x0
898	chr10	123310751	123311964	-	FGFR2	0x2
899	chr10	123324439	123325692	-	FGFR2	0x2
900	chr10	123663896	123665105	-	ATE1	0x0
901	chr10	123718953	123720157	-	NSMCE4A	0x0
902	chr10	124913829	124915052	+	BUB3	0x0
903	chr10	124924070	124925428	+	BUB3	0x0
904	chr10	124934702	124936353	+	BUB3	0x0
905	chr10	124991437	124992665	+	BUB3	0x0
906	chr10	125025863	125027036	+	BUB3	0x0
907	chr10	125114673	125115921	+	BUB3	0x0
908	chr10	125164937	125166171	+	BUB3	0x0
909	chr10	125198504	125199751	+	GPR26	0x0
910	chr10	125664056	125665258	-	CPXM2	0x0
911	chr10	125774837	125776019	-	CHST15	0x0
912	chr10	125830388	125831664	-	CHST15	0x0
913	chr10	126308995	126312062	-	FAM53B	0x0
914	chr10	126369856	126371487	-	FAM53B	0x0
915	chr10	126464474	126465618	-	METTL10	0x0
916	chr10	126475775	126476905	-	METTL10	0x0
917	chr10	126496071	126497298	+	FAM175B	0x0
918	chr10	126700536	126701714	-	CTBP2	0x1
919	chr10	126800984	126802132	-	CTBP2	0x1
920	chr10	126816411	126817597	-	CTBP2	0x1
921	chr10	127411064	127412263	+	C10orf137	0x2
922	chr10	127705459	127706666	-	ADAM12	0x2
923	chr10	128854346	128855588	+	DOCK1	0x0
924	chr10	129894800	129896956	-	MKI67	0x0
925	chr10	129905232	129906521	-	MKI67	0x0
926	chr10	129913111	129914504	-	MKI67	0x0
927	chr10	131634425	131635894	-	EBF3	0x0
928	chr10	131642924	131644143	+	MGMT	0x0
929	chr10	132107642	132108887	+	GLRX3	0x0
930	chr10	132179372	132180570	-	LOC387723	0x0
931	chr10	134109868	134111045	-	STK32C	0x0
932	chr10	134754867	134756042	-	TTC40	0x0
933	chr10	135095771	135096937	-	TUBGCP2	0x0
934	chr10	135115703	135116996	-	TUBGCP2	0x0
935	chr10	135121757	135122955	-	TUBGCP2	0x0
936	chr10	135222774	135224017	+	MTG1	0x0
937	chr11	290224	291416	+	ATHL1	0x0
938	chr11	439910	441128	-	ANO9	0x0
939	chr11	642177	643361	-	DEAF1	0x0
940	chr11	671065	672334	-	DEAF1	0x0
941	chr11	769924	771342	-	PDDC1	0x0
942	chr11	790565	791735	-	SLC25A22	0x0
943	chr11	809719	810944	+	RPLP2	0x0
944	chr11	811175	813388	+	RPLP2	0x0
945	chr11	811175	813388	+	SNORA52	0x0
946	chr11	988708	989919	+	AP2A2	0x0
947	chr11	1773934	1775128	-	CTSD	0x0
948	chr11	2393292	2394489	+	CD81	0x4
949	chr11	2417707	2419006	+	CD81	0x4
950	chr11	2984521	2985619	-	SNORA54	0x0
951	chr11	3383623	3384799	-	ZNF195	0x0
952	chr11	3716135	3717338	-	NUP98	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
953	chr11	6631438	6632537	-	TAF10	0x0
954	chr11	8125426	8126565	+	TUB	0x0
955	chr11	8538631	8539771	-	STK33	0x0
956	chr11	8689247	8690420	-	TRIM66	0x0
957	chr11	8705244	8706446	+	RPL27A	0x0
958	chr11	8705244	8706446	+	SNORA3	0x0
959	chr11	8706452	8707671	+	RPL27A	0x0
960	chr11	8706452	8707671	+	SNORA45	0x0
961	chr11	9310545	9311720	-	TMEM41B	0x0
962	chr11	9431002	9432103	+	IPO7	0x0
963	chr11	9449754	9451088	+	IPO7	0x0
964	chr11	9449754	9451088	+	SNORA23	0x0
965	chr11	9461513	9462627	+	IPO7	0x0
966	chr11	9609488	9610703	+	WEE1	0x0
967	chr11	10264434	10265657	-	SBF2	0x0
968	chr11	10529526	10530696	-	MIR4485	0x0
969	chr11	10529526	10530696	-	MTRNR2L8	0x0
970	chr11	10818436	10819796	-	EIF4G2	0x0
971	chr11	10822497	10823700	-	EIF4G2	0x0
972	chr11	10822497	10823700	-	SNORD97	0x0
973	chr11	12962124	12963416	+	TEAD1	0x0
974	chr11	13434590	13435724	-	BTBD10	0x0
975	chr11	13440526	13441707	-	BTBD10	0x0
976	chr11	14478587	14479807	-	COPB1	0x0
977	chr11	16760098	16761286	+	C11orf58	0x0
978	chr11	16995727	16997058	-	PLEKHA7	0x0
979	chr11	17095623	17098089	-	RPS13	0x0
980	chr11	17098092	17099231	-	RPS13	0x0
981	chr11	17225281	17226466	-	PIK3C2A	0x0
982	chr11	17399390	17400490	+	B7H6	0x0
983	chr11	18428322	18429599	+	LDHA	0x0
984	chr11	19422875	19424100	-	NAV2-AS4	0x0
985	chr11	22248369	22249579	+	ANO5	0x0
986	chr11	22709343	22710553	+	GAS2	0x0
987	chr11	22795836	22797053	+	GAS2	0x0
988	chr11	23427115	23428335	+	GAS2	0x0
989	chr11	28191782	28193016	+	METTL15	0x0
990	chr11	28592373	28593592	+	METTL15	0x0
991	chr11	32608006	32609259	+	EIF3M	0x0
992	chr11	33100090	33101473	+	LINC00294	0x0
993	chr11	33160995	33162510	-	CSTF3	0x0
994	chr11	33690488	33691795	+	C11orf41	0x0
995	chr11	34073293	34074505	+	CAPRIN1	0x0
996	chr11	34117590	34118706	+	CAPRIN1	0x0
997	chr11	34121064	34122602	+	CAPRIN1	0x0
998	chr11	34368183	34369357	-	ABTB2	0x0
999	chr11	35473459	35474657	-	PAMR1	0x0
1000	chr11	36248223	36249497	+	LDLRAD3	0x0
1001	chr11	38594065	38595243	+	C11orf74	0x0
1002	chr11	43465120	43466265	+	TTC17	0x0
1003	chr11	43701813	43703100	+	HSD17B12	0x0
1004	chr11	43710889	43712096	+	HSD17B12	0x0
1005	chr11	43713719	43714879	+	HSD17B12	0x0
1006	chr11	44104241	44105440	+	ACCS	0x0
1007	chr11	44147814	44149025	+	EXT2	0x1
1008	chr11	44950191	44951341	+	TSPAN18	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1009	chr11	44953860	44955070	-	TP53I11	0x0
1010	chr11	45923521	45924726	+	MAPK8IP1	0x0
1011	chr11	46449763	46450915	-	AMBRA1	0x0
1012	chr11	46514646	46515836	-	AMBRA1	0x0
1013	chr11	46699392	46700538	-	ARHGAP1	0x0
1014	chr11	46772535	46773582	-	CKAP5	0x0
1015	chr11	47489352	47490908	-	CELF1	0x0
1016	chr11	47499886	47501080	-	CELF1	0x0
1017	chr11	47509722	47511032	-	CELF1	0x0
1018	chr11	47600235	47601463	+	NDUFS3	0x0
1019	chr11	47799968	47801080	-	NUP160	0x0
1020	chr11	47833349	47834567	-	NUP160	0x0
1021	chr11	50048802	50050001	+	OR4C13	0x2
1022	chr11	57083573	57084694	-	TNKS1BP1	0x0
1023	chr11	57092908	57094413	-	SSRP1	0x0
1024	chr11	57101422	57102590	-	SSRP1	0x0
1025	chr11	57507709	57508876	+	C11orf31	0x0
1026	chr11	57507709	57508876	+	TMX2	0x0
1027	chr11	57538522	57539710	+	CTNND1	0x1
1028	chr11	57575280	57576487	+	CTNND1	0x1
1029	chr11	57575280	57576487	+	TMX2-CTNND1	0x0
1030	chr11	57585111	57586193	+	CTNND1	0x1
1031	chr11	57585111	57586193	+	TMX2-CTNND1	0x0
1032	chr11	58385311	58386651	+	ZFP91	0x0
1033	chr11	59382267	59383461	-	OSBP	0x0
1034	chr11	60657745	60658974	-	PRPF19	0x0
1035	chr11	60673362	60674576	-	PRPF19	0x0
1036	chr11	60905662	60907001	-	VPS37C	0x0
1037	chr11	61080978	61082137	-	DDB1	0x0
1038	chr11	61094557	61095688	-	DDB1	0x0
1039	chr11	61103262	61104457	+	DAK	0x0
1040	chr11	61116305	61117482	-	CYBASC3	0x0
1041	chr11	61171066	61172241	-	CPSF7	0x0
1042	chr11	61570746	61572017	-	FADS1	0x0
1043	chr11	61633292	61634749	+	FADS2	0x0
1044	chr11	61731955	61733169	-	FTH1	0x0
1045	chr11	61918917	61920151	+	INCENP	0x0
1046	chr11	62326613	62327797	-	EEF1G	0x0
1047	chr11	62326613	62327797	-	MIR3654	0x0
1048	chr11	62328614	62329742	-	EEF1G	0x0
1049	chr11	62334335	62335539	-	EEF1G	0x0
1050	chr11	62360207	62361316	-	MTA2	0x2
1051	chr11	62364348	62365556	-	MTA2	0x2
1052	chr11	62383240	62384372	-	B3GAT3	0x0
1053	chr11	62400036	62401262	-	GANAB	0x0
1054	chr11	62431867	62433201	-	C11orf48	0x0
1055	chr11	62432354	62433550	+	METTL12	0x0
1056	chr11	62432354	62433550	+	SNORA57	0x0
1057	chr11	62489249	62490426	-	HNRNPUL2	0x0
1058	chr11	62489249	62490426	-	HNRNPUL2-BSCL2	0x0
1059	chr11	62510820	62512038	+	TTC9C	0x0
1060	chr11	62532031	62533274	+	POLR2G	0x0
1061	chr11	62542758	62543857	+	TAF6L	0x0
1062	chr11	62549124	62550223	+	TAF6L	0x0
1063	chr11	62567012	62568190	-	NXF1	0x2
1064	chr11	62608541	62609849	-	WDR74	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1065	chr11	62618968	62621378	-	SNHG1	0x0
1066	chr11	62618968	62621378	-	SNORD22	0x0
1067	chr11	62618968	62621378	-	SNORD29	0x0
1068	chr11	62618968	62621378	-	SNORD30	0x0
1069	chr11	62618968	62621378	-	SNORD31	0x0
1070	chr11	62622051	62623625	-	SNHG1	0x0
1071	chr11	62622051	62623625	-	SNORD25	0x0
1072	chr11	62622051	62623625	-	SNORD26	0x0
1073	chr11	62622051	62623625	-	SNORD27	0x0
1074	chr11	62622051	62623625	-	SNORD28	0x0
1075	chr11	63423115	63424290	-	ATL3	0x0
1076	chr11	63596428	63597649	+	C11orf84	0x0
1077	chr11	63785551	63786757	-	MACROD1	0x0
1078	chr11	64005477	64006741	+	VEGFB	0x0
1079	chr11	64013805	64014998	-	PPP1R14B	0x0
1080	chr11	64018832	64019978	+	PLCB3	0x1
1081	chr11	64063003	64064157	+	KCNK4	0x0
1082	chr11	64083247	64084373	+	ESRRA	0x0
1083	chr11	64083656	64084870	-	TRMT112	0x0
1084	chr11	64532206	64533405	-	SF1	0x0
1085	chr11	64574182	64575360	-	MEN1	0x1
1086	chr11	64845803	64846957	-	CDCA5	0x0
1087	chr11	64878887	64880037	+	C11orf2	0x0
1088	chr11	64878887	64880037	+	TM7SF2	0x0
1089	chr11	64880221	64881320	+	TM7SF2	0x0
1090	chr11	64914487	64915767	+	MRPL49	0x0
1091	chr11	64978362	64979722	+	CAPN1	0x0
1092	chr11	65197873	65199078	+	NEAT1	0x0
1093	chr11	65202147	65203375	+	NEAT1	0x0
1094	chr11	65205474	65206618	+	MIR612	0x0
1095	chr11	65211102	65213301	+	MIR612	0x0
1096	chr11	65267086	65272491	+	MALAT1	0x0
1097	chr11	65272670	65273959	+	MALAT1	0x0
1098	chr11	65303924	65305111	+	SCYL1	0x0
1099	chr11	65318518	65319691	-	LTBP3	0x0
1100	chr11	65340337	65341462	+	FAM89B	0x0
1101	chr11	65382895	65384217	+	PCNXL3	0x0
1102	chr11	65403876	65405283	+	PCNXL3	0x0
1103	chr11	65420601	65421743	-	RELA	0x0
1104	chr11	65606663	65607901	+	SNX32	0x0
1105	chr11	65621762	65623097	-	CFL1	0x0
1106	chr11	65657684	65658871	+	CCDC85B	0x0
1107	chr11	65732857	65734198	+	SART1	0x0
1108	chr11	66040462	66041680	+	RAB1B	0x4
1109	chr11	66115021	66116249	+	TMEM151A	0x0
1110	chr11	66412944	66414301	+	RBM14-RBM4	0x0
1111	chr11	66412944	66414301	+	RBM4	0x0
1112	chr11	66458249	66459396	-	SPTBN2	0x0
1113	chr11	66477558	66478690	-	SPTBN2	0x0
1114	chr11	66998612	66999821	+	KDM2A	0x0
1115	chr11	67129304	67130537	+	LOC100130987	0x0
1116	chr11	67171122	67172325	-	PPP1CA	0x1
1117	chr11	67888092	67889195	-	CHKA	0x0
1118	chr11	68114944	68116240	+	LRP5	0x2
1119	chr11	68124695	68125868	+	LRP5	0x2
1120	chr11	68178330	68179614	+	LRP5	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1121	chr11	68380749	68381958	+	PPP6R3	0x0
1122	chr11	68457842	68459072	+	GAL	0x0
1123	chr11	69465610	69466793	+	CCND1	0x2
1124	chr11	69468028	69469207	+	CCND1	0x2
1125	chr11	70260296	70261444	+	CTTN	0x0
1126	chr11	70266096	70267236	+	CTTN	0x0
1127	chr11	70281342	70282887	+	CTTN	0x0
1128	chr11	70487751	70488908	-	SHANK2	0x0
1129	chr11	71719638	71720823	-	NUMA1	0x2
1130	chr11	72396112	72397289	-	ARAP1	0x0
1131	chr11	72465381	72466597	-	STARD10	0x0
1132	chr11	72533951	72535153	+	ATG16L2	0x0
1133	chr11	73089519	73090913	+	RELT	0x0
1134	chr11	73102560	73103766	+	RELT	0x0
1135	chr11	73113207	73114421	-	FAM168A	0x0
1136	chr11	73292950	73294141	-	FAM168A	0x0
1137	chr11	73471139	73472306	-	RAB6A	0x0
1138	chr11	73686049	73687204	-	UCP2	0x0
1139	chr11	73692040	73693221	-	UCP2	0x0
1140	chr11	74395754	74397001	+	POLD3	0x0
1141	chr11	74459371	74460563	+	RNF169	0x0
1142	chr11	74548402	74549680	+	RNF169	0x0
1143	chr11	74953752	74954991	+	LOC100507050	0x0
1144	chr11	74973123	74974469	-	ARRB1	0x0
1145	chr11	75114637	75115718	+	RPS3	0x0
1146	chr11	75114637	75115718	+	SNORD15B	0x0
1147	chr11	75116122	75117284	+	RPS3	0x0
1148	chr11	75946310	75947433	-	WNT11	0x1
1149	chr11	76188233	76189474	+	C11orf30	0x2
1150	chr11	77445397	77446524	-	RSF1	0x0
1151	chr11	77596958	77598370	+	C11orf67	0x0
1152	chr11	78203348	78204744	-	NARS2	0x0
1153	chr11	78281988	78283213	-	NARS2	0x0
1154	chr11	79158852	79160049	+	USP35	0x0
1155	chr11	82400096	82401484	+	C11orf82	0x0
1156	chr11	85194521	85195729	+	TMEM126B	0x0
1157	chr11	85372133	85373311	-	CREBZF	0x0
1158	chr11	85374978	85376093	-	CREBZF	0x0
1159	chr11	85955600	85956820	+	EED	0x0
1160	chr11	86781990	86783149	+	TMEM135	0x0
1161	chr11	87035894	87037074	+	TMEM135	0x0
1162	chr11	87173935	87175142	+	TMEM135	0x0
1163	chr11	88115883	88117057	+	TYR	0x0
1164	chr11	88601325	88602522	-	GRM5	0x2
1165	chr11	90016508	90017736	+	NAALAD2	0x0
1166	chr11	92628475	92629717	+	FAT3	0x2
1167	chr11	93430080	93431249	+	KIAA1731	0x0
1168	chr11	93431321	93432559	+	KIAA1731	0x0
1169	chr11	93454277	93455631	+	KIAA1731	0x0
1170	chr11	93454277	93455631	+	SCARNA9	0x0
1171	chr11	93463172	93467318	-	MIR1304	0x0
1172	chr11	93463172	93467318	-	SNORA1	0x0
1173	chr11	93463172	93467318	-	SNORA18	0x0
1174	chr11	93463172	93467318	-	SNORA25	0x0
1175	chr11	93463172	93467318	-	SNORA32	0x0
1176	chr11	93463172	93467318	-	SNORA8	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1177	chr11	93463172	93467318	-	SNORD5	0x0
1178	chr11	93463172	93467318	-	SNORD6	0x0
1179	chr11	93467776	93468906	-	SNORA40	0x0
1180	chr11	93471932	93473313	-	TAF1D	0x0
1181	chr11	93710378	93711559	-	VSTM5	0x0
1182	chr11	93951439	93952636	-	GPR83	0x0
1183	chr11	94150949	94152169	-	MRE11A	0x2
1184	chr11	94191674	94192852	-	MRE11A	0x2
1185	chr11	94626721	94627940	+	AMOTL1	0x0
1186	chr11	94901765	94902876	-	SESN3	0x0
1187	chr11	94905459	94906618	-	SESN3	0x0
1188	chr11	95825694	95826915	-	MAML2	0x2
1189	chr11	97636450	97637649	-	CCDC82	0x0
1190	chr11	102165160	102166359	+	BIRC3	0x2
1191	chr11	102267092	102268404	-	TMEM123	0x0
1192	chr11	103002798	103004000	+	DYNC2H1	0x2
1193	chr11	103027441	103028540	+	DYNC2H1	0x2
1194	chr11	103174765	103176006	+	DYNC2H1	0x2
1195	chr11	105633446	105634654	+	GRIA4	0x0
1196	chr11	105968338	105969437	+	AASDHPPT	0x0
1197	chr11	108002424	108003642	+	ACAT1	0x0
1198	chr11	108047167	108048374	-	NPAT	0x0
1199	chr11	108344138	108345359	-	KDELC2	0x0
1200	chr11	108788410	108789619	+	DDX10	0x0
1201	chr11	110100605	110101959	-	RDX	0x0
1202	chr11	110165437	110166631	-	RDX	0x0
1203	chr11	111611018	111612348	-	PPP2R1B	0x1
1204	chr11	111630786	111631964	-	PPP2R1B	0x1
1205	chr11	111692090	111693298	-	ALG9	0x0
1206	chr11	111911615	111912858	+	DLAT	0x0
1207	chr11	113692674	113693849	-	USP28	0x2
1208	chr11	113737800	113739046	+	HTR3B	0x0
1209	chr11	114293964	114295180	+	RBM7	0x0
1210	chr11	115046086	115047511	-	CADM1	0x1
1211	chr11	115148719	115149902	-	CADM1	0x1
1212	chr11	115342456	115343604	-	CADM1	0x1
1213	chr11	115471774	115472976	+	FAM55B	0x0
1214	chr11	115692620	115693820	+	APOC3	0x0
1215	chr11	117708156	117709359	-	FXYD6	0x0
1216	chr11	118279246	118280394	+	ATP5L	0x0
1217	chr11	118342606	118343847	+	MLL	0x2
1218	chr11	118393102	118394257	+	MLL	0x2
1219	chr11	118427130	118428283	-	IFT46	0x0
1220	chr11	118470924	118472083	+	ARCN1	0x0
1221	chr11	118527620	118528782	+	PHLDB1	0x0
1222	chr11	118619817	118620995	-	DDX6	0x0
1223	chr11	118894521	118895926	-	SLC37A4	0x0
1224	chr11	118914425	118916307	-	HYOU1	0x0
1225	chr11	118964055	118965438	-	H2AFX	0x0
1226	chr11	120219784	120220989	+	ARHGEF12	0x1
1227	chr11	120346835	120347953	+	ARHGEF12	0x1
1228	chr11	120356530	120357629	+	ARHGEF12	0x1
1229	chr11	120901672	120902820	+	TBCEL	0x0
1230	chr11	122928226	122929337	-	HSPA8	0x0
1231	chr11	122929463	122930664	-	HSPA8	0x0
1232	chr11	123050799	123052002	-	CLMP	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1233	chr11	123595631	123596826	-	ZNF202	0x0
1234	chr11	123634095	123635377	+	GRAMD1B	0x0
1235	chr11	124505785	124507034	+	TBRG1	0x1
1236	chr11	124923736	124924915	-	TMEM218	0x0
1237	chr11	125169906	125171066	+	PKNOX2	0x0
1238	chr11	125453376	125454570	+	EI24	0x1
1239	chr11	125490149	125491346	+	STT3A	0x0
1240	chr11	125547115	125548337	+	CHEK1	0x1
1241	chr11	126076638	126077817	-	RPUSD4	0x0
1242	chr11	126147179	126148335	+	FOXRED1	0x0
1243	chr11	129297040	129298265	+	BARX2	0x0
1244	chr11	130013182	130015087	+	APLP2	0x0
1245	chr11	133768160	133769577	-	LOC283174	0x0
1246	chr11	133768160	133769577	-	MIR4697	0x0
1247	chr11	133775128	133776296	-	LOC283174	0x0
1248	chr11	133801584	133802941	-	IGSF9B	0x0
1249	chr11	133905644	133907090	-	IGSF9B	0x0
1250	chr11	134207878	134209110	+	GLB1L2	0x0
1251	chr11	134244503	134245731	+	GLB1L2	0x0
1252	chr12	364481	365671	-	SLC6A13	0x0
1253	chr12	392498	393756	-	KDM5A	0x2
1254	chr12	413102	414299	+	CCDC77	0x0
1255	chr12	973775	975079	+	WNK1	0x0
1256	chr12	1038335	1039518	-	RAD52	0x0
1257	chr12	1136736	1137951	+	ERC1	0x2
1258	chr12	2364481	2365782	+	CACNA1C	0x0
1259	chr12	2675917	2677086	+	CACNA1C	0x0
1260	chr12	2912189	2913544	+	FKBP4	0x0
1261	chr12	2927125	2928323	+	ITFG2	0x0
1262	chr12	2986248	2987433	+	C12orf32	0x0
1263	chr12	2997913	2999053	+	C12orf32	0x0
1264	chr12	3008519	3009671	+	TULP3	0x0
1265	chr12	3079751	3080900	+	TEAD4	0x0
1266	chr12	3153592	3154803	+	TEAD4	0x0
1267	chr12	4399756	4400906	+	CCND2	0x2
1268	chr12	4411084	4412957	+	CCND2	0x2
1269	chr12	4772532	4773729	+	NDUFA9	0x0
1270	chr12	6618969	6620370	+	NCAPD2	0x0
1271	chr12	6618969	6620370	+	SCARNA10	0x0
1272	chr12	6626244	6627393	+	NCAPD2	0x0
1273	chr12	6646283	6647637	+	GAPDH	0x0
1274	chr12	6652008	6653217	-	IFFO1	0x0
1275	chr12	6678923	6680015	-	CHD4	0x2
1276	chr12	6690067	6691369	-	CHD4	0x2
1277	chr12	6690067	6691369	-	SCARNA11	0x0
1278	chr12	6709165	6710346	-	CHD4	0x2
1279	chr12	6775774	6776986	-	ZNF384	0x2
1280	chr12	6879192	6880496	+	PTMS	0x2
1281	chr12	7052424	7053623	+	C12orf57	0x0
1282	chr12	7074110	7075210	-	PHB2	0x0
1283	chr12	7076077	7077300	-	PHB2	0x0
1284	chr12	7076077	7077300	-	SCARNA12	0x0
1285	chr12	7079104	7080280	-	PHB2	0x0
1286	chr12	7362702	7363899	+	PEX5	0x0
1287	chr12	9451079	9452259	+	LOC642846	0x0
1288	chr12	9572828	9574121	-	DDX12P	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1289	chr12	10865278	10866425	-	CSDA	0x0
1290	chr12	11283034	11284164	-	TAS2R30	0x0
1291	chr12	12396929	12398082	-	LRP6	0x0
1292	chr12	12693877	12695074	-	DUSP16	0x0
1293	chr12	12843359	12844568	+	CDKN1B	0x2
1294	chr12	12882447	12883597	+	APOLD1	0x0
1295	chr12	13349667	13350884	+	EMP1	0x1
1296	chr12	14553333	14554482	+	ATF7IP	0x0
1297	chr12	14576917	14578148	+	ATF7IP	0x0
1298	chr12	16034899	16035998	+	STRAP	0x0
1299	chr12	19459402	19460532	+	PLEKHA5	0x0
1300	chr12	19609180	19610356	-	PLCZ1	0x0
1301	chr12	19646275	19647461	+	AEBP2	0x0
1302	chr12	19667021	19668250	+	AEBP2	0x0
1303	chr12	19787207	19788406	+	AEBP2	0x0
1304	chr12	20703858	20705060	+	PDE3A	0x0
1305	chr12	21787731	21789097	-	LDHB	0x0
1306	chr12	21796330	21797498	-	LDHB	0x0
1307	chr12	21806910	21808112	-	LDHB	0x0
1308	chr12	22841550	22842755	+	ETNK1	0x0
1309	chr12	24302800	24303994	-	SOX5	0x2
1310	chr12	25359335	25360441	-	KRAS	0x2
1311	chr12	26799681	26800860	-	ITPR2	0x0
1312	chr12	27182459	27183558	+	MED21	0x0
1313	chr12	28416937	28418091	+	CCDC91	0x0
1314	chr12	29318753	29320044	+	FAR2	0x0
1315	chr12	31255183	31256382	+	DDX11	0x2
1316	chr12	32329775	32330974	+	BICD1	0x0
1317	chr12	34358128	34359328	+	ALG10	0x0
1318	chr12	38554688	38555905	-	CPNE8	0x0
1319	chr12	38556667	38557854	-	CPNE8	0x0
1320	chr12	40306319	40307450	-	SLC2A13	0x2
1321	chr12	41291889	41293092	+	CNTN1	0x2
1322	chr12	42802927	42804130	+	PPHLN1	0x0
1323	chr12	44112475	44113668	-	PUS7L	0x0
1324	chr12	46210804	46211974	+	ARID2	0x1
1325	chr12	46348079	46349248	-	SCAF11	0x0
1326	chr12	46578570	46579679	-	SLC38A1	0x0
1327	chr12	46580852	46583054	-	SLC38A1	0x0
1328	chr12	46662262	46663408	-	SLC38A1	0x0
1329	chr12	46753993	46755126	-	SLC38A2	0x0
1330	chr12	47028778	47029926	+	MIR4698	0x0
1331	chr12	48211842	48213021	-	HDAC7	0x0
1332	chr12	48361676	48362943	+	TMEM106C	0x0
1333	chr12	48929861	48931073	-	LALBA	0x0
1334	chr12	49047617	49048857	-	KANSL2	0x0
1335	chr12	49047617	49048857	-	MIR1291	0x0
1336	chr12	49047617	49048857	-	SNORA34	0x0
1337	chr12	49049902	49051113	-	SNORA2A	0x0
1338	chr12	49053651	49054832	-	KANSL2	0x0
1339	chr12	49318110	49319282	-	FKBP11	0x0
1340	chr12	49329445	49332620	-	ARF3	0x0
1341	chr12	49414410	49415621	-	MLL2	0x2
1342	chr12	49435603	49436758	-	MLL2	0x2
1343	chr12	49529532	49530765	+	TUBA1C	0x0
1344	chr12	49548759	49550000	+	TUBA1C	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1345	chr12	49666456	49667619	+	TUBA1C	0x0
1346	chr12	49920100	49921328	+	SPATS2	0x0
1347	chr12	49985589	49986795	+	PRPF40B	0x0
1348	chr12	50128781	50130000	-	FMNL3	0x2
1349	chr12	50134767	50135968	+	TMBIM6	0x0
1350	chr12	50145699	50146862	+	TMBIM6	0x0
1351	chr12	50156264	50157519	+	TMBIM6	0x0
1352	chr12	50157722	50158819	+	TMBIM6	0x0
1353	chr12	50184490	50185694	-	NCKAP5L	0x0
1354	chr12	50491552	50492780	+	SMARCD1	0x2
1355	chr12	50849813	50851143	+	LARP4	0x0
1356	chr12	51090319	51091513	+	DIP2B	0x0
1357	chr12	51498676	51499900	-	TFCP2	0x0
1358	chr12	51634102	51635201	+	DAZAP2	0x0
1359	chr12	51636316	51637386	+	DAZAP2	0x0
1360	chr12	52401840	52403056	+	GRASP	0x0
1361	chr12	53415744	53416893	+	EIF4B	0x0
1362	chr12	53427832	53429067	+	EIF4B	0x0
1363	chr12	53434475	53435740	+	EIF4B	0x0
1364	chr12	53440754	53442110	-	LOC283335	0x0
1365	chr12	53677339	53678467	+	ESPL1	0x2
1366	chr12	53861998	53863198	+	PCBP2	0x0
1367	chr12	53872702	53873900	+	PCBP2	0x0
1368	chr12	53925841	53927016	-	ATF7	0x0
1369	chr12	53959188	53960365	-	ATF7	0x0
1370	chr12	54058406	54059659	-	ATP5G2	0x0
1371	chr12	54105636	54106848	-	CALCOCO1	0x0
1372	chr12	54116856	54118029	-	CALCOCO1	0x0
1373	chr12	54624276	54625822	-	CBX5	0x0
1374	chr12	54624276	54625822	-	MIR3198-2	0x0
1375	chr12	54626334	54627796	-	CBX5	0x0
1376	chr12	54632554	54633647	-	CBX5	0x0
1377	chr12	54678040	54679244	+	HNRNPA1	0x0
1378	chr12	54678040	54679244	+	HNRNPA1P10	0x0
1379	chr12	54680244	54681745	+	HNRNPA1	0x0
1380	chr12	54744020	54745227	+	COPZ1	0x0
1381	chr12	56144734	56145888	+	GDF11	0x0
1382	chr12	56214650	56215827	-	DNAJC14	0x0
1383	chr12	56319123	56320301	-	WIBG	0x0
1384	chr12	56509912	56511132	+	RPL41	0x0
1385	chr12	56529980	56531185	+	ESYT1	0x0
1386	chr12	56554648	56555864	+	MYL6	0x0
1387	chr12	56567925	56569100	-	SMARCC2	0x0
1388	chr12	56574409	56575535	-	SMARCC2	0x0
1389	chr12	56631521	56633609	-	ANKRD52	0x0
1390	chr12	56650675	56651839	-	ANKRD52	0x0
1391	chr12	56665418	56666553	-	CS	0x0
1392	chr12	56669294	56670401	-	CS	0x0
1393	chr12	56904854	56906036	+	RBMS2	0x0
1394	chr12	56983285	56984504	+	RBMS2	0x0
1395	chr12	56990790	56991985	-	BAZ2A	0x0
1396	chr12	56998428	56999593	-	BAZ2A	0x0
1397	chr12	57031567	57032662	-	ATP5B	0x0
1398	chr12	57038251	57039453	-	ATP5B	0x0
1399	chr12	57038251	57039453	-	SNORD59A	0x0
1400	chr12	57057255	57058446	-	PTGES3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1401	chr12	57106012	57107208	-	NACA	0x2
1402	chr12	57452030	57453472	-	TMEM194A	0x0
1403	chr12	57557543	57558713	+	LRP1	0x0
1404	chr12	57650492	57651591	-	R3HDM2	0x0
1405	chr12	57677230	57678420	-	R3HDM2	0x0
1406	chr12	57764748	57765913	-	R3HDM2	0x0
1407	chr12	57923781	57924975	-	DCTN2	0x0
1408	chr12	57998635	57999786	+	DTX3	0x0
1409	chr12	59270638	59271817	-	LRIG3	0x1
1410	chr12	62948534	62949723	+	MON2	0x0
1411	chr12	63327834	63329011	-	PPM1H	0x0
1412	chr12	63358577	63359800	+	MIRLET7I	0x1
1413	chr12	65603419	65604657	+	LEMD3	0x0
1414	chr12	67285540	67286640	-	GRIP1	0x0
1415	chr12	67296512	67297691	-	GRIP1	0x0
1416	chr12	67431752	67432968	-	GRIP1	0x0
1417	chr12	67698510	67699685	+	CAND1	0x0
1418	chr12	69005201	69006430	+	RAP1B	0x0
1419	chr12	69649981	69651119	+	CPSF6	0x0
1420	chr12	69994544	69995776	+	CCT2	0x0
1421	chr12	70194830	70196046	+	RAB3IP	0x0
1422	chr12	70679838	70681070	+	CNOT2	0x0
1423	chr12	71896974	71898191	+	LGR5	0x0
1424	chr12	72004583	72005719	-	ZFC3H1	0x0
1425	chr12	72005992	72007142	-	ZFC3H1	0x0
1426	chr12	72180935	72182073	+	RAB21	0x0
1427	chr12	74850635	74851794	+	ATXN7L3B	0x0
1428	chr12	75679900	75681078	-	CAPS2	0x0
1429	chr12	75891366	75892543	+	GLIPR1	0x1
1430	chr12	75892900	75894150	-	KRR1	0x0
1431	chr12	76430189	76431289	-	PHLDA1	0x0
1432	chr12	76439331	76440505	-	NAP1L1	0x0
1433	chr12	76443863	76444966	-	NAP1L1	0x0
1434	chr12	76451371	76460500	-	NAP1L1	0x0
1435	chr12	76461818	76462967	-	NAP1L1	0x0
1436	chr12	77224354	77225520	+	ZDHHC17	0x1
1437	chr12	77423288	77424487	-	E2F7	0x4
1438	chr12	79454116	79455268	-	PAWR	0x1
1439	chr12	79545435	79546544	-	PAWR	0x1
1440	chr12	80065464	80066629	-	PAWR	0x1
1441	chr12	81938745	81939922	-	PPFIA2	0x0
1442	chr12	82111266	82112433	-	PPFIA2	0x0
1443	chr12	82763997	82765204	+	C12orf26	0x0
1444	chr12	83250305	83251851	+	TMTC2	0x0
1445	chr12	83445406	83446612	+	TMTC2	0x0
1446	chr12	85275664	85276792	-	SLC6A15	0x2
1447	chr12	85689617	85690718	+	ALX1	0x0
1448	chr12	88478022	88479168	-	CEP290	0x0
1449	chr12	88823643	88824885	+	TMTC3	0x0
1450	chr12	89912721	89913853	-	GALNT4	0x0
1451	chr12	89912721	89913853	-	POC1B-GALNT4	0x0
1452	chr12	90013416	90014561	-	ATP2B1	0x0
1453	chr12	90082996	90084168	-	ATP2B1	0x0
1454	chr12	92120144	92121361	+	CLLU1	0x0
1455	chr12	92734804	92736003	+	CLLU1	0x0
1456	chr12	93795485	93796681	+	NUDT4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1457	chr12	93795485	93796681	+	NUDT4P1	0x0
1458	chr12	93801835	93803801	-	UBE2N	0x0
1459	chr12	93895618	93896756	+	MRPL42	0x0
1460	chr12	93898154	93899253	+	MRPL42	0x0
1461	chr12	93902860	93904057	+	MRPL42	0x0
1462	chr12	94033987	94035163	-	LOC144481	0x0
1463	chr12	94270786	94271995	+	CRADD	0x0
1464	chr12	95449301	95450478	-	NR2C1	0x0
1465	chr12	95694283	95695450	+	VEZT	0x0
1466	chr12	95838385	95839584	-	USP44	0x0
1467	chr12	95907272	95908503	+	METAP2	0x2
1468	chr12	95945210	95946388	-	USP44	0x0
1469	chr12	96131748	96132931	-	NTN4	0x0
1470	chr12	96679370	96680544	-	CDK17	0x0
1471	chr12	98896705	98897950	+	TMPO	0x0
1472	chr12	98909061	98910417	+	TMPO	0x0
1473	chr12	98928615	98929958	+	TMPO	0x0
1474	chr12	98988112	98989361	+	SLC25A3	0x0
1475	chr12	98992887	98994230	+	SLC25A3	0x0
1476	chr12	98992887	98994230	+	SNORA53	0x0
1477	chr12	99477048	99478198	-	ANKS1B	0x0
1478	chr12	100497710	100498916	-	UHRF1BP1L	0x0
1479	chr12	100562243	100563428	-	GOLGA2P5	0x0
1480	chr12	100672654	100673917	+	SCYL2	0x0
1481	chr12	102599508	102600903	+	PARPBP	0x0
1482	chr12	102606561	102607720	+	PARPBP	0x0
1483	chr12	102819646	102820849	-	IGF1	0x0
1484	chr12	104167901	104169068	-	NT5DC3	0x0
1485	chr12	104324745	104325987	+	HSP90B1	0x0
1486	chr12	104381637	104382863	+	TDG	0x2
1487	chr12	104658682	104659889	+	TXNRD1	0x0
1488	chr12	104714376	104715825	+	TXNRD1	0x0
1489	chr12	104732514	104733718	+	TXNRD1	0x0
1490	chr12	104742733	104744033	+	TXNRD1	0x0
1491	chr12	105283361	105284557	+	C12orf45	0x0
1492	chr12	105392116	105393273	+	C12orf45	0x0
1493	chr12	105397776	105398870	+	C12orf45	0x0
1494	chr12	105503187	105504415	+	KIAA1033	0x0
1495	chr12	106631295	106632921	-	CKAP4	0x0
1496	chr12	106872290	106873478	+	POLR3B	0x0
1497	chr12	107347778	107348955	-	MTERFD3	0x0
1498	chr12	107384669	107385818	-	CRY1	0x0
1499	chr12	107951247	107952444	+	BTBD11	0x0
1500	chr12	108917140	108918239	-	SART3	0x0
1501	chr12	108953954	108955214	-	SART3	0x0
1502	chr12	109038635	109040230	-	CORO1C	0x0
1503	chr12	109312158	109313375	+	DAO	0x0
1504	chr12	109636634	109637824	+	ACACB	0x0
1505	chr12	109724629	109725961	-	FOXN4	0x0
1506	chr12	109740686	109741911	-	FOXN4	0x0
1507	chr12	109761616	109762830	+	ACACB	0x0
1508	chr12	109973462	109974663	+	UBE3B	0x0
1509	chr12	109994373	109995568	-	MMAB	0x0
1510	chr12	110763655	110764854	+	ATP2A2	0x2
1511	chr12	110777915	110779112	+	ATP2A2	0x2
1512	chr12	110783912	110785278	+	ATP2A2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1513	chr12	110824490	110826195	-	ANAPC7	0x0
1514	chr12	111157924	111159308	-	PPP1CC	0x0
1515	chr12	111855661	111856775	+	SH2B3	0x0
1516	chr12	111948470	111949661	-	ATXN2	0x0
1517	chr12	111958175	111959274	-	ATXN2	0x0
1518	chr12	112460151	112461345	+	ERP29	0x0
1519	chr12	112466354	112467513	-	NAA25	0x0
1520	chr12	112467833	112468970	-	NAA25	0x0
1521	chr12	112504368	112505565	-	NAA25	0x0
1522	chr12	112510461	112511674	-	NAA25	0x0
1523	chr12	112637375	112638555	-	C12orf51	0x2
1524	chr12	112704325	112705613	+	TRAFD1	0x0
1525	chr12	112746050	112747202	-	C12orf51	0x2
1526	chr12	112911069	112912282	+	PTPN11	0x2
1527	chr12	112944565	112946176	+	PTPN11	0x2
1528	chr12	113673828	113675053	+	TPCN1	0x0
1529	chr12	113735248	113736378	+	TPCN1	0x0
1530	chr12	113874548	113875949	+	SDSL	0x0
1531	chr12	115129856	115131062	+	LOC255480	0x0
1532	chr12	116398477	116399619	-	MED13L	0x0
1533	chr12	116433823	116435006	-	MED13L	0x0
1534	chr12	117152663	117154080	-	C12orf49	0x0
1535	chr12	117365284	117366523	+	FBXW8	0x0
1536	chr12	118683520	118685251	+	PEBP1	0x0
1537	chr12	119266964	119268147	+	SRRM4	0x0
1538	chr12	120123558	120130500	-	CIT	0x2
1539	chr12	120574832	120576057	-	GCN1L1	0x0
1540	chr12	120592597	120594106	-	GCN1L1	0x0
1541	chr12	120592597	120594106	-	MIR4498	0x0
1542	chr12	120600352	120601529	-	GCN1L1	0x0
1543	chr12	120636369	120637807	-	RPLP0	0x0
1544	chr12	120659813	120661023	-	PXN	0x0
1545	chr12	120719700	120720918	+	SIRT4	0x0
1546	chr12	120729010	120730242	-	PXN	0x0
1547	chr12	120730321	120731569	-	PXN	0x0
1548	chr12	120779154	120780474	-	MSI1	0x0
1549	chr12	120875360	120876560	+	COX6A1	0x0
1550	chr12	120877815	120879006	+	COX6A1	0x0
1551	chr12	120884509	120885705	+	GATC	0x0
1552	chr12	120935439	120936770	+	DYNLL1	0x0
1553	chr12	121124410	121125575	+	MLEC	0x0
1554	chr12	121138015	121139114	+	MLEC	0x0
1555	chr12	121159111	121160851	+	UNC119B	0x0
1556	chr12	121201895	121203019	-	SPPL3	0x0
1557	chr12	121308258	121309467	-	SPPL3	0x0
1558	chr12	121314068	121315243	-	SPPL3	0x0
1559	chr12	121676294	121677456	-	CAMKK2	0x0
1560	chr12	122496860	122497973	+	BCL7A	0x2
1561	chr12	122627621	122628772	+	MLXIP	0x0
1562	chr12	122779092	122780309	-	CLIP1	0x2
1563	chr12	122825134	122826272	-	CLIP1	0x2
1564	chr12	123120516	123121672	+	KNTC1	0x0
1565	chr12	123444050	123445230	-	ABCB9	0x0
1566	chr12	123745288	123746440	-	CDK2AP1	0x1
1567	chr12	123801208	123802366	-	SBNO1	0x0
1568	chr12	123943066	123944289	+	SNRNP35	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1569	chr12	124081212	124082349	+	TMED2	0x0
1570	chr12	124100782	124101965	+	DDX55	0x0
1571	chr12	124145169	124146424	+	GTF2H3	0x0
1572	chr12	124219151	124220344	+	ATP6V0A2	0x0
1573	chr12	124854201	124855376	-	NCOR2	0x0
1574	chr12	124903987	124905161	-	NCOR2	0x0
1575	chr12	124915360	124916735	-	NCOR2	0x0
1576	chr12	124922826	124924510	-	NCOR2	0x0
1577	chr12	124979296	124980474	-	NCOR2	0x0
1578	chr12	125261806	125262989	-	SCARB1	0x0
1579	chr12	125339397	125340559	-	SCARB1	0x0
1580	chr12	125397675	125398874	-	UBC	0x0
1581	chr12	127649925	127651531	-	LOC440117	0x0
1582	chr12	131358620	131359786	+	RAN	0x0
1583	chr12	131359882	131362107	+	RAN	0x0
1584	chr12	132589229	132590362	+	EP400NL	0x0
1585	chr12	132638091	132639288	+	NOC4L	0x0
1586	chr12	133159939	133161159	+	FBRSL1	0x4
1587	chr12	133235503	133236603	-	POLE	0x0
1588	chr12	133249065	133250242	-	POLE	0x0
1589	chr12	133286628	133287809	+	PGAM5	0x0
1590	chr12	133297027	133298212	+	PGAM5	0x0
1591	chr12	133302273	133303436	-	ANKLE2	0x0
1592	chr12	133340445	133341593	+	PGAM5	0x0
1593	chr12	133346386	133347715	-	GOLGA3	0x0
1594	chr12	133401746	133403135	+	PGAM5	0x0
1595	chr13	20182187	20183387	+	MPHOSPH8	0x0
1596	chr13	20198790	20199958	+	MPHOSPH8	0x0
1597	chr13	21185776	21187001	+	IFT88	0x1
1598	chr13	21535345	21536549	+	SAP18	0x0
1599	chr13	21946854	21948041	-	ZDHHC20	0x0
1600	chr13	21948636	21949812	-	ZDHHC20	0x0
1601	chr13	21994684	21995835	-	ZDHHC20	0x0
1602	chr13	23903680	23904855	-	SACS	0x0
1603	chr13	23934784	23935912	-	SACS	0x0
1604	chr13	24434695	24435873	-	MIPEP	0x0
1605	chr13	24699699	24700878	-	C1QTNF9B	0x0
1606	chr13	24796585	24798913	+	SPATA13	0x2
1607	chr13	25470098	25471258	-	CENPJ	0x0
1608	chr13	25670480	25671744	+	PABPC3	0x2
1609	chr13	26853541	26854689	+	CDK8	0x0
1610	chr13	26936737	26937942	+	CDK8	0x0
1611	chr13	27694168	27695357	-	USP12	0x0
1612	chr13	27827796	27830192	+	RPL21	0x0
1613	chr13	27827796	27830192	+	RPL21P28	0x0
1614	chr13	27827796	27830192	+	SNORA27	0x0
1615	chr13	27827796	27830192	+	SNORD102	0x0
1616	chr13	28007054	28008244	+	GTF3A	0x0
1617	chr13	28563055	28564262	-	PRHOXNB	0x0
1618	chr13	28712198	28713431	+	PAN3	0x0
1619	chr13	30085991	30087580	-	SLC7A1	0x0
1620	chr13	30106461	30107604	-	SLC7A1	0x0
1621	chr13	30109547	30110829	-	SLC7A1	0x0
1622	chr13	30814590	30815735	-	KATNAL1	0x0
1623	chr13	31712045	31713225	-	HSPH1	0x0
1624	chr13	34410120	34411619	+	RFC3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1625	chr13	34497437	34498845	+	RFC3	0x0
1626	chr13	34526824	34527999	+	RFC3	0x0
1627	chr13	35939677	35940865	+	NBEA	0x0
1628	chr13	37427215	37428396	-	SMAD9	0x0
1629	chr13	37439099	37440278	-	SMAD9	0x0
1630	chr13	41132450	41133622	-	FOXO1	0x1
1631	chr13	41155039	41156154	-	FOXO1	0x1
1632	chr13	41494897	41496052	-	LOC100616668	0x0
1633	chr13	41494897	41496052	-	SUGT1P3	0x0
1634	chr13	42352226	42353364	-	KIAA0564	0x0
1635	chr13	42439523	42440727	-	KIAA0564	0x0
1636	chr13	42893974	42895101	+	AKAP11	0x2
1637	chr13	44168571	44169757	-	ENOX1	0x0
1638	chr13	45575759	45576957	+	KIAA1704	0x0
1639	chr13	45825141	45826367	+	GTF2F2	0x0
1640	chr13	45910549	45912314	-	SNORA31	0x0
1641	chr13	45910549	45912314	-	TPT1	0x0
1642	chr13	46948034	46949263	-	KIAA0226L	0x0
1643	chr13	49561491	49562687	+	FNDC3A	0x0
1644	chr13	50587746	50588962	-	DLEU2	0x1
1645	chr13	50656526	50657696	+	DLEU1	0x1
1646	chr13	51323418	51324638	+	RNASEH2B	0x0
1647	chr13	51837909	51839104	+	FAM124A	0x0
1648	chr13	52987379	52988940	-	VPS36	0x0
1649	chr13	53190495	53191693	+	HNRNPA1L2	0x0
1650	chr13	60651419	60652765	-	DIAPH3	0x0
1651	chr13	61015885	61017092	+	TDRD3	0x0
1652	chr13	61125023	61126193	+	TDRD3	0x0
1653	chr13	61363164	61364351	+	TDRD3	0x0
1654	chr13	67840715	67841891	-	PCDH9	0x0
1655	chr13	72228968	72230115	-	DACH1	0x0
1656	chr13	72252217	72253358	-	DACH1	0x0
1657	chr13	72388884	72389994	-	DACH1	0x0
1658	chr13	72419172	72420352	-	DACH1	0x0
1659	chr13	73282402	73283576	-	MZT1	0x0
1660	chr13	73301105	73302258	-	MZT1	0x0
1661	chr13	73308096	73309322	+	BORA	0x0
1662	chr13	74505335	74506483	-	KLF12	0x0
1663	chr13	75883686	75884853	-	TBC1D4	0x0
1664	chr13	75935627	75936804	-	TBC1D4	0x0
1665	chr13	76134337	76135485	+	UCHL3	0x0
1666	chr13	76142156	76143379	+	UCHL3	0x0
1667	chr13	76179345	76180503	+	UCHL3	0x0
1668	chr13	76791681	76792834	+	LMO7	0x2
1669	chr13	77459623	77460867	-	KCTD12	0x0
1670	chr13	77581326	77582522	-	FBXL3	0x0
1671	chr13	77592190	77593366	-	FBXL3	0x0
1672	chr13	77730560	77731688	-	MYCBP2	0x2
1673	chr13	79176171	79177675	-	POU4F1	0x0
1674	chr13	79188083	79189266	-	RNF219	0x0
1675	chr13	79888041	79889331	-	RBM26	0x0
1676	chr13	79939705	79940928	-	RBM26	0x0
1677	chr13	80071204	80072474	+	NDFIP2	0x0
1678	chr13	92252899	92254129	+	GPC5	0x0
1679	chr13	95840472	95841650	-	ABCC4	0x0
1680	chr13	95868999	95870171	-	ABCC4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1681	chr13	96293455	96294610	-	DZIP1	0x0
1682	chr13	96855475	96856610	+	HS6ST3	0x0
1683	chr13	97601125	97602326	-	OXGR1	0x0
1684	chr13	98652227	98653437	+	IPO5	0x0
1685	chr13	99104245	99105441	-	STK24	0x0
1686	chr13	99205745	99206936	-	STK24	0x0
1687	chr13	99323732	99324883	+	FARP1	0x0
1688	chr13	99857416	99858783	+	UBAC2	0x0
1689	chr13	99866861	99868315	-	MIR548AN	0x0
1690	chr13	102651242	102652440	+	ITGBL1	0x0
1691	chr13	103278915	103280017	+	TPP2	0x0
1692	chr13	103355620	103356795	-	METTL21C	0x0
1693	chr13	107210710	107211839	-	ARGLU1	0x0
1694	chr13	108076427	108077608	-	FAM155A	0x0
1695	chr13	108161143	108162342	-	FAM155A	0x0
1696	chr13	108264790	108265967	-	FAM155A	0x0
1697	chr13	108299224	108300407	-	FAM155A	0x0
1698	chr13	109513961	109515157	-	LIG4	0x0
1699	chr13	110435906	110437076	-	IRS2	0x0
1700	chr13	110566925	110568267	+	COL4A2	0x2
1701	chr13	111348428	111349606	-	CARS2	0x0
1702	chr13	113598283	113599440	-	MCF2L-AS1	0x0
1703	chr13	113833527	113834684	-	PCID2	0x0
1704	chr13	113917507	113918650	+	CUL4A	0x1
1705	chr13	113931038	113932264	+	CUL4A	0x1
1706	chr13	114183681	114184915	+	TMCO3	0x0
1707	chr13	114294691	114295879	+	TFDP1	0x0
1708	chr14	20742356	20743528	-	TTC5	0x0
1709	chr14	20790801	20792085	-	CCNB1IP1	0x0
1710	chr14	20810712	20812122	-	RPPH1	0x0
1711	chr14	20882556	20883783	+	APEX1	0x0
1712	chr14	21081438	21082537	-	RNASE12	0x0
1713	chr14	21100650	21101887	+	ANG	0x0
1714	chr14	21120694	21121938	-	OR6S1	0x0
1715	chr14	21127573	21128700	-	OR6S1	0x0
1716	chr14	21130773	21132001	-	OR6S1	0x0
1717	chr14	21149336	21150513	+	ANG	0x0
1718	chr14	21150862	21152183	+	ANG	0x0
1719	chr14	21701758	21702922	-	HNRNPC	0x0
1720	chr14	21819168	21820374	-	SUPT16H	0x0
1721	chr14	21883441	21884661	-	CHD8	0x0
1722	chr14	21927022	21928341	-	RAB2B	0x0
1723	chr14	21970840	21972169	-	METTL3	0x2
1724	chr14	23398370	23399587	+	REM2	0x0
1725	chr14	23534766	23535940	-	ACIN1	0x2
1726	chr14	23539764	23541105	-	ACIN1	0x2
1727	chr14	23794361	23795539	+	BCL2L2-PABPN1	0x0
1728	chr14	23794361	23795539	+	PABPN1	0x0
1729	chr14	23947343	23948545	+	NGDN	0x0
1730	chr14	24736302	24737477	-	RABGGTA	0x0
1731	chr14	24783279	24784402	+	LTB4R	0x0
1732	chr14	24842532	24843745	+	NFATC4	0x0
1733	chr14	24910543	24911763	-	SDR39U1	0x0
1734	chr14	26150011	26151194	-	STXBP6	0x0
1735	chr14	28733778	28735048	+	FOXG1	0x4
1736	chr14	30270786	30271961	-	PRKD1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1737	chr14	31070268	31071668	+	G2E3	0x0
1738	chr14	31481080	31482291	-	MIR624	0x0
1739	chr14	31585380	31586544	-	HECTD1	0x0
1740	chr14	31919046	31920232	-	C14orf126	0x0
1741	chr14	32589428	32590647	+	ARHGAP5	0x0
1742	chr14	32803437	32804634	+	AKAP6	0x2
1743	chr14	32853729	32854962	+	AKAP6	0x2
1744	chr14	34929007	34930135	-	SPTSSA	0x0
1745	chr14	35328000	35329104	-	BAZ1A	0x0
1746	chr14	35857231	35858622	-	NFKBIA	0x2
1747	chr14	36231437	36232687	-	RALGAPA1	0x0
1748	chr14	39455981	39457143	+	GEMIN2	0x0
1749	chr14	39617080	39618404	-	TRAPPC6B	0x0
1750	chr14	39650236	39651971	+	PNN	0x1
1751	chr14	39837183	39838385	+	CTAGE5	0x0
1752	chr14	44660534	44661689	-	FSCB	0x0
1753	chr14	45429705	45430918	-	KLHL28	0x0
1754	chr14	45513128	45514344	+	FAM179B	0x0
1755	chr14	45571192	45572327	+	PRPF39	0x0
1756	chr14	45669258	45670454	+	FANCM	0x2
1757	chr14	45860772	45861964	+	FANCM	0x2
1758	chr14	50052744	50054179	+	LRR1	0x0
1759	chr14	50072238	50073452	+	LRR1	0x0
1760	chr14	50252419	50253619	-	NEMF	0x0
1761	chr14	50283121	50284320	-	NEMF	0x0
1762	chr14	50319903	50321149	-	NEMF	0x0
1763	chr14	50328727	50329939	-	NEMF	0x0
1764	chr14	50534715	50536100	+	ARF6	0x0
1765	chr14	50867418	50868611	-	CDKL1	0x0
1766	chr14	51255767	51256946	-	NIN	0x2
1767	chr14	51464045	51465182	-	TRIM9	0x0
1768	chr14	51574132	51575351	+	TMX1	0x0
1769	chr14	51712422	51713625	+	TMX1	0x0
1770	chr14	51715602	51716791	+	TMX1	0x0
1771	chr14	51721809	51723001	+	TMX1	0x0
1772	chr14	53010501	53011643	-	TXNDC16	0x0
1773	chr14	53052610	53053853	+	GPR137C	0x0
1774	chr14	53084258	53085453	+	GPR137C	0x0
1775	chr14	53517339	53518466	-	DDHD1	0x0
1776	chr14	54893869	54895013	-	CNIH	0x0
1777	chr14	55119067	55120298	+	SAMD4A	0x0
1778	chr14	56166774	56167972	+	KTN1	0x2
1779	chr14	57746954	57748160	+	MUDENG	0x0
1780	chr14	58645963	58647181	+	ACTR10	0x0
1781	chr14	58706021	58707218	-	FLJ31306	0x0
1782	chr14	60582184	60583444	+	C14orf135	0x0
1783	chr14	60590498	60591850	+	C14orf135	0x0
1784	chr14	60715423	60716633	+	PPM1A	0x0
1785	chr14	60728399	60729605	+	PPM1A	0x0
1786	chr14	63589788	63590983	+	RHOJ	0x0
1787	chr14	64481686	64482836	+	SYNE2	0x0
1788	chr14	64595923	64597126	+	SYNE2	0x0
1789	chr14	64640181	64641308	+	SYNE2	0x0
1790	chr14	64749029	64750351	-	ESR2	0x1
1791	chr14	65590559	65591762	-	MAX	0x0
1792	chr14	68265192	68266392	+	RAD51B	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1793	chr14	69259066	69260239	-	ZFP36L1	0x2
1794	chr14	70235277	70236409	+	SRSF5	0x0
1795	chr14	70827039	70828233	+	ADAM21	0x0
1796	chr14	71050827	71051971	-	MED6	0x0
1797	chr14	73395835	73397193	-	DPF3	0x0
1798	chr14	73637050	73638259	+	PSEN1	0x0
1799	chr14	73658933	73660059	+	PSEN1	0x0
1800	chr14	73750395	73751600	-	NUMB	0x0
1801	chr14	75068529	75069738	-	LTBP2	0x2
1802	chr14	75358451	75359654	+	DLST	0x0
1803	chr14	75496694	75497909	-	MLH3	0x0
1804	chr14	75575913	75577091	-	NEK9	0x2
1805	chr14	75600401	75601539	-	TMED10	0x0
1806	chr14	76528971	76530189	+	IFT43	0x0
1807	chr14	76637656	76638879	+	C14orf118	0x0
1808	chr14	76663629	76664745	+	C14orf118	0x0
1809	chr14	77256334	77257559	-	ANGEL1	0x0
1810	chr14	78173934	78175091	+	SLIRP	0x0
1811	chr14	81668501	81669733	-	SNORA79	0x0
1812	chr14	85737717	85738922	+	FLRT2	0x0
1813	chr14	89043389	89044605	+	ZC3H14	0x0
1814	chr14	89078709	89079907	+	ZC3H14	0x0
1815	chr14	89299285	89300522	+	TTC8	0x0
1816	chr14	90051483	90052669	+	PRO1768	0x0
1817	chr14	90178358	90179578	+	PRO1768	0x0
1818	chr14	90564181	90565327	-	EFCAB11	0x0
1819	chr14	91816631	91817828	-	CCDC88C	0x0
1820	chr14	93406578	93408201	-	ITPK1	0x0
1821	chr14	95192789	95194001	+	SERPINA13	0x0
1822	chr14	95999181	96000528	-	SCARNA13	0x0
1823	chr14	95999181	96000528	-	SNHG10	0x0
1824	chr14	96428328	96429515	-	TCL1A	0x0
1825	chr14	96788184	96789377	-	ATG2B	0x0
1826	chr14	96850446	96851673	+	C14orf129	0x0
1827	chr14	97003083	97004318	+	PAPOLA	0x0
1828	chr14	97299331	97300523	+	VRK1	0x0
1829	chr14	97303953	97305166	+	VRK1	0x0
1830	chr14	97588455	97589675	+	VRK1	0x0
1831	chr14	99438779	99440087	-	BCL11B	0x2
1832	chr14	99871011	99872156	-	SETD3	0x0
1833	chr14	99927008	99928201	-	SETD3	0x0
1834	chr14	99978119	99979271	-	CCDC85C	0x0
1835	chr14	99980306	99981513	-	CCDC85C	0x0
1836	chr14	100704883	100706065	+	YY1	0x0
1837	chr14	102451533	102452778	+	DYNC1H1	0x0
1838	chr14	102485774	102486912	+	DYNC1H1	0x0
1839	chr14	102513570	102514767	+	DYNC1H1	0x0
1840	chr14	102515579	102516643	+	DYNC1H1	0x0
1841	chr14	102547003	102548556	-	HSP90AA1	0x2
1842	chr14	102551792	102552968	-	HSP90AA1	0x2
1843	chr14	102792163	102793304	+	ZNF839	0x0
1844	chr14	102797439	102798576	+	ZNF839	0x0
1845	chr14	102972147	102973298	-	ANKRD9	0x0
1846	chr14	103284894	103286072	+	TRAF3	0x2
1847	chr14	103375057	103376164	+	TRAF3	0x2
1848	chr14	103601516	103602707	+	TNFAIP2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1849	chr14	103803650	103804881	+	EIF5	0x0
1850	chr14	103803650	103804881	+	SNORA28	0x0
1851	chr14	103985494	103987405	-	CKB	0x0
1852	chr14	104131617	104132836	+	KLC1	0x0
1853	chr14	104378332	104379524	-	C14orf2	0x0
1854	chr14	104479474	104480652	+	TDRD9	0x0
1855	chr14	105235359	105236649	-	AKT1	0x2
1856	chr14	105715971	105717135	-	BRF1	0x1
1857	chr14	105716708	105717810	+	BTBD6	0x0
1858	chr14	105752951	105754079	-	BRF1	0x1
1859	chr14	105849686	105850785	+	PACS2	0x0
1860	chr14	105926114	105927310	+	MTA1	0x2
1861	chr14	105934900	105936046	+	MTA1	0x2
1862	chr15	21936754	21937923	-	LOC646214	0x0
1863	chr15	24925724	24926901	+	C15orf2	0x2
1864	chr15	25683452	25684651	-	UBE3A	0x4
1865	chr15	25781530	25782728	+	SNORD109A	0x4
1866	chr15	25781530	25782728	+	SNORD109B	0x4
1867	chr15	28491389	28492502	-	HERC2	0x2
1868	chr15	28505439	28506582	-	HERC2	0x2
1869	chr15	29335946	29337183	+	APBA2	0x0
1870	chr15	29345646	29346846	+	APBA2	0x0
1871	chr15	31745052	31746201	-	OTUD7A	0x0
1872	chr15	34251063	34252240	-	AVEN	0x0
1873	chr15	34633527	34634962	-	NOP10	0x0
1874	chr15	34781617	34782779	-	GOLGA8B	0x0
1875	chr15	37014652	37015883	+	C15orf41	0x0
1876	chr15	37255197	37256324	-	MEIS2	0x0
1877	chr15	40833292	40834457	-	MRPL42P5	0x0
1878	chr15	41036799	41038022	-	FAM82A2	0x0
1879	chr15	41270810	41271987	-	INO80	0x0
1880	chr15	41315423	41316571	-	INO80	0x0
1881	chr15	41683649	41684911	-	NDUFAF1	0x0
1882	chr15	41987838	41989218	+	MGA	0x2
1883	chr15	42002771	42004041	+	MGA	0x2
1884	chr15	42620396	42621594	+	GANC	0x0
1885	chr15	42706180	42707487	-	ZFP106	0x0
1886	chr15	42962748	42963944	+	STARD9	0x0
1887	chr15	43283722	43284928	-	UBR1	0x2
1888	chr15	44038200	44039385	+	PDIA3	0x0
1889	chr15	44093201	44094397	+	C15orf63	0x0
1890	chr15	44093201	44094397	+	SERF2-C15ORF63	0x0
1891	chr15	44243568	44244787	-	FRMD5	0x0
1892	chr15	44707143	44708328	+	CASC4	0x0
1893	chr15	44853224	44854435	+	EIF3J	0x0
1894	chr15	44855288	44856463	+	EIF3J	0x0
1895	chr15	45039370	45040570	+	TRIM69	0x0
1896	chr15	45490204	45491403	-	SHF	0x0
1897	chr15	45492010	45493176	-	SHF	0x0
1898	chr15	45492781	45493978	+	DUOX1	0x0
1899	chr15	47619874	47621023	+	SEMA6D	0x0
1900	chr15	47699587	47700788	+	SEMA6D	0x0
1901	chr15	48729413	48730591	-	FBN1	0x0
1902	chr15	49170975	49172607	+	EID1	0x2
1903	chr15	51223596	51224840	+	AP4E1	0x0
1904	chr15	52841907	52843027	-	ARPP19	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1905	chr15	55874281	55875380	-	PYGO1	0x0
1906	chr15	59040732	59041932	-	ADAM10	0x2
1907	chr15	59431774	59432875	+	CCNB2	0x0
1908	chr15	59968844	59970052	-	BNIP2	0x0
1909	chr15	60576764	60577938	+	FOXB1	0x0
1910	chr15	61501060	61510500	-	RORA	0x0
1911	chr15	64791589	64792900	+	ZNF609	0x0
1912	chr15	64856192	64857385	+	ZNF609	0x0
1913	chr15	65587813	65589092	+	KBTBD13	0x0
1914	chr15	65596449	65597712	+	KBTBD13	0x0
1915	chr15	66433059	66434274	-	MEGF11	0x0
1916	chr15	66496826	66498012	-	MEGF11	0x0
1917	chr15	66637503	66638647	-	SCARNA14	0x0
1918	chr15	66639053	66640252	-	SCARNA14	0x0
1919	chr15	66792791	66794211	-	RPL4	0x0
1920	chr15	66792791	66794211	-	SNORD18C	0x0
1921	chr15	66794418	66796231	-	RPL4	0x0
1922	chr15	66794418	66796231	-	SNORD16	0x0
1923	chr15	66794418	66796231	-	SNORD18A	0x0
1924	chr15	66794418	66796231	-	SNORD18B	0x0
1925	chr15	67511428	67512557	-	AAGAB	0x0
1926	chr15	68496759	68497953	-	CALML4	0x0
1927	chr15	68499340	68500439	-	CLN6	0x0
1928	chr15	68572922	68574070	+	FEM1B	0x0
1929	chr15	69070758	69072796	-	ANP32A	0x1
1930	chr15	69079609	69080756	-	ANP32A	0x1
1931	chr15	69100468	69101612	-	ANP32A-IT1	0x0
1932	chr15	69494074	69495240	+	MIR548H4	0x0
1933	chr15	69738521	69739744	+	KIF23	0x0
1934	chr15	69747224	69748423	+	RPLP1	0x0
1935	chr15	70389486	70390685	-	TLE3	0x0
1936	chr15	70481875	70483051	+	C15orf50	0x0
1937	chr15	71456865	71458080	-	CT62	0x0
1938	chr15	72337357	72338555	+	SENP8	0x0
1939	chr15	72486311	72487490	-	GRAMD2	0x0
1940	chr15	72490926	72492479	-	PKM2	0x0
1941	chr15	72546097	72547249	-	PARP6	0x0
1942	chr15	72766136	72767238	+	ARIH1	0x0
1943	chr15	73043229	73044383	-	ADPGK	0x0
1944	chr15	73408453	73409650	+	NEO1	0x1
1945	chr15	74851876	74853097	+	ARID3B	0x1
1946	chr15	75132127	75133316	-	ULK3	0x0
1947	chr15	75628401	75629629	+	COMMD4	0x0
1948	chr15	76584313	76585531	-	ETFA	0x0
1949	chr15	77224273	77225393	+	RCN2	0x1
1950	chr15	77337848	77339156	-	TSPAN3	0x0
1951	chr15	77362838	77363961	-	TSPAN3	0x0
1952	chr15	77969913	77971109	-	LINGO1	0x0
1953	chr15	78833666	78834832	+	PSMA4	0x0
1954	chr15	78881867	78883066	+	CHRNA5	0x0
1955	chr15	78884931	78886120	+	CHRNA5	0x0
1956	chr15	79152336	79153574	+	MORF4L1	0x0
1957	chr15	80993689	80994882	+	FAM108C1	0x0
1958	chr15	81270066	81271359	-	MESDC2	0x0
1959	chr15	81557467	81558641	-	STARD5	0x0
1960	chr15	82466075	82467253	-	EFTUD1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
1961	chr15	83684818	83686067	-	BTBD1	0x0
1962	chr15	83857545	83858740	-	HDGFRP3	0x0
1963	chr15	84515575	84516733	-	LOC388152	0x0
1964	chr15	84819674	84820905	+	LOC100505679	0x0
1965	chr15	85234210	85235385	-	SEC11A	0x0
1966	chr15	85337100	85338312	+	ZNF592	0x0
1967	chr15	85628321	85629513	+	PDE8A	0x0
1968	chr15	86111157	86112347	+	AKAP13	0x2
1969	chr15	86260146	86261296	+	AKAP13	0x2
1970	chr15	88654304	88655504	+	LOC283738	0x0
1971	chr15	89743411	89744512	+	ABHD2	0x0
1972	chr15	89825525	89826904	+	FANCI	0x0
1973	chr15	89859503	89860736	+	FANCI	0x0
1974	chr15	89877748	89878974	+	FANCI	0x0
1975	chr15	90146668	90147889	+	C15orf42	0x0
1976	chr15	90610429	90611599	+	ZNF710	0x0
1977	chr15	90814312	90815850	+	NGRN	0x0
1978	chr15	90907212	90908788	+	ZNF774	0x0
1979	chr15	91185812	91187013	+	CRTC3	0x2
1980	chr15	91425207	91426364	+	FURIN	0x0
1981	chr15	91432876	91434053	-	HDDC3	0x0
1982	chr15	91478248	91479432	+	UNC45A	0x0
1983	chr15	91516850	91517974	-	PRC1	0x2
1984	chr15	93255471	93256642	+	ASB9P1	0x0
1985	chr15	93586832	93588055	-	RGMA	0x0
1986	chr15	96288506	96289758	+	LOC145820	0x0
1987	chr15	100648661	100649816	-	ADAMTS17	0x0
1988	chr15	100765299	100766413	-	ADAMTS17	0x0
1989	chr15	100870564	100871790	-	ADAMTS17	0x0
1990	chr15	101480773	101482171	+	LRRK1	0x2
1991	chr15	101825007	101826228	-	SNRPA1	0x0
1992	chr15	102181636	102182846	-	TM2D3	0x0
1993	chr16	143816	144957	+	MPG	0x0
1994	chr16	235472	236640	-	LUC7L	0x0
1995	chr16	342848	344050	-	AXIN1	0x1
1996	chr16	396145	397340	-	AXIN1	0x1
1997	chr16	448859	451026	+	NME4	0x0
1998	chr16	589506	590634	+	MIR3176	0x0
1999	chr16	595185	596399	+	SOLH	0x0
2000	chr16	601507	602707	+	SOLH	0x0
2001	chr16	683792	685117	-	C16orf13	0x0
2002	chr16	723557	724706	+	RHOT2	0x0
2003	chr16	733573	734707	-	JMJD8	0x0
2004	chr16	733573	734707	-	WDR24	0x0
2005	chr16	783112	784246	-	NARFL	0x0
2006	chr16	787182	788296	-	NARFL	0x0
2007	chr16	841316	842543	+	CHTF18	0x0
2008	chr16	941830	943035	-	LMF1	0x0
2009	chr16	1419680	1420859	-	UNKL	0x0
2010	chr16	1509920	1511053	-	CLCN7	0x0
2011	chr16	1793752	1795078	+	MAPK8IP3	0x2
2012	chr16	2011358	2012506	+	NDUFB10	0x0
2013	chr16	2012334	2013692	-	RPS2	0x0
2014	chr16	2012334	2013692	-	SNORA10	0x0
2015	chr16	2012334	2013692	-	SNORA64	0x0
2016	chr16	2127155	2128344	+	TSC2	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2017	chr16	2129738	2130819	+	TSC2	0x1
2018	chr16	2204448	2205682	-	SNORD60	0x0
2019	chr16	2262814	2263925	-	PGP	0x0
2020	chr16	2302820	2304024	-	RNPS1	0x0
2021	chr16	2325778	2326930	-	ABCA3	0x0
2022	chr16	2507661	2508867	+	CCNF	0x0
2023	chr16	2551481	2552720	+	TBC1D24	0x0
2024	chr16	2669190	2670380	-	ERVK13-1	0x0
2025	chr16	2816749	2818757	+	SRRM2	0x0
2026	chr16	3103594	3104769	-	CCDC64B	0x0
2027	chr16	3135604	3136834	+	IL32	0x0
2028	chr16	3183893	3185039	-	MGC3771	0x0
2029	chr16	3206822	3207998	-	MGC3771	0x0
2030	chr16	3707612	3708771	-	TRAP1	0x0
2031	chr16	3738655	3739754	-	TRAP1	0x0
2032	chr16	3776638	3777807	-	CREBBP	0x1
2033	chr16	3853492	3854682	-	CREBBP	0x1
2034	chr16	3899742	3901495	-	CREBBP	0x1
2035	chr16	4312072	4313247	-	TFAP4	0x0
2036	chr16	4585148	4586317	-	C16orf5	0x0
2037	chr16	4631453	4632577	-	FAM100A	0x0
2038	chr16	4780498	4781691	-	ANKS3	0x0
2039	chr16	4809968	4811154	-	ZNF500	0x0
2040	chr16	4930725	4931953	+	UBN1	0x0
2041	chr16	9202390	9203489	+	C16orf72	0x0
2042	chr16	9732686	9733886	+	MIR548X	0x0
2043	chr16	10623788	10625100	-	EMP2	0x0
2044	chr16	11118150	11119355	+	CLEC16A	0x0
2045	chr16	11795285	11796473	-	TXNDC11	0x0
2046	chr16	11982629	11983709	-	GSPT1	0x0
2047	chr16	11989914	11991031	-	GSPT1	0x0
2048	chr16	14247481	14248682	+	MKL2	0x0
2049	chr16	15154201	15155400	-	RRN3	0x0
2050	chr16	15224518	15225828	-	MIR3180-4	0x0
2051	chr16	15959530	15960686	-	FOPNL	0x0
2052	chr16	16103077	16104257	+	ABCC1	0x0
2053	chr16	16180120	16181312	+	ABCC1	0x0
2054	chr16	16231673	16232855	+	ABCC1	0x0
2055	chr16	18367186	18368355	+	ABCC6P1	0x0
2056	chr16	18795494	18796703	-	RPS15A	0x0
2057	chr16	21964106	21965352	+	UQCRC2	0x2
2058	chr16	22206429	22207666	-	CDR2	0x0
2059	chr16	22236504	22237625	+	EEF2K	0x0
2060	chr16	23154325	23155505	-	USP31	0x0
2061	chr16	23443115	23444292	+	SCNN1B	0x0
2062	chr16	23455520	23456673	-	COG7	0x0
2063	chr16	23518784	23519913	-	GGA2	0x0
2064	chr16	26772167	26773347	-	NSMCE1	0x0
2065	chr16	28109306	28110513	-	XPO6	0x0
2066	chr16	28165013	28166113	-	XPO6	0x0
2067	chr16	28172868	28174090	+	SBK1	0x0
2068	chr16	28178211	28179388	-	XPO6	0x0
2069	chr16	28222170	28223312	-	XPO6	0x0
2070	chr16	28488127	28489342	-	CLN3	0x0
2071	chr16	28502619	28503773	-	CLN3	0x0
2072	chr16	28735596	28736768	+	EIF3C	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2073	chr16	28735596	28736768	+	EIF3CL	0x0
2074	chr16	29620126	29621279	-	SLC7A5P1	0x0
2075	chr16	29818410	29819625	+	MAZ	0x0
2076	chr16	29821157	29822740	+	MAZ	0x0
2077	chr16	29830643	29831878	+	C16orf53	0x0
2078	chr16	29830643	29831878	+	MVP	0x0
2079	chr16	30076596	30077792	+	ALDOA	0x0
2080	chr16	30078033	30079171	+	ALDOA	0x0
2081	chr16	30079608	30080725	+	ALDOA	0x0
2082	chr16	30345960	30347162	-	LOC595101	0x0
2083	chr16	30367895	30369061	-	TBC1D10B	0x0
2084	chr16	30369950	30371830	-	TBC1D10B	0x0
2085	chr16	30482481	30483615	+	ITGAL	0x0
2086	chr16	30662533	30663730	+	PRR14	0x0
2087	chr16	30680929	30682096	+	FBRS	0x0
2088	chr16	30721321	30722534	+	SNORA30	0x0
2089	chr16	30721321	30722534	+	SRCAP	0x0
2090	chr16	30734492	30735698	+	SRCAP	0x0
2091	chr16	30749886	30751115	+	SRCAP	0x0
2092	chr16	30762261	30763449	+	PHKG2	0x0
2093	chr16	30785855	30786949	+	RNF40	0x0
2094	chr16	30898461	30899560	-	BCL7C	0x0
2095	chr16	30995147	30996395	+	SETD1A	0x0
2096	chr16	31055455	31056660	+	STX4	0x0
2097	chr16	31101627	31103190	-	VKORC1	0x0
2098	chr16	33959014	33960199	-	LINC00273	0x0
2099	chr16	33963060	33964589	+	LOC283914	0x0
2100	chr16	46946475	46947651	+	GPT2	0x0
2101	chr16	46949560	46950994	+	GPT2	0x0
2102	chr16	47161753	47162900	-	NETO2	0x0
2103	chr16	47176155	47177315	-	NETO2	0x0
2104	chr16	47502596	47503917	+	PHKB	0x0
2105	chr16	47530809	47531908	+	PHKB	0x0
2106	chr16	48277848	48278972	+	LONP2	0x0
2107	chr16	48387030	48388180	+	LONP2	0x0
2108	chr16	49557027	49558211	-	ZNF423	0x0
2109	chr16	49604532	49605679	-	ZNF423	0x0
2110	chr16	50138880	50140042	+	HEATR3	0x0
2111	chr16	53468212	53469426	+	RBL2	0x1
2112	chr16	54018126	54019355	+	FTO	0x0
2113	chr16	57333351	57334551	+	ARL2BP	0x0
2114	chr16	57333796	57335000	-	PLLP	0x0
2115	chr16	57770451	57771687	+	KATNB1	0x0
2116	chr16	58194850	58196051	-	CSNK2A2	0x0
2117	chr16	58506204	58507370	+	NDRG4	0x1
2118	chr16	58581850	58583095	-	SNORA46	0x0
2119	chr16	58593207	58594416	-	CNOT1	0x2
2120	chr16	58593207	58594416	-	SNORA50	0x0
2121	chr16	58636236	58637361	-	CNOT1	0x2
2122	chr16	59573507	59574718	+	SETD6	0x0
2123	chr16	61776537	61777739	-	CDH8	0x0
2124	chr16	66583830	66585064	+	CKLF	0x0
2125	chr16	66583830	66585064	+	CKLF-CMTM1	0x0
2126	chr16	66651623	66652756	-	CMTM4	0x0
2127	chr16	66857453	66858552	-	NAE1	0x0
2128	chr16	67355018	67356243	-	KCTD19	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2129	chr16	67644395	67645577	-	ACD	0x4
2130	chr16	67644742	67646514	+	CTCF	0x1
2131	chr16	67670055	67671257	+	CTCF	0x1
2132	chr16	68155794	68157476	+	NFATC3	0x0
2133	chr16	68537173	68538388	+	ZFP90	0x0
2134	chr16	69362090	69363244	-	COG8	0x0
2135	chr16	69362090	69363244	-	PDF	0x0
2136	chr16	69375976	69377216	+	NIP7	0x0
2137	chr16	69641676	69642775	+	NFAT5	0x0
2138	chr16	70282376	70283535	-	EXOSC6	0x0
2139	chr16	70380666	70382034	+	DDX19A	0x0
2140	chr16	70412278	70413437	-	ST3GAL2	0x0
2141	chr16	70567748	70568934	+	SF3B3	0x0
2142	chr16	70598735	70599882	+	SF3B3	0x0
2143	chr16	70600812	70601947	+	SF3B3	0x0
2144	chr16	70724351	70725450	-	VAC14	0x0
2145	chr16	72238271	72239450	-	PMFBP1	0x0
2146	chr16	72984070	72985255	-	ZFHX3	0x1
2147	chr16	72990914	72992079	-	ZFHX3	0x1
2148	chr16	72992940	72994069	-	ZFHX3	0x1
2149	chr16	73047809	73049165	-	ZFHX3	0x1
2150	chr16	74714271	74715389	-	MLKL	0x0
2151	chr16	75289855	75291011	-	BCAR1	0x0
2152	chr16	79630494	79631584	-	MAF	0x1
2153	chr16	81030333	81031467	-	CMC2	0x0
2154	chr16	81744479	81745663	+	CMIP	0x0
2155	chr16	81995033	81996350	+	PLCG2	0x2
2156	chr16	82195015	82196190	-	MPHOSPH6	0x0
2157	chr16	84216501	84217600	-	TAF1C	0x0
2158	chr16	84734892	84736093	+	USP10	0x0
2159	chr16	84778008	84779365	+	USP10	0x0
2160	chr16	85244625	85245831	+	LOC400548	0x0
2161	chr16	85394186	85395412	+	LINC00311	0x0
2162	chr16	85443986	85445195	+	LINC00311	0x0
2163	chr16	85660061	85661260	+	KIAA0182	0x0
2164	chr16	85808485	85809616	-	COX4NB	0x0
2165	chr16	87364296	87365490	-	FBXO31	0x1
2166	chr16	87398201	87399306	-	FBXO31	0x1
2167	chr16	87469465	87470642	-	ZCCHC14	0x0
2168	chr16	87737922	87739118	-	KLHDC4	0x0
2169	chr16	88060540	88061765	+	BANP	0x1
2170	chr16	88083221	88084320	+	BANP	0x1
2171	chr16	88817646	88818825	-	PIEZO1	0x0
2172	chr16	88872808	88873963	+	CDT1	0x0
2173	chr16	89164503	89165709	+	ACSF3	0x0
2174	chr16	89371092	89372297	-	ANKRD11	0x0
2175	chr16	89497144	89498290	-	ANKRD11	0x0
2176	chr16	89543379	89550500	-	ANKRD11	0x0
2177	chr16	89595342	89596458	+	SPG7	0x0
2178	chr16	89627259	89628503	+	RPL13	0x0
2179	chr16	89627259	89628503	+	SNORD68	0x0
2180	chr16	89629746	89630946	+	RPL13	0x0
2181	chr16	89720957	89722136	+	C16orf55	0x0
2182	chr16	89759982	89761224	+	CDK10	0x0
2183	chr16	89762227	89763431	-	SPATA2L	0x0
2184	chr16	89783657	89784775	+	LOC100128881	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2185	chr16	89803908	89805002	+	ZNF276	0x0
2186	chr16	89804541	89805669	-	FANCA	0x2
2187	chr16	89830638	89831758	-	FANCA	0x2
2188	chr16	89835725	89837364	-	FANCA	0x2
2189	chr16	89851003	89852132	-	FANCA	0x2
2190	chr16	89960891	89962086	+	TCF25	0x0
2191	chr16	89966465	89967671	+	TCF25	0x0
2192	chr16	89975246	89976652	+	TCF25	0x0
2193	chr16	90019017	90020436	+	DEF8	0x0
2194	chr16	90027401	90028606	+	DEF8	0x0
2195	chr16	90071461	90072626	-	DBNDD1	0x0
2196	chr16	90094687	90095934	+	GAS8	0x0
2197	chr17	420039	421215	-	VPS53	0x1
2198	chr17	421588	422752	-	VPS53	0x1
2199	chr17	809734	810881	-	NXN	0x0
2200	chr17	877224	878419	+	TIMM22	0x0
2201	chr17	906054	907251	+	TIMM22	0x0
2202	chr17	907914	909091	-	ABR	0x0
2203	chr17	975303	976505	-	ABR	0x0
2204	chr17	1247548	1249295	-	YWHAE	0x2
2205	chr17	1302901	1304079	-	YWHAE	0x2
2206	chr17	1367797	1369135	-	MYO1C	0x0
2207	chr17	1870297	1871457	-	RTN4RL1	0x0
2208	chr17	2091648	2092874	+	SRR	0x0
2209	chr17	2202637	2203736	-	SMG6	0x0
2210	chr17	2231890	2233069	-	SNORD91B	0x0
2211	chr17	2231890	2233069	-	TSR1	0x0
2212	chr17	2289272	2290479	-	MNT	0x0
2213	chr17	2758169	2759392	+	RAP1GAP2	0x0
2214	chr17	3727428	3728604	-	C17orf85	0x0
2215	chr17	3774868	3776203	-	CAMKK1	0x0
2216	chr17	3989255	3990394	-	ZZEF1	0x2
2217	chr17	4848985	4850149	-	PFN1	0x1
2218	chr17	4927219	4928332	+	KIF1C	0x2
2219	chr17	5011951	5013308	-	ZNF232	0x0
2220	chr17	5192114	5193285	+	RABEP1	0x2
2221	chr17	5347087	5348274	-	DHX33	0x0
2222	chr17	7128624	7130033	-	DVL2	0x0
2223	chr17	7143329	7144561	-	GABARAP	0x1
2224	chr17	7214768	7215867	+	EIF5A	0x2
2225	chr17	7310728	7311838	+	NLGN2	0x0
2226	chr17	7477573	7478698	+	EIF4A1	0x0
2227	chr17	7477573	7478698	+	SENP3-EIF4A1	0x0
2228	chr17	7477573	7478698	+	SNORA48	0x0
2229	chr17	7479570	7481901	+	EIF4A1	0x0
2230	chr17	7479570	7481901	+	SENP3-EIF4A1	0x0
2231	chr17	7479570	7481901	+	SNORA67	0x0
2232	chr17	7479570	7481901	+	SNORD10	0x0
2233	chr17	7571798	7572976	-	TP53	0x1
2234	chr17	7759946	7761139	-	LSMD1	0x0
2235	chr17	7809090	7810209	+	CHD3	0x2
2236	chr17	7809090	7810209	+	SCARNA21	0x0
2237	chr17	7848570	7849762	+	CNTROB	0x0
2238	chr17	8023063	8024273	-	HES7	0x0
2239	chr17	8023683	8024894	+	MIR4314	0x0
2240	chr17	8076195	8077469	-	TMEM107	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2241	chr17	8089692	8090869	+	MIR3676	0x0
2242	chr17	8089692	8090869	+	MIR4521	0x0
2243	chr17	8377996	8379137	-	MYH10	0x0
2244	chr17	14608210	14609470	-	CDRT15	0x0
2245	chr17	15918092	15919219	+	TTC19	0x0
2246	chr17	16132196	16133391	+	PIGL	0x0
2247	chr17	16343991	16345208	+	C17orf76-AS1	0x0
2248	chr17	16343991	16345208	+	SNORD65	0x0
2249	chr17	17089072	17090238	+	MPRIP	0x0
2250	chr17	17286493	17287902	-	COPS3	0x2
2251	chr17	17634942	17636091	+	RAI1	0x0
2252	chr17	17999746	18000896	+	DRG2	0x0
2253	chr17	18111909	18113101	+	ALKBH5	0x0
2254	chr17	18177405	18178544	-	TOP3A	0x0
2255	chr17	18562696	18563882	-	ZNF286B	0x0
2256	chr17	18964696	18965964	+	SLC5A10	0x0
2257	chr17	19015303	19016503	-	GRAP	0x0
2258	chr17	19090777	19092061	+	GRAPL	0x0
2259	chr17	19092840	19094050	-	GRAP	0x0
2260	chr17	19349188	19350394	-	MFAP4	0x0
2261	chr17	19355037	19356234	+	RNF112	0x0
2262	chr17	19568464	19569565	+	ALDH3A2	0x0
2263	chr17	20903023	20904171	-	USP22	0x0
2264	chr17	26368250	26369432	+	NLK	0x0
2265	chr17	26794566	26795779	+	SLC13A2	0x0
2266	chr17	26918992	26920362	-	SPAG5	0x0
2267	chr17	26959602	26960700	-	KIAA0100	0x0
2268	chr17	27047016	27048207	+	RPL23A	0x0
2269	chr17	27047016	27048207	+	SNORD42B	0x0
2270	chr17	27049068	27051266	+	RPL23A	0x0
2271	chr17	27049068	27051266	+	SNORD42A	0x0
2272	chr17	27049068	27051266	+	SNORD4A	0x0
2273	chr17	27049068	27051266	+	SNORD4B	0x0
2274	chr17	27076052	27077263	+	TRAF4	0x0
2275	chr17	27134427	27135693	-	C17orf63	0x0
2276	chr17	27206815	27207989	-	FLOT2	0x0
2277	chr17	27250434	27251617	-	PHF12	0x0
2278	chr17	27330860	27332058	-	SEZ6	0x0
2279	chr17	27586017	27587151	-	NUFIP2	0x0
2280	chr17	27589485	27590890	-	NUFIP2	0x0
2281	chr17	27597552	27598763	-	NUFIP2	0x0
2282	chr17	27613073	27614247	-	NUFIP2	0x0
2283	chr17	27620125	27621304	-	NUFIP2	0x0
2284	chr17	27876749	27877967	+	TAOK1	0x0
2285	chr17	28793244	28794488	+	CPD	0x2
2286	chr17	29151064	29152280	-	CRLF3	0x0
2287	chr17	29876577	29877796	+	MIR193A	0x0
2288	chr17	30178363	30179685	-	C17orf79	0x0
2289	chr17	30322093	30323192	+	SUZ12	0x2
2290	chr17	30323258	30324460	+	SUZ12	0x2
2291	chr17	30327053	30328256	+	SUZ12	0x2
2292	chr17	30701748	30703107	+	ZNF207	0x0
2293	chr17	30729721	30730945	+	ZNF207	0x0
2294	chr17	31149233	31150434	+	TMEM98	0x0
2295	chr17	33338521	33339709	-	RAD51L3-RFFL	0x0
2296	chr17	33338521	33339709	-	RFFL	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2297	chr17	33477601	33478846	-	NLE1	0x0
2298	chr17	34005816	34007062	+	AP2B1	0x0
2299	chr17	34051812	34052960	+	AP2B1	0x0
2300	chr17	34216112	34217346	+	TAF15	0x0
2301	chr17	34867890	34869254	-	MYO19	0x0
2302	chr17	35463729	35464880	-	ACACA	0x0
2303	chr17	35609261	35610459	-	ACACA	0x0
2304	chr17	36907500	36908659	-	PCGF2	0x1
2305	chr17	36923201	36924315	-	PIP4K2B	0x0
2306	chr17	36933509	36934767	-	PIP4K2B	0x0
2307	chr17	37008384	37009879	-	RPL23	0x0
2308	chr17	37008384	37009879	-	SNORA21	0x0
2309	chr17	37310065	37311369	-	ARL5C	0x0
2310	chr17	37360307	37361530	+	RPL19	0x0
2311	chr17	38187243	38188407	-	MED24	0x0
2312	chr17	38292372	38293524	+	MSL1	0x0
2313	chr17	38544516	38546023	-	TOP2A	0x0
2314	chr17	38546963	38548087	-	TOP2A	0x0
2315	chr17	38555669	38556813	-	TOP2A	0x0
2316	chr17	39623661	39624919	+	LOC100505782	0x0
2317	chr17	39682054	39683217	-	KRT19	0x0
2318	chr17	39919253	39920390	-	JUP	0x1
2319	chr17	39976137	39977291	+	FKBP10	0x0
2320	chr17	40022691	40023931	-	ACLY	0x0
2321	chr17	40041357	40042582	-	ACLY	0x0
2322	chr17	40051029	40052128	-	ACLY	0x0
2323	chr17	40066060	40067304	-	ACLY	0x0
2324	chr17	40150541	40151724	-	DNAJC7	0x0
2325	chr17	40276463	40277602	-	RAB5C	0x0
2326	chr17	40997873	40999063	+	AOC2	0x0
2327	chr17	41166535	41167621	-	VAT1	0x0
2328	chr17	41464126	41465330	-	LOC100130581	0x0
2329	chr17	41477626	41478857	+	ARL4D	0x0
2330	chr17	41893195	41894405	-	MPP3	0x1
2331	chr17	42124839	42126012	-	LSM12	0x0
2332	chr17	42143070	42144243	-	LSM12	0x0
2333	chr17	42269530	42270800	-	ATXN7L3	0x0
2334	chr17	42283758	42284942	-	UBTF	0x0
2335	chr17	42291123	42292222	-	UBTF	0x0
2336	chr17	42429663	42430895	+	GRN	0x0
2337	chr17	42472130	42475225	-	GPATCH8	0x0
2338	chr17	42563669	42564836	-	GPATCH8	0x0
2339	chr17	42858464	42859563	+	ADAM11	0x0
2340	chr17	42927693	42928792	-	EFTUD2	0x0
2341	chr17	43011561	43012778	-	KIF18B	0x0
2342	chr17	43112655	43113866	-	DCAKD	0x0
2343	chr17	43127402	43129550	-	DCAKD	0x0
2344	chr17	43158651	43159849	+	NMT1	0x0
2345	chr17	43188503	43189680	-	PLCD3	0x0
2346	chr17	43552039	43553599	-	MIR4315-1	0x0
2347	chr17	43552039	43553599	-	MIR4315-2	0x0
2348	chr17	43552039	43553599	-	PLEKHM1	0x0
2349	chr17	44107289	44109182	-	KANSL1	0x0
2350	chr17	44121458	44122619	-	KANSL1	0x0
2351	chr17	44143350	44144558	-	KANSL1	0x0
2352	chr17	44235813	44236965	-	KANSL1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2353	chr17	44248825	44250127	-	KANSL1	0x0
2354	chr17	44892011	44893187	+	WNT9B	0x0
2355	chr17	45700639	45701871	+	NPEPPS	0x0
2356	chr17	45740976	45743040	+	KPNB1	0x0
2357	chr17	45749870	45751463	+	KPNB1	0x0
2358	chr17	45759557	45760750	+	KPNB1	0x0
2359	chr17	46048089	46049200	+	CDK5RAP3	0x0
2360	chr17	46146996	46148371	-	CBX1	0x0
2361	chr17	46555948	46557104	+	HOXB-AS3	0x0
2362	chr17	46672630	46673780	-	HOXB6	0x0
2363	chr17	46674823	46676013	-	HOXB6	0x0
2364	chr17	46689629	46690750	-	HOXB8	0x0
2365	chr17	46698671	46699886	-	HOXB9	0x0
2366	chr17	47026177	47027373	-	SNF8	0x0
2367	chr17	47102139	47103238	+	IGF2BP1	0x0
2368	chr17	47103331	47104443	+	IGF2BP1	0x0
2369	chr17	47128290	47131034	+	IGF2BP1	0x0
2370	chr17	47269322	47270552	+	ABI3	0x2
2371	chr17	47370381	47371514	-	ZNF652	0x0
2372	chr17	47438823	47439984	-	ZNF652	0x0
2373	chr17	47698699	47699875	-	SPOP	0x2
2374	chr17	48211639	48212824	-	PPP1R9B	0x0
2375	chr17	48458394	48459935	-	LRRC59	0x0
2376	chr17	49238557	49239765	+	NME1	0x1
2377	chr17	49238557	49239765	+	NME1-NME2	0x0
2378	chr17	49243309	49244511	+	NME1-NME2	0x0
2379	chr17	49243309	49244511	+	NME2	0x0
2380	chr17	50173256	50174452	+	UTP18	0x0
2381	chr17	54908462	54909643	-	C17orf67	0x0
2382	chr17	54965631	54966927	-	TRIM25	0x0
2383	chr17	55536824	55538020	+	MSI2	0x0
2384	chr17	55756729	55757945	+	MSI2	0x0
2385	chr17	55760969	55762149	+	MSI2	0x0
2386	chr17	55866332	55867485	+	MSI2	0x0
2387	chr17	56078023	56079230	-	SRSF1	0x2
2388	chr17	56081814	56083329	-	SRSF1	0x2
2389	chr17	56083848	56084941	-	SRSF1	0x2
2390	chr17	56566533	56567635	-	MTMR4	0x0
2391	chr17	56902493	56903592	+	PPM1E	0x2
2392	chr17	57188247	57189567	-	SKA2	0x0
2393	chr17	57317303	57318598	+	GDPD1	0x0
2394	chr17	57474126	57475693	+	YPEL2	0x0
2395	chr17	57684974	57686173	+	DHX40	0x0
2396	chr17	57771333	57772704	+	CLTC	0x2
2397	chr17	57808269	57809459	+	VMP1	0x0
2398	chr17	57957769	57958998	-	TUBD1	0x0
2399	chr17	58010067	58011229	+	RPS6KB1	0x2
2400	chr17	58308321	58309557	-	SCARNA20	0x0
2401	chr17	58448595	58449725	-	USP32	0x0
2402	chr17	58710732	58711871	+	PPM1D	0x2
2403	chr17	59275968	59277116	+	BCAS3	0x0
2404	chr17	59316760	59318001	+	BCAS3	0x0
2405	chr17	59432076	59433255	-	NACA2	0x0
2406	chr17	59821357	59822521	-	BRIP1	0x2
2407	chr17	60023113	60024212	-	MED13	0x0
2408	chr17	60086819	60087918	-	MED13	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2409	chr17	60100732	60101884	-	MED13	0x0
2410	chr17	60458542	60459757	+	EFCAB3	0x0
2411	chr17	60480366	60481496	-	TBC1D3P2	0x0
2412	chr17	60555248	60556357	-	TBC1D3P2	0x0
2413	chr17	60610210	60611437	+	TLK2	0x0
2414	chr17	60641806	60643010	+	TLK2	0x0
2415	chr17	61043429	61044634	+	TANC2	0x0
2416	chr17	61554766	61555995	+	ACE	0x2
2417	chr17	61668036	61669123	+	DCAF7	0x0
2418	chr17	61706281	61707494	+	MAP3K3	0x0
2419	chr17	61799111	61800221	-	STRADA	0x0
2420	chr17	61823148	61824382	-	CCDC47	0x0
2421	chr17	61909439	61910644	-	SMARCD2	0x0
2422	chr17	62134563	62135698	-	ERN1	0x0
2423	chr17	62222870	62224324	+	SNORA76	0x0
2424	chr17	62222870	62224324	+	SNORD104	0x0
2425	chr17	62247937	62249096	-	TEX2	0x0
2426	chr17	62496606	62498485	-	DDX5	0x2
2427	chr17	62496606	62498485	-	MIR3064	0x0
2428	chr17	62496606	62498485	-	MIR5047	0x0
2429	chr17	62498499	62499684	-	DDX5	0x2
2430	chr17	62575922	62577102	-	SMURF2	0x2
2431	chr17	62942866	62944035	-	AMZ2P1	0x0
2432	chr17	64263301	64264539	+	PRKCA	0x0
2433	chr17	64436881	64438060	+	PRKCA	0x0
2434	chr17	64530427	64531606	+	PRKCA	0x0
2435	chr17	65168688	65169857	-	HELZ	0x0
2436	chr17	65292355	65293532	-	PSMD12	0x0
2437	chr17	65336211	65337416	-	PSMD12	0x0
2438	chr17	65409593	65410812	+	PITPNC1	0x0
2439	chr17	65736243	65737466	+	SNORA38B	0x0
2440	chr17	65821694	65822893	+	BPTF	0x2
2441	chr17	65849813	65851009	+	BPTF	0x2
2442	chr17	65959757	65960975	+	BPTF	0x2
2443	chr17	66015434	66016611	-	C17orf58	0x0
2444	chr17	66042188	66043393	+	KPNA2	0x0
2445	chr17	66122069	66123217	+	LOC100499466	0x0
2446	chr17	66527202	66528626	+	PRKAR1A	0x1
2447	chr17	72199262	72200454	+	RPL38	0x0
2448	chr17	72833367	72834565	+	TMEM104	0x0
2449	chr17	73029927	73031118	-	ATP5H	0x0
2450	chr17	73037405	73038494	+	KCTD2	0x0
2451	chr17	73131557	73132694	-	HN1	0x0
2452	chr17	73178426	73179605	-	SUMO2	0x0
2453	chr17	73218498	73219694	+	NUP85	0x0
2454	chr17	73227391	73228588	+	NUP85	0x0
2455	chr17	73313814	73314889	-	GRB2	0x2
2456	chr17	73455722	73456919	+	KIAA0195	0x0
2457	chr17	73773957	73775044	-	H3F3B	0x0
2458	chr17	73807721	73808921	+	UNK	0x0
2459	chr17	73895087	73896240	-	MRPL38	0x0
2460	chr17	73937435	73938595	-	ACOX1	0x0
2461	chr17	74077015	74078380	-	EXOC7	0x0
2462	chr17	74084980	74086079	-	EXOC7	0x0
2463	chr17	74086438	74087537	-	EXOC7	0x0
2464	chr17	74138610	74139786	-	RNF157	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2465	chr17	74140038	74141515	-	RNF157	0x0
2466	chr17	74288029	74289169	-	QRICH2	0x0
2467	chr17	74326348	74327468	-	PRPSAP1	0x0
2468	chr17	74391748	74392886	-	UBE2O	0x2
2469	chr17	74554334	74555523	+	LOC100507246	0x0
2470	chr17	74554334	74555523	+	SNORD1C	0x0
2471	chr17	74559655	74561651	+	LOC100507246	0x0
2472	chr17	74670186	74671261	-	MXRA7	0x0
2473	chr17	74671792	74672890	-	MXRA7	0x0
2474	chr17	74731497	74732605	-	MIR636	0x0
2475	chr17	74731497	74732605	-	SRSF2	0x2
2476	chr17	75084818	75086125	+	LINC00338	0x0
2477	chr17	75084818	75086125	+	SCARNA16	0x0
2478	chr17	75084818	75086125	+	SEC14L1	0x0
2479	chr17	75157550	75158929	-	MIR4316	0x0
2480	chr17	75437613	75438794	+	SEPT9	0x2
2481	chr17	75495129	75496821	+	SEPT9	0x2
2482	chr17	75816292	75817394	-	FLJ45079	0x0
2483	chr17	76027252	76028462	+	TNRC6C	0x0
2484	chr17	76105054	76106203	+	TNRC6C	0x0
2485	chr17	76219271	76221106	+	BIRC5	0x0
2486	chr17	76396238	76397436	+	PGS1	0x0
2487	chr17	76670230	76671405	-	CYTH1	0x0
2488	chr17	76706536	76707691	-	CYTH1	0x0
2489	chr17	76810010	76811142	-	USP36	0x0
2490	chr17	76848640	76849834	-	TIMP2	0x0
2491	chr17	76968262	76969430	-	LGALS3BP	0x0
2492	chr17	76987582	76988709	-	CANT1	0x2
2493	chr17	77081695	77082911	+	ENGASE	0x0
2494	chr17	77751447	77752559	+	CBX2	0x0
2495	chr17	77908923	77910604	-	TBC1D16	0x0
2496	chr17	77911036	77912202	-	TBC1D16	0x0
2497	chr17	78079141	78080240	+	GAA	0x0
2498	chr17	78441438	78444535	-	NPTX1	0x0
2499	chr17	78518341	78519546	+	RPTOR	0x0
2500	chr17	78521208	78522403	+	RPTOR	0x0
2501	chr17	78900830	78902034	+	RPTOR	0x0
2502	chr17	79180215	79181398	-	AZI1	0x0
2503	chr17	79222243	79223442	+	C17orf89	0x0
2504	chr17	79224181	79225386	-	SLC38A10	0x0
2505	chr17	79231888	79233044	-	SLC38A10	0x0
2506	chr17	79249251	79250465	-	SLC38A10	0x0
2507	chr17	79362635	79363814	-	MIR4740	0x0
2508	chr17	79431650	79432774	+	BAHCC1	0x0
2509	chr17	79476602	79478114	-	ACTG1	0x0
2510	chr17	79480417	79481633	-	ACTG1	0x0
2511	chr17	79503071	79504238	-	C17orf70	0x0
2512	chr17	79516997	79518173	-	C17orf70	0x0
2513	chr17	79524060	79525921	-	NPLOC4	0x0
2514	chr17	79538509	79539655	-	NPLOC4	0x0
2515	chr17	79571064	79572231	-	NPLOC4	0x0
2516	chr17	79660352	79661562	+	HGS	0x0
2517	chr17	79668356	79669552	+	HGS	0x0
2518	chr17	79686704	79687912	+	SLC25A10	0x0
2519	chr17	79766882	79768094	+	GCGR	0x0
2520	chr17	79779775	79780909	-	FAM195B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2521	chr17	79785791	79787099	-	FAM195B	0x0
2522	chr17	79800553	79801723	-	P4HB	0x0
2523	chr17	79802990	79804345	-	P4HB	0x0
2524	chr17	79824534	79825654	+	ANAPC11	0x0
2525	chr17	79839418	79840516	-	ALYREF	0x0
2526	chr17	79842416	79844483	-	ALYREF	0x0
2527	chr17	79845379	79846425	-	ALYREF	0x0
2528	chr17	79851805	79853110	+	ANAPC11	0x0
2529	chr17	79872229	79873547	-	SIRT7	0x0
2530	chr17	79957605	79958704	+	ASPSCR1	0x0
2531	chr17	79990233	79991418	+	RAC3	0x0
2532	chr17	80007055	80008185	-	RFNG	0x0
2533	chr17	80008514	80009655	-	RFNG	0x0
2534	chr17	80020966	80022173	-	DUS1L	0x0
2535	chr17	80035753	80036898	-	FASN	0x0
2536	chr17	80038577	80039772	-	FASN	0x0
2537	chr17	80041094	80042193	-	FASN	0x0
2538	chr17	80048397	80049582	-	FASN	0x0
2539	chr17	80051030	80052507	-	FASN	0x0
2540	chr17	80055526	80056564	-	FASN	0x0
2541	chr17	80093530	80094678	-	CCDC57	0x0
2542	chr17	80111293	80112455	-	CCDC57	0x0
2543	chr17	80203472	80204534	-	CSNK1D	0x0
2544	chr17	80212410	80213512	-	CSNK1D	0x0
2545	chr17	80221639	80222776	-	CSNK1D	0x0
2546	chr17	80540194	80541386	+	FOXK2	0x0
2547	chr17	80552134	80553370	+	FOXK2	0x0
2548	chr17	80559523	80560801	+	FOXK2	0x0
2549	chr17	80572648	80573867	-	WDR45L	0x0
2550	chr17	80675431	80676530	+	FN3KRP	0x0
2551	chr17	80723624	80724793	+	TBCD	0x0
2552	chr17	80725741	80726938	+	TBCD	0x0
2553	chr17	80879768	80880945	+	TBCD	0x0
2554	chr17	80922711	80923915	-	B3GNTL1	0x0
2555	chr18	261064	262183	-	THOC1	0x0
2556	chr18	319122	320335	-	COLEC12	0x0
2557	chr18	421767	422978	-	COLEC12	0x0
2558	chr18	721629	722906	-	YES1	0x0
2559	chr18	759931	761128	-	YES1	0x0
2560	chr18	2380851	2382070	+	NDC80	0x2
2561	chr18	5840188	5841409	+	MIR3976	0x0
2562	chr18	6301429	6302684	-	L3MBTL4	0x1
2563	chr18	6310997	6312174	-	L3MBTL4	0x1
2564	chr18	9399920	9401153	+	TWSG1	0x0
2565	chr18	9524016	9525208	+	RALBP1	0x0
2566	chr18	9535748	9536953	+	RALBP1	0x0
2567	chr18	9569916	9571148	-	PPP4R1	0x0
2568	chr18	9710586	9711734	+	RAB31	0x0
2569	chr18	9861621	9862813	+	RAB31	0x0
2570	chr18	9953971	9955154	+	VAPA	0x0
2571	chr18	10532844	10534018	+	NAPG	0x0
2572	chr18	12309965	12311147	+	TUBB6	0x0
2573	chr18	12446096	12447328	-	SPIRE1	0x0
2574	chr18	12455237	12456416	-	SPIRE1	0x0
2575	chr18	12546141	12547368	-	SPIRE1	0x0
2576	chr18	12934265	12935389	+	SEH1L	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2577	chr18	13681472	13682627	-	FAM210A	0x0
2578	chr18	19348091	19349274	+	MIB1	0x0
2579	chr18	19353015	19354226	+	MIB1	0x0
2580	chr18	19358990	19360117	+	MIB1	0x0
2581	chr18	19409262	19410364	+	MIB1	0x0
2582	chr18	19446390	19447573	+	MIB1	0x0
2583	chr18	20714978	20716166	+	CABLES1	0x1
2584	chr18	20780816	20782005	+	CABLES1	0x1
2585	chr18	21191142	21192365	+	LAMA3	0x0
2586	chr18	21938451	21939627	-	OSBPL1A	0x0
2587	chr18	23597385	23598512	-	SS18	0x0
2588	chr18	29204767	29205899	-	B4GALT6	0x0
2589	chr18	29298411	29299551	+	TTR	0x0
2590	chr18	29451847	29452976	-	TRAPPC8	0x0
2591	chr18	29691209	29692408	+	RNF138	0x0
2592	chr18	31433808	31435029	-	NOL4	0x0
2593	chr18	31608188	31609387	+	ASXL3	0x0
2594	chr18	32470630	32471818	+	DTNA	0x2
2595	chr18	33571402	33572486	-	RPRD1A	0x0
2596	chr18	33594761	33595888	-	RPRD1A	0x0
2597	chr18	34478931	34480136	+	KIAA1328	0x0
2598	chr18	34701645	34702810	+	KIAA1328	0x0
2599	chr18	36880605	36881780	-	LOC647946	0x0
2600	chr18	37308446	37309672	-	LOC647946	0x0
2601	chr18	37324791	37325970	-	LOC647946	0x0
2602	chr18	42374366	42375584	+	SETBP1	0x0
2603	chr18	43668976	43670384	-	ATP5A1	0x0
2604	chr18	43671168	43672337	-	ATP5A1	0x0
2605	chr18	43953766	43954965	+	RNF165	0x0
2606	chr18	45422404	45423676	-	SMAD2	0x1
2607	chr18	47015074	47016220	-	RPL17	0x0
2608	chr18	47015074	47016220	-	RPL17-C18ORF32	0x0
2609	chr18	47015074	47016220	-	SNORD58C	0x0
2610	chr18	47017102	47018645	-	RPL17	0x0
2611	chr18	47017102	47018645	-	RPL17-C18ORF32	0x0
2612	chr18	47017102	47018645	-	SNORD58A	0x0
2613	chr18	47017102	47018645	-	SNORD58B	0x0
2614	chr18	47340026	47341285	+	SCARNA17	0x0
2615	chr18	48558068	48559169	+	SMAD4	0x1
2616	chr18	48702628	48703803	-	MEX3C	0x0
2617	chr18	51748117	51749303	-	SNORA37	0x0
2618	chr18	54269694	54270879	-	TXNL1	0x0
2619	chr18	54433380	54434591	+	WDR7	0x0
2620	chr18	55143632	55144824	+	ONECUT2	0x0
2621	chr18	55150433	55151555	+	ONECUT2	0x0
2622	chr18	55269173	55270333	-	NARS	0x0
2623	chr18	56806600	56807800	+	SEC11C	0x0
2624	chr18	56995198	56996412	-	LMAN1	0x0
2625	chr18	60865174	60866368	-	BCL2	0x2
2626	chr18	60997925	60999189	-	KDSR	0x0
2627	chr18	61056709	61057890	-	VPS4B	0x0
2628	chr18	65183056	65184215	-	DSEL	0x0
2629	chr18	66525652	66526789	+	CCDC102B	0x0
2630	chr18	67140788	67141996	+	DOK6	0x0
2631	chr18	68179463	68180631	+	SOCS6	0x0
2632	chr18	71958541	71959718	-	CYB5A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2633	chr18	72370379	72371580	+	ZNF407	0x2
2634	chr18	72673866	72675068	+	ZNF407	0x2
2635	chr18	74153275	74154425	-	ZNF516	0x0
2636	chr18	77169917	77171163	+	NFATC1	0x0
2637	chr18	77226859	77228067	+	NFATC1	0x0
2638	chr18	77740134	77741271	-	TXNL4A	0x0
2639	chr18	77772388	77773636	+	RBFA	0x0
2640	chr18	77869933	77871914	+	ADNP2	0x0
2641	chr19	433713	434965	-	SHC2	0x0
2642	chr19	572067	573237	+	BSG	0x0
2643	chr19	582401	583822	+	BSG	0x0
2644	chr19	647243	648413	-	RNF126	0x0
2645	chr19	660054	661181	-	RNF126	0x0
2646	chr19	738533	739809	+	PALM	0x0
2647	chr19	797449	798548	+	PTBP1	0x0
2648	chr19	807100	808347	+	PTBP1	0x0
2649	chr19	811324	812518	+	PTBP1	0x0
2650	chr19	863453	864557	-	MED16	0x0
2651	chr19	864586	865775	-	MED16	0x0
2652	chr19	876524	877713	-	MED16	0x0
2653	chr19	896103	897244	-	R3HDM4	0x0
2654	chr19	916775	917954	+	KISS1R	0x0
2655	chr19	974159	975320	+	ARID3A	0x0
2656	chr19	1009824	1010928	-	C19orf6	0x0
2657	chr19	1087248	1088492	-	POLR2E	0x0
2658	chr19	1106011	1107109	+	GPX4	0x0
2659	chr19	1144281	1145432	-	SBNO2	0x0
2660	chr19	1159004	1160170	-	SBNO2	0x0
2661	chr19	1231861	1233081	-	C19orf26	0x0
2662	chr19	1252042	1253161	-	C19orf26	0x0
2663	chr19	1258064	1259192	+	MIDN	0x0
2664	chr19	1271892	1273420	+	CIRBP	0x0
2665	chr19	1383048	1384244	+	NDUFS7	0x0
2666	chr19	1408226	1409407	+	DAZAP1	0x0
2667	chr19	1576222	1578329	-	MBD3	0x0
2668	chr19	1584613	1587222	-	MBD3	0x0
2669	chr19	1591066	1592308	-	MBD3	0x0
2670	chr19	1609021	1611339	-	TCF3	0x2
2671	chr19	1852619	1853804	-	KLF16	0x0
2672	chr19	1985081	1986305	-	BTBD2	0x0
2673	chr19	2037117	2039388	-	MKNK2	0x0
2674	chr19	2194712	2195943	+	DOT1L	0x0
2675	chr19	2206903	2208036	+	DOT1L	0x0
2676	chr19	2230429	2232621	+	DOT1L	0x0
2677	chr19	2232946	2234118	-	MIR1227	0x0
2678	chr19	2232946	2234118	-	PLEKHJ1	0x0
2679	chr19	2248798	2250016	+	AMH	0x1
2680	chr19	2271337	2273780	+	OAZ1	0x0
2681	chr19	2323614	2324827	-	LSM7	0x0
2682	chr19	2327666	2328831	-	LSM7	0x0
2683	chr19	2426336	2427443	-	TIMM13	0x0
2684	chr19	2428253	2431164	-	LMNB2	0x0
2685	chr19	2754228	2756106	-	SGTA	0x0
2686	chr19	3023431	3024607	-	TLE2	0x0
2687	chr19	3121993	3123177	+	GNA11	0x2
2688	chr19	3208205	3209304	+	NCLN	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2689	chr19	3434561	3435750	+	NFIC	0x0
2690	chr19	3621899	3623077	-	C19orf29	0x0
2691	chr19	3660460	3661587	-	PIP5K1C	0x0
2692	chr19	3975699	3978729	-	EEF2	0x0
2693	chr19	3978771	3979956	-	EEF2	0x0
2694	chr19	3980845	3983477	-	EEF2	0x0
2695	chr19	3980845	3983477	-	SNORD37	0x0
2696	chr19	4027433	4028579	+	PIAS4	0x0
2697	chr19	4034724	4035823	+	PIAS4	0x0
2698	chr19	4047304	4048448	-	ZBTB7A	0x0
2699	chr19	4055272	4056464	-	ZBTB7A	0x0
2700	chr19	4062229	4063364	-	ZBTB7A	0x0
2701	chr19	4101878	4102995	-	MAP2K2	0x0
2702	chr19	4110028	4111458	-	MAP2K2	0x0
2703	chr19	4116961	4118119	-	MAP2K2	0x0
2704	chr19	4310496	4311645	+	FSD1	0x0
2705	chr19	4322332	4323445	+	FSD1	0x0
2706	chr19	4359894	4360966	-	SH3GL1	0x2
2707	chr19	4366582	4367670	-	SH3GL1	0x2
2708	chr19	4429995	4431094	+	CHAF1A	0x0
2709	chr19	4440953	4442054	+	CHAF1A	0x0
2710	chr19	4561124	4562302	-	SEMA6B	0x0
2711	chr19	4654640	4655802	+	TNFAIP8L1	0x0
2712	chr19	4657317	4658465	-	C19orf10	0x0
2713	chr19	4917576	4918740	+	UHRF1	0x0
2714	chr19	4939459	4940559	+	UHRF1	0x0
2715	chr19	4944246	4945392	+	UHRF1	0x0
2716	chr19	4985938	4987096	+	KDM4B	0x0
2717	chr19	5046939	5048139	+	KDM4B	0x0
2718	chr19	5133469	5134656	+	KDM4B	0x0
2719	chr19	5134771	5135966	+	KDM4B	0x0
2720	chr19	5205586	5206716	-	PTPRS	0x2
2721	chr19	5266837	5267994	-	PTPRS	0x2
2722	chr19	5273735	5274901	-	PTPRS	0x2
2723	chr19	5325308	5326490	-	PTPRS	0x2
2724	chr19	5336090	5337290	-	PTPRS	0x2
2725	chr19	5566085	5567294	-	PLAC2	0x0
2726	chr19	5652831	5654001	+	SAFB	0x1
2727	chr19	5667676	5668949	+	SAFB	0x1
2728	chr19	5667701	5668881	-	C19orf70	0x0
2729	chr19	5679163	5680303	-	C19orf70	0x0
2730	chr19	5689972	5692190	+	RPL36	0x0
2731	chr19	5709498	5710708	-	LONP1	0x0
2732	chr19	5805513	5806703	+	NRTN	0x0
2733	chr19	6012390	6013607	-	RFX2	0x2
2734	chr19	6210117	6211258	-	MLLT1	0x2
2735	chr19	6211446	6213296	-	MLLT1	0x2
2736	chr19	6221935	6223135	-	MLLT1	0x2
2737	chr19	6413133	6415362	-	KHSRP	0x2
2738	chr19	6453951	6455214	-	SLC25A23	0x0
2739	chr19	6493985	6495204	-	TUBB4A	0x0
2740	chr19	7114169	7115339	-	INSR	0x0
2741	chr19	7124438	7125655	-	INSR	0x0
2742	chr19	7988914	7990981	-	CTXN1	0x0
2743	chr19	7991707	7992856	-	TIMM44	0x0
2744	chr19	8024767	8025863	-	ELAVL1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2745	chr19	8026719	8028012	-	ELAVL1	0x0
2746	chr19	8468497	8469678	+	RAB11B	0x0
2747	chr19	8553318	8554417	+	HNRNPM	0x0
2748	chr19	9680260	9681437	-	ZNF121	0x0
2749	chr19	9784612	9785787	-	ZNF562	0x0
2750	chr19	9937238	9938414	-	FBXL12	0x0
2751	chr19	9938053	9939209	+	UBL5	0x0
2752	chr19	9950227	9951326	+	PIN1	0x0
2753	chr19	10217776	10218974	+	PPAN	0x0
2754	chr19	10217776	10218974	+	PPAN-P2RY11	0x0
2755	chr19	10217776	10218974	+	SNORD105	0x0
2756	chr19	10227061	10228280	-	EIF3G	0x0
2757	chr19	10243711	10244899	-	DNMT1	0x4
2758	chr19	10250997	10252088	-	DNMT1	0x4
2759	chr19	10369710	10370861	+	MRPL4	0x0
2760	chr19	10421479	10422676	-	FDX1L	0x0
2761	chr19	10427503	10428656	-	RAVER1	0x0
2762	chr19	10463325	10464506	-	TYK2	0x0
2763	chr19	10501355	10502667	-	CDC37	0x0
2764	chr19	10777886	10779078	+	ILF3	0x0
2765	chr19	10795337	10796433	+	ILF3	0x0
2766	chr19	10800973	10802039	+	ILF3	0x0
2767	chr19	11032246	11033452	+	CARM1	0x0
2768	chr19	11082469	11083677	+	SMARCA4	0x1
2769	chr19	11107671	11108841	+	SMARCA4	0x1
2770	chr19	11133693	11134778	+	SMARCA4	0x1
2771	chr19	11223722	11224919	+	LDLR	0x0
2772	chr19	11257228	11258356	-	SPC24	0x0
2773	chr19	11455424	11456815	-	TMEM205	0x0
2774	chr19	11474649	11475822	+	LPPR2	0x0
2775	chr19	11518907	11520144	+	PRKCSH	0x0
2776	chr19	11546281	11547487	+	PRKCSH	0x0
2777	chr19	11560498	11562101	+	PRKCSH	0x0
2778	chr19	11663922	11665073	-	ELOF1	0x0
2779	chr19	11925496	11926700	+	ZNF440	0x0
2780	chr19	12698834	12699974	-	ZNF490	0x0
2781	chr19	12809813	12812031	-	TNPO2	0x0
2782	chr19	12813855	12815063	-	TNPO2	0x0
2783	chr19	12821562	12822732	-	TNPO2	0x0
2784	chr19	12825352	12826594	-	TNPO2	0x0
2785	chr19	12840942	12842171	-	C19orf43	0x0
2786	chr19	13038666	13039865	-	FARSA	0x0
2787	chr19	13040558	13041695	-	FARSA	0x0
2788	chr19	13054508	13055694	+	CALR	0x2
2789	chr19	13135373	13136566	+	NFIX	0x0
2790	chr19	13219864	13221182	-	TRMT1	0x0
2791	chr19	13229656	13230815	+	NACC1	0x0
2792	chr19	13249505	13250603	+	NACC1	0x0
2793	chr19	13264394	13265575	+	IER2	0x0
2794	chr19	13883248	13884372	+	MRI1	0x0
2795	chr19	13923224	13924434	+	ZSWIM4	0x0
2796	chr19	14198159	14199558	-	SAMD1	0x0
2797	chr19	14200909	14202105	-	SAMD1	0x0
2798	chr19	14293844	14294997	-	LPHN1	0x2
2799	chr19	14579728	14580828	+	PKN1	0x2
2800	chr19	14581976	14583102	+	PKN1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2801	chr19	14588668	14589819	-	GIPC1	0x0
2802	chr19	14625659	14626906	-	DNAJB1	0x0
2803	chr19	14732536	14733997	+	CLEC17A	0x0
2804	chr19	15270591	15271715	-	NOTCH3	0x0
2805	chr19	15465179	15466371	-	AKAP8	0x2
2806	chr19	15468886	15470088	-	AKAP8	0x2
2807	chr19	15513523	15514703	-	AKAP8L	0x0
2808	chr19	16212928	16214130	+	TPM4	0x0
2809	chr19	16345227	16346378	+	AP1M1	0x0
2810	chr19	16376027	16377201	-	CIB3	0x0
2811	chr19	16470042	16471169	-	EPS15L1	0x0
2812	chr19	16651975	16653236	-	CHERP	0x0
2813	chr19	16737773	16738944	-	MED26	0x0
2814	chr19	16790289	16791467	+	TMEM38A	0x0
2815	chr19	17212335	17213596	+	MYO9B	0x0
2816	chr19	17391547	17392710	+	ANKLE1	0x0
2817	chr19	17416651	17417847	+	MRPL34	0x0
2818	chr19	17692166	17693768	+	GLT25D1	0x0
2819	chr19	17874502	17875704	+	FCHO1	0x0
2820	chr19	17972879	17974106	+	RPL18A	0x0
2821	chr19	17972879	17974106	+	SNORA68	0x0
2822	chr19	18245096	18246253	+	MAST3	0x0
2823	chr19	18390080	18391372	-	JUND	0x0
2824	chr19	18418226	18419383	-	LSM4	0x0
2825	chr19	18546682	18547816	-	ISYNA1	0x0
2826	chr19	18649873	18651098	-	FKBP8	0x0
2827	chr19	18652180	18653326	-	FKBP8	0x0
2828	chr19	18679220	18680543	+	KXD1	0x0
2829	chr19	18884271	18885435	+	CRTC1	0x2
2830	chr19	19035880	19037084	+	DDX49	0x0
2831	chr19	19108089	19109247	-	SUGP2	0x0
2832	chr19	19120195	19121638	-	SUGP2	0x0
2833	chr19	19152147	19153382	+	ARMC6	0x0
2834	chr19	19170255	19171474	+	ARMC6	0x0
2835	chr19	19246414	19248580	-	TMEM161A	0x0
2836	chr19	19407380	19408591	-	SUGP1	0x0
2837	chr19	19515851	19517059	+	GATAD2A	0x0
2838	chr19	19565218	19566440	+	GATAD2A	0x0
2839	chr19	19606355	19607510	+	GATAD2A	0x0
2840	chr19	19618774	19619862	+	GATAD2A	0x0
2841	chr19	19641808	19642907	+	YJEFN3	0x0
2842	chr19	19709318	19710495	-	PBX4	0x0
2843	chr19	21207859	21209170	+	ZNF430	0x0
2844	chr19	21289831	21291024	+	ZNF714	0x0
2845	chr19	22877044	22878262	-	ZNF99	0x0
2846	chr19	24009538	24011365	+	RPSAP58	0x0
2847	chr19	24183115	24184722	-	LOC100101266	0x0
2848	chr19	30499618	30500671	+	URI1	0x0
2849	chr19	30824657	30825856	+	ZNF536	0x2
2850	chr19	33077622	33078844	+	PDCD5	0x0
2851	chr19	33188805	33189954	+	NUDT19	0x0
2852	chr19	33460137	33461317	-	CEP89	0x0
2853	chr19	33791628	33792820	-	CEBPA	0x1
2854	chr19	34304490	34305768	+	KCTD15	0x0
2855	chr19	34718119	34719264	+	LSM14A	0x0
2856	chr19	34858984	34860104	+	GPI	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2857	chr19	34890809	34892921	+	GPI	0x0
2858	chr19	34925241	34926410	+	UBA2	0x0
2859	chr19	34940655	34941844	+	UBA2	0x0
2860	chr19	35503647	35504748	+	GRAMD1A	0x0
2861	chr19	35769770	35771106	+	USF2	0x0
2862	chr19	36065946	36067217	+	TMEM147	0x0
2863	chr19	36123827	36124926	+	RBM42	0x0
2864	chr19	36148991	36150113	+	COX6B1	0x0
2865	chr19	36212927	36214148	+	MLL4	0x0
2866	chr19	36582377	36583533	+	WDR62	0x0
2867	chr19	36631344	36632542	+	CAPNS1	0x0
2868	chr19	38431494	38432690	+	SIPA1L3	0x0
2869	chr19	39326617	39327844	-	HNRNPL	0x0
2870	chr19	39337434	39338533	-	HNRNPL	0x0
2871	chr19	39410724	39412282	-	SARS2	0x0
2872	chr19	39676724	39677915	+	PAK4	0x0
2873	chr19	39797108	39798331	-	LRFN1	0x0
2874	chr19	39888164	39889343	+	MED29	0x2
2875	chr19	39902265	39903407	-	MIR4530	0x0
2876	chr19	39923315	39924524	-	RPS16	0x0
2877	chr19	39976373	39977573	+	TIMM50	0x0
2878	chr19	40324585	40325684	-	DYRK1B	0x0
2879	chr19	40324585	40325684	-	FBL	0x0
2880	chr19	40697581	40698898	+	MAP3K10	0x0
2881	chr19	40738955	40740117	-	AKT2	0x2
2882	chr19	40783554	40784768	-	MIR641	0x0
2883	chr19	40784791	40786415	-	MIR641	0x0
2884	chr19	40789643	40791062	-	AKT2	0x2
2885	chr19	40821326	40822426	-	C19orf47	0x0
2886	chr19	40826618	40827833	-	C19orf47	0x0
2887	chr19	40871081	40872319	+	PLD3	0x0
2888	chr19	41307405	41308504	+	EGLN2	0x0
2889	chr19	41307405	41308504	+	RAB4B-EGLN2	0x0
2890	chr19	41313315	41314483	+	EGLN2	0x0
2891	chr19	41313315	41314483	+	RAB4B-EGLN2	0x0
2892	chr19	41784451	41785650	+	HNRNPUL1	0x0
2893	chr19	41800880	41802017	+	HNRNPUL1	0x0
2894	chr19	41812393	41813671	+	HNRNPUL1	0x0
2895	chr19	41815425	41816747	-	TGFB1	0x1
2896	chr19	41829951	41831140	+	CCDC97	0x0
2897	chr19	42069747	42070918	-	CEACAM4	0x0
2898	chr19	42364262	42365484	+	RPS19	0x0
2899	chr19	42375951	42377127	+	RPS19	0x0
2900	chr19	42751641	42752823	-	ERF	0x1
2901	chr19	42792581	42793913	+	CIC	0x2
2902	chr19	42838329	42840427	+	MEGF8	0x0
2903	chr19	42853211	42854995	+	MEGF8	0x0
2904	chr19	42881170	42882304	+	MEGF8	0x0
2905	chr19	42937196	42938377	+	MEGF8	0x0
2906	chr19	43909808	43910977	+	TEX101	0x0
2907	chr19	44046898	44048117	-	XRCC1	0x0
2908	chr19	44111103	44112238	-	ZNF428	0x0
2909	chr19	44677729	44678937	+	ZNF226	0x2
2910	chr19	45489903	45491113	+	CLPTM1	0x0
2911	chr19	45637271	45638417	+	PPP1R37	0x0
2912	chr19	45981284	45982504	-	RTN2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2913	chr19	46055463	46056676	-	OPA3	0x0
2914	chr19	46191155	46192341	-	SNRPD2	0x0
2915	chr19	46285399	46290500	-	DMPK	0x0
2916	chr19	46285399	46290500	-	DMWD	0x0
2917	chr19	46361925	46363145	+	FOXA3	0x0
2918	chr19	46403964	46405141	-	MYPOP	0x0
2919	chr19	46441853	46443027	-	NOVA2	0x0
2920	chr19	47112545	47113889	+	CALM3	0x0
2921	chr19	47219629	47220775	-	PRKD2	0x0
2922	chr19	47230409	47231590	-	STRN4	0x0
2923	chr19	47234518	47235724	-	STRN4	0x0
2924	chr19	47277768	47279296	-	SLC1A5	0x0
2925	chr19	47287026	47288125	-	SLC1A5	0x0
2926	chr19	47290828	47292007	-	SLC1A5	0x0
2927	chr19	47421491	47422610	+	ARHGAP35	0x1
2928	chr19	47505828	47507452	+	ARHGAP35	0x1
2929	chr19	47571603	47572761	-	ZC3H4	0x0
2930	chr19	47633618	47634854	+	SAE1	0x0
2931	chr19	47857790	47859035	+	DHX34	0x0
2932	chr19	47884204	47885407	+	DHX34	0x0
2933	chr19	47995135	47996311	-	NAPA	0x0
2934	chr19	48179700	48180894	+	GLTSCR1	0x1
2935	chr19	48258914	48260113	+	GLTSCR2	0x1
2936	chr19	48258914	48260113	+	SNORD23	0x0
2937	chr19	48287091	48288282	+	SEPW1	0x0
2938	chr19	48426524	48427748	+	SNAR-A10	0x0
2939	chr19	48426524	48427748	+	SNAR-A11	0x0
2940	chr19	48426524	48427748	+	SNAR-A14	0x0
2941	chr19	48426524	48427748	+	SNAR-A3	0x0
2942	chr19	48426524	48427748	+	SNAR-A4	0x0
2943	chr19	48426524	48427748	+	SNAR-A5	0x0
2944	chr19	48426524	48427748	+	SNAR-A6	0x0
2945	chr19	48426524	48427748	+	SNAR-A7	0x0
2946	chr19	48426524	48427748	+	SNAR-A8	0x0
2947	chr19	48426524	48427748	+	SNAR-A9	0x0
2948	chr19	48638772	48639948	-	LIG1	0x0
2949	chr19	48640427	48641526	-	LIG1	0x0
2950	chr19	48642529	48643725	-	LIG1	0x0
2951	chr19	48704862	48706055	-	CARD8	0x0
2952	chr19	48885682	48886906	-	KDELR1	0x0
2953	chr19	48893193	48894425	-	KDELR1	0x0
2954	chr19	49118619	49120644	-	RPL18	0x0
2955	chr19	49297824	49298967	-	BCAT2	0x0
2956	chr19	49303599	49304778	-	BCAT2	0x0
2957	chr19	49425423	49426724	+	NUCB1	0x0
2958	chr19	49469028	49470166	+	FTL	0x0
2959	chr19	49471950	49473128	-	GYS1	0x0
2960	chr19	49588237	49589435	+	SNRNP70	0x0
2961	chr19	49592075	49593223	+	SNRNP70	0x0
2962	chr19	49607258	49608427	+	SNRNP70	0x0
2963	chr19	49645121	49646312	+	PPFIA3	0x0
2964	chr19	49670843	49672015	+	TRPM4	0x0
2965	chr19	49863523	49864822	-	TEAD2	0x0
2966	chr19	49955965	49957142	+	ALDH16A1	0x0
2967	chr19	49992705	49993802	+	RPL13A	0x0
2968	chr19	49992705	49993802	+	RPL13AP5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
2969	chr19	49992705	49993802	+	SNORD32A	0x0
2970	chr19	49994537	49995624	+	RPL13A	0x0
2971	chr19	49994537	49995624	+	RPL13AP5	0x0
2972	chr19	50000608	50001855	+	RPS11	0x0
2973	chr19	50000608	50001855	+	SNORD35B	0x0
2974	chr19	50002222	50003374	+	RPS11	0x0
2975	chr19	50028948	50030116	+	FCGRT	0x0
2976	chr19	50098847	50100070	+	PRR12	0x0
2977	chr19	50104606	50105797	+	PRR12	0x0
2978	chr19	50125677	50126919	+	PRR12	0x0
2979	chr19	50359518	50362672	+	PTOV1	0x0
2980	chr19	50409664	50411091	-	NUP62	0x0
2981	chr19	52381165	52382302	-	ZNF577	0x0
2982	chr19	52729015	52730190	+	PPP2R1A	0x2
2983	chr19	53226284	53227434	-	ZNF611	0x0
2984	chr19	54462756	54463932	+	CACNG8	0x0
2985	chr19	54605893	54607047	+	NDUFA3	0x0
2986	chr19	54704517	54705652	+	RPS9	0x0
2987	chr19	54710900	54712000	+	RPS9	0x0
2988	chr19	54969341	54970479	+	LENG8	0x0
2989	chr19	54972309	54973633	+	LENG8	0x0
2990	chr19	55559299	55560476	-	RDH13	0x0
2991	chr19	55897400	55898599	+	RPL28	0x0
2992	chr19	55899145	55900296	+	RPL28	0x0
2993	chr19	55900600	55901783	+	RPL28	0x0
2994	chr19	55945818	55947059	+	ZNF628	0x0
2995	chr19	55978495	55979717	+	ZNF628	0x0
2996	chr19	55997742	55999096	+	NAT14	0x0
2997	chr19	56090628	56091988	-	ZNF579	0x0
2998	chr19	56172904	56173985	+	U2AF2	0x2
2999	chr19	56185234	56186475	+	U2AF2	0x2
3000	chr19	56667669	56668775	+	ZNF444	0x0
3001	chr19	57725909	57727008	+	ZNF264	0x4
3002	chr19	57910640	57911792	+	ZNF548	0x0
3003	chr19	57973839	57975442	-	ZNF772	0x0
3004	chr19	57979307	57980462	-	ZNF772	0x0
3005	chr19	58217480	58218587	+	ZNF551	0x0
3006	chr19	58280064	58281258	+	ZNF586	0x0
3007	chr19	58295632	58296837	+	ZNF586	0x0
3008	chr19	58378068	58379253	+	ZNF587	0x0
3009	chr19	58455718	58456894	-	ZNF256	0x0
3010	chr19	58874297	58875496	+	A1BG-AS1	0x0
3011	chr19	58904215	58905433	+	RPS5	0x0
3012	chr19	59024596	59025774	-	ZBTB45	0x0
3013	chr19	59061179	59062583	+	TRIM28	0x0
3014	chr19	59066969	59068097	-	UBE2M	0x0
3015	chr19	59069120	59070278	-	UBE2M	0x0
3016	chr2	1216356	1217585	+	SNTG2	0x0
3017	chr2	1636731	1637920	-	PXDN	0x2
3018	chr2	2363834	2365034	-	MYT1L	0x0
3019	chr2	3320034	3321188	-	TSSC1	0x0
3020	chr2	8869616	8870757	-	KIDINS220	0x0
3021	chr2	8994807	8995934	-	MBOAT2	0x0
3022	chr2	8997799	8999023	-	MBOAT2	0x0
3023	chr2	9757076	9758210	-	YWHAQ	0x2
3024	chr2	10586337	10587409	-	SNORA80B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3025	chr2	11724384	11725662	+	GREB1	0x0
3026	chr2	11906920	11908110	+	LPIN1	0x0
3027	chr2	15653200	15654333	-	NBAS	0x0
3028	chr2	16639823	16641013	+	MYCN	0x2
3029	chr2	17942106	17943268	+	GEN1	0x2
3030	chr2	20232436	20233529	-	LAPTM4A	0x0
3031	chr2	20417746	20419143	-	SDC1	0x0
3032	chr2	20501494	20502666	-	PUM2	0x0
3033	chr2	20680167	20681308	+	RHOB	0x1
3034	chr2	23629735	23630885	+	KLHL29	0x0
3035	chr2	23644452	23645882	+	KLHL29	0x0
3036	chr2	23675495	23676607	+	KLHL29	0x0
3037	chr2	24079710	24080888	-	ATAD2B	0x0
3038	chr2	24289952	24291126	-	SF3B14	0x0
3039	chr2	25004382	25005586	+	CENPO	0x0
3040	chr2	25452998	25454097	-	DNMT3A	0x2
3041	chr2	25961435	25962615	-	ASXL2	0x0
3042	chr2	26250444	26251731	-	KIF3C	0x0
3043	chr2	26256446	26257646	+	RAB10	0x0
3044	chr2	26617976	26619180	+	EPT1	0x0
3045	chr2	27273066	27274339	+	AGBL5	0x0
3046	chr2	27355797	27356988	-	PREB	0x0
3047	chr2	27456383	27457481	+	CAD	0x0
3048	chr2	27477080	27478216	-	SLC30A3	0x0
3049	chr2	28974355	28975566	+	PPP1CB	0x0
3050	chr2	29135977	29137186	+	SNORD92	0x0
3051	chr2	29135977	29137186	+	WDR43	0x0
3052	chr2	29148700	29149881	+	WDR43	0x0
3053	chr2	29150294	29151499	+	WDR43	0x0
3054	chr2	29388281	29389489	+	CLIP4	0x0
3055	chr2	30723323	30724519	+	LCLAT1	0x0
3056	chr2	32140854	32141953	-	MEMO1	0x0
3057	chr2	32248479	32249699	-	DPY30	0x0
3058	chr2	33726765	33727887	+	RASGRP3	0x0
3059	chr2	33739891	33741064	-	FAM98A	0x0
3060	chr2	35845713	35846891	-	LOC100288911	0x0
3061	chr2	36667962	36669182	+	CRIM1	0x0
3062	chr2	36669204	36670402	+	CRIM1	0x0
3063	chr2	37080343	37081493	-	STRN	0x0
3064	chr2	37326947	37328278	-	EIF2AK2	0x1
3065	chr2	37332097	37333466	-	EIF2AK2	0x1
3066	chr2	38708654	38710070	+	GALM	0x0
3067	chr2	39220563	39221718	-	SOS1	0x2
3068	chr2	39281328	39282494	-	SOS1	0x2
3069	chr2	40424638	40425802	-	SLC8A1	0x0
3070	chr2	40655162	40656518	-	SLC8A1	0x0
3071	chr2	42417346	42418501	+	EML4	0x2
3072	chr2	42469322	42470470	+	EML4	0x2
3073	chr2	42930426	42931526	+	MTA3	0x0
3074	chr2	42991030	42992261	+	MTA3	0x0
3075	chr2	43628334	43629550	+	LOC100129726	0x0
3076	chr2	43707207	43708335	-	THADA	0x0
3077	chr2	43753054	43754275	-	THADA	0x0
3078	chr2	44127543	44128682	-	LRPPRC	0x0
3079	chr2	44133422	44134551	-	LRPPRC	0x0
3080	chr2	44428084	44429242	+	PPM1B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3081	chr2	44588997	44590196	+	CAMKMT	0x0
3082	chr2	44842666	44843896	+	CAMKMT	0x0
3083	chr2	45704492	45705671	-	SRBD1	0x0
3084	chr2	45789231	45790428	-	SRBD1	0x0
3085	chr2	46113133	46114336	+	PRKCE	0x0
3086	chr2	47387070	47388219	-	CALM2	0x0
3087	chr2	47389236	47390372	-	CALM2	0x0
3088	chr2	47401791	47404187	-	CALM2	0x0
3089	chr2	54084744	54085904	+	ERLEC1	0x0
3090	chr2	55198969	55200096	-	RTN4	0x0
3091	chr2	55209139	55210248	-	RTN4	0x0
3092	chr2	55276912	55278085	-	RTN4	0x0
3093	chr2	55455389	55456529	-	C2orf63	0x0
3094	chr2	55460782	55461826	+	MIR4426	0x0
3095	chr2	55460782	55461826	+	RPS27A	0x0
3096	chr2	56256982	56258160	-	MIR216B	0x0
3097	chr2	58426661	58427856	-	FANCL	0x0
3098	chr2	60775743	60776943	+	PAPOLG	0x0
3099	chr2	61105229	61106424	+	REL	0x2
3100	chr2	61129741	61130952	+	REL	0x2
3101	chr2	61152233	61153452	+	REL	0x2
3102	chr2	61441647	61442807	-	USP34	0x0
3103	chr2	61718705	61720082	-	XPO1	0x2
3104	chr2	61729986	61731165	-	XPO1	0x2
3105	chr2	61764394	61765670	-	XPO1	0x2
3106	chr2	61891926	61893148	+	COMMD1	0x4
3107	chr2	62109913	62111078	-	CCT4	0x0
3108	chr2	63185727	63186942	+	EHBP1	0x0
3109	chr2	65496944	65498205	+	ACTR2	0x0
3110	chr2	65629603	65630801	-	SPRED2	0x0
3111	chr2	69266676	69267880	+	ANTXR1	0x0
3112	chr2	69977480	69978670	+	ANXA4	0x0
3113	chr2	69998942	70000138	+	ANXA4	0x0
3114	chr2	70065682	70066781	+	GMCL1	0x0
3115	chr2	70130919	70132148	+	SNRNP27	0x0
3116	chr2	70166448	70167626	-	ASPRV1	0x0
3117	chr2	70439959	70441087	-	TIA1	0x0
3118	chr2	70451212	70453245	-	TIA1	0x0
3119	chr2	70462729	70463934	-	TIA1	0x0
3120	chr2	70475116	70476306	-	TIA1	0x0
3121	chr2	70506910	70508076	+	PCYOX1	0x0
3122	chr2	71605045	71606241	+	ZNF638	0x2
3123	chr2	71660699	71661885	+	ZNF638	0x2
3124	chr2	72403769	72404907	-	EXOC6B	0x0
3125	chr2	72880523	72881715	-	EXOC6B	0x0
3126	chr2	73314836	73316011	-	RAB11FIP5	0x0
3127	chr2	73466265	73467475	+	CCT7	0x0
3128	chr2	73471196	73472298	+	CCT7	0x0
3129	chr2	74379504	74380719	-	MOB1A	0x1
3130	chr2	74472451	74473668	-	SLC4A5	0x0
3131	chr2	74604733	74605908	-	DCTN1	0x0
3132	chr2	74651919	74653107	+	WDR54	0x0
3133	chr2	74719416	74720610	+	TTC31	0x0
3134	chr2	74756938	74758134	+	HTRA2	0x1
3135	chr2	75886605	75887676	+	MRPL19	0x0
3136	chr2	76671803	76673078	-	LRRTM4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3137	chr2	78928161	78929528	+	REG3G	0x0
3138	chr2	82813926	82815121	+	LOC1720	0x0
3139	chr2	85547533	85548789	-	TGOLN2	0x0
3140	chr2	85549172	85550284	-	TGOLN2	0x0
3141	chr2	85571106	85572305	-	RETSAT	0x0
3142	chr2	85596349	85597520	+	ELMOD3	0x0
3143	chr2	85768172	85769384	+	MAT2A	0x0
3144	chr2	85770203	85771928	+	MAT2A	0x0
3145	chr2	86362432	86363688	+	PTCD3	0x0
3146	chr2	86362432	86363688	+	SNORD94	0x0
3147	chr2	96850183	96852632	-	STARD7	0x0
3148	chr2	96873373	96874629	-	STARD7	0x0
3149	chr2	96886991	96888202	+	LOC285033	0x0
3150	chr2	96917577	96918862	-	TMEM127	0x1
3151	chr2	96934086	96935241	-	TMEM127	0x1
3152	chr2	96934811	96935966	+	CIAO1	0x0
3153	chr2	96939147	96940246	+	CIAO1	0x0
3154	chr2	96964067	96965248	-	SNRNP200	0x0
3155	chr2	97028996	97030194	+	NCAPH	0x0
3156	chr2	97271741	97273016	-	KANSL3	0x0
3157	chr2	97504664	97505839	-	ANKRD23	0x0
3158	chr2	97528436	97529590	-	SEMA4C	0x0
3159	chr2	97532383	97533489	-	SEMA4C	0x0
3160	chr2	97688627	97689804	-	FAM178B	0x0
3161	chr2	97830818	97832001	+	ANKRD36	0x0
3162	chr2	98443952	98445069	+	ZAP70	0x0
3163	chr2	98611751	98612927	+	VWA3B	0x0
3164	chr2	99213766	99214929	-	COA5	0x0
3165	chr2	99327874	99329169	-	MGAT4A	0x0
3166	chr2	100505174	100506343	-	AFF3	0x2
3167	chr2	101621869	101623334	+	RPL31	0x0
3168	chr2	101634848	101636020	+	RPL31	0x0
3169	chr2	101753040	101754214	-	TBC1D8	0x0
3170	chr2	101914253	101915427	-	RNF149	0x0
3171	chr2	102471880	102473077	+	MAP4K4	0x2
3172	chr2	105470160	105471496	+	POU3F3	0x0
3173	chr2	105546628	105547807	+	POU3F3	0x0
3174	chr2	105908127	105909296	-	TGFBRAP1	0x0
3175	chr2	109182877	109184117	+	LIMS1	0x0
3176	chr2	109350228	109351366	+	RANBP2	0x0
3177	chr2	109380433	109381480	+	RANBP2	0x0
3178	chr2	111433698	111434876	-	BUB1	0x0
3179	chr2	113278429	113279578	+	TTL	0x2
3180	chr2	113288452	113289542	+	TTL	0x2
3181	chr2	113420264	113421422	+	SLC20A1	0x0
3182	chr2	114201793	114202983	+	CBWD2	0x0
3183	chr2	114567960	114569149	-	SLC35F5	0x0
3184	chr2	114708764	114709972	+	ACTR3	0x0
3185	chr2	115694554	115695736	-	LOC389023	0x0
3186	chr2	115694749	115695961	+	DPP10	0x2
3187	chr2	116999724	117000945	+	DPP10	0x2
3188	chr2	121387744	121388900	-	LOC84931	0x0
3189	chr2	121498659	121499846	+	GLI2	0x0
3190	chr2	121572475	121573681	+	GLI2	0x0
3191	chr2	121721345	121722544	+	GLI2	0x0
3192	chr2	122158585	122159790	-	CLASP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3193	chr2	122287903	122289168	+	RNU4ATAC	0x0
3194	chr2	122326393	122327567	-	CLASP1	0x0
3195	chr2	122363177	122364331	-	CLASP1	0x0
3196	chr2	122522653	122523768	+	TSN	0x0
3197	chr2	128014354	128015560	-	ERCC3	0x2
3198	chr2	128033246	128034430	-	ERCC3	0x2
3199	chr2	128144821	128146023	-	MIR4783	0x0
3200	chr2	128263658	128264859	-	IWS1	0x0
3201	chr2	128605078	128606215	-	POLR2D	0x0
3202	chr2	128740898	128742002	-	SAP130	0x0
3203	chr2	128916619	128917760	+	UGGT1	0x2
3204	chr2	130913803	130915004	-	SMPD4	0x0
3205	chr2	130939357	130940573	+	MZT2B	0x0
3206	chr2	131094151	131095309	-	CCDC115	0x0
3207	chr2	131104509	131105707	+	IMP4	0x2
3208	chr2	131132081	131133280	+	PTPN18	0x0
3209	chr2	131805917	131807019	-	FAM168B	0x0
3210	chr2	131899453	131900659	+	PLEKHB2	0x0
3211	chr2	132245207	132246346	-	MIR4784	0x0
3212	chr2	132273057	132274242	+	LOC150776	0x0
3213	chr2	133011758	133013847	-	MIR663B	0x0
3214	chr2	133026440	133027503	-	ANKRD30BL	0x0
3215	chr2	133027871	133029879	-	ANKRD30BL	0x0
3216	chr2	133741826	133742980	-	NCKAP5	0x0
3217	chr2	134916352	134917556	+	MIR3679	0x0
3218	chr2	135211232	135212359	+	MGAT5	0x0
3219	chr2	136508474	136509745	+	UBXN4	0x0
3220	chr2	136613864	136615023	-	MCM6	0x0
3221	chr2	138786081	138787300	+	HNMT	0x0
3222	chr2	142231057	142232282	+	KYNU	0x0
3223	chr2	142246188	142247397	+	KYNU	0x0
3224	chr2	142469274	142470500	-	LRP1B	0x1
3225	chr2	142536923	142538099	-	LRP1B	0x1
3226	chr2	142742729	142743935	-	LRP1B	0x1
3227	chr2	148729810	148730961	-	ORC4	0x0
3228	chr2	149402018	149403220	+	EPC2	0x0
3229	chr2	151218773	151219905	+	LYPD6	0x0
3230	chr2	152318973	152320151	+	RIF1	0x0
3231	chr2	152802350	152803566	-	CACNB4	0x0
3232	chr2	152846132	152847415	-	CACNB4	0x0
3233	chr2	153193327	153194477	+	FMNL2	0x0
3234	chr2	153205934	153207116	+	FMNL2	0x0
3235	chr2	153524942	153526351	-	PRPF40A	0x0
3236	chr2	154729764	154730960	+	GALNT13	0x0
3237	chr2	154818140	154819320	+	GALNT13	0x0
3238	chr2	154819642	154820805	+	GALNT13	0x0
3239	chr2	155410346	155411541	+	GALNT13	0x0
3240	chr2	157033856	157035046	-	NR4A2	0x0
3241	chr2	157312157	157313327	+	GPD2	0x0
3242	chr2	158155010	158156187	-	ERMN	0x0
3243	chr2	159346768	159348023	+	PKP4	0x0
3244	chr2	160087070	160088269	+	TANC1	0x0
3245	chr2	161130286	161131453	-	RBMS1	0x0
3246	chr2	161264377	161265530	-	MIR4785	0x0
3247	chr2	162207621	162208841	+	PSMD14	0x0
3248	chr2	162979680	162980900	+	SLC4A10	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3249	chr2	164457179	164458356	-	FIGN	0x0
3250	chr2	165583619	165584827	-	COBLL1	0x0
3251	chr2	166908003	166909181	-	SCN1A	0x0
3252	chr2	167036660	167037847	-	SCN9A	0x2
3253	chr2	168004968	168006187	+	XIRP2	0x2
3254	chr2	168193128	168194318	+	XIRP2	0x2
3255	chr2	168810454	168811655	-	STK39	0x0
3256	chr2	169629883	169632194	+	CERS6	0x0
3257	chr2	169708092	169709241	-	SPC25	0x0
3258	chr2	169718770	169719869	-	SPC25	0x0
3259	chr2	170745999	170747207	+	UBR3	0x2
3260	chr2	170803991	170805188	+	UBR3	0x2
3261	chr2	171822195	171823294	+	GORASP2	0x0
3262	chr2	172513412	172514608	+	DYNC1I2	0x0
3263	chr2	172964494	172965794	-	DLX2	0x0
3264	chr2	172973378	172974581	+	DLX1	0x0
3265	chr2	174812507	174813692	-	SP3	0x0
3266	chr2	175345813	175347006	-	GPR155	0x0
3267	chr2	175584480	175585720	+	SCRN3	0x0
3268	chr2	176793434	176794543	-	KIAA1715	0x0
3269	chr2	176845051	176846246	-	KIAA1715	0x0
3270	chr2	176889001	176890223	+	HOXD13	0x2
3271	chr2	177039955	177041231	-	HOXD-AS1	0x0
3272	chr2	177065262	177066455	-	HOXD-AS1	0x0
3273	chr2	178084124	178085352	+	HNRNPA3	0x0
3274	chr2	178111555	178112777	-	MIR3128	0x0
3275	chr2	178256942	178258132	+	AGPS	0x0
3276	chr2	179403300	179404432	+	LOC100506866	0x0
3277	chr2	179468434	179469583	+	LOC100506866	0x0
3278	chr2	179487035	179488248	+	LOC100506866	0x0
3279	chr2	183595170	183596369	+	DNAJC10	0x0
3280	chr2	183789780	183790961	-	NCKAP1	0x0
3281	chr2	183887963	183889156	-	NCKAP1	0x0
3282	chr2	185472545	185473764	+	ZNF804A	0x0
3283	chr2	187072084	187073267	-	ZSWIM2	0x0
3284	chr2	187167909	187169130	-	ZSWIM2	0x0
3285	chr2	187310259	187311409	-	ZSWIM2	0x0
3286	chr2	189271930	189273039	+	GULP1	0x0
3287	chr2	190317882	190319095	+	WDR75	0x0
3288	chr2	191887589	191888807	+	GLS	0x0
3289	chr2	197657125	197658291	-	GTF3C3	0x2
3290	chr2	197752015	197753239	-	PGAP1	0x0
3291	chr2	198256448	198257650	-	SF3B1	0x2
3292	chr2	198353229	198354328	-	HSPD1	0x0
3293	chr2	198367444	198368643	+	HSPE1	0x0
3294	chr2	198399765	198400920	+	HSPE1-MOB4	0x0
3295	chr2	198399765	198400920	+	MOB4	0x0
3296	chr2	200245869	200247024	-	SATB2	0x2
3297	chr2	200297611	200298794	-	SATB2	0x2
3298	chr2	201687403	201688597	+	BZW1	0x0
3299	chr2	201845865	201847050	-	FAM126B	0x0
3300	chr2	202346553	202347750	+	STRADB	0x0
3301	chr2	202485617	202487245	-	TMEM237	0x0
3302	chr2	202490564	202491687	-	TMEM237	0x0
3303	chr2	202625507	202626945	-	ALS2	0x2
3304	chr2	203157232	203158427	+	NOP58	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3305	chr2	203157232	203158427	+	SNORD11	0x0
3306	chr2	203160339	203161446	+	NOP58	0x0
3307	chr2	203729600	203730792	-	ICA1L	0x0
3308	chr2	203925103	203926329	+	NBEAL1	0x0
3309	chr2	204235230	204236550	+	ABI2	0x1
3310	chr2	204293056	204294163	+	ABI2	0x1
3311	chr2	205628833	205630031	+	PARD3B	0x0
3312	chr2	206613569	206614766	+	NRP2	0x0
3313	chr2	206765021	206766246	+	NRP2	0x0
3314	chr2	206889787	206890980	+	EEF1B2	0x0
3315	chr2	206997122	206998292	-	NDUFS1	0x0
3316	chr2	207026124	207027613	+	EEF1B2	0x0
3317	chr2	207026124	207027613	+	SNORA41	0x0
3318	chr2	207026124	207027613	+	SNORD51	0x0
3319	chr2	209221075	209222274	+	PIKFYVE	0x0
3320	chr2	211512125	211513352	+	CPS1	0x2
3321	chr2	212399831	212401039	+	CPS1	0x2
3322	chr2	212428216	212429388	-	ERBB4	0x1
3323	chr2	213214823	213215916	-	MIR548F2	0x0
3324	chr2	213238740	213239938	-	MIR548F2	0x0
3325	chr2	213329050	213330269	-	MIR548F2	0x0
3326	chr2	213336293	213337490	-	MIR548F2	0x0
3327	chr2	213390114	213391313	-	ERBB4	0x1
3328	chr2	216995072	216996232	+	XRCC5	0x0
3329	chr2	217069580	217070799	+	XRCC5	0x0
3330	chr2	217363468	217365329	+	RPL37A	0x0
3331	chr2	217365531	217366649	+	RPL37A	0x0
3332	chr2	217383074	217384232	+	RPL37A	0x0
3333	chr2	217431845	217433045	+	IGFBP2	0x0
3334	chr2	217538206	217540299	-	IGFBP5	0x1
3335	chr2	218286440	218287567	-	DIRC3	0x0
3336	chr2	218400358	218401552	-	DIRC3	0x0
3337	chr2	219109965	219111160	+	ARPC2	0x0
3338	chr2	219134612	219135878	+	PNKD	0x0
3339	chr2	219365160	219366302	-	USP37	0x0
3340	chr2	219525952	219527133	+	BCS1L	0x0
3341	chr2	220047566	220048764	+	FAM134A	0x0
3342	chr2	220083700	220085128	-	ABCB6	0x0
3343	chr2	220083700	220085128	-	ATG9A	0x0
3344	chr2	220431286	220432550	-	OBSL1	0x0
3345	chr2	223084400	223085617	-	PAX3	0x2
3346	chr2	223771341	223772508	+	ACSL3	0x2
3347	chr2	225337375	225338590	-	CUL3	0x1
3348	chr2	225357124	225358316	-	CUL3	0x1
3349	chr2	225362717	225363887	-	CUL3	0x1
3350	chr2	225449421	225450594	-	CUL3	0x1
3351	chr2	228627217	228628393	-	SLC19A3	0x0
3352	chr2	230015177	230016385	+	FBXO36	0x0
3353	chr2	230723204	230724432	-	TRIP12	0x0
3354	chr2	231684657	231685792	+	CAB39	0x0
3355	chr2	231742416	231743651	+	ITM2C	0x0
3356	chr2	231895330	231896507	-	LOC348761	0x0
3357	chr2	232319052	232321792	-	NCL	0x0
3358	chr2	232319052	232321792	-	SNORA75	0x0
3359	chr2	232319052	232321792	-	SNORD20	0x0
3360	chr2	232324517	232325714	-	NCL	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3361	chr2	232324517	232325714	-	SNORD82	0x0
3362	chr2	232328602	232329702	-	NCL	0x0
3363	chr2	232576047	232577235	+	PTMA	0x0
3364	chr2	233936152	233937371	+	INPP5D	0x0
3365	chr2	234183893	234185136	+	SCARNA5	0x0
3366	chr2	234196971	234198139	+	SCARNA6	0x0
3367	chr2	234379111	234380348	+	DGKD	0x0
3368	chr2	236707724	236708823	+	AGAP1	0x0
3369	chr2	237084009	237085207	+	AGAP1	0x0
3370	chr2	237828105	237829302	-	COL6A3	0x0
3371	chr2	237994178	237995402	+	COPS8	0x0
3372	chr2	238640130	238641441	+	LRRFIP1	0x2
3373	chr2	238977416	238978680	+	SCLY	0x0
3374	chr2	238977416	238978680	+	UBE2F-SCLY	0x0
3375	chr2	240566799	240567975	+	LOC150935	0x0
3376	chr2	240927842	240929122	-	NDUFA10	0x0
3377	chr2	241438874	241440090	-	ANKMY1	0x0
3378	chr2	241463023	241464122	-	ANKMY1	0x0
3379	chr2	241464673	241465805	-	ANKMY1	0x0
3380	chr2	241537146	241538345	+	CAPN10	0x0
3381	chr2	241653284	241655521	-	KIF1A	0x2
3382	chr2	241680148	241681373	-	KIF1A	0x2
3383	chr2	241696785	241697921	-	KIF1A	0x2
3384	chr2	242168371	242169557	-	HDLBP	0x2
3385	chr2	242172844	242174023	+	ANO7	0x0
3386	chr2	242254254	242255441	+	SEPT2	0x0
3387	chr2	242280235	242282090	+	SEPT2	0x0
3388	chr2	242291056	242292245	+	SEPT2	0x0
3389	chr2	242292246	242293356	+	SEPT2	0x0
3390	chr2	242434431	242435563	-	STK25	0x0
3391	chr2	242684886	242686231	+	D2HGDH	0x0
3392	chr2	242699828	242700961	+	D2HGDH	0x0
3393	chr20	308144	309463	+	SOX12	0x0
3394	chr20	463505	464699	-	CSNK2A1	0x0
3395	chr20	1161617	1162788	-	TMEM74B	0x0
3396	chr20	1349577	1351191	-	FKBP1A	0x0
3397	chr20	1918344	1919624	+	SIRPA	0x0
3398	chr20	2443060	2444241	-	SNORD119	0x0
3399	chr20	2443060	2444241	-	SNRPB	0x0
3400	chr20	2447764	2448925	-	SNRPB	0x0
3401	chr20	2635175	2636402	+	NOP56	0x0
3402	chr20	2635175	2636402	+	SNORA51	0x0
3403	chr20	2637038	2638212	+	NOP56	0x0
3404	chr20	2637038	2638212	+	SNORD56	0x0
3405	chr20	2637038	2638212	+	SNORD57	0x0
3406	chr20	3145220	3146658	-	ProSAPiP1	0x0
3407	chr20	3733763	3734862	-	C20orf27	0x0
3408	chr20	4004220	4005516	+	PANK2	0x0
3409	chr20	4152647	4153818	-	ADRA1D	0x0
3410	chr20	5060684	5061856	-	C20orf30	0x0
3411	chr20	5164963	5166161	+	CDS2	0x0
3412	chr20	6559171	6560272	+	BMP2	0x1
3413	chr20	8864641	8865840	+	PLCB1	0x0
3414	chr20	9172099	9173278	+	PLCB4	0x2
3415	chr20	11905246	11906565	+	BTBD3	0x0
3416	chr20	11972785	11974015	+	BTBD3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3417	chr20	17930389	17931587	-	SNX5	0x0
3418	chr20	17942784	17944058	-	SNORD17	0x0
3419	chr20	18245801	18247009	-	DZANK1	0x0
3420	chr20	18485060	18486248	+	SEC23B	0x0
3421	chr20	25515364	25516505	-	NINL	0x0
3422	chr20	25845882	25847080	+	LOC100134868	0x0
3423	chr20	26188218	26190630	-	LOC284801	0x0
3424	chr20	26188218	26190630	-	MIR663A	0x0
3425	chr20	29620241	29621478	+	FRG1B	0x0
3426	chr20	30373619	30374717	+	TPX2	0x0
3427	chr20	30754487	30755598	+	TM9SF4	0x0
3428	chr20	30927750	30928849	+	KIF3B	0x0
3429	chr20	30953660	30954792	+	ASXL1	0x1
3430	chr20	31379762	31380979	+	DNMT3B	0x0
3431	chr20	31436868	31438511	+	MAPRE1	0x0
3432	chr20	31940667	31941815	-	CDK5RAP1	0x0
3433	chr20	31974725	31975863	-	CDK5RAP1	0x0
3434	chr20	32263513	32264643	-	E2F1	0x1
3435	chr20	32273238	32274483	-	E2F1	0x1
3436	chr20	32867650	32868912	-	AHCY	0x0
3437	chr20	33027471	33028640	+	ITCH	0x2
3438	chr20	33361081	33362271	-	NCOA6	0x2
3439	chr20	33530007	33531300	-	GSS	0x0
3440	chr20	33610313	33611516	-	TRPC4AP	0x0
3441	chr20	33866251	33867414	-	EIF6	0x0
3442	chr20	34091229	34092435	+	CEP250	0x0
3443	chr20	34144721	34145900	+	ERGIC3	0x0
3444	chr20	34218394	34219612	-	CPNE1	0x0
3445	chr20	34233085	34234229	-	RBM12	0x0
3446	chr20	34288156	34289329	+	ROMO1	0x0
3447	chr20	34301632	34302837	-	RBM39	0x0
3448	chr20	34312012	34313213	-	RBM39	0x0
3449	chr20	34430845	34432061	+	PHF20	0x0
3450	chr20	34633445	34634576	-	LOC647979	0x0
3451	chr20	34636380	34637538	-	LOC647979	0x0
3452	chr20	35221533	35222724	+	TGIF2	0x0
3453	chr20	35281129	35282335	-	NDRG3	0x0
3454	chr20	35422398	35423497	-	KIAA0889	0x0
3455	chr20	35443437	35444575	-	KIAA0889	0x0
3456	chr20	35466846	35467976	-	KIAA0889	0x0
3457	chr20	35485069	35486168	-	KIAA0889	0x0
3458	chr20	35519588	35520734	-	SAMHD1	0x0
3459	chr20	35857418	35858593	+	RPN2	0x0
3460	chr20	36064875	36066076	-	BLCAP	0x5
3461	chr20	36145828	36146964	-	BLCAP	0x5
3462	chr20	36147195	36148377	-	BLCAP	0x5
3463	chr20	36603038	36604247	-	TTI1	0x0
3464	chr20	37047754	37049031	-	LOC388796	0x0
3465	chr20	37053360	37054538	-	SNORA71B	0x0
3466	chr20	37055441	37056553	-	SNORA71A	0x0
3467	chr20	37062007	37063212	-	LOC388796	0x0
3468	chr20	37062007	37063212	-	SNORA71D	0x0
3469	chr20	37189919	37191130	+	RALGAPB	0x0
3470	chr20	37389853	37390980	+	ACTR5	0x0
3471	chr20	37500902	37502082	+	PPP1R16B	0x0
3472	chr20	37960926	37962082	-	LOC339568	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3473	chr20	39652337	39653562	+	TOP1	0x2
3474	chr20	39751537	39752686	+	TOP1	0x2
3475	chr20	39755510	39756646	+	TOP1	0x2
3476	chr20	42086469	42087562	+	SRSF6	0x2
3477	chr20	42101122	42102269	+	SRSF6	0x2
3478	chr20	42139312	42140444	-	GTSF1L	0x0
3479	chr20	42142857	42143994	+	L3MBTL1	0x0
3480	chr20	42225881	42227031	+	IFT52	0x0
3481	chr20	42320252	42321487	+	MYBL2	0x0
3482	chr20	42635354	42636553	+	TOX2	0x0
3483	chr20	43380554	43381761	-	RIMS4	0x0
3484	chr20	43535683	43536777	+	YWHAB	0x2
3485	chr20	44469990	44471179	-	ACOT8	0x0
3486	chr20	44498416	44499609	+	ZSWIM3	0x0
3487	chr20	44557368	44558519	-	PLTP	0x0
3488	chr20	45892219	45893412	-	ZMYND8	0x0
3489	chr20	47896310	47897875	+	SNORD12	0x0
3490	chr20	47896310	47897875	+	SNORD12B	0x0
3491	chr20	47896310	47897875	+	ZNFX1-AS1	0x0
3492	chr20	47964535	47965725	+	ZNFX1-AS1	0x0
3493	chr20	48288304	48289481	-	B4GALT5	0x0
3494	chr20	48697546	48698670	-	TMEM189-UBE2V1	0x0
3495	chr20	48697546	48698670	-	UBE2V1	0x0
3496	chr20	48706461	48707619	-	TMEM189-UBE2V1	0x0
3497	chr20	48706461	48707619	-	UBE2V1	0x0
3498	chr20	49541256	49542400	-	ADNP	0x0
3499	chr20	50216789	50217980	-	ATP9A	0x0
3500	chr20	50512575	50513768	-	SALL4	0x0
3501	chr20	50656896	50658253	-	ZFP64	0x2
3502	chr20	50702728	50703853	-	ZFP64	0x2
3503	chr20	50704408	50705579	-	ZFP64	0x2
3504	chr20	51687704	51688904	+	TSHZ2	0x2
3505	chr20	57022743	57023963	+	VAPB	0x0
3506	chr20	57233979	57235189	+	STX16	0x0
3507	chr20	57233979	57235189	+	STX16-NPEPL1	0x0
3508	chr20	57465380	57466479	+	GNAS	0x6
3509	chr20	57479961	57481011	+	GNAS	0x6
3510	chr20	57483814	57485692	+	GNAS	0x6
3511	chr20	57608841	57609971	-	SLMO2	0x0
3512	chr20	60513126	60514302	-	MIR1257	0x0
3513	chr20	60588238	60589418	-	TAF4	0x0
3514	chr20	60639005	60640133	-	TAF4	0x0
3515	chr20	60848232	60849342	+	OSBPL2	0x0
3516	chr20	60906798	60907895	-	LAMA5	0x0
3517	chr20	60906798	60907895	-	MIR4758	0x0
3518	chr20	60934764	60935941	-	LAMA5	0x0
3519	chr20	60941458	60942635	-	LAMA5	0x0
3520	chr20	60962350	60964070	+	RPS21	0x0
3521	chr20	61431286	61432436	+	C20orf20	0x4
3522	chr20	61478722	61479897	-	TCFL5	0x0
3523	chr20	61907455	61908654	+	ARFGAP1	0x0
3524	chr20	62289653	62290799	+	RTEL1	0x0
3525	chr20	62289653	62290799	+	RTEL1-TNFRSF6B	0x0
3526	chr20	62338006	62339157	-	ARFRP1	0x0
3527	chr20	62365427	62366595	+	ZGPAT	0x0
3528	chr20	62373279	62374403	+	SLC2A4RG	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3529	chr20	62527170	62528378	+	DNAJC5	0x0
3530	chr20	62545422	62546619	+	MIR941-1	0x0
3531	chr20	62573549	62574693	-	MIR647	0x0
3532	chr20	62582519	62583704	-	UCKL1	0x0
3533	chr20	62599061	62600188	-	ZNF512B	0x0
3534	chr20	62612010	62613160	+	PRPF6	0x0
3535	chr21	16016413	16017631	+	ABCC13	0x0
3536	chr21	17691360	17692529	+	LINC00478	0x0
3537	chr21	17923872	17925099	+	MIRLET7C	0x1
3538	chr21	18939729	18940861	+	CXADR	0x0
3539	chr21	18965434	18966673	-	BTG3	0x0
3540	chr21	19808934	19810061	-	TMPRSS15	0x0
3541	chr21	20716989	20718110	+	CHODL	0x0
3542	chr21	27096387	27097500	-	ATP5J	0x0
3543	chr21	27253244	27254417	-	APP	0x0
3544	chr21	27422807	27423993	-	APP	0x0
3545	chr21	27483816	27484951	-	APP	0x0
3546	chr21	27542144	27543260	-	APP	0x0
3547	chr21	28127783	28128979	+	MIR4759	0x0
3548	chr21	28208989	28210463	-	ADAMTS1	0x2
3549	chr21	28216087	28217212	-	ADAMTS1	0x2
3550	chr21	28337808	28339033	-	ADAMTS5	0x0
3551	chr21	30425923	30427216	+	USP16	0x2
3552	chr21	30698361	30699558	+	BACH1	0x0
3553	chr21	31014916	31016114	+	GRIK1-AS2	0x0
3554	chr21	32638350	32639765	-	TIAM1	0x2
3555	chr21	33036141	33037340	+	SOD1	0x0
3556	chr21	33040334	33041539	+	SOD1	0x0
3557	chr21	33089295	33090522	-	SCAF4	0x0
3558	chr21	33748942	33750183	-	SNORA80	0x0
3559	chr21	33984133	33985269	-	C21orf59	0x0
3560	chr21	34719386	34720535	+	IFNAR1	0x0
3561	chr21	35030387	35031585	+	ITSN1	0x0
3562	chr21	35127217	35128385	+	ITSN1	0x0
3563	chr21	35275722	35276821	-	ATP5O	0x0
3564	chr21	35466827	35468201	+	SLC5A3	0x0
3565	chr21	36145165	36146372	+	LOC100506385	0x0
3566	chr21	37717977	37719131	+	MORC3	0x0
3567	chr21	37784041	37785217	+	CHAF1B	0x0
3568	chr21	37788598	37789672	+	CHAF1B	0x0
3569	chr21	38567541	38568686	+	TTC3	0x0
3570	chr21	38574002	38575432	+	TTC3	0x0
3571	chr21	38596923	38598132	-	DSCR3	0x0
3572	chr21	38632627	38633808	-	DSCR3	0x0
3573	chr21	40197423	40198595	+	ETS2	0x0
3574	chr21	40517282	40518471	-	PSMG1	0x0
3575	chr21	40718385	40719530	-	HMGN1	0x0
3576	chr21	42749811	42750988	+	MX2	0x2
3577	chr21	44268392	44269583	-	WDR4	0x0
3578	chr21	44479625	44480758	-	CBS	0x0
3579	chr21	44984500	44985920	+	RRP1B	0x0
3580	chr21	45090405	45091504	+	RRP1B	0x0
3581	chr21	45179520	45180696	+	PDXK	0x0
3582	chr21	45221421	45222618	+	RRP1	0x0
3583	chr21	45337879	45339028	+	AGPAT3	0x0
3584	chr21	45393639	45394947	+	AGPAT3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3585	chr21	45559550	45560770	+	C21orf33	0x0
3586	chr21	46188735	46189879	-	UBE2G2	0x2
3587	chr21	46225809	46226932	-	SUMO3	0x0
3588	chr21	46708339	46709547	+	LOC642852	0x0
3589	chr21	46893600	46894927	+	COL18A1	0x1
3590	chr21	46949302	46950441	-	SLC19A1	0x0
3591	chr21	46952281	46953369	-	SLC19A1	0x0
3592	chr21	46955505	46956592	-	SLC19A1	0x0
3593	chr21	47424319	47425504	+	COL6A1	0x0
3594	chr21	47547608	47548806	+	COL6A2	0x0
3595	chr21	47608898	47610162	-	LSS	0x0
3596	chr21	47738047	47739198	-	C21orf58	0x0
3597	chr22	18314151	18315281	-	MICAL3	0x0
3598	chr22	18571125	18572217	+	PEX26	0x0
3599	chr22	18954229	18955424	+	DGCR5	0x0
3600	chr22	19162785	19163956	-	SLC25A1	0x0
3601	chr22	19283535	19284762	+	MRPL40	0x0
3602	chr22	19362273	19363409	-	HIRA	0x0
3603	chr22	19822965	19824171	-	C22orf29	0x0
3604	chr22	19946011	19947236	+	COMT	0x0
3605	chr22	19949534	19950733	+	COMT	0x0
3606	chr22	19967218	19968536	-	ARVCF	0x0
3607	chr22	20842383	20843522	-	KLHL22	0x0
3608	chr22	21287555	21289058	+	CRKL	0x0
3609	chr22	21306986	21308085	+	CRKL	0x0
3610	chr22	21742936	21744308	+	RIMBP3B	0x0
3611	chr22	21742936	21744308	+	RIMBP3C	0x0
3612	chr22	22210386	22211557	-	MAPK1	0x0
3613	chr22	22672503	22673700	+	LOC96610	0x0
3614	chr22	23522226	23523427	+	BCR	0x1
3615	chr22	23980518	23981697	-	GUSBP11	0x0
3616	chr22	24236041	24237608	+	MIF	0x0
3617	chr22	24438704	24439858	+	CABIN1	0x0
3618	chr22	24907612	24908737	+	UPB1	0x0
3619	chr22	24936646	24937830	-	C22orf13	0x0
3620	chr22	24967397	24968547	+	SNRPD3	0x0
3621	chr22	25529046	25530177	+	KIAA1671	0x0
3622	chr22	25776890	25778026	-	LRP5L	0x0
3623	chr22	26104005	26105227	+	ADRBK2	0x0
3624	chr22	27282576	27283773	-	CRYBB1	0x0
3625	chr22	28248228	28249383	-	PITPNB	0x0
3626	chr22	28629801	28630944	-	TTC28	0x0
3627	chr22	28763509	28764779	-	TTC28	0x0
3628	chr22	28814029	28815169	-	TTC28	0x0
3629	chr22	28852585	28853737	-	TTC28	0x0
3630	chr22	28888395	28889599	-	TTC28	0x0
3631	chr22	29356334	29357530	+	ZNRF3	0x0
3632	chr22	29538797	29539902	+	KREMEN1	0x2
3633	chr22	29541059	29542208	+	KREMEN1	0x2
3634	chr22	29725923	29727091	-	AP1B1	0x0
3635	chr22	29727713	29730500	-	AP1B1	0x0
3636	chr22	29727713	29730500	-	MIR3653	0x0
3637	chr22	29727713	29730500	-	SNORD125	0x0
3638	chr22	31371430	31372477	+	TUG1	0x0
3639	chr22	31556509	31557707	+	RNF185	0x0
3640	chr22	32226093	32227273	+	DEPDC5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3641	chr22	32894134	32895276	+	FBXO7	0x0
3642	chr22	33777348	33778521	-	LARGE	0x0
3643	chr22	34297389	34298523	-	LARGE	0x0
3644	chr22	34315651	34316828	-	LARGE	0x0
3645	chr22	35681160	35682395	+	HMGXB4	0x0
3646	chr22	35690280	35691464	+	HMGXB4	0x0
3647	chr22	35839585	35840776	+	MCM5	0x0
3648	chr22	36137244	36138456	-	RBFOX2	0x0
3649	chr22	36138942	36140500	-	RBFOX2	0x0
3650	chr22	36214874	36216032	-	RBFOX2	0x0
3651	chr22	36395321	36396462	-	RBFOX2	0x0
3652	chr22	36677011	36678199	-	MYH9	0x2
3653	chr22	36680665	36681891	-	MYH9	0x2
3654	chr22	36704808	36705986	-	MYH9	0x2
3655	chr22	37803544	37804731	-	ELFN2	0x0
3656	chr22	38007253	38008489	+	GGA1	0x2
3657	chr22	38200770	38201857	+	H1F0	0x0
3658	chr22	38313130	38314351	+	MICALL1	0x0
3659	chr22	38616456	38617636	-	TMEM184B	0x0
3660	chr22	38690099	38691306	-	CSNK1E	0x0
3661	chr22	38691643	38692846	-	CSNK1E	0x0
3662	chr22	38851091	38852298	+	KDELR3	0x0
3663	chr22	38879086	38881782	-	DDX17	0x0
3664	chr22	38896636	38897754	-	DDX17	0x0
3665	chr22	39079245	39080420	+	TOMM22	0x0
3666	chr22	39126436	39127627	+	GTPBP1	0x0
3667	chr22	39258060	39259789	-	CBX6	0x0
3668	chr22	39709252	39710490	-	RPL3	0x0
3669	chr22	39709252	39710490	-	SNORD83B	0x0
3670	chr22	39710669	39711896	-	RPL3	0x0
3671	chr22	39710669	39711896	-	SNORD83A	0x0
3672	chr22	39713023	39714106	-	RPL3	0x0
3673	chr22	39714525	39715679	-	RPL3	0x0
3674	chr22	39714525	39715679	-	SNORD43	0x0
3675	chr22	39824331	39825448	+	TAB1	0x0
3676	chr22	40603841	40604999	+	TNRC6B	0x0
3677	chr22	41032643	41033828	+	MCHR1	0x2
3678	chr22	41322022	41323150	+	XPNPEP3	0x0
3679	chr22	41348974	41350206	+	RBX1	0x1
3680	chr22	41367993	41369234	+	RBX1	0x1
3681	chr22	41650943	41652115	-	RANGAP1	0x0
3682	chr22	41672402	41673555	-	RANGAP1	0x0
3683	chr22	41830391	41831584	-	TOB2	0x0
3684	chr22	41921316	41922493	-	POLR3H	0x0
3685	chr22	41931206	41932394	-	POLR3H	0x0
3686	chr22	41989044	41990224	-	PMM1	0x0
3687	chr22	42017457	42018631	+	XRCC6	0x0
3688	chr22	42031586	42032802	+	XRCC6	0x0
3689	chr22	42070194	42071398	-	NHP2L1	0x0
3690	chr22	42205327	42206535	+	CCDC134	0x0
3691	chr22	42224006	42225166	+	CCDC134	0x0
3692	chr22	42228697	42229797	+	SREBF2	0x0
3693	chr22	42244116	42245325	+	SREBF2	0x0
3694	chr22	42301585	42303689	+	SREBF2	0x0
3695	chr22	42390611	42391960	+	SEPT3	0x0
3696	chr22	42605304	42606458	-	TCF20	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3697	chr22	42911537	42912665	-	RRP7A	0x0
3698	chr22	42960739	42961876	-	RRP7B	0x0
3699	chr22	43010681	43011963	+	RNU12	0x0
3700	chr22	43014427	43015900	-	CYB5R3	0x0
3701	chr22	44403105	44404301	+	PARVB	0x0
3702	chr22	45364086	45365225	-	PHF21B	0x0
3703	chr22	45568661	45569815	+	NUP50	0x0
3704	chr22	45580847	45581958	+	NUP50	0x0
3705	chr22	45921134	45922335	+	FBLN1	0x0
3706	chr22	46088330	46089523	+	ATXN10	0x0
3707	chr22	46124715	46126044	+	ATXN10	0x0
3708	chr22	46134049	46135230	+	ATXN10	0x0
3709	chr22	46156733	46157865	+	MIR4762	0x0
3710	chr22	46268284	46269464	+	ATXN10	0x0
3711	chr22	46483698	46484878	+	MIRLET7BHG	0x0
3712	chr22	46494420	46495618	+	MIRLET7BHG	0x0
3713	chr22	46634509	46635753	+	PPARA	0x0
3714	chr22	46781824	46783035	-	CELSR1	0x0
3715	chr22	46946646	46947830	-	CELSR1	0x0
3716	chr22	47270127	47271321	+	TBC1D22A	0x0
3717	chr22	50205194	50206352	-	BRD1	0x0
3718	chr22	50210282	50211470	-	BRD1	0x0
3719	chr22	50713376	50714569	-	PLXNB2	0x0
3720	chr22	50719855	50721037	-	PLXNB2	0x0
3721	chr22	50831729	50832913	+	PPP6R2	0x0
3722	chr22	50904081	50906314	-	SBF1	0x0
3723	chr22	50970887	50972085	+	NCAPH2	0x0
3724	chr22	51063279	51064390	-	ARSA	0x0
3725	chr3	3186604	3187841	+	TRNT1	0x0
3726	chr3	8024180	8025374	-	LOC100288428	0x0
3727	chr3	8265114	8266333	+	LMCD1	0x0
3728	chr3	9431261	9432805	-	LOC440944	0x0
3729	chr3	9486201	9487428	+	SETD5	0x0
3730	chr3	9857220	9858434	+	TTLL3	0x0
3731	chr3	10167287	10168486	+	BRK1	0x0
3732	chr3	10321861	10323056	+	TATDN2	0x0
3733	chr3	11401512	11402751	+	ATG7	0x0
3734	chr3	11597538	11598649	-	VGLL4	0x0
3735	chr3	12064814	12066017	+	SYN2	0x2
3736	chr3	12147964	12149112	+	SYN2	0x2
3737	chr3	12560059	12561224	+	TSEN2	0x0
3738	chr3	12625214	12626361	-	RAF1	0x2
3739	chr3	12844503	12845700	+	CAND2	0x0
3740	chr3	12881152	12882451	-	RPL32	0x0
3741	chr3	12881152	12882451	-	SNORA7A	0x0
3742	chr3	12982633	12983771	-	IQSEC1	0x0
3743	chr3	13035839	13037016	-	IQSEC1	0x0
3744	chr3	13280722	13281919	-	NUP210	0x2
3745	chr3	13313379	13314536	-	NUP210	0x2
3746	chr3	13357743	13359380	-	NUP210	0x2
3747	chr3	13783339	13784537	+	LOC285375	0x0
3748	chr3	14199493	14200692	-	XPC	0x2
3749	chr3	15483124	15484230	+	EAF1	0x0
3750	chr3	15779482	15780795	+	BTD	0x0
3751	chr3	15885578	15886855	-	ANKRD28	0x0
3752	chr3	16275601	16276775	+	GALNTL2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3753	chr3	16459402	16460560	-	RFTN1	0x0
3754	chr3	17052965	17054111	+	PLCL2	0x0
3755	chr3	20025601	20026775	+	RAB5A	0x0
3756	chr3	23383956	23385109	+	MIR548AC	0x0
3757	chr3	23436605	23437832	+	MIR548AC	0x0
3758	chr3	23925735	23926895	+	UBE2E1	0x0
3759	chr3	23932123	23933247	+	UBE2E1	0x0
3760	chr3	23960126	23962663	+	RPL15	0x0
3761	chr3	23995512	23996762	+	NR1D2	0x0
3762	chr3	25639039	25640283	-	TOP2B	0x0
3763	chr3	29587021	29588218	+	RBMS3	0x0
3764	chr3	31269659	31270890	+	STT3B	0x0
3765	chr3	31620850	31622065	+	STT3B	0x0
3766	chr3	31699275	31700456	+	STT3B	0x0
3767	chr3	31945766	31946935	-	OSBPL10	0x0
3768	chr3	32078480	32079674	+	ZNF860	0x0
3769	chr3	32411082	32412230	+	CMTM8	0x0
3770	chr3	32599973	32601163	-	DYNC1LI1	0x0
3771	chr3	32609995	32611224	-	DYNC1LI1	0x0
3772	chr3	32938215	32939410	+	TRIM71	0x0
3773	chr3	33128714	33129913	-	TMPPE	0x0
3774	chr3	33173472	33174713	+	CRTAP	0x0
3775	chr3	33643362	33644461	-	CLASP2	0x0
3776	chr3	33873618	33874717	+	PDCD6IP	0x0
3777	chr3	36726163	36727403	+	STAC	0x0
3778	chr3	37080825	37081931	+	MLH1	0x1
3779	chr3	37189849	37191014	-	LRRFIP2	0x0
3780	chr3	37465287	37466386	+	C3orf35	0x0
3781	chr3	38427202	38428303	+	XYLB	0x0
3782	chr3	38668691	38669899	-	SCN5A	0x2
3783	chr3	39449312	39450619	+	RPSA	0x0
3784	chr3	39449312	39450619	+	SNORA6	0x0
3785	chr3	39452000	39454062	+	RPSA	0x0
3786	chr3	39452000	39454062	+	SNORA62	0x0
3787	chr3	40352965	40354173	+	EIF1B	0x0
3788	chr3	40504882	40506079	+	RPL14	0x0
3789	chr3	40522637	40523826	+	ZNF619	0x0
3790	chr3	40713594	40714769	+	ZNF621	0x0
3791	chr3	41268246	41269401	+	CTNNB1	0x2
3792	chr3	41280979	41282170	+	CTNNB1	0x2
3793	chr3	42172215	42173420	+	TRAK1	0x0
3794	chr3	42262814	42263984	+	TRAK1	0x0
3795	chr3	42627709	42628944	+	SS18L2	0x0
3796	chr3	42661569	42662722	+	NKTR	0x0
3797	chr3	42825272	42826470	-	HIGD1A	0x0
3798	chr3	43369372	43370583	+	SNRK	0x0
3799	chr3	43513438	43514642	+	SNRK	0x0
3800	chr3	43735287	43736484	+	ABHD5	0x0
3801	chr3	44534839	44536016	-	ZNF445	0x0
3802	chr3	44672062	44673163	+	ZNF197	0x0
3803	chr3	44879232	44880427	+	KIF15	0x0
3804	chr3	45532675	45533841	+	LARS2	0x0
3805	chr3	45696671	45697833	+	LIMD1	0x1
3806	chr3	45729920	45731109	-	LOC644714	0x0
3807	chr3	47030877	47031967	+	NBEAL2	0x0
3808	chr3	47050355	47051532	+	NBEAL2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3809	chr3	47450648	47451750	+	PTPN23	0x0
3810	chr3	47466455	47467633	-	SCAP	0x0
3811	chr3	47469475	47470674	-	SCAP	0x0
3812	chr3	47529404	47530562	-	C3orf75	0x0
3813	chr3	47603307	47604405	-	CSPG5	0x0
3814	chr3	47627164	47629184	-	SMARCC1	0x0
3815	chr3	47703473	47704650	-	SMARCC1	0x0
3816	chr3	47719118	47720319	-	SMARCC1	0x0
3817	chr3	47892891	47895011	-	MAP4	0x0
3818	chr3	47932060	47933280	-	MAP4	0x0
3819	chr3	47985416	47986611	-	MAP4	0x0
3820	chr3	48313866	48315070	+	ZNF589	0x0
3821	chr3	48455708	48456825	-	PLXNB1	0x0
3822	chr3	48460349	48461527	-	PLXNB1	0x0
3823	chr3	48730604	48732071	-	IP6K2	0x0
3824	chr3	48784557	48786041	-	PRKAR2A	0x0
3825	chr3	48978026	48979203	+	ARIH2	0x0
3826	chr3	49049998	49051180	+	WDR6	0x0
3827	chr3	49059757	49060931	+	NDUFAF3	0x0
3828	chr3	49298828	49299995	-	C3orf62	0x0
3829	chr3	49306933	49308097	+	MIR4271	0x0
3830	chr3	49396629	49397880	-	RHOA	0x1
3831	chr3	49462515	49463654	-	NICN1	0x0
3832	chr3	49515374	49516569	+	DAG1	0x0
3833	chr3	49570399	49571592	+	DAG1	0x0
3834	chr3	49736551	49737732	+	RNF123	0x0
3835	chr3	50263689	50264867	+	SLC38A3	0x2
3836	chr3	50773542	50774742	+	DOCK3	0x0
3837	chr3	51042193	51043377	+	DOCK3	0x0
3838	chr3	51242911	51244156	+	DOCK3	0x0
3839	chr3	51347120	51348316	+	DOCK3	0x0
3840	chr3	51572431	51573592	+	RAD54L2	0x0
3841	chr3	51697732	51698844	+	RAD54L2	0x0
3842	chr3	51727913	51729115	-	IQCF6	0x0
3843	chr3	52002235	52003383	-	ABHD14B	0x0
3844	chr3	52027879	52028994	-	RPL29	0x0
3845	chr3	52561632	52562808	-	NT5DC2	0x0
3846	chr3	52569766	52570959	+	C3orf78	0x0
3847	chr3	52635477	52636633	-	PBRM1	0x1
3848	chr3	52713144	52714273	-	PBRM1	0x1
3849	chr3	52728009	52729194	-	GLT8D1	0x0
3850	chr3	53260228	53261442	-	TKT	0x0
3851	chr3	53327386	53328534	-	DCP1A	0x0
3852	chr3	53893275	53894463	-	ACTR8	0x0
3853	chr3	56105579	56106778	+	CCDC66	0x0
3854	chr3	56253146	56254314	-	ERC2	0x0
3855	chr3	56657136	56658267	-	FAM208A	0x0
3856	chr3	56692410	56693565	+	CCDC66	0x0
3857	chr3	56712433	56713636	-	FAM208A	0x0
3858	chr3	58066827	58068032	+	FLNB	0x2
3859	chr3	59526653	59527853	-	FHIT	0x1
3860	chr3	59803894	59805090	-	FHIT	0x1
3861	chr3	60392540	60393686	-	FHIT	0x1
3862	chr3	60740685	60741849	-	FHIT	0x1
3863	chr3	61079221	61080390	-	FHIT	0x1
3864	chr3	61684302	61685482	-	ID2B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3865	chr3	61728103	61729326	-	ID2B	0x0
3866	chr3	61781350	61782617	+	PTPRG	0x0
3867	chr3	61821361	61822559	+	PTPRG	0x0
3868	chr3	62252507	62253654	+	PTPRG	0x0
3869	chr3	63530565	63531774	+	SYNPR	0x0
3870	chr3	63898015	63899478	+	ATXN7	0x0
3871	chr3	64081176	64082354	-	PRICKLE2	0x0
3872	chr3	65581623	65582779	-	MAGI1	0x0
3873	chr3	69061262	69062419	-	C3orf64	0x0
3874	chr3	69109074	69110269	-	UBA3	0x0
3875	chr3	69383812	69385009	-	FRMD4B	0x0
3876	chr3	69937863	69939029	+	MITF	0x2
3877	chr3	71049846	71051051	-	FOXP1	0x1
3878	chr3	71310174	71311273	-	FOXP1	0x1
3879	chr3	71803897	71805392	+	GPR27	0x0
3880	chr3	72440865	72442047	-	RYBP	0x0
3881	chr3	73159615	73160858	+	PPP4R2	0x0
3882	chr3	75467516	75468695	-	FAM86DP	0x0
3883	chr3	75778673	75780352	-	ZNF717	0x0
3884	chr3	76067180	76068297	+	MIR4273	0x0
3885	chr3	76116679	76117859	+	MIR4273	0x0
3886	chr3	77588421	77589624	-	ROBO1	0x2
3887	chr3	78210509	78211683	+	ROBO2	0x2
3888	chr3	78725364	78726526	-	ROBO1	0x2
3889	chr3	78776220	78777399	-	ROBO1	0x2
3890	chr3	78965685	78966835	-	ROBO1	0x2
3891	chr3	79746721	79747916	+	ROBO2	0x2
3892	chr3	87302575	87303778	+	CHMP2B	0x2
3893	chr3	88188033	88189234	+	ZNF654	0x0
3894	chr3	93845492	93846677	+	NSUN3	0x0
3895	chr3	96070305	96071474	+	EPHA6	0x0
3896	chr3	96336252	96337451	-	MINA	0x0
3897	chr3	96706235	96707403	+	EPHA6	0x0
3898	chr3	98298899	98300073	-	CPOX	0x0
3899	chr3	98514482	98515659	-	DCBLD2	0x0
3900	chr3	99674284	99675721	+	C3orf26	0x0
3901	chr3	100083078	100084175	-	TOMM70A	0x0
3902	chr3	101294947	101296226	-	SENP7	0x0
3903	chr3	101311953	101313173	+	PCNP	0x0
3904	chr3	101427409	101428630	+	LOC285359	0x0
3905	chr3	101523677	101524892	+	FAM55C	0x0
3906	chr3	105577927	105579124	-	CBLB	0x2
3907	chr3	112728872	112730023	-	C3orf17	0x0
3908	chr3	112731024	112732187	-	C3orf17	0x0
3909	chr3	113351035	113352266	+	SIDT1	0x0
3910	chr3	113409806	113410988	-	KIAA2018	0x0
3911	chr3	113437715	113438865	-	NAA50	0x0
3912	chr3	113439795	113440972	-	NAA50	0x0
3913	chr3	113528980	113530968	+	ATP6V1A	0x0
3914	chr3	113782739	113783838	+	QTRTD1	0x0
3915	chr3	114068620	114069796	-	ZBTB20	0x0
3916	chr3	119247667	119248873	+	TIMMDC1	0x0
3917	chr3	119509622	119510841	+	NR1I2	0x0
3918	chr3	119812267	119813380	-	GSK3B	0x2
3919	chr3	120434017	120435211	-	RABL3	0x0
3920	chr3	120955706	120956915	-	POLQ	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3921	chr3	122841602	122842804	+	PDIA5	0x0
3922	chr3	124988538	124989715	-	ZNF148	0x0
3923	chr3	125165792	125166986	-	SNX4	0x2
3924	chr3	125797486	125798706	-	SLC41A3	0x0
3925	chr3	125833502	125834789	-	ALDH1L1	0x4
3926	chr3	126180019	126181440	-	ZXDC	0x0
3927	chr3	126183659	126184858	-	ZXDC	0x0
3928	chr3	126322569	126323774	-	TXNRD3	0x0
3929	chr3	126707552	126708763	+	PLXNA1	0x0
3930	chr3	127380537	127381652	+	PODXL2	0x0
3931	chr3	127788558	127790058	+	SEC61A1	0x0
3932	chr3	127793410	127794585	-	RUVBL1	0x2
3933	chr3	128198861	128200036	-	GATA2	0x2
3934	chr3	128207961	128209161	+	DNAJB8-AS1	0x0
3935	chr3	128338243	128339419	-	RPN1	0x2
3936	chr3	128451591	128452997	+	RAB7A	0x0
3937	chr3	128531822	128533064	+	RAB7A	0x0
3938	chr3	128953745	128954950	+	COPG1	0x0
3939	chr3	129273522	129274695	-	PLXND1	0x0
3940	chr3	129296466	129297816	-	PLXND1	0x0
3941	chr3	129309709	129310948	+	H1FOO	0x2
3942	chr3	130462865	130464003	-	PIK3R4	0x0
3943	chr3	131197366	131198647	-	SNORA58	0x0
3944	chr3	131947407	131948608	-	CPNE4	0x0
3945	chr3	132293236	132294410	-	ACAD11	0x0
3946	chr3	132293236	132294410	-	NPHP3-ACAD11	0x0
3947	chr3	132394900	132396036	+	UBA5	0x0
3948	chr3	132809501	132810699	+	TMEM108	0x0
3949	chr3	133361690	133362902	-	TOPBP1	0x0
3950	chr3	133875654	133876850	-	RYK	0x0
3951	chr3	134501746	134502960	-	KY	0x0
3952	chr3	134713228	134714454	+	EPHB1	0x2
3953	chr3	136676705	136677925	+	IL20RB	0x0
3954	chr3	141324383	141325571	+	RASA2	0x0
3955	chr3	141644100	141645202	+	ATP1B3	0x0
3956	chr3	142047179	142048291	-	XRN1	0x1
3957	chr3	142391861	142393182	+	PLS1	0x0
3958	chr3	142774866	142776027	+	U2SURP	0x0
3959	chr3	143553099	143554255	-	SLC9A9	0x0
3960	chr3	148748280	148749431	-	HLTF	0x1
3961	chr3	148757934	148759261	-	HLTF	0x1
3962	chr3	149672385	149673561	-	PFN2	0x0
3963	chr3	149682334	149684418	-	PFN2	0x0
3964	chr3	149685647	149686790	-	PFN2	0x0
3965	chr3	149699572	149700765	-	PFN2	0x0
3966	chr3	150261659	150262838	-	SERP1	0x0
3967	chr3	150381802	150383036	+	SELT	0x0
3968	chr3	150905323	150906552	+	MED12L	0x2
3969	chr3	152019844	152021041	+	MBNL1	0x0
3970	chr3	152525159	152526317	-	TMEM14E	0x0
3971	chr3	154006950	154008133	-	DHX36	0x0
3972	chr3	154017847	154018991	-	DHX36	0x0
3973	chr3	155610832	155611932	+	GMPS	0x2
3974	chr3	156258040	156259216	-	SSR3	0x0
3975	chr3	156259638	156260819	-	SSR3	0x0
3976	chr3	159505029	159506215	+	IQCJ-SCHIP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
3977	chr3	159505029	159506215	+	SCHIP1	0x0
3978	chr3	160101112	160102239	-	IFT80	0x0
3979	chr3	160135040	160136208	+	SMC4	0x0
3980	chr3	160145967	160147164	+	SMC4	0x0
3981	chr3	160151049	160152148	+	SMC4	0x0
3982	chr3	160232247	160233581	-	KPNA4	0x0
3983	chr3	160232247	160233581	-	SCARNA7	0x0
3984	chr3	161146335	161147562	-	SPTSSB	0x0
3985	chr3	162751663	162752835	+	OTOL1	0x0
3986	chr3	167812547	167813770	-	GOLIM4	0x0
3987	chr3	168916004	168917153	-	MECOM	0x0
3988	chr3	169016868	169018187	-	MECOM	0x0
3989	chr3	169248357	169249556	-	MECOM	0x0
3990	chr3	169257396	169258572	-	MECOM	0x0
3991	chr3	169276218	169277388	-	MECOM	0x0
3992	chr3	169300966	169302116	-	MECOM	0x0
3993	chr3	169321337	169322504	-	MECOM	0x0
3994	chr3	169481843	169483395	-	TERC	0x0
3995	chr3	169489439	169490639	+	MYNN	0x0
3996	chr3	169712126	169713251	+	SEC62	0x0
3997	chr3	169811003	169812221	-	PHC3	0x0
3998	chr3	170113003	170114159	+	SKIL	0x0
3999	chr3	173662250	173663437	+	NLGN1	0x2
4000	chr3	174095052	174096268	+	NLGN1	0x2
4001	chr3	174689747	174690921	-	SPATA16	0x0
4002	chr3	175180913	175182083	+	NAALADL2	0x0
4003	chr3	176738627	176739772	-	TBL1XR1	0x2
4004	chr3	178724112	178725336	-	ZMAT3	0x0
4005	chr3	178897509	178898703	+	PIK3CA	0x2
4006	chr3	179040437	179041633	+	ZNF639	0x2
4007	chr3	179089083	179090273	+	MFN1	0x0
4008	chr3	179113461	179114610	-	GNB4	0x2
4009	chr3	179117003	179118152	-	GNB4	0x2
4010	chr3	179305509	179306667	+	ACTL6A	0x0
4011	chr3	179879102	179880325	-	PEX5L	0x0
4012	chr3	180631103	180632281	-	DNAJC19	0x0
4013	chr3	181540082	181541351	-	FLJ46066	0x0
4014	chr3	182582782	182583964	+	ATP11B	0x0
4015	chr3	182750101	182751276	-	MCCC1	0x0
4016	chr3	183169134	183170340	+	LOC100505687	0x0
4017	chr3	183353570	183354694	+	KLHL24	0x0
4018	chr3	183398003	183399122	+	KLHL24	0x0
4019	chr3	183580621	183581759	-	PARL	0x0
4020	chr3	183744592	183745798	-	ABCC5	0x0
4021	chr3	183854121	183855271	+	EIF2B5	0x0
4022	chr3	183867148	183868604	+	EIF2B5	0x0
4023	chr3	183890038	183891239	+	DVL3	0x0
4024	chr3	183900738	183902213	+	AP2M1	0x0
4025	chr3	184039630	184040778	+	EIF4G1	0x0
4026	chr3	184042919	184044133	+	EIF4G1	0x0
4027	chr3	184042919	184044133	+	SNORD66	0x0
4028	chr3	184051974	184053512	+	EIF4G1	0x0
4029	chr3	184084326	184085542	+	POLR2H	0x0
4030	chr3	184427867	184429119	-	MAGEF1	0x0
4031	chr3	184429133	184430288	-	MAGEF1	0x0
4032	chr3	184563055	184564277	+	VPS8	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4033	chr3	185347678	185348961	+	SENP2	0x0
4034	chr3	185361867	185363192	-	IGF2BP2	0x0
4035	chr3	185439837	185441123	-	IGF2BP2	0x0
4036	chr3	185505712	185506895	-	IGF2BP2	0x0
4037	chr3	185634368	185635555	-	TRA2B	0x0
4038	chr3	185649515	185650644	-	TRA2B	0x0
4039	chr3	185653526	185654615	-	TRA2B	0x0
4040	chr3	186503929	186505190	+	EIF4A2	0x2
4041	chr3	186503929	186505190	+	MIR1248	0x0
4042	chr3	186503929	186505190	+	SNORA63	0x0
4043	chr3	186503929	186505190	+	SNORA81	0x0
4044	chr3	186507201	186508333	-	RFC4	0x0
4045	chr3	186617309	186618709	+	ST6GAL1	0x0
4046	chr3	186759892	186761084	+	ST6GAL1	0x0
4047	chr3	187388143	187389326	+	LOC100131635	0x0
4048	chr3	192515576	192516752	-	MB21D2	0x0
4049	chr3	193855605	193856801	+	HES1	0x4
4050	chr3	194125256	194126390	-	ATP13A3	0x0
4051	chr3	194171170	194172310	-	ATP13A3	0x0
4052	chr3	194386411	194387704	-	LSG1	0x0
4053	chr3	195776095	195777234	-	TFRC	0x2
4054	chr3	195962385	195963505	-	PCYT1A	0x0
4055	chr3	196074014	196075163	-	UBXN7	0x0
4056	chr3	196081421	196082538	-	UBXN7	0x0
4057	chr3	196118165	196119364	-	UBXN7	0x0
4058	chr3	196119861	196121051	-	UBXN7	0x0
4059	chr3	196511321	196512475	-	CEP19	0x0
4060	chr3	196728214	196729390	-	MFI2	0x0
4061	chr3	196842301	196843472	-	DLG1	0x1
4062	chr3	197281533	197282691	+	FYTTD1	0x0
4063	chr3	197679722	197680920	+	RPL35A	0x0
4064	chr3	197682245	197683345	+	RPL35A	0x0
4065	chr4	1209320	1210535	-	CTBP1	0x1
4066	chr4	1218742	1219931	-	CTBP1	0x1
4067	chr4	1231531	1232630	-	CTBP1	0x1
4068	chr4	1234606	1235835	-	CTBP1	0x1
4069	chr4	1342835	1343966	+	KIAA1530	0x4
4070	chr4	1672052	1673244	-	FAM53A	0x0
4071	chr4	1694014	1695533	-	SLBP	0x0
4072	chr4	1713372	1714566	-	SLBP	0x0
4073	chr4	1726499	1727631	+	TACC3	0x0
4074	chr4	1738532	1739923	+	TACC3	0x0
4075	chr4	1746121	1747254	+	TACC3	0x0
4076	chr4	1805357	1806534	+	FGFR3	0x2
4077	chr4	1813767	1815003	-	LETM1	0x2
4078	chr4	1824830	1826025	-	LETM1	0x2
4079	chr4	1918109	1919304	+	WHSC1	0x2
4080	chr4	1936420	1937586	+	WHSC1	0x2
4081	chr4	1957214	1958422	+	WHSC1	0x2
4082	chr4	1975823	1977043	+	SCARNA22	0x0
4083	chr4	1975823	1977043	+	WHSC1	0x2
4084	chr4	1981796	1982993	+	WHSC1	0x2
4085	chr4	2067921	2069165	+	NAT8L	0x0
4086	chr4	2077034	2078212	-	POLN	0x0
4087	chr4	2248957	2250057	-	MXD4	0x0
4088	chr4	2581395	2582619	+	FAM193A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4089	chr4	2827638	2829176	+	SH3BP2	0x0
4090	chr4	2906074	2907292	+	ADD1	0x0
4091	chr4	2940758	2941861	-	NOP14	0x0
4092	chr4	3252082	3253256	-	HTT-AS1	0x0
4093	chr4	4683894	4685085	+	LOC100507266	0x0
4094	chr4	5818067	5819249	+	EVC	0x0
4095	chr4	6200362	6201539	-	JAKMIP1	0x0
4096	chr4	6642990	6644560	+	MRFAP1	0x0
4097	chr4	6709345	6710474	-	MRFAP1L1	0x0
4098	chr4	6998419	6999606	+	TBC1D14	0x0
4099	chr4	7033051	7034321	+	TBC1D14	0x0
4100	chr4	7583649	7584931	+	SORCS2	0x0
4101	chr4	8459163	8460338	+	METTL19	0x0
4102	chr4	11684050	11685227	-	HS3ST1	0x0
4103	chr4	13426350	13427562	-	RAB28	0x0
4104	chr4	13731061	13732284	+	LOC152742	0x0
4105	chr4	17625172	17626370	+	MED28	0x0
4106	chr4	17819468	17820625	+	NCAPG	0x0
4107	chr4	17838682	17839842	+	NCAPG	0x0
4108	chr4	17841200	17842430	+	NCAPG	0x0
4109	chr4	18013434	18014610	-	LCORL	0x0
4110	chr4	18576184	18577360	-	LCORL	0x0
4111	chr4	20253069	20255107	+	SLIT2	0x1
4112	chr4	20357968	20359022	+	SLIT2-IT1	0x0
4113	chr4	20377297	20378395	+	SLIT2-IT1	0x0
4114	chr4	20414007	20415155	+	SLIT2-IT1	0x0
4115	chr4	20420764	20421861	+	SLIT2-IT1	0x0
4116	chr4	20526965	20528169	+	SLIT2	0x1
4117	chr4	20554935	20556122	+	SLIT2	0x1
4118	chr4	20590724	20591907	+	SLIT2	0x1
4119	chr4	20621379	20622480	+	SLIT2	0x1
4120	chr4	25251620	25252796	+	PI4K2B	0x0
4121	chr4	25278154	25279346	+	PI4K2B	0x0
4122	chr4	25748638	25749824	-	SEL1L3	0x0
4123	chr4	26416536	26417741	+	RBPJ	0x0
4124	chr4	27023705	27024866	+	STIM2	0x0
4125	chr4	30525911	30527106	-	CCKAR	0x2
4126	chr4	30724060	30725257	+	PCDH7	0x2
4127	chr4	30732429	30733530	+	PCDH7	0x2
4128	chr4	30737453	30738629	+	PCDH7	0x2
4129	chr4	30755239	30756386	+	PCDH7	0x2
4130	chr4	37437853	37439050	-	RELL1	0x0
4131	chr4	37634961	37637224	-	RELL1	0x0
4132	chr4	38618668	38619867	+	KLF3	0x0
4133	chr4	39114266	39115366	+	KLHL5	0x0
4134	chr4	39276035	39277181	+	WDR19	0x0
4135	chr4	39286725	39287909	+	WDR19	0x0
4136	chr4	39708907	39710122	+	UBE2K	0x0
4137	chr4	39782183	39783294	+	UBE2K	0x0
4138	chr4	39978528	39979627	-	PDS5A	0x0
4139	chr4	40601188	40602333	-	RBM47	0x0
4140	chr4	41259046	41260283	+	UCHL1	0x1
4141	chr4	41264120	41265319	+	UCHL1	0x1
4142	chr4	41269710	41270980	+	UCHL1	0x1
4143	chr4	42088879	42090056	+	SLC30A9	0x0
4144	chr4	42202449	42203618	+	SLC30A9	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4145	chr4	43411605	43412801	-	ATP8A1	0x0
4146	chr4	46893136	46894294	-	COX7B2	0x0
4147	chr4	47708099	47709348	+	ATP10D	0x0
4148	chr4	47882394	47883542	-	NFXL1	0x0
4149	chr4	48413731	48414890	+	SLAIN2	0x0
4150	chr4	48438539	48439739	+	SLAIN2	0x0
4151	chr4	48862472	48863658	+	OCIAD1	0x0
4152	chr4	52734129	52735328	+	DCUN1D4	0x0
4153	chr4	53461921	53463125	-	USP46	0x0
4154	chr4	54283388	54284590	+	FIP1L1	0x2
4155	chr4	54953571	54954744	+	GSX2	0x0
4156	chr4	55841774	55842881	-	KDR	0x2
4157	chr4	56280443	56281494	+	TMEM165	0x0
4158	chr4	56962978	56964223	+	CEP135	0x0
4159	chr4	57325750	57327992	+	PAICS	0x0
4160	chr4	58383343	58384447	+	LOC255130	0x0
4161	chr4	59221215	59222390	-	IGFBP7	0x1
4162	chr4	62093328	62094523	+	LPHN3	0x2
4163	chr4	62551899	62553121	+	LPHN3	0x2
4164	chr4	62774206	62775380	+	LPHN3	0x2
4165	chr4	66438864	66440463	+	LOC100144602	0x0
4166	chr4	68294835	68295976	-	CENPC1	0x0
4167	chr4	68321540	68322718	-	CENPC1	0x0
4168	chr4	69097071	69098228	-	TMPRSS11B	0x0
4169	chr4	70296091	70297349	-	UGT2B4	0x0
4170	chr4	71553746	71554940	+	UTP3	0x0
4171	chr4	73941209	73942338	-	ANKRD17	0x0
4172	chr4	73956544	73957661	-	ANKRD17	0x0
4173	chr4	73986039	73987204	-	ANKRD17	0x0
4174	chr4	74079369	74080510	-	ANKRD17	0x0
4175	chr4	74102690	74103817	-	ANKRD17	0x0
4176	chr4	74109735	74110834	-	ANKRD17	0x0
4177	chr4	76569124	76570342	-	G3BP2	0x0
4178	chr4	76648143	76649358	-	G3BP2	0x0
4179	chr4	76660425	76661657	+	USO1	0x0
4180	chr4	76733874	76735088	+	USO1	0x0
4181	chr4	76806599	76808121	+	USO1	0x0
4182	chr4	77265081	77266329	+	FAM47E-STBD1	0x0
4183	chr4	77265081	77266329	+	STBD1	0x0
4184	chr4	77372618	77373794	+	SHROOM3	0x2
4185	chr4	77766703	77767861	-	SOWAHB	0x0
4186	chr4	77768802	77770022	+	SHROOM3	0x2
4187	chr4	77958275	77959447	+	SEPT11	0x0
4188	chr4	77967833	77969064	-	CCNI	0x0
4189	chr4	77969179	77970319	-	CCNI	0x0
4190	chr4	77976650	77978723	-	CCNI	0x0
4191	chr4	79053658	79054798	-	CNOT6L	0x0
4192	chr4	79175849	79177015	+	FRAS1	0x0
4193	chr4	79205034	79206238	+	FRAS1	0x0
4194	chr4	79410767	79411878	+	FRAS1	0x0
4195	chr4	79438573	79439806	+	FRAS1	0x0
4196	chr4	79734146	79735341	+	BMP2K	0x0
4197	chr4	79840005	79841132	-	PAQR3	0x0
4198	chr4	80274113	80275302	-	NAA11	0x0
4199	chr4	83268298	83269488	-	HNRNPD	0x0
4200	chr4	83274558	83275765	-	HNRNPD	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4201	chr4	83280150	83281278	-	HNRNPD	0x0
4202	chr4	83343963	83345140	-	HNRPDL	0x0
4203	chr4	83347069	83348169	-	HNRPDL	0x0
4204	chr4	83550678	83551963	-	SCD5	0x0
4205	chr4	83818751	83819908	-	LOC100499177	0x0
4206	chr4	86021366	86022519	+	WDFY3-AS2	0x0
4207	chr4	87393257	87394403	-	MAPK10	0x0
4208	chr4	87515041	87516221	+	PTPN13	0x0
4209	chr4	87653247	87654357	+	PTPN13	0x0
4210	chr4	87870545	87871718	-	LOC100506746	0x0
4211	chr4	87940038	87941259	+	AFF1	0x0
4212	chr4	88099083	88100238	-	KLHL8	0x0
4213	chr4	88137806	88138917	-	KLHL8	0x0
4214	chr4	89777339	89778499	-	FAM13A	0x2
4215	chr4	89954916	89956116	-	FAM13A	0x2
4216	chr4	90663937	90665134	+	LOC644248	0x0
4217	chr4	93531591	93532768	+	GRID2	0x0
4218	chr4	95416050	95417252	+	PDLIM5	0x0
4219	chr4	95575127	95576327	+	PDLIM5	0x0
4220	chr4	96396095	96397271	-	UNC5C	0x1
4221	chr4	99563213	99564313	-	TSPAN5	0x0
4222	chr4	99850331	99851505	+	METAP1	0x0
4223	chr4	100868849	100870090	-	H2AFZ	0x0
4224	chr4	103717651	103719025	-	UBE2D3	0x0
4225	chr4	104725398	104726574	-	TACR3	0x0
4226	chr4	106026648	106027830	+	TET2	0x1
4227	chr4	106057841	106059021	-	PPA2	0x0
4228	chr4	106344162	106345353	-	PPA2	0x0
4229	chr4	106852779	106853976	+	NPNT	0x0
4230	chr4	107208670	107209801	-	TBCK	0x0
4231	chr4	107868851	107870051	-	DKK2	0x2
4232	chr4	107923941	107925121	-	DKK2	0x2
4233	chr4	109564721	109565921	+	OSTC	0x0
4234	chr4	109760830	109762023	-	COL25A1	0x2
4235	chr4	110104521	110105697	-	COL25A1	0x2
4236	chr4	110608918	110610063	+	CCDC109B	0x0
4237	chr4	110650525	110651689	-	PLA2G12A	0x0
4238	chr4	111068841	111070012	-	ELOVL6	0x2
4239	chr4	113708823	113709979	-	MIR302B	0x0
4240	chr4	113785324	113786500	+	ANK2	0x2
4241	chr4	114146722	114148054	+	ANK2	0x2
4242	chr4	114341014	114342181	+	ANK2	0x2
4243	chr4	114437818	114438997	-	CAMK2D	0x0
4244	chr4	114662153	114663347	-	CAMK2D	0x0
4245	chr4	119199757	119201059	+	SNHG8	0x0
4246	chr4	119199757	119201059	+	SNORA24	0x0
4247	chr4	120157972	120159202	+	USP53	0x0
4248	chr4	120476269	120477447	-	PDE5A	0x0
4249	chr4	121587880	121589054	+	PP12613	0x0
4250	chr4	122588643	122590042	-	ANXA5	0x0
4251	chr4	122606909	122608071	-	ANXA5	0x0
4252	chr4	123750558	123751842	+	FGF2	0x0
4253	chr4	128754661	128755882	+	HSPA4L	0x0
4254	chr4	128850808	128851989	-	MFSD8	0x0
4255	chr4	136916515	136917744	-	PCDH18	0x2
4256	chr4	140045828	140047021	-	ELF2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4257	chr4	140300081	140301298	+	NAA15	0x0
4258	chr4	140427948	140429133	-	SETD7	0x0
4259	chr4	140429601	140430909	-	SETD7	0x0
4260	chr4	140618700	140619799	-	MAML3	0x0
4261	chr4	140805551	140806871	-	MAML3	0x0
4262	chr4	141349704	141350880	-	CLGN	0x0
4263	chr4	142154608	142155762	+	ZNF330	0x0
4264	chr4	143315717	143316925	-	INPP4B	0x1
4265	chr4	144257623	144258821	+	GAB1	0x6
4266	chr4	144270075	144271461	-	FREM3	0x0
4267	chr4	144346149	144347318	+	GAB1	0x6
4268	chr4	146018918	146020143	+	ABCE1	0x2
4269	chr4	146427241	146428425	+	SMAD1	0x0
4270	chr4	146822800	146823918	-	ZNF827	0x0
4271	chr4	149180417	149181814	-	NR3C2	0x0
4272	chr4	149265208	149266372	-	NR3C2	0x0
4273	chr4	149356392	149357576	-	NR3C2	0x0
4274	chr4	151185305	151186711	-	LRBA	0x0
4275	chr4	151871001	151872180	-	LRBA	0x0
4276	chr4	152024415	152025614	+	RPS3A	0x0
4277	chr4	152024415	152025614	+	SNORD73A	0x0
4278	chr4	152041252	152042409	-	SH3D19	0x0
4279	chr4	152591367	152592570	-	PET112	0x0
4280	chr4	153448757	153449897	-	FBXW7	0x1
4281	chr4	154169920	154171208	+	TRIM2	0x0
4282	chr4	154472765	154473974	+	KIAA0922	0x0
4283	chr4	155457250	155458379	-	PLRG1	0x0
4284	chr4	158688599	158689776	-	FAM198B	0x0
4285	chr4	159636841	159637978	-	PPID	0x0
4286	chr4	164045004	164046132	-	NAF1	0x0
4287	chr4	164077750	164078946	-	NAF1	0x0
4288	chr4	166213819	166215040	-	GK3P	0x0
4289	chr4	166263567	166264776	+	MSMO1	0x0
4290	chr4	167021877	167023098	+	TLL1	0x0
4291	chr4	167063135	167064378	+	TLL1	0x0
4292	chr4	169925827	169927030	+	PALLD	0x0
4293	chr4	170332145	170333366	-	NEK1	0x0
4294	chr4	170427527	170428695	-	NEK1	0x0
4295	chr4	174252351	174253786	-	HMGB2	0x0
4296	chr4	174254588	174255755	-	HMGB2	0x0
4297	chr4	175219945	175221126	+	CEP44	0x0
4298	chr4	175275109	175276324	+	CEP44	0x0
4299	chr4	176423626	176424847	+	ADAM29	0x2
4300	chr4	176842074	176843173	-	GPM6A	0x0
4301	chr4	177240631	177241730	+	SPCS3	0x0
4302	chr4	177252721	177253795	+	SPCS3	0x0
4303	chr4	177495908	177497008	-	VEGFC	0x0
4304	chr4	181405460	181406582	-	LINC00290	0x0
4305	chr4	183403106	183404347	+	ODZ3	0x0
4306	chr4	183608768	183609957	+	ODZ3	0x0
4307	chr4	184185650	184186805	+	WWC2	0x0
4308	chr4	184206594	184207757	+	WWC2	0x0
4309	chr4	184236991	184238138	+	WWC2	0x0
4310	chr4	185598395	185599560	+	CCDC111	0x0
4311	chr4	185612026	185613243	+	CCDC111	0x0
4312	chr4	186284166	186285356	+	SNX25	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4313	chr4	187548781	187550336	-	FAT1	0x1
4314	chr4	187595179	187596294	-	FAT1	0x1
4315	chr4	187627324	187628579	-	FAT1	0x1
4316	chr4	187628672	187630961	-	FAT1	0x1
4317	chr5	256042	257241	+	SDHA	0x1
4318	chr5	465016	466156	+	EXOC3	0x0
4319	chr5	475184	476283	+	EXOC3	0x0
4320	chr5	616400	617529	+	CEP72	0x0
4321	chr5	619661	620917	+	CEP72	0x0
4322	chr5	855260	856450	-	ZDHHC11	0x0
4323	chr5	881928	883115	-	BRD9	0x0
4324	chr5	984575	985775	-	LOC100506688	0x0
4325	chr5	1011265	1012552	+	NKD2	0x0
4326	chr5	1059288	1060478	+	NKD2	0x0
4327	chr5	1317484	1318925	-	CLPTM1L	0x0
4328	chr5	2099419	2100621	+	NDUFS6	0x0
4329	chr5	5433872	5435049	+	KIAA0947	0x0
4330	chr5	6367854	6369079	-	MED10	0x0
4331	chr5	6599311	6600462	-	NSUN2	0x0
4332	chr5	6732256	6733453	+	PAPD7	0x0
4333	chr5	6742830	6744075	+	PAPD7	0x0
4334	chr5	6847884	6849102	-	MIR4278	0x0
4335	chr5	7054525	7055680	-	MIR4454	0x0
4336	chr5	10277925	10279202	-	CMBL	0x0
4337	chr5	10374162	10375376	+	MARCH6	0x0
4338	chr5	10379681	10380780	+	MARCH6	0x0
4339	chr5	10400598	10401855	+	MARCH6	0x0
4340	chr5	10415135	10416313	+	MARCH6	0x0
4341	chr5	10425959	10427183	+	MARCH6	0x0
4342	chr5	14420879	14422105	+	TRIO	0x0
4343	chr5	14482958	14484167	+	TRIO	0x0
4344	chr5	14508432	14509594	+	TRIO	0x0
4345	chr5	14701374	14702535	-	ANKH	0x0
4346	chr5	14750666	14751845	-	ANKH	0x0
4347	chr5	15822964	15824180	+	FBXL7	0x0
4348	chr5	18800477	18801690	+	BASP1	0x0
4349	chr5	20304100	20305276	-	CDH18	0x4
4350	chr5	21527696	21528894	+	GUSBP1	0x0
4351	chr5	31455998	31457175	-	DROSHA	0x2
4352	chr5	31488619	31489794	-	DROSHA	0x2
4353	chr5	32124537	32125869	-	GOLPH3	0x0
4354	chr5	32143298	32144538	-	GOLPH3	0x0
4355	chr5	32378698	32379827	-	ZFR	0x0
4356	chr5	32601050	32602364	+	SUB1	0x0
4357	chr5	33161873	33163111	+	LOC340113	0x0
4358	chr5	33452823	33453991	+	TARS	0x0
4359	chr5	34068024	34069192	-	C1QTNF3	0x0
4360	chr5	34801788	34803022	+	RAI14	0x0
4361	chr5	36146478	36147695	-	MIR580	0x0
4362	chr5	36931288	36932498	+	NIPBL	0x0
4363	chr5	37107160	37108354	-	C5orf42	0x0
4364	chr5	37290557	37291656	-	NUP155	0x0
4365	chr5	37644395	37645575	+	WDR70	0x0
4366	chr5	38966651	38967862	-	RICTOR	0x0
4367	chr5	40714019	40715191	-	TTC33	0x0
4368	chr5	40834076	40835225	-	RPL37	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4369	chr5	41920550	41921732	+	C5orf51	0x0
4370	chr5	43290478	43291600	-	HMGCS1	0x0
4371	chr5	44816488	44817669	+	MRPS30	0x0
4372	chr5	53348060	53349257	-	ARL15	0x0
4373	chr5	54964571	54965747	-	SLC38A9	0x0
4374	chr5	55281035	55282211	-	IL6ST	0x2
4375	chr5	56239517	56240829	-	MIER3	0x2
4376	chr5	56464363	56465567	-	MIER3	0x2
4377	chr5	60163431	60164583	-	ERCC8	0x0
4378	chr5	60195168	60196367	-	ERCC8	0x0
4379	chr5	60280264	60281431	+	NDUFAF2	0x0
4380	chr5	60454911	60456125	-	C5orf43	0x0
4381	chr5	60629614	60630713	+	ZSWIM6	0x0
4382	chr5	60778117	60779343	+	ZSWIM6	0x0
4383	chr5	60838057	60839254	+	ZSWIM6	0x0
4384	chr5	64017997	64019153	-	SREK1IP1	0x0
4385	chr5	64826677	64827834	-	CENPK	0x0
4386	chr5	64854223	64855425	-	CENPK	0x0
4387	chr5	65474521	65475620	+	SREK1	0x0
4388	chr5	65929854	65931080	+	MAST4	0x0
4389	chr5	68169262	68170459	+	SLC30A5	0x0
4390	chr5	68470301	68471848	+	CCNB1	0x0
4391	chr5	68534620	68535809	+	CDK7	0x0
4392	chr5	71146171	71147505	+	CARTPT	0x0
4393	chr5	71501197	71502296	+	MAP1B	0x2
4394	chr5	71558941	71560151	-	MRPS27	0x0
4395	chr5	72153426	72154546	+	TNPO1	0x2
4396	chr5	72188374	72189602	+	TNPO1	0x2
4397	chr5	72206009	72207217	+	TNPO1	0x2
4398	chr5	72293664	72294858	+	FCHO2	0x0
4399	chr5	72798331	72799514	+	BTF3	0x0
4400	chr5	73923248	73924390	-	ENC1	0x0
4401	chr5	75630962	75632158	-	F2RL2	0x2
4402	chr5	75775909	75777085	-	F2RL2	0x2
4403	chr5	76375769	76376916	-	SNORA47	0x0
4404	chr5	76727954	76729712	-	WDR41	0x0
4405	chr5	77301561	77302684	-	AP3B1	0x0
4406	chr5	77435096	77436266	-	AP3B1	0x0
4407	chr5	77528492	77529643	-	AP3B1	0x0
4408	chr5	78734358	78735466	-	HOMER1	0x0
4409	chr5	79548465	79549683	+	SPZ1	0x0
4410	chr5	80183593	80184748	+	MSH3	0x2
4411	chr5	80484785	80485962	-	LOC100131067	0x0
4412	chr5	80628317	80629455	-	ACOT12	0x0
4413	chr5	81570830	81571946	-	RPS23	0x0
4414	chr5	81573146	81574245	-	RPS23	0x0
4415	chr5	82254994	82256171	-	TMEM167A	0x0
4416	chr5	82359469	82360601	-	SCARNA18	0x0
4417	chr5	86569424	86570609	+	RASA1	0x2
4418	chr5	89768753	89769931	-	MBLAC2	0x0
4419	chr5	90105888	90107164	+	GPR98	0x0
4420	chr5	92929548	92930740	+	NR2F1	0x0
4421	chr5	93018311	93019965	-	POU5F2	0x0
4422	chr5	93131269	93132417	-	FAM172A	0x0
4423	chr5	94173902	94175063	-	MCTP1	0x0
4424	chr5	95158511	95159640	+	RHOBTB3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4425	chr5	95239923	95241132	-	ELL2	0x0
4426	chr5	96323354	96324453	+	LNPEP	0x0
4427	chr5	100068452	100069649	+	FAM174A	0x0
4428	chr5	101637845	101639040	+	PAM	0x0
4429	chr5	102087133	102088329	-	SLCO6A1	0x0
4430	chr5	102212164	102213379	+	PAM	0x0
4431	chr5	107002182	107003311	-	EFNA5	0x1
4432	chr5	108229675	108230841	-	HP07349	0x0
4433	chr5	108349997	108351209	-	HP07349	0x0
4434	chr5	109034853	109036078	-	PJA2	0x0
4435	chr5	109146662	109147860	+	MAN2A1	0x0
4436	chr5	109930841	109932041	-	TMEM232	0x0
4437	chr5	110458675	110459862	+	WDR36	0x0
4438	chr5	111496683	111497883	+	EPB41L4A-AS1	0x0
4439	chr5	111496683	111497883	+	SNORA13	0x0
4440	chr5	112349145	112350420	+	DCP2	0x0
4441	chr5	112382879	112384028	-	MCC	0x1
4442	chr5	112599748	112600940	-	MCC	0x1
4443	chr5	118172992	118174184	-	DTWD2	0x0
4444	chr5	118417262	118418446	+	DMXL1	0x0
4445	chr5	118499717	118500922	+	DMXL1	0x0
4446	chr5	122358764	122359921	-	PPIC	0x0
4447	chr5	122698012	122699206	-	CEP120	0x0
4448	chr5	122880801	122882021	+	CSNK1G3	0x0
4449	chr5	122990432	122991632	+	CSNK1G3	0x0
4450	chr5	123981877	123983264	-	ZNF608	0x0
4451	chr5	123998470	123999607	-	ZNF608	0x0
4452	chr5	126112381	126113578	+	LMNB1	0x0
4453	chr5	126153331	126154530	+	LMNB1	0x0
4454	chr5	126889467	126890663	+	PRRC1	0x0
4455	chr5	127276736	127277912	-	FLJ33630	0x0
4456	chr5	129449539	129450732	+	CHSY3	0x0
4457	chr5	130524747	130525947	+	LYRM7	0x0
4458	chr5	130746679	130747856	-	RAPGEF6	0x0
4459	chr5	130760870	130762039	-	RAPGEF6	0x0
4460	chr5	130771334	130772508	-	RAPGEF6	0x0
4461	chr5	130959540	130960717	-	RAPGEF6	0x0
4462	chr5	130977720	130978819	-	FNIP1	0x0
4463	chr5	131515897	131517099	+	PDLIM4	0x1
4464	chr5	131803299	131804500	+	C5orf56	0x0
4465	chr5	132202774	132203870	+	UQCRQ	0x0
4466	chr5	133307460	133308834	-	VDAC1	0x0
4467	chr5	133311749	133312912	-	VDAC1	0x0
4468	chr5	133492617	133493834	-	SKP1	0x0
4469	chr5	133532291	133533413	-	PPP2CA	0x0
4470	chr5	134076563	134077772	+	CAMLG	0x0
4471	chr5	134115176	134117473	+	DDX46	0x0
4472	chr5	134159669	134160855	+	DDX46	0x0
4473	chr5	134259234	134260405	+	MIR4461	0x0
4474	chr5	134262142	134263369	-	PITX1	0x0
4475	chr5	134355468	134356654	-	PITX1	0x0
4476	chr5	134570673	134571870	+	CATSPER3	0x0
4477	chr5	134669500	134670677	-	H2AFY	0x0
4478	chr5	137033418	137034620	-	KLHL3	0x0
4479	chr5	137087973	137089077	-	HNRNPA0	0x0
4480	chr5	137289730	137290854	-	FAM13B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4481	chr5	137666391	137667527	-	CDC25C	0x2
4482	chr5	137771267	137772439	+	KDM3B	0x1
4483	chr5	137781466	137783078	+	REEP2	0x0
4484	chr5	137842197	137843338	-	ETF1	0x0
4485	chr5	137896165	137897367	-	HSPA9	0x0
4486	chr5	137896165	137897367	-	SNORD63	0x0
4487	chr5	138119261	138120454	+	CTNNA1	0x0
4488	chr5	138613928	138615224	+	MATR3	0x0
4489	chr5	138613928	138615224	+	SNHG4	0x0
4490	chr5	138613928	138615224	+	SNORA74A	0x0
4491	chr5	138664683	138665785	+	MATR3	0x0
4492	chr5	138697052	138698264	+	PAIP2	0x0
4493	chr5	138955660	138956759	+	UBE2D2	0x0
4494	chr5	139907953	139909087	+	ANKHD1	0x0
4495	chr5	139907953	139909087	+	ANKHD1-EIF4EBP3	0x0
4496	chr5	139935676	139936843	-	SRA1	0x0
4497	chr5	139942922	139944119	-	APBB3	0x0
4498	chr5	139947150	139948368	+	SLC35A4	0x0
4499	chr5	140026517	140027657	-	NDUFA2	0x0
4500	chr5	140090322	140091532	+	VTRNA1-1	0x0
4501	chr5	140097951	140099191	+	VTRNA1-2	0x0
4502	chr5	140105202	140106473	+	VTRNA1-3	0x0
4503	chr5	140697652	140699013	-	TAF7	0x0
4504	chr5	140882980	140884167	+	PCDHGA1	0x0
4505	chr5	140882980	140884167	+	PCDHGA10	0x0
4506	chr5	140882980	140884167	+	PCDHGA11	0x0
4507	chr5	140882980	140884167	+	PCDHGA12	0x0
4508	chr5	140882980	140884167	+	PCDHGA2	0x0
4509	chr5	140882980	140884167	+	PCDHGA3	0x0
4510	chr5	140882980	140884167	+	PCDHGA4	0x0
4511	chr5	140882980	140884167	+	PCDHGA5	0x0
4512	chr5	140882980	140884167	+	PCDHGA6	0x0
4513	chr5	140882980	140884167	+	PCDHGA7	0x0
4514	chr5	140882980	140884167	+	PCDHGA8	0x0
4515	chr5	140882980	140884167	+	PCDHGA9	0x0
4516	chr5	140882980	140884167	+	PCDHGB1	0x0
4517	chr5	140882980	140884167	+	PCDHGB2	0x0
4518	chr5	140882980	140884167	+	PCDHGB3	0x0
4519	chr5	140882980	140884167	+	PCDHGB4	0x0
4520	chr5	140882980	140884167	+	PCDHGB5	0x0
4521	chr5	140882980	140884167	+	PCDHGB6	0x0
4522	chr5	140882980	140884167	+	PCDHGB7	0x0
4523	chr5	140882980	140884167	+	PCDHGC3	0x0
4524	chr5	140882980	140884167	+	PCDHGC4	0x0
4525	chr5	140882980	140884167	+	PCDHGC5	0x2
4526	chr5	140894240	140895404	-	DIAPH1	0x2
4527	chr5	140958099	140959290	-	DIAPH1	0x2
4528	chr5	141005206	141006359	-	HDAC3	0x1
4529	chr5	141313659	141314784	+	KIAA0141	0x0
4530	chr5	141379710	141380830	-	GNPDA1	0x0
4531	chr5	142659520	142660619	-	NR3C1	0x0
4532	chr5	145485049	145486259	-	PLAC8L1	0x0
4533	chr5	145828942	145830154	+	TCERG1	0x2
4534	chr5	145934974	145936167	+	TCERG1	0x2
4535	chr5	146770912	146772858	-	DPYSL3	0x0
4536	chr5	147695170	147696363	+	SPINK7	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4537	chr5	149221294	149222492	+	PPARGC1B	0x0
4538	chr5	149379189	149380405	+	HMGXB3	0x0
4539	chr5	149391310	149392467	+	HMGXB3	0x0
4540	chr5	149409668	149410825	+	HMGXB3	0x0
4541	chr5	149823257	149824472	-	RPS14	0x0
4542	chr5	149826726	149827839	-	RPS14	0x0
4543	chr5	149933323	149934522	+	NDST1	0x0
4544	chr5	150088157	150089605	-	DCTN4	0x0
4545	chr5	150305903	150307127	+	IRGM	0x0
4546	chr5	151166977	151168088	+	G3BP1	0x2
4547	chr5	151176282	151177428	+	G3BP1	0x2
4548	chr5	151183068	151184445	+	G3BP1	0x2
4549	chr5	151988029	151989202	+	G3BP1	0x2
4550	chr5	154184861	154185960	+	LARP1	0x0
4551	chr5	154194245	154195970	+	LARP1	0x0
4552	chr5	155271898	155273116	+	SGCD	0x0
4553	chr5	157258473	157259663	-	CLINT1	0x0
4554	chr5	157403274	157404503	-	CLINT1	0x0
4555	chr5	159519658	159520837	-	PWWP2A	0x0
4556	chr5	162917770	162918943	+	HMMR	0x0
4557	chr5	164286793	164287987	+	MAT2B	0x0
4558	chr5	167979735	167980834	-	PANK3	0x0
4559	chr5	170532740	170533963	+	RANBP17	0x2
4560	chr5	170631767	170632976	+	RANBP17	0x2
4561	chr5	170650569	170651816	+	RANBP17	0x2
4562	chr5	170814307	170815505	+	NPM1	0x2
4563	chr5	170833000	170834240	+	NPM1	0x2
4564	chr5	170836987	170838202	+	NPM1	0x2
4565	chr5	170864262	170865494	+	FGF18	0x0
4566	chr5	171636089	171637261	-	UBTD2	0x0
4567	chr5	172402266	172403402	+	RPL26L1	0x0
4568	chr5	172447180	172448424	+	ATP6V0E1	0x0
4569	chr5	172447180	172448424	+	SNORA74B	0x0
4570	chr5	174541243	174542729	-	FLJ16171	0x0
4571	chr5	174954262	174955476	+	SFXN1	0x0
4572	chr5	175046803	175047922	-	DRD1	0x0
4573	chr5	176348311	176349451	-	UIMC1	0x0
4574	chr5	176729779	176730956	-	RAB24	0x2
4575	chr5	176868941	176870106	+	GRK6	0x0
4576	chr5	176881538	176882733	+	PRR7	0x0
4577	chr5	176883596	176884716	-	DBN1	0x2
4578	chr5	176964393	176966567	-	FAM193B	0x0
4579	chr5	177058987	177060287	-	LOC202181	0x0
4580	chr5	177310372	177311573	+	LOC728554	0x0
4581	chr5	177379634	177380812	+	FAM153C	0x0
4582	chr5	177656564	177657732	-	AGXT2L2	0x0
4583	chr5	179049534	179050703	-	HNRNPH1	0x0
4584	chr5	179132092	179133317	+	CANX	0x0
4585	chr5	179155733	179157832	+	CANX	0x0
4586	chr5	179251620	179252771	+	SQSTM1	0x0
4587	chr5	179673716	179674848	-	MAPK9	0x0
4588	chr5	180206560	180207717	-	MGAT1	0x0
4589	chr5	180528261	180529516	+	BTNL9	0x0
4590	chr5	180634178	180635408	+	TRIM41	0x0
4591	chr5	180644693	180645829	-	MIR4638	0x0
4592	chr5	180665592	180666691	-	GNB2L1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4593	chr5	180667997	180669448	-	GNB2L1	0x0
4594	chr5	180667997	180669448	-	SNORD96A	0x0
4595	chr5	180669745	180671450	-	GNB2L1	0x0
4596	chr5	180669745	180671450	-	SNORD95	0x0
4597	chr6	350525	351808	+	DUSP22	0x1
4598	chr6	694363	695593	+	IRF4	0x2
4599	chr6	1392055	1393297	+	FOXF2	0x0
4600	chr6	2249565	2250764	+	LOC100508120	0x0
4601	chr6	2959958	2961063	-	SERPINB6	0x0
4602	chr6	2999751	3000981	+	NQO2	0x0
4603	chr6	3224108	3225372	-	TUBB2B	0x0
4604	chr6	3343107	3344230	-	SLC22A23	0x0
4605	chr6	4061321	4062476	+	PRPF4B	0x2
4606	chr6	4427628	4428908	+	CDYL	0x2
4607	chr6	4891386	4893097	+	CDYL	0x2
4608	chr6	5305109	5306287	-	LYRM4	0x0
4609	chr6	5819194	5820380	+	FARS2	0x0
4610	chr6	6006440	6007652	-	NRN1	0x0
4611	chr6	7281986	7283116	-	SSR1	0x0
4612	chr6	7289208	7290341	-	SSR1	0x0
4613	chr6	7312770	7313892	-	SSR1	0x0
4614	chr6	7338944	7340205	-	CAGE1	0x0
4615	chr6	7417091	7418291	+	RIOK1	0x0
4616	chr6	7567486	7568687	+	DSP	0x0
4617	chr6	10397277	10398503	-	TFAP2A	0x1
4618	chr6	10790794	10791948	+	TMEM14B	0x0
4619	chr6	11120447	11121644	+	C6orf228	0x0
4620	chr6	11135447	11136546	+	C6orf228	0x0
4621	chr6	12094830	12095971	+	HIVEP1	0x0
4622	chr6	12513934	12515138	+	PHACTR1	0x0
4623	chr6	13213750	13214999	+	PHACTR1	0x0
4624	chr6	13374363	13375494	-	GFOD1	0x0
4625	chr6	13486586	13487751	-	GFOD1	0x0
4626	chr6	13646093	13647202	-	RANBP9	0x0
4627	chr6	13787360	13788567	-	CCDC90A	0x0
4628	chr6	15011581	15012776	+	JARID2	0x2
4629	chr6	15416602	15417810	+	JARID2	0x2
4630	chr6	16326605	16327827	-	ATXN1	0x0
4631	chr6	16747172	16748334	-	ATXN1	0x0
4632	chr6	17615189	17616505	-	NUP153	0x0
4633	chr6	18224189	18225654	-	DEK	0x2
4634	chr6	18264094	18265258	-	DEK	0x2
4635	chr6	19839163	19840388	+	ID4	0x1
4636	chr6	20452761	20453860	+	E2F3	0x2
4637	chr6	20556060	20557162	+	CDKAL1	0x0
4638	chr6	21593746	21594950	+	SOX4	0x0
4639	chr6	21595334	21596486	+	SOX4	0x0
4640	chr6	24417797	24418997	+	MRS2	0x0
4641	chr6	24718988	24720133	-	C6orf62	0x0
4642	chr6	26020508	26021702	+	HIST1H3A	0x0
4643	chr6	26026615	26027821	-	HIST1H4B	0x0
4644	chr6	26031448	26032740	-	HIST1H3B	0x0
4645	chr6	26056020	26057248	-	HIST1H1C	0x2
4646	chr6	26103864	26105124	+	HIST1H4C	0x0
4647	chr6	26156035	26157248	+	HIST1H1E	0x2
4648	chr6	26157864	26159045	+	HIST1H2BD	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4649	chr6	26198776	26199974	-	HIST1H2AD	0x0
4650	chr6	26198776	26199974	-	HIST1H3D	0x0
4651	chr6	26204313	26205679	+	HIST1H4E	0x0
4652	chr6	26216601	26217833	+	HIST1H2AE	0x0
4653	chr6	26250095	26251233	-	HIST1H3F	0x0
4654	chr6	26284906	26286305	-	HIST1H4H	0x0
4655	chr6	26305137	26306335	-	HIST1H4H	0x0
4656	chr6	26327842	26329088	+	BTN3A2	0x0
4657	chr6	26520899	26522108	+	HCG11	0x0
4658	chr6	26537187	26538396	+	HMGN4	0x0
4659	chr6	26553894	26554993	+	HMGN4	0x0
4660	chr6	26556236	26557446	+	HMGN4	0x0
4661	chr6	26568500	26569739	+	HMGN4	0x0
4662	chr6	26575282	26576489	+	ABT1	0x0
4663	chr6	26576788	26577992	+	ABT1	0x0
4664	chr6	26594507	26595750	+	ABT1	0x0
4665	chr6	27077095	27078239	-	HIST1H2BJ	0x0
4666	chr6	27100256	27101388	+	HIST1H2AG	0x0
4667	chr6	27114034	27115196	-	HIST1H2BK	0x0
4668	chr6	27125338	27126535	+	MIR3143	0x0
4669	chr6	27177100	27178332	+	PRSS16	0x0
4670	chr6	27181083	27182248	-	HIST1H2BK	0x0
4671	chr6	27182391	27183627	+	PRSS16	0x0
4672	chr6	27197707	27198928	-	POM121L2	0x0
4673	chr6	27261107	27262319	+	VN1R10P	0x0
4674	chr6	27262686	27263839	+	VN1R10P	0x0
4675	chr6	27265242	27266405	+	VN1R10P	0x0
4676	chr6	27470978	27472096	+	ZNF391	0x2
4677	chr6	27514942	27516154	-	ZNF184	0x0
4678	chr6	27520641	27521851	-	ZNF184	0x0
4679	chr6	27550661	27551841	-	ZNF184	0x0
4680	chr6	27569815	27570892	-	ZNF184	0x0
4681	chr6	27572845	27574055	-	ZNF184	0x0
4682	chr6	27618069	27619288	-	HIST1H2BL	0x0
4683	chr6	27637768	27638977	-	HIST1H2BL	0x0
4684	chr6	27758556	27759782	-	HIST1H2BL	0x0
4685	chr6	27860016	27861423	-	HIST1H2AM	0x0
4686	chr6	27860839	27861988	+	HIST1H2BO	0x2
4687	chr6	28180242	28181509	+	ZNF193	0x0
4688	chr6	28426989	28428187	-	ZSCAN23	0x0
4689	chr6	28625465	28626614	-	SCAND3	0x0
4690	chr6	28641012	28642197	-	SCAND3	0x0
4691	chr6	28663157	28664356	-	SCAND3	0x0
4692	chr6	28677791	28678990	+	GPX5	0x0
4693	chr6	28696501	28697715	+	GPX5	0x0
4694	chr6	28702649	28703851	-	LOC401242	0x0
4695	chr6	28714933	28716164	+	GPX5	0x0
4696	chr6	28725595	28726811	-	LOC401242	0x0
4697	chr6	28757006	28758172	-	LOC401242	0x0
4698	chr6	28769969	28771216	-	LOC401242	0x0
4699	chr6	28784408	28785655	-	LOC401242	0x0
4700	chr6	28863440	28864678	-	TRIM27	0x2
4701	chr6	28865423	28866591	-	TRIM27	0x2
4702	chr6	28908284	28909530	+	LOC100129636	0x0
4703	chr6	28911814	28913011	+	LOC100129636	0x0
4704	chr6	28918286	28919467	+	LOC100129636	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4705	chr6	29593377	29594477	-	GABBR1	0x2
4706	chr6	29912705	29913935	+	HLA-A	0x2
4707	chr6	30174258	30175638	-	TRIM26	0x0
4708	chr6	30513886	30515122	-	GNL1	0x0
4709	chr6	30680109	30681208	-	MDC1	0x0
4710	chr6	30681230	30682456	-	MDC1	0x0
4711	chr6	30691823	30693561	+	TUBB	0x2
4712	chr6	30831650	30832824	+	DDR1	0x0
4713	chr6	30846909	30848085	+	DDR1	0x0
4714	chr6	31130402	31131596	+	TCF19	0x0
4715	chr6	31496068	31497234	-	ATP6V1G2-DDX39B	0x0
4716	chr6	31496068	31497234	-	DDX39B	0x0
4717	chr6	31501739	31502906	-	ATP6V1G2-DDX39B	0x0
4718	chr6	31501739	31502906	-	DDX39B	0x0
4719	chr6	31507750	31508843	-	ATP6V1G2-DDX39B	0x0
4720	chr6	31507750	31508843	-	DDX39B	0x0
4721	chr6	31588657	31589786	+	PRRC2A	0x0
4722	chr6	31590298	31591538	+	PRRC2A	0x0
4723	chr6	31590298	31591538	+	SNORA38	0x0
4724	chr6	31613730	31614837	-	BAG6	0x0
4725	chr6	31703631	31704808	-	CLIC1	0x0
4726	chr6	31746849	31748039	-	VARS	0x0
4727	chr6	31760008	31761205	-	VARS	0x0
4728	chr6	31782864	31784065	+	HSPA1A	0x0
4729	chr6	31784919	31786234	+	HSPA1A	0x0
4730	chr6	31797179	31798469	+	HSPA1B	0x0
4731	chr6	31804278	31805485	+	C6orf48	0x0
4732	chr6	31804278	31805485	+	SNORD52	0x0
4733	chr6	32086135	32087386	-	ATF6B	0x0
4734	chr6	32148451	32149554	+	RNF5	0x0
4735	chr6	32148451	32149554	+	RNF5P1	0x0
4736	chr6	33239916	33241022	+	RPS18	0x0
4737	chr6	33243018	33244197	+	RPS18	0x0
4738	chr6	33266967	33268141	-	RGL2	0x0
4739	chr6	33266967	33268141	-	TAPBP	0x0
4740	chr6	33654767	33655866	+	ITPR3	0x2
4741	chr6	33738948	33740183	-	LEMD2	0x0
4742	chr6	34204449	34205642	+	HMGA1	0x2
4743	chr6	34213068	34214379	+	HMGA1	0x2
4744	chr6	34249271	34250682	-	NUDT3	0x0
4745	chr6	34249271	34250682	-	RPS10-NUDT3	0x0
4746	chr6	34388259	34389415	-	RPS10	0x0
4747	chr6	34388259	34389415	-	RPS10-NUDT3	0x0
4748	chr6	34390262	34391440	-	RPS10	0x0
4749	chr6	34390262	34391440	-	RPS10-NUDT3	0x0
4750	chr6	34556452	34557600	-	C6orf106	0x0
4751	chr6	34826547	34827779	+	UHRF1BP1	0x0
4752	chr6	35032311	35033701	+	ANKS1A	0x0
4753	chr6	35451550	35452727	-	TEAD3	0x0
4754	chr6	35523396	35524603	+	RPL10A	0x0
4755	chr6	35853153	35854414	-	SRPK1	0x0
4756	chr6	36198642	36199909	+	BRPF3	0x0
4757	chr6	36569808	36571036	+	SRSF3	0x2
4758	chr6	36894856	36896000	+	C6orf89	0x0
4759	chr6	37358228	37359440	+	RNF8	0x0
4760	chr6	38041182	38042392	+	ZFAND3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4761	chr6	41761912	41763042	-	USP49	0x0
4762	chr6	42236613	42237790	-	TRERF1	0x0
4763	chr6	42423307	42424509	+	UBR2	0x0
4764	chr6	42856085	42857313	+	RPL7L1	0x0
4765	chr6	42923667	42925068	-	PEX6	0x0
4766	chr6	42988024	42989312	+	KLHDC3	0x0
4767	chr6	43026492	43027669	-	MRPL2	0x0
4768	chr6	43037667	43038876	+	KLC4	0x0
4769	chr6	43095792	43096991	+	PTK7	0x0
4770	chr6	43171690	43172872	+	CUL9	0x0
4771	chr6	44081319	44082523	-	MRPL14	0x0
4772	chr6	44094272	44095453	-	MRPL14	0x0
4773	chr6	44219220	44220481	+	HSP90AB1	0x2
4774	chr6	44266391	44267567	-	AARS2	0x0
4775	chr6	44408477	44410722	+	CDC5L	0x0
4776	chr6	44995610	44996776	-	SUPT3H	0x0
4777	chr6	46111643	46112793	+	ENPP4	0x0
4778	chr6	46622408	46623507	+	SLC25A27	0x0
4779	chr6	47251283	47252411	-	TNFRSF21	0x0
4780	chr6	47253341	47254576	-	TNFRSF21	0x0
4781	chr6	52349296	52350448	+	EFHC1	0x0
4782	chr6	52849480	52850704	-	GSTA4	0x0
4783	chr6	52855044	52856169	-	GSTA4	0x0
4784	chr6	52859885	52861330	+	FBXO9	0x0
4785	chr6	52957213	52958430	+	FBXO9	0x0
4786	chr6	53083552	53084753	+	FBXO9	0x0
4787	chr6	53132185	53133289	-	ELOVL5	0x0
4788	chr6	56399463	56400610	-	DST	0x2
4789	chr6	57034314	57035512	+	ZNF451	0x0
4790	chr6	57053896	57055230	-	RAB23	0x2
4791	chr6	63921356	63922581	+	PTP4A1	0x0
4792	chr6	64290668	64291881	+	PTP4A1	0x0
4793	chr6	71225073	71226176	+	FAM135A	0x0
4794	chr6	73448473	73449706	+	KCNQ5	0x2
4795	chr6	74197008	74198113	-	EEF1A1	0x1
4796	chr6	74227963	74229065	-	EEF1A1	0x1
4797	chr6	74229688	74230876	-	EEF1A1	0x1
4798	chr6	74309553	74310681	-	SLC17A5	0x2
4799	chr6	75946972	75948118	-	COX7A2	0x0
4800	chr6	77993678	77994796	-	HTR1B	0x0
4801	chr6	79665318	79666472	-	PHIP	0x2
4802	chr6	79769656	79770833	-	PHIP	0x2
4803	chr6	80656541	80657733	-	ELOVL4	0x0
4804	chr6	80751306	80752707	+	TTK	0x2
4805	chr6	83706974	83708136	-	UBE3D	0x0
4806	chr6	83787687	83788905	+	DOPEY1	0x0
4807	chr6	84942245	84943434	-	KIAA1009	0x0
4808	chr6	86323454	86325410	-	SYNCRIP	0x0
4809	chr6	86333179	86334327	-	SYNCRIP	0x0
4810	chr6	86339764	86340907	-	SYNCRIP	0x0
4811	chr6	86386454	86387828	-	SNHG5	0x0
4812	chr6	86386454	86387828	-	SNORD50A	0x1
4813	chr6	86386454	86387828	-	SNORD50B	0x0
4814	chr6	87896838	87898031	+	ZNF292	0x0
4815	chr6	88268955	88270163	-	RARS2	0x0
4816	chr6	88271871	88273026	-	RARS2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4817	chr6	89512421	89513595	-	RNGTT	0x0
4818	chr6	89772705	89773936	-	SRSF12	0x0
4819	chr6	90036427	90037576	-	UBE2J1	0x0
4820	chr6	90103175	90104299	-	RRAGD	0x0
4821	chr6	90180489	90181711	+	ANKRD6	0x0
4822	chr6	90190795	90191990	+	ANKRD6	0x0
4823	chr6	90319964	90321150	+	ANKRD6	0x0
4824	chr6	90352660	90354462	-	MDN1	0x0
4825	chr6	90377219	90378421	-	MDN1	0x0
4826	chr6	91224962	91226062	-	MAP3K7	0x0
4827	chr6	91327958	91329132	+	MIR4464	0x0
4828	chr6	94045719	94046894	-	EPHA7	0x2
4829	chr6	94268127	94269325	+	TSG1	0x0
4830	chr6	97632526	97633664	-	MMS22L	0x0
4831	chr6	97683639	97684802	-	MMS22L	0x0
4832	chr6	97685918	97687017	-	MMS22L	0x0
4833	chr6	97719552	97720728	-	MMS22L	0x0
4834	chr6	100028547	100029746	-	CCNC	0x1
4835	chr6	100905416	100906563	-	SIM1	0x0
4836	chr6	101135519	101136729	-	ASCC3	0x0
4837	chr6	101146910	101148133	-	ASCC3	0x0
4838	chr6	105544496	105545608	-	BVES	0x0
4839	chr6	106730913	106732080	-	ATG5	0x0
4840	chr6	106896710	106897932	+	AIM1	0x4
4841	chr6	107388384	107389560	-	BEND3	0x0
4842	chr6	107969104	107970332	+	SOBP	0x0
4843	chr6	108984597	108986174	+	FOXO3	0x1
4844	chr6	109688249	109689435	-	CD164	0x0
4845	chr6	111193860	111195060	+	AMD1	0x0
4846	chr6	111210899	111212106	+	AMD1	0x0
4847	chr6	111588017	111589142	+	KIAA1919	0x0
4848	chr6	111653808	111654975	-	REV3L	0x0
4849	chr6	111793412	111794582	-	REV3L	0x0
4850	chr6	111904428	111905605	+	TRAF3IP2-AS1	0x0
4851	chr6	111982194	111983390	-	FYN	0x0
4852	chr6	113292154	113293373	+	RFPL4B	0x0
4853	chr6	114178112	114179330	+	MARCKS	0x0
4854	chr6	114181875	114183039	+	MARCKS	0x0
4855	chr6	116579247	116580527	-	TSPYL4	0x0
4856	chr6	116598668	116599891	-	TSPYL1	0x0
4857	chr6	117034886	117036007	+	KPNA5	0x2
4858	chr6	118031778	118032913	+	NUS1	0x0
4859	chr6	118332249	118333446	+	SLC35F1	0x0
4860	chr6	118554121	118555276	-	CEP85L	0x0
4861	chr6	119177072	119178279	-	MCM9	0x0
4862	chr6	119393192	119394423	-	MIR548B	0x0
4863	chr6	121007221	121008447	+	GJA1	0x1
4864	chr6	121769727	121770978	+	GJA1	0x1
4865	chr6	121900967	121902148	-	C6orf170	0x2
4866	chr6	123065973	123067206	+	PKIB	0x0
4867	chr6	124217186	124218234	+	NKAIN2	0x0
4868	chr6	125596639	125597850	-	HDDC2	0x0
4869	chr6	126299287	126300490	+	HINT3	0x0
4870	chr6	126359698	126360815	+	TRMT11	0x0
4871	chr6	126371294	126372445	+	TRMT11	0x0
4872	chr6	126500603	126501839	+	TRMT11	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4873	chr6	126524483	126525677	+	CENPW	0x0
4874	chr6	131215651	131216815	-	EPB41L2	0x0
4875	chr6	131337192	131338291	-	EPB41L2	0x0
4876	chr6	131517695	131518893	+	AKAP7	0x0
4877	chr6	131978592	131979749	+	ENPP3	0x0
4878	chr6	132381098	132382233	+	LOC100507254	0x0
4879	chr6	133135538	133137071	+	RPS12	0x0
4880	chr6	133135538	133137071	+	SNORD101	0x0
4881	chr6	133137377	133138573	+	RPS12	0x0
4882	chr6	133137377	133138573	+	SNORA33	0x0
4883	chr6	133137377	133138573	+	SNORD100	0x0
4884	chr6	135776476	135777666	-	AHI1	0x0
4885	chr6	135792205	135793369	-	AHI1	0x0
4886	chr6	136580786	136583058	-	BCLAF1	0x2
4887	chr6	136609769	136610922	-	BCLAF1	0x2
4888	chr6	136950837	136951945	+	PEX7	0x0
4889	chr6	136985366	136986559	-	MAP3K5	0x2
4890	chr6	137516718	137517919	-	IFNGR1	0x0
4891	chr6	138411876	138413053	-	PERP	0x0
4892	chr6	139471071	139472211	+	HECA	0x1
4893	chr6	143770410	143771612	+	PEX3	0x0
4894	chr6	144024630	144025793	+	PHACTR2	0x0
4895	chr6	144080177	144081352	+	PHACTR2	0x0
4896	chr6	144092907	144094059	+	PHACTR2	0x0
4897	chr6	144415589	144416776	-	SF3B5	0x0
4898	chr6	144691525	144692844	-	SF3B5	0x0
4899	chr6	145503291	145504468	+	UTRN	0x0
4900	chr6	148180382	148181555	+	SAMD5	0x0
4901	chr6	148864652	148865751	+	SASH1	0x1
4902	chr6	149114303	149115527	+	UST	0x0
4903	chr6	149373105	149374324	+	UST	0x0
4904	chr6	149731584	149732938	+	TAB2	0x0
4905	chr6	149771073	149772242	-	ZC3H12D	0x0
4906	chr6	149887280	149888487	+	C6orf72	0x0
4907	chr6	150070386	150071604	+	PCMT1	0x0
4908	chr6	150131824	150133021	+	PCMT1	0x0
4909	chr6	151007810	151008958	+	PLEKHG1	0x0
4910	chr6	151230797	151231991	+	MTHFD1L	0x0
4911	chr6	151715338	151716552	+	AKAP12	0x1
4912	chr6	153602990	153604390	-	RGS17	0x0
4913	chr6	153741015	153742253	+	OPRM1	0x0
4914	chr6	154510891	154512064	+	OPRM1	0x0
4915	chr6	157099272	157100482	+	ARID1B	0x2
4916	chr6	157297408	157298585	+	ARID1B	0x2
4917	chr6	158501709	158502885	+	SYNJ2	0x0
4918	chr6	158732582	158734565	+	TULP4	0x0
4919	chr6	158836738	158837951	+	TULP4	0x0
4920	chr6	159005798	159006993	+	TMEM181	0x0
4921	chr6	159010147	159011345	+	TMEM181	0x0
4922	chr6	159222196	159223361	-	EZR	0x2
4923	chr6	160100679	160101871	-	SOD2	0x1
4924	chr6	160147489	160148641	-	LOC100129518	0x0
4925	chr6	160199235	160200470	-	TCP1	0x0
4926	chr6	160200704	160201944	-	SNORA20	0x0
4927	chr6	160200704	160201944	-	TCP1	0x0
4928	chr6	161574255	161575389	-	AGPAT4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4929	chr6	161693681	161694857	-	AGPAT4	0x0
4930	chr6	163729635	163730813	-	LOC285796	0x0
4931	chr6	163992894	163994954	+	QKI	0x0
4932	chr6	167096615	167097792	-	RPS6KA2	0x1
4933	chr6	167232349	167233545	-	RPS6KA2	0x1
4934	chr6	167431288	167432414	+	FGFR1OP	0x2
4935	chr6	169717516	169718713	-	THBS2	0x0
4936	chr6	169959010	169960179	-	WDR27	0x0
4937	chr6	170063733	170065042	-	WDR27	0x0
4938	chr6	170107201	170108322	-	PHF10	0x0
4939	chr6	170108331	170109430	-	PHF10	0x0
4940	chr6	170109684	170110800	-	PHF10	0x0
4941	chr6	170715138	170716380	+	FAM120B	0x0
4942	chr6	170793708	170794808	+	TBP	0x0
4943	chr7	716322	717533	-	PRKAR1B	0x0
4944	chr7	793397	794759	+	HEATR2	0x0
4945	chr7	882031	883164	+	SUN1	0x0
4946	chr7	1114643	1115856	-	C7orf50	0x0
4947	chr7	1148073	1149265	-	C7orf50	0x0
4948	chr7	2209517	2210716	-	MAD1L1	0x1
4949	chr7	2335042	2336261	-	SNX8	0x0
4950	chr7	2419510	2420742	+	EIF3B	0x0
4951	chr7	2653169	2654343	+	IQCE	0x0
4952	chr7	2702439	2704021	+	TTYH3	0x0
4953	chr7	2762696	2763886	-	GNA12	0x0
4954	chr7	2765610	2766723	-	GNA12	0x0
4955	chr7	3038321	3039532	+	AMZ1	0x0
4956	chr7	3152398	3153597	-	CARD11	0x2
4957	chr7	3297158	3298337	-	CARD11	0x2
4958	chr7	3347392	3348543	+	SDK1	0x0
4959	chr7	3613078	3614275	+	SDK1	0x0
4960	chr7	3998820	4000014	+	SDK1	0x0
4961	chr7	4118598	4119714	+	SDK1	0x0
4962	chr7	5253679	5254827	+	WIPI2	0x0
4963	chr7	5269929	5271252	+	WIPI2	0x0
4964	chr7	5347601	5348689	-	TNRC18	0x0
4965	chr7	5351989	5353124	-	TNRC18	0x0
4966	chr7	5395880	5397015	-	TNRC18	0x0
4967	chr7	5433553	5434723	-	TNRC18	0x0
4968	chr7	5450755	5451944	-	TNRC18	0x0
4969	chr7	5536480	5537661	-	MIR589	0x0
4970	chr7	5540860	5542057	-	FBXL18	0x0
4971	chr7	5566668	5567958	-	ACTB	0x2
4972	chr7	5685864	5687035	-	RNF216	0x0
4973	chr7	6025876	6027098	-	PMS2	0x1
4974	chr7	6098042	6099244	-	EIF2AK1	0x0
4975	chr7	6380025	6381233	-	C7orf70	0x0
4976	chr7	6441838	6444007	+	RAC1	0x0
4977	chr7	6500568	6501811	-	KDELR2	0x0
4978	chr7	7882404	7883601	+	LOC729852	0x0
4979	chr7	8112486	8113702	+	GLCCI1	0x0
4980	chr7	8127283	8128479	+	GLCCI1	0x0
4981	chr7	11137465	11138681	+	PHF14	0x0
4982	chr7	12024744	12025924	-	THSD7A	0x0
4983	chr7	12915824	12917060	+	ARL4A	0x0
4984	chr7	15781909	15783031	+	LOC100506025	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
4985	chr7	16739862	16741056	+	BZW2	0x0
4986	chr7	16823462	16824630	+	TSPAN13	0x0
4987	chr7	22895658	22896857	+	SNORD93	0x0
4988	chr7	23224278	23225503	+	NUPL2	0x0
4989	chr7	23239252	23240488	+	NUPL2	0x0
4990	chr7	23446198	23447358	-	IGF2BP3	0x0
4991	chr7	23530465	23531648	+	RPS2P32	0x0
4992	chr7	24731533	24732682	+	MPP6	0x0
4993	chr7	25988340	25989530	-	MIR148A	0x0
4994	chr7	26230917	26232469	-	HNRNPA2B1	0x2
4995	chr7	26236459	26237797	-	HNRNPA2B1	0x2
4996	chr7	26239671	26241083	-	HNRNPA2B1	0x2
4997	chr7	26241519	26242615	+	CBX3	0x0
4998	chr7	26364063	26365261	+	SNX10	0x0
4999	chr7	26706811	26708082	-	SKAP2	0x0
5000	chr7	27202973	27204085	-	HOXA10-HOXA9	0x0
5001	chr7	27202973	27204085	-	HOXA9	0x2
5002	chr7	27205067	27206183	-	HOXA9	0x2
5003	chr7	28081190	28082374	-	JAZF1	0x2
5004	chr7	28179077	28180280	-	JAZF1	0x2
5005	chr7	28832876	28834100	+	CREB5	0x0
5006	chr7	28843490	28844709	+	CREB5	0x0
5007	chr7	29960439	29961649	-	SCRN1	0x0
5008	chr7	30199055	30200368	+	C7orf41	0x0
5009	chr7	30201709	30202892	+	C7orf41	0x0
5010	chr7	30401633	30402869	+	ZNRF2	0x0
5011	chr7	32602085	32603255	+	AVL9	0x0
5012	chr7	32768061	32769271	+	ZNRF2P1	0x0
5013	chr7	34970565	34971769	-	DPY19L1	0x0
5014	chr7	35187334	35188527	-	DPY19L2P1	0x0
5015	chr7	35943851	35945050	+	SEPT7	0x0
5016	chr7	37474190	37475366	+	GPR141	0x0
5017	chr7	38764683	38766032	-	VPS41	0x0
5018	chr7	38767749	38768941	-	VPS41	0x0
5019	chr7	40046956	40048149	+	CDK13	0x0
5020	chr7	40122300	40123482	+	CDK13	0x0
5021	chr7	40716495	40717647	+	C7orf10	0x0
5022	chr7	43664776	43665987	-	C7orf44	0x0
5023	chr7	43676994	43678133	-	C7orf44	0x0
5024	chr7	43688077	43689239	-	C7orf44	0x0
5025	chr7	43755954	43757114	-	C7orf44	0x0
5026	chr7	44017403	44018614	-	POLR2J4	0x0
5027	chr7	44156210	44157388	-	POLD2	0x0
5028	chr7	44252240	44253901	+	YKT6	0x0
5029	chr7	44422977	44425078	-	NUDCD3	0x0
5030	chr7	44506929	44508226	+	OGDH	0x0
5031	chr7	44615133	44616293	-	DDX56	0x0
5032	chr7	44867630	44869296	-	H2AFV	0x0
5033	chr7	44869491	44870653	-	H2AFV	0x0
5034	chr7	44871384	44872476	-	H2AFV	0x0
5035	chr7	45024431	45025655	-	SNHG15	0x0
5036	chr7	45024431	45025655	-	SNORA9	0x0
5037	chr7	45055716	45056839	+	CCM2	0x0
5038	chr7	45143432	45145126	-	SNORA5A	0x0
5039	chr7	45143432	45145126	-	SNORA5C	0x0
5040	chr7	45143432	45145126	-	TBRG4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5041	chr7	45631850	45633046	+	ADCY1	0x2
5042	chr7	45687751	45688961	+	ADCY1	0x2
5043	chr7	47883015	47884214	-	PKD1L1	0x0
5044	chr7	48329866	48330965	+	ABCA13	0x0
5045	chr7	51125959	51127160	-	COBL	0x0
5046	chr7	51140419	51141571	-	COBL	0x0
5047	chr7	53573745	53575001	+	POM121L12	0x0
5048	chr7	53843321	53844539	+	POM121L12	0x0
5049	chr7	55712928	55714027	+	LANCL2	0x0
5050	chr7	55992166	55993377	+	ZNF713	0x0
5051	chr7	56047818	56048984	+	GBAS	0x0
5052	chr7	56050957	56052136	+	GBAS	0x0
5053	chr7	56066418	56067572	+	GBAS	0x0
5054	chr7	56111114	56112302	-	PSPH	0x0
5055	chr7	56122829	56124002	+	CCT6A	0x0
5056	chr7	56125566	56126665	+	CCT6A	0x0
5057	chr7	56130833	56132038	+	CCT6A	0x0
5058	chr7	56130833	56132038	+	SUMF2	0x0
5059	chr7	56168775	56169951	-	CHCHD2	0x0
5060	chr7	63806388	63807524	+	ZNF736	0x0
5061	chr7	64512487	64513689	+	CCT6P3	0x0
5062	chr7	65220022	65221173	+	CCT6P1	0x0
5063	chr7	65220022	65221173	+	SNORA22	0x0
5064	chr7	66444580	66445777	+	TYW1	0x0
5065	chr7	66452731	66453910	-	SBDS	0x2
5066	chr7	66461505	66462727	+	TYW1	0x0
5067	chr7	66696321	66697506	-	PMS2P4	0x0
5068	chr7	66732088	66733253	-	PMS2P4	0x0
5069	chr7	68526830	68528282	+	AUTS2	0x0
5070	chr7	69137623	69139895	+	AUTS2	0x0
5071	chr7	69150855	69152052	+	AUTS2	0x0
5072	chr7	69890680	69891884	+	AUTS2	0x0
5073	chr7	69944884	69946122	+	AUTS2	0x0
5074	chr7	70095006	70096231	+	AUTS2	0x0
5075	chr7	70158630	70159729	+	AUTS2	0x0
5076	chr7	70162406	70163506	+	AUTS2	0x0
5077	chr7	70228678	70229863	+	AUTS2	0x0
5078	chr7	72210226	72211362	-	TYW1B	0x0
5079	chr7	72384475	72385573	+	POM121	0x0
5080	chr7	72855521	72856620	-	BAZ1B	0x0
5081	chr7	72892223	72893442	-	BAZ1B	0x0
5082	chr7	73028896	73030065	-	MLXIPL	0x0
5083	chr7	73609735	73611412	+	EIF4H	0x0
5084	chr7	74011007	74012204	+	GTF2IRD1	0x0
5085	chr7	75013767	75014967	+	TRIM73	0x0
5086	chr7	75013767	75014967	+	TRIM74	0x0
5087	chr7	75616282	75617424	-	TMEM120A	0x0
5088	chr7	75677085	75678284	+	MDH2	0x0
5089	chr7	75695075	75696451	+	MDH2	0x0
5090	chr7	76183802	76184974	+	LOC100133091	0x0
5091	chr7	77288076	77289291	+	PTPN12	0x1
5092	chr7	77325584	77329262	+	RSBN1L	0x0
5093	chr7	77409754	77411102	+	RSBN1L	0x0
5094	chr7	77444662	77445817	+	PHTF2	0x0
5095	chr7	77819775	77820999	+	RPL13AP17	0x0
5096	chr7	84217800	84218994	-	SEMA3A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5097	chr7	85957572	85958791	+	GRM3	0x2
5098	chr7	91745871	91747042	-	CYP51A1	0x0
5099	chr7	92121693	92122871	-	PEX1	0x0
5100	chr7	94259800	94260938	-	SGCE	0x4
5101	chr7	94277985	94279186	-	SGCE	0x4
5102	chr7	95182157	95183355	+	ASB4	0x4
5103	chr7	97500925	97502164	-	ASNS	0x0
5104	chr7	97822980	97824146	+	LMTK2	0x0
5105	chr7	98571475	98572623	+	TRRAP	0x2
5106	chr7	98580407	98581636	+	TRRAP	0x2
5107	chr7	99040246	99041345	+	CPSF4	0x0
5108	chr7	99055334	99056509	-	ATP5J2	0x0
5109	chr7	99063102	99064286	-	ATP5J2	0x0
5110	chr7	99063102	99064286	-	ATP5J2-PTCD1	0x0
5111	chr7	99070753	99071852	+	ZNF789	0x0
5112	chr7	99090314	99091491	-	ZNF394	0x0
5113	chr7	99164579	99165769	+	ZNF655	0x0
5114	chr7	99620568	99621775	+	ZKSCAN1	0x0
5115	chr7	99696493	99697583	-	MCM7	0x0
5116	chr7	99766778	99767983	-	GPC2	0x0
5117	chr7	100027125	100028311	+	MEPCE	0x0
5118	chr7	100171876	100172981	-	LRCH4	0x0
5119	chr7	100177762	100178920	-	LRCH4	0x0
5120	chr7	100880641	100881974	-	CLDN15	0x0
5121	chr7	100895195	100896397	+	ZNHIT1	0x0
5122	chr7	101518509	101519697	+	CUX1	0x2
5123	chr7	101614007	101615204	+	CUX1	0x2
5124	chr7	101870302	101871497	+	CUX1	0x2
5125	chr7	102090409	102091726	+	ORAI2	0x0
5126	chr7	102103915	102105079	-	ALKBH4	0x0
5127	chr7	102273284	102274466	-	POLR2J2	0x0
5128	chr7	102776284	102777472	-	RPL19P12	0x0
5129	chr7	102956740	102957866	-	DNAJC2	0x0
5130	chr7	102959728	102960926	-	DNAJC2	0x0
5131	chr7	102987648	102988747	+	PSMC2	0x0
5132	chr7	103017293	103018395	+	PSMC2	0x0
5133	chr7	104183926	104185102	-	LOC645591	0x0
5134	chr7	104989419	104990519	-	SRPK2	0x0
5135	chr7	105130826	105131959	-	PUS7	0x0
5136	chr7	105730920	105732237	-	SYPL1	0x0
5137	chr7	106966970	106968196	-	COG5	0x0
5138	chr7	107392326	107393492	+	CBLL1	0x0
5139	chr7	107579969	107581118	-	LAMB1	0x0
5140	chr7	107604477	107605657	-	LAMB1	0x0
5141	chr7	107641647	107642890	-	LAMB1	0x0
5142	chr7	107788055	107789246	-	NRCAM	0x1
5143	chr7	109647779	109648956	-	EIF3IP1	0x0
5144	chr7	111928314	111929569	+	ZNF277	0x0
5145	chr7	112094112	112095341	+	IFRD1	0x0
5146	chr7	113813661	113814849	+	FOXP2	0x0
5147	chr7	113873613	113874725	+	FOXP2	0x0
5148	chr7	116655877	116657135	+	ST7-OT4	0x0
5149	chr7	116864291	116865488	+	ST7	0x1
5150	chr7	121022060	121023221	-	FAM3C	0x0
5151	chr7	123181470	123182631	-	NDUFA5	0x0
5152	chr7	126826996	126828167	-	GRM8	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5153	chr7	127002369	127003478	-	ZNF800	0x0
5154	chr7	127011169	127012346	-	ZNF800	0x0
5155	chr7	127292221	127293424	+	SND1	0x0
5156	chr7	127304238	127305368	+	SND1	0x0
5157	chr7	127717944	127719181	+	SND1	0x0
5158	chr7	128045356	128046535	-	IMPDH1	0x0
5159	chr7	128144617	128145843	+	METTL2B	0x0
5160	chr7	128268899	128270067	+	FLJ45340	0x0
5161	chr7	128294201	128295432	+	FLJ45340	0x0
5162	chr7	128336957	128338351	+	FAM71F2	0x0
5163	chr7	128410338	128411503	+	CALU	0x0
5164	chr7	128626267	128627427	-	TNPO3	0x0
5165	chr7	128804197	128805297	+	TSPAN33	0x0
5166	chr7	128828291	128829490	+	SMO	0x1
5167	chr7	128844598	128846620	+	SMO	0x1
5168	chr7	128956910	128958109	+	AHCYL2	0x0
5169	chr7	129249052	129250217	-	MIR182	0x0
5170	chr7	129771754	129772914	+	KLHDC10	0x0
5171	chr7	132719105	132721265	-	CHCHD3	0x0
5172	chr7	134126762	134127961	-	AKR1B1	0x1
5173	chr7	134446424	134447609	-	AKR1B1	0x1
5174	chr7	134653877	134655027	+	CALD1	0x0
5175	chr7	135262978	135264232	+	NUP205	0x0
5176	chr7	135299192	135300395	+	NUP205	0x0
5177	chr7	135564469	135565613	-	LUZP6	0x0
5178	chr7	135564469	135565613	-	MTPN	0x0
5179	chr7	135612497	135613615	-	LUZP6	0x0
5180	chr7	135612497	135613615	-	MTPN	0x0
5181	chr7	135631923	135633117	-	LUZP6	0x0
5182	chr7	135631923	135633117	-	MTPN	0x0
5183	chr7	137561561	137562688	-	CREB3L2	0x2
5184	chr7	137593795	137594957	-	CREB3L2	0x2
5185	chr7	137641335	137642504	-	CREB3L2	0x2
5186	chr7	138229348	138230509	+	TRIM24	0x1
5187	chr7	138601353	138602530	-	KIAA1549	0x0
5188	chr7	138708377	138709573	-	ZC3HAV1L	0x0
5189	chr7	139060142	139061336	+	LUC7L2	0x0
5190	chr7	139091472	139092571	+	LUC7L2	0x0
5191	chr7	139163207	139164420	-	KLRG2	0x0
5192	chr7	139252540	139254304	-	HIPK2	0x1
5193	chr7	139255381	139257357	-	HIPK2	0x1
5194	chr7	139415555	139417089	-	HIPK2	0x1
5195	chr7	139991958	139993146	-	SLC37A3	0x0
5196	chr7	140578969	140580149	-	BRAF	0x2
5197	chr7	140608227	140609407	-	BRAF	0x2
5198	chr7	140949281	140950478	+	LOC100507421	0x0
5199	chr7	140989729	140990945	+	LOC100507421	0x0
5200	chr7	141427256	141428517	+	WEE2	0x0
5201	chr7	142828739	142829949	-	OR6W1P	0x0
5202	chr7	148517064	148518265	-	EZH2	0x2
5203	chr7	148637989	148639256	+	CUL1	0x1
5204	chr7	148683652	148684931	-	PDIA4	0x2
5205	chr7	148815628	148816762	-	ZNF425	0x0
5206	chr7	148822219	148823398	-	ZNF425	0x0
5207	chr7	148875639	148876808	+	ZNF398	0x0
5208	chr7	149187521	149188679	-	ZNF746	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5209	chr7	149281240	149282410	+	KRBA1	0x0
5210	chr7	149361344	149362611	+	KRBA1	0x0
5211	chr7	149387704	149388911	-	ZNF767	0x0
5212	chr7	149411854	149413217	+	KRBA1	0x0
5213	chr7	149575886	149577679	+	ATP6V0E2	0x0
5214	chr7	150070282	150071455	+	REPIN1	0x0
5215	chr7	150815954	150817053	+	AGAP3	0x0
5216	chr7	150910175	150911551	-	ABCF2	0x0
5217	chr7	150967839	150969008	-	SMARCD3	0x0
5218	chr7	151215094	151216312	-	RHEB	0x0
5219	chr7	151921067	151922240	-	MLL3	0x2
5220	chr7	152097427	152098632	-	MLL3	0x2
5221	chr7	155099915	155101047	+	INSIG1	0x0
5222	chr7	155250236	155251340	+	EN2	0x0
5223	chr7	155572294	155573527	+	RBM33	0x0
5224	chr7	156473215	156474319	-	LMBR1	0x0
5225	chr7	157131140	157132337	+	DNAJB6	0x0
5226	chr7	157207302	157208421	+	DNAJB6	0x0
5227	chr7	158482226	158483355	-	NCAPG2	0x0
5228	chr7	158523818	158524891	-	ESYT2	0x0
5229	chr7	158526068	158527207	-	ESYT2	0x0
5230	chr8	171812	172992	-	RPL23AP53	0x0
5231	chr8	650437	651644	-	ERICH1	0x0
5232	chr8	1728071	1729269	+	CLN8	0x2
5233	chr8	1851872	1853143	+	ARHGEF10	0x2
5234	chr8	1892421	1893656	+	ARHGEF10	0x2
5235	chr8	8719116	8720272	-	MFHAS1	0x1
5236	chr8	9522657	9523873	+	TNKS	0x0
5237	chr8	10543587	10544750	+	C8orf74	0x0
5238	chr8	10553225	10554430	-	SOX7	0x1
5239	chr8	10989659	10990816	-	XKR6	0x0
5240	chr8	11018991	11020365	-	XKR6	0x0
5241	chr8	11179720	11180920	+	MTMR9	0x0
5242	chr8	14088163	14089374	-	SGCZ	0x0
5243	chr8	14466831	14468007	-	SGCZ	0x0
5244	chr8	15608483	15609698	+	TUSC3	0x1
5245	chr8	16969800	16970982	+	EFHA2	0x0
5246	chr8	16973468	16974591	+	EFHA2	0x0
5247	chr8	17020725	17021901	+	ZDHHC2	0x1
5248	chr8	17528806	17529982	-	MTUS1	0x1
5249	chr8	17600589	17601753	-	MTUS1	0x1
5250	chr8	21783081	21784262	+	XPO7	0x2
5251	chr8	22273079	22274302	+	SLC39A14	0x0
5252	chr8	22278525	22279701	+	SLC39A14	0x0
5253	chr8	22993341	22994750	-	TNFRSF10D	0x0
5254	chr8	23001245	23002452	-	TNFRSF10D	0x0
5255	chr8	23118432	23119876	+	CHMP7	0x0
5256	chr8	23933949	23935207	-	STC1	0x2
5257	chr8	26466443	26467884	+	DPYSL2	0x0
5258	chr8	26513085	26514287	+	DPYSL2	0x0
5259	chr8	27626561	27627757	-	CCDC25	0x0
5260	chr8	27642609	27643794	+	ESCO2	0x0
5261	chr8	27661194	27662353	+	ESCO2	0x0
5262	chr8	28610258	28611360	+	EXTL3	0x1
5263	chr8	28925365	28926640	-	KIF13B	0x0
5264	chr8	28973920	28975219	-	KIF13B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5265	chr8	29191850	29193027	-	DUSP4	0x0
5266	chr8	29926842	29927959	-	TMEM66	0x0
5267	chr8	30535411	30536703	-	GSR	0x0
5268	chr8	30918443	30919643	+	WRN	0x2
5269	chr8	30941596	30942794	+	WRN	0x2
5270	chr8	30973889	30975103	+	WRN	0x2
5271	chr8	33307984	33309159	-	FUT10	0x0
5272	chr8	33370435	33371696	+	MAK16	0x0
5273	chr8	33405399	33406500	-	RNF122	0x0
5274	chr8	37351279	37352488	-	LOC728024	0x0
5275	chr8	37548760	37549962	-	LOC728024	0x0
5276	chr8	37555657	37556832	+	ZNF703	0x0
5277	chr8	37610997	37612138	+	ERLIN2	0x0
5278	chr8	37734373	37735537	-	RAB11FIP1	0x0
5279	chr8	37896767	37897965	+	EIF4EBP1	0x0
5280	chr8	37964730	37965937	+	ASH2L	0x0
5281	chr8	38238788	38240521	-	WHSC1L1	0x1
5282	chr8	41789279	41790380	-	KAT6A	0x2
5283	chr8	42069466	42070659	+	AP3M2	0x0
5284	chr8	42751527	42752702	-	RNF170	0x0
5285	chr8	48454145	48455421	+	KIAA0146	0x0
5286	chr8	48690474	48691581	-	PRKDC	0x0
5287	chr8	48719526	48720712	-	PRKDC	0x0
5288	chr8	56698693	56699907	+	TGS1	0x0
5289	chr8	56702837	56704080	+	TGS1	0x0
5290	chr8	56792545	56793692	+	LYN	0x0
5291	chr8	56986406	56987620	-	RPS20	0x0
5292	chr8	56986406	56987620	-	SNORD54	0x0
5293	chr8	59361453	59362789	+	UBXN2B	0x0
5294	chr8	59495823	59497028	-	NSMAF	0x0
5295	chr8	60367861	60369092	+	SDCBP	0x0
5296	chr8	61141149	61142305	-	CA8	0x0
5297	chr8	61380988	61382139	-	CA8	0x0
5298	chr8	61428976	61430164	+	RAB2A	0x0
5299	chr8	62558694	62559890	-	ASPH	0x0
5300	chr8	65062889	65064025	-	LOC401463	0x0
5301	chr8	67025014	67026251	+	DNAJC5B	0x0
5302	chr8	67834131	67835343	-	SNHG6	0x0
5303	chr8	67834131	67835343	-	SNORD87	0x0
5304	chr8	67854441	67855579	-	TCF24	0x0
5305	chr8	69218262	69219475	+	C8orf34	0x0
5306	chr8	69628958	69630158	+	C8orf34	0x0
5307	chr8	70601758	70603154	-	SLCO5A1	0x0
5308	chr8	71015648	71016846	-	NCOA2	0x2
5309	chr8	71485199	71486420	-	TRAM1	0x0
5310	chr8	72549549	72550725	-	MSC	0x0
5311	chr8	73557323	73558542	+	KCNB2	0x0
5312	chr8	74558696	74559805	-	STAU2	0x0
5313	chr8	77776192	77777558	+	ZFHX4	0x2
5314	chr8	80676493	80677670	-	HEY1	0x2
5315	chr8	80708218	80709377	+	STMN2	0x0
5316	chr8	81039463	81040687	-	TPD52	0x0
5317	chr8	84510943	84512141	-	C8orf59	0x0
5318	chr8	86191435	86192537	+	CA13	0x0
5319	chr8	87528903	87530098	+	CPNE3	0x0
5320	chr8	95406717	95407924	-	RAD54B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5321	chr8	95854520	95855619	+	INTS8	0x0
5322	chr8	98672727	98673911	+	MTDH	0x0
5323	chr8	98817057	98818222	+	LAPTM4B	0x0
5324	chr8	98827727	98828903	+	LAPTM4B	0x0
5325	chr8	101485556	101486759	-	ANKRD46	0x0
5326	chr8	101714872	101716041	-	PABPC1	0x2
5327	chr8	101724361	101725581	-	PABPC1	0x2
5328	chr8	101727184	101728357	-	PABPC1	0x2
5329	chr8	101729540	101730664	-	PABPC1	0x2
5330	chr8	101733058	101734450	-	PABPC1	0x2
5331	chr8	102149814	102150984	+	FLJ42969	0x0
5332	chr8	103423528	103424664	-	UBR5	0x2
5333	chr8	103845897	103847028	-	AZIN1	0x0
5334	chr8	106914349	106915532	-	ABRA	0x0
5335	chr8	107709298	107710494	-	ABRA	0x0
5336	chr8	110281595	110282791	-	NUDCD1	0x0
5337	chr8	110353471	110354647	+	ENY2	0x0
5338	chr8	116563419	116564599	-	TRPS1	0x0
5339	chr8	119396638	119397854	-	SAMD12	0x0
5340	chr8	120743496	120744716	-	TAF2	0x2
5341	chr8	120874372	120875604	+	DEPTOR	0x0
5342	chr8	121501990	121503167	+	MTBP	0x0
5343	chr8	124025136	124026313	-	DERL1	0x0
5344	chr8	124053823	124055003	-	DERL1	0x0
5345	chr8	124095937	124097121	+	WDR67	0x0
5346	chr8	124250286	124251573	-	C8orf76	0x0
5347	chr8	124250286	124251573	-	ZHX1-C8ORF76	0x0
5348	chr8	124511119	124512309	-	FBXO32	0x1
5349	chr8	124826019	124827118	+	FAM91A1	0x0
5350	chr8	125503049	125504257	+	RNF139	0x0
5351	chr8	126257758	126258960	+	NSMCE2	0x0
5352	chr8	126467614	126468814	+	TRIB1	0x2
5353	chr8	126584427	126585626	+	TRIB1	0x2
5354	chr8	128752709	128753881	+	MYC	0x2
5355	chr8	128878369	128879800	+	PVT1	0x0
5356	chr8	128902427	128903666	+	PVT1	0x0
5357	chr8	129006031	129007240	+	PVT1	0x0
5358	chr8	129232188	129233396	+	MIR1208	0x0
5359	chr8	131369782	131370944	-	ASAP1	0x0
5360	chr8	134249222	134250405	-	NDRG1	0x1
5361	chr8	135602264	135603445	-	ZFAT	0x4
5362	chr8	136484515	136485664	+	KHDRBS3	0x0
5363	chr8	141539629	141540966	-	EIF2C2	0x0
5364	chr8	141706964	141708108	-	PTK2	0x0
5365	chr8	144390951	144392074	-	TOP1MT	0x0
5366	chr8	144589736	144590895	-	ZC3H3	0x0
5367	chr8	144623760	144624957	+	GSDMD	0x0
5368	chr8	144656550	144657716	-	NAPRT1	0x0
5369	chr8	144665432	144666631	-	EEF1D	0x0
5370	chr8	144668416	144669512	-	EEF1D	0x0
5371	chr8	144671344	144672503	-	EEF1D	0x0
5372	chr8	144872867	144874212	-	SCRIB	0x1
5373	chr8	144995170	144996345	-	PLEC	0x0
5374	chr8	144996673	144997860	-	PLEC	0x0
5375	chr8	145512299	145513597	-	BOP1	0x0
5376	chr8	145514906	145516064	+	HSF1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5377	chr8	145735164	145736323	+	MFSD3	0x0
5378	chr8	145975673	145976844	-	ZNF251	0x0
5379	chr8	146014646	146015821	-	RPL8	0x0
5380	chr8	146016941	146018035	-	RPL8	0x0
5381	chr9	579222	580422	+	KANK1	0x1
5382	chr9	583912	585146	+	KANK1	0x1
5383	chr9	2358753	2359971	+	SMARCA2	0x1
5384	chr9	3214212	3215432	+	KCNV2	0x0
5385	chr9	3508378	3509541	-	RFX3	0x0
5386	chr9	4826335	4827507	+	RCL1	0x0
5387	chr9	4833549	4834747	+	RCL1	0x0
5388	chr9	5734043	5735202	+	KIAA1432	0x0
5389	chr9	9441508	9442749	+	KDM4C	0x0
5390	chr9	13124573	13125772	-	MPDZ	0x0
5391	chr9	14611622	14612784	-	ZDHHC21	0x0
5392	chr9	14640065	14641279	-	ZDHHC21	0x0
5393	chr9	14921661	14922812	-	FREM1	0x0
5394	chr9	15482841	15484138	-	PSIP1	0x2
5395	chr9	15505342	15506551	-	PSIP1	0x2
5396	chr9	16828016	16829203	-	BNC2	0x0
5397	chr9	17413189	17414414	+	CNTLN	0x0
5398	chr9	17440398	17441554	-	BNC2	0x0
5399	chr9	19055113	19056309	-	HAUS6	0x0
5400	chr9	19063173	19064362	-	HAUS6	0x0
5401	chr9	19063173	19064362	-	SCARNA8	0x0
5402	chr9	19372260	19373473	+	DENND4C	0x0
5403	chr9	19375853	19377070	-	RPS6	0x0
5404	chr9	19377873	19380410	-	RPS6	0x0
5405	chr9	19383288	19384499	+	DENND4C	0x0
5406	chr9	20429737	20430924	-	MLLT3	0x2
5407	chr9	20548245	20549446	-	MIR4474	0x0
5408	chr9	20786340	20787535	+	KIAA1797	0x0
5409	chr9	20810807	20811984	-	MLLT3	0x2
5410	chr9	20896813	20898020	+	KIAA1797	0x0
5411	chr9	20923117	20924315	+	KIAA1797	0x0
5412	chr9	21332177	21333335	-	KLHL9	0x0
5413	chr9	21698742	21700024	+	MTAP	0x1
5414	chr9	21861943	21863042	+	MTAP	0x1
5415	chr9	21867924	21869151	+	MTAP	0x1
5416	chr9	21903931	21905084	+	MTAP	0x1
5417	chr9	22081029	22082228	+	CDKN2B-AS1	0x0
5418	chr9	25676769	25677898	-	TUSC1	0x0
5419	chr9	26658888	26660011	+	IFT74	0x0
5420	chr9	26935048	26936169	-	PLAA	0x0
5421	chr9	28707158	28708331	-	LINGO2	0x0
5422	chr9	28846936	28848152	-	MIR876	0x0
5423	chr9	33011499	33012677	-	APTX	0x0
5424	chr9	33023893	33025172	-	SMU1	0x0
5425	chr9	33038376	33039941	+	DNAJA1	0x0
5426	chr9	33318207	33319380	+	NFX1	0x0
5427	chr9	33916595	33917697	+	UBE2R2	0x0
5428	chr9	33952273	33953373	-	SNORD121A	0x0
5429	chr9	33952273	33953373	-	UBAP2	0x0
5430	chr9	33955557	33956731	-	UBAP2	0x0
5431	chr9	33960256	33961456	-	UBAP2	0x0
5432	chr9	33963170	33964252	-	UBAP2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5433	chr9	34011964	34013151	-	UBAP2	0x0
5434	chr9	34016524	34017695	-	UBAP2	0x0
5435	chr9	34049409	34050630	+	SNORD121B	0x0
5436	chr9	34087271	34088491	-	DCAF12	0x0
5437	chr9	34185383	34186545	+	UBAP1	0x0
5438	chr9	34282012	34283214	-	KIF24	0x0
5439	chr9	34634177	34635546	-	SIGMAR1	0x0
5440	chr9	35101379	35102543	-	STOML2	0x0
5441	chr9	35398409	35399768	+	UNC13B	0x0
5442	chr9	35547214	35548291	+	RUSC2	0x0
5443	chr9	35657197	35658583	-	RMRP	0x0
5444	chr9	35705464	35707665	-	TLN1	0x2
5445	chr9	35712376	35713551	-	TLN1	0x2
5446	chr9	35737757	35738923	-	GBA2	0x0
5447	chr9	35748405	35749597	-	GBA2	0x0
5448	chr9	36211270	36212469	+	CLTA	0x0
5449	chr9	36215412	36216592	-	GNE	0x0
5450	chr9	37161890	37162980	+	ZCCHC7	0x0
5451	chr9	37180719	37181818	+	ZCCHC7	0x0
5452	chr9	37394697	37395893	+	GRHPR	0x0
5453	chr9	37425972	37427149	+	GRHPR	0x0
5454	chr9	37757009	37758131	+	RG9MTD3	0x0
5455	chr9	37776759	37777892	-	EXOSC3	0x0
5456	chr9	38392326	38393556	+	ALDH1B1	0x0
5457	chr9	38406249	38407526	-	IGFBPL1	0x1
5458	chr9	38408287	38409466	-	IGFBPL1	0x1
5459	chr9	38542057	38543182	-	ANKRD18A	0x0
5460	chr9	38548716	38549888	-	ANKRD18A	0x0
5461	chr9	45454163	45455328	+	FAM27A	0x0
5462	chr9	66862489	66863606	-	LOC286297	0x0
5463	chr9	72276359	72277573	-	APBA1	0x4
5464	chr9	72802958	72804155	-	LOC100507244	0x0
5465	chr9	74319441	74320649	-	TMEM2	0x0
5466	chr9	77639260	77640400	-	C9orf41	0x0
5467	chr9	79000589	79001744	-	RFK	0x0
5468	chr9	79186185	79187441	+	GCNT1	0x0
5469	chr9	80333954	80335131	-	GNAQ	0x2
5470	chr9	80461575	80462760	-	GNAQ	0x2
5471	chr9	80526971	80528160	-	GNAQ	0x2
5472	chr9	80624392	80625619	-	GNAQ	0x2
5473	chr9	81149233	81150432	+	PSAT1	0x0
5474	chr9	82201319	82202535	+	TLE4	0x2
5475	chr9	84036070	84037267	+	FAM75D5	0x0
5476	chr9	84250539	84251853	-	TLE1	0x0
5477	chr9	84486792	84487991	-	TLE1	0x0
5478	chr9	85827443	85828601	-	FRMD3	0x0
5479	chr9	86186741	86188057	-	FRMD3	0x0
5480	chr9	86292867	86294079	-	UBQLN1	0x0
5481	chr9	86582599	86583805	-	HNRNPK	0x0
5482	chr9	86598602	86599787	+	RMI1	0x0
5483	chr9	88260737	88261915	-	AGTPBP1	0x0
5484	chr9	88307117	88308237	-	AGTPBP1	0x0
5485	chr9	90115188	90116387	+	DAPK1	0x1
5486	chr9	91925658	91926817	+	CKS2	0x0
5487	chr9	94053627	94054823	-	AUH	0x0
5488	chr9	94666775	94667954	-	ROR2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5489	chr9	95017779	95019585	-	IARS	0x0
5490	chr9	95026780	95027945	-	IARS	0x0
5491	chr9	95148146	95149332	+	CENPP	0x0
5492	chr9	95289868	95290971	+	CENPP	0x0
5493	chr9	96054324	96055449	+	WNK2	0x1
5494	chr9	96259226	96260410	+	FAM120A	0x1
5495	chr9	96260521	96261610	+	FAM120A	0x1
5496	chr9	96304540	96306154	+	FAM120A	0x1
5497	chr9	96425818	96426994	+	PHF2	0x0
5498	chr9	97626912	97628116	+	MIR2278	0x0
5499	chr9	97747161	97748371	+	C9orf3	0x0
5500	chr9	98205195	98206341	-	PTCH1	0x1
5501	chr9	98666745	98667943	+	C9orf102	0x0
5502	chr9	98703213	98704414	+	C9orf102	0x0
5503	chr9	98864832	98866024	-	LOC158434	0x0
5504	chr9	99541077	99542255	-	ZNF510	0x0
5505	chr9	100434963	100436183	+	NCBP1	0x0
5506	chr9	100443119	100444445	+	NCBP1	0x0
5507	chr9	100777282	100778579	+	ANP32B	0x0
5508	chr9	101495339	101496482	-	ANKS6	0x0
5509	chr9	103086818	103087997	-	TEX10	0x0
5510	chr9	105967533	105968751	+	CYLC2	0x0
5511	chr9	108456322	108457519	+	TMEM38B	0x0
5512	chr9	108535853	108537110	+	TMEM38B	0x0
5513	chr9	108651081	108652249	+	TMEM38B	0x0
5514	chr9	110089577	110090784	+	RAD23B	0x0
5515	chr9	111650030	111651171	-	IKBKAP	0x0
5516	chr9	111778364	111779477	-	C9orf5	0x0
5517	chr9	111780160	111781373	-	C9orf5	0x0
5518	chr9	111790148	111791333	-	C9orf5	0x0
5519	chr9	111812360	111813518	-	C9orf5	0x0
5520	chr9	113016565	113017668	-	TXN	0x0
5521	chr9	113170031	113171232	+	AKAP2	0x0
5522	chr9	113170031	113171232	+	PALM2-AKAP2	0x0
5523	chr9	113740724	113741947	-	LPAR1	0x0
5524	chr9	114176345	114177492	-	KIAA0368	0x0
5525	chr9	114696644	114697810	+	UGCG	0x0
5526	chr9	114796115	114797308	-	SUSD1	0x0
5527	chr9	114802856	114804030	-	SUSD1	0x0
5528	chr9	114980670	114981806	-	PTBP3	0x0
5529	chr9	114993295	114994445	-	PTBP3	0x0
5530	chr9	115013987	115015217	+	HSDL2	0x0
5531	chr9	115248759	115249937	+	KIAA1958	0x0
5532	chr9	115260536	115261678	+	KIAA1958	0x0
5533	chr9	115335902	115337364	+	KIAA1958	0x0
5534	chr9	115346600	115347807	+	KIAA1958	0x0
5535	chr9	115424721	115426125	+	KIAA1958	0x0
5536	chr9	115448029	115450211	-	C9orf80	0x0
5537	chr9	115469920	115471091	-	C9orf80	0x0
5538	chr9	115531377	115532567	+	SNX30	0x0
5539	chr9	115682177	115683415	+	SNX30	0x0
5540	chr9	116023582	116024730	+	SLC31A1	0x0
5541	chr9	116792285	116793484	+	ZNF618	0x0
5542	chr9	116815803	116817028	+	ZNF618	0x0
5543	chr9	116991103	116992232	+	COL27A1	0x0
5544	chr9	117068821	117069994	+	COL27A1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5545	chr9	117359969	117361206	+	ATP6V1G1	0x0
5546	chr9	117370634	117371856	-	LOC100505478	0x0
5547	chr9	120844756	120846132	-	ASTN2	0x0
5548	chr9	123227241	123228507	-	CDK5RAP2	0x0
5549	chr9	123618193	123619372	-	PHF19	0x0
5550	chr9	124101279	124102449	-	STOM	0x0
5551	chr9	124544477	124545706	+	DAB2IP	0x1
5552	chr9	124546847	124548061	+	DAB2IP	0x1
5553	chr9	125641926	125643151	-	RC3H2	0x0
5554	chr9	125641926	125643151	-	SNORD90	0x0
5555	chr9	125842673	125843822	+	RABGAP1	0x0
5556	chr9	126021388	126022620	-	STRBP	0x0
5557	chr9	127115305	127116453	-	PSMB7	0x0
5558	chr9	127194668	127195860	+	GPR144	0x0
5559	chr9	127362373	127363500	-	NR6A1	0x0
5560	chr9	127619641	127620905	-	RPL35	0x0
5561	chr9	128099141	128100376	+	GAPVD1	0x0
5562	chr9	128620793	128622016	+	PBX3	0x0
5563	chr9	128985818	128987014	-	NRON	0x0
5564	chr9	129456477	129457634	+	LMX1B	0x4
5565	chr9	129461350	129462503	+	LMX1B	0x4
5566	chr9	129567385	129568582	+	ZBTB43	0x0
5567	chr9	130209656	130210776	-	RPL12	0x0
5568	chr9	130547783	130548996	+	CDK9	0x0
5569	chr9	130547783	130548996	+	MIR2861	0x0
5570	chr9	130547783	130548996	+	MIR3960	0x0
5571	chr9	130630132	130631339	-	AK1	0x0
5572	chr9	130647627	130648808	-	ST6GALNAC6	0x0
5573	chr9	130886273	130887511	-	PTGES2	0x0
5574	chr9	131101823	131103019	-	TRUB2	0x0
5575	chr9	131369703	131371031	+	SPTAN1	0x2
5576	chr9	131457332	131458528	+	SET	0x2
5577	chr9	131517208	131518346	-	ZER1	0x0
5578	chr9	131668747	131669926	+	LRRC8A	0x0
5579	chr9	131679585	131680770	+	LRRC8A	0x0
5580	chr9	131727918	131729140	+	NUP188	0x0
5581	chr9	131732532	131733679	+	NUP188	0x0
5582	chr9	131770371	131771456	-	SH3GLB2	0x0
5583	chr9	131773181	131774253	-	SH3GLB2	0x0
5584	chr9	131832278	131833404	+	FAM73B	0x0
5585	chr9	132266292	132267491	+	LOC100506190	0x0
5586	chr9	132395806	132396981	+	METTL11A	0x0
5587	chr9	132400461	132402140	-	ASB6	0x0
5588	chr9	132650535	132651858	-	FNBP1	0x2
5589	chr9	132899707	132901024	+	GPR107	0x0
5590	chr9	132995682	132998198	+	NCS1	0x0
5591	chr9	133576846	133578028	+	EXOSC2	0x0
5592	chr9	133580429	133581619	+	EXOSC2	0x0
5593	chr9	133690736	133691950	+	ABL1	0x2
5594	chr9	133924803	133925919	+	LAMC3	0x0
5595	chr9	133996060	133997384	+	AIF1L	0x0
5596	chr9	134287069	134288195	+	PRRC2B	0x0
5597	chr9	134304953	134306142	+	PRRC2B	0x0
5598	chr9	134313808	134315037	+	PRRC2B	0x0
5599	chr9	134319022	134320189	+	PRRC2B	0x0
5600	chr9	134371214	134373009	+	PRRC2B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5601	chr9	134374644	134375968	+	PRRC2B	0x0
5602	chr9	134451766	134453602	-	RAPGEF1	0x0
5603	chr9	134857136	134858315	-	MED27	0x0
5604	chr9	134913794	134914897	-	MED27	0x0
5605	chr9	135139556	135140719	-	SETX	0x0
5606	chr9	135275910	135277087	-	TTF1	0x0
5607	chr9	135483943	135485086	-	DDX31	0x0
5608	chr9	135784782	135785881	-	TSC1	0x1
5609	chr9	135924729	135925906	+	GTF3C5	0x0
5610	chr9	135973592	135974691	-	RALGDS	0x2
5611	chr9	135998700	136000170	-	RALGDS	0x2
5612	chr9	136020317	136021667	-	RALGDS	0x2
5613	chr9	136203824	136205001	-	SURF6	0x0
5614	chr9	136216397	136217914	+	RPL7A	0x0
5615	chr9	136216397	136217914	+	SNORD36A	0x0
5616	chr9	136216397	136217914	+	SNORD36B	0x0
5617	chr9	136216397	136217914	+	SNORD36C	0x0
5618	chr9	136228108	136230784	-	SURF4	0x0
5619	chr9	136474800	136475979	-	FAM163B	0x0
5620	chr9	137023421	137024790	+	WDR5	0x0
5621	chr9	137029029	137030228	-	RNU6ATAC	0x0
5622	chr9	137305770	137306997	+	RXRA	0x0
5623	chr9	138264957	138266133	+	PPP1R26	0x0
5624	chr9	138651228	138652408	-	CAMSAP1	0x0
5625	chr9	138772916	138775474	-	CAMSAP1	0x0
5626	chr9	138835556	138836655	-	UBAC1	0x0
5627	chr9	139098581	139099758	-	QSOX2	0x0
5628	chr9	139248624	139249755	+	GPSM1	0x0
5629	chr9	139252436	139253615	+	GPSM1	0x0
5630	chr9	139270387	139271514	-	SNAPC4	0x0
5631	chr9	139300843	139302303	-	SDCCAG3	0x0
5632	chr9	139306000	139307223	+	PMPCA	0x0
5633	chr9	139326284	139327462	-	INPP5E	0x0
5634	chr9	139334317	139335518	-	SEC16A	0x0
5635	chr9	139355237	139356585	-	SEC16A	0x0
5636	chr9	139369167	139370266	-	SEC16A	0x0
5637	chr9	139608470	139609690	+	FAM69B	0x0
5638	chr9	139618664	139619796	-	SNHG7	0x0
5639	chr9	139620014	139621238	-	SNHG7	0x0
5640	chr9	139620014	139621238	-	SNORA17	0x0
5641	chr9	139620014	139621238	-	SNORA43	0x0
5642	chr9	139686353	139687562	+	TMEM141	0x0
5643	chr9	139716292	139717458	+	C9orf86	0x0
5644	chr9	139725678	139726811	+	C9orf86	0x0
5645	chr9	139734812	139735981	+	C9orf86	0x0
5646	chr9	139743402	139744501	+	PHPT1	0x4
5647	chr9	139827010	139828223	+	TRAF2	0x0
5648	chr9	139901384	139902524	-	ABCA2	0x0
5649	chr9	139904579	139905686	-	ABCA2	0x0
5650	chr9	139908105	139909204	-	ABCA2	0x0
5651	chr9	139911510	139912639	-	ABCA2	0x0
5652	chr9	139916992	139918141	-	ABCA2	0x0
5653	chr9	139936983	139939048	-	NPDC1	0x0
5654	chr9	139939110	139940262	-	NPDC1	0x0
5655	chr9	139956840	139958016	-	SAPCD2	0x0
5656	chr9	139972957	139974872	+	UAP1L1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5657	chr9	140001474	140002681	+	MAN1B1	0x0
5658	chr9	140078233	140079809	-	ANAPC2	0x0
5659	chr9	140082995	140084194	+	SSNA1	0x0
5660	chr9	140100452	140101634	+	NDOR1	0x0
5661	chr9	140136707	140137882	+	TUBB4B	0x0
5662	chr9	140147472	140148671	+	C9orf173	0x0
5663	chr9	140169601	140170815	+	C9orf167	0x0
5664	chr9	140279070	140280213	-	EXD3	0x0
5665	chr9	140342309	140343845	-	NELF	0x0
5666	chr9	140351347	140352478	-	NELF	0x0
5667	chr9	140375375	140376591	-	PNPLA7	0x0
5668	chr9	140481200	140482329	-	ZMYND19	0x0
5669	chr9	140484130	140485265	-	ZMYND19	0x0
5670	chr9	140637806	140638965	+	EHMT1	0x0
5671	chr9	140729130	140730908	+	EHMT1	0x0
5672	chr9	141054281	141055394	+	TUBBP5	0x0
5673	chr9	141132390	141133605	+	FAM157B	0x0
5674	chrX	3522243	3523476	-	PRKX	0x2
5675	chrX	6340101	6341264	-	MIR4770	0x0
5676	chrX	8326354	8327513	+	VCX3B	0x2
5677	chrX	9543660	9544882	+	TBL1X	0x0
5678	chrX	9571405	9572643	+	TBL1X	0x0
5679	chrX	9862050	9863191	+	SHROOM2	0x0
5680	chrX	11010346	11011488	-	ARHGAP6	0x0
5681	chrX	14629215	14630428	-	FANCB	0x0
5682	chrX	14876727	14877909	-	FANCB	0x0
5683	chrX	15421374	15422561	-	PIR-FIGF	0x0
5684	chrX	17091194	17092417	+	REPS2	0x0
5685	chrX	17300438	17301635	+	NHS	0x0
5686	chrX	18372174	18373364	-	SCML2	0x0
5687	chrX	20153607	20154922	-	EIF1AX	0x0
5688	chrX	20153607	20154922	-	SCARNA9L	0x0
5689	chrX	21576566	21577762	+	CNKSR2	0x0
5690	chrX	22229861	22231058	+	PHEX	0x0
5691	chrX	24095005	24096156	+	EIF2S3	0x0
5692	chrX	24175280	24176442	+	ZFX	0x0
5693	chrX	24196894	24198305	+	ZFX	0x0
5694	chrX	24761177	24763241	+	POLA1	0x0
5695	chrX	24761177	24763241	+	SCARNA23	0x0
5696	chrX	24977492	24978688	+	POLA1	0x0
5697	chrX	27399828	27401046	-	SMEK3P	0x0
5698	chrX	29000399	29001566	-	DCAF8L1	0x0
5699	chrX	30648152	30649398	+	GK	0x0
5700	chrX	34233500	34234721	+	FAM47B	0x0
5701	chrX	39645752	39646886	-	BCOR	0x2
5702	chrX	40464569	40465726	+	ATP6AP2	0x0
5703	chrX	41092038	41093252	+	USP9X	0x0
5704	chrX	41207726	41208825	+	DDX3X	0x1
5705	chrX	44736213	44737379	+	KDM6A	0x2
5706	chrX	46299524	46300707	-	ZNF674	0x0
5707	chrX	47081266	47082479	+	CDK16	0x0
5708	chrX	47088062	47089227	+	CDK16	0x0
5709	chrX	47495209	47496359	-	ELK1	0x0
5710	chrX	47665780	47667007	+	ZNF81	0x0
5711	chrX	47746834	47748055	+	ZNF81	0x0
5712	chrX	48435453	48436647	+	RBM3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5713	chrX	48462703	48463818	+	WDR13	0x0
5714	chrX	48831187	48832583	-	GRIPAP1	0x0
5715	chrX	49126721	49127934	+	PPP1R3F	0x0
5716	chrX	49857672	49858823	+	CLCN5	0x2
5717	chrX	51936036	51937238	+	MAGED4	0x0
5718	chrX	51936036	51937238	+	MAGED4B	0x0
5719	chrX	53106605	53107796	+	GPR173	0x0
5720	chrX	53134334	53135497	+	TSPYL2	0x0
5721	chrX	53405372	53407332	-	SMC1A	0x0
5722	chrX	53569946	53571046	-	HUWE1	0x0
5723	chrX	53618943	53620070	-	HUWE1	0x0
5724	chrX	53673766	53675041	-	HUWE1	0x0
5725	chrX	53792619	53793775	-	HUWE1	0x0
5726	chrX	54594744	54595938	+	GNL3L	0x0
5727	chrX	54596140	54597311	+	GNL3L	0x0
5728	chrX	56992161	56993336	-	SPIN3	0x0
5729	chrX	68004807	68006025	+	EFNB1	0x0
5730	chrX	68379551	68380728	-	PJA1	0x0
5731	chrX	68891771	68893024	+	EDA	0x0
5732	chrX	69380277	69381519	+	IGBP1	0x0
5733	chrX	69531191	69532421	+	KIF4A	0x0
5734	chrX	69691179	69692344	+	DLG3	0x2
5735	chrX	69720649	69721848	+	DLG3	0x2
5736	chrX	70182424	70183623	+	FOXO4	0x1
5737	chrX	70507281	70508462	-	ZMYM3	0x0
5738	chrX	70520333	70521503	+	NONO	0x2
5739	chrX	70602894	70604095	+	TAF1	0x2
5740	chrX	70861969	70863207	+	ACRC	0x0
5741	chrX	71570013	71571157	-	HDAC8	0x0
5742	chrX	71596356	71597548	-	HDAC8	0x0
5743	chrX	71769793	71770972	-	HDAC8	0x0
5744	chrX	73046559	73048327	-	XIST	0x4
5745	chrX	73052516	73053845	-	XIST	0x4
5746	chrX	73057033	73059270	-	XIST	0x4
5747	chrX	73062806	73063994	-	XIST	0x4
5748	chrX	73069685	73073030	-	XIST	0x4
5749	chrX	73170342	73171562	+	JPX	0x0
5750	chrX	73430482	73431552	-	MIR421	0x0
5751	chrX	73436680	73437810	-	MIR421	0x0
5752	chrX	73482382	73483604	-	FTX	0x0
5753	chrX	73494914	73496013	-	FTX	0x0
5754	chrX	76923431	76924656	-	ATRX	0x2
5755	chrX	77081697	77082848	-	MAGT1	0x0
5756	chrX	77105733	77106914	-	MAGT1	0x0
5757	chrX	79927079	79928302	-	BRWD3	0x0
5758	chrX	81950478	81951677	-	RPS6KA6	0x1
5759	chrX	85340420	85341609	-	CHM	0x0
5760	chrX	96438715	96439906	+	DIAPH2	0x0
5761	chrX	99410666	99411825	-	PCDH19	0x0
5762	chrX	100289732	100290890	-	TRMT2B	0x0
5763	chrX	100654698	100655907	-	GLA	0x0
5764	chrX	100668386	100669571	+	HNRNPH2	0x0
5765	chrX	100668386	100669571	+	RPL36A-HNRNPH2	0x0
5766	chrX	100678736	100679933	+	ARMCX4	0x0
5767	chrX	102108868	102110010	+	LOC100287765	0x0
5768	chrX	102185541	102186736	+	RAB40AL	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5769	chrX	102632229	102633433	+	NGFRAP1	0x0
5770	chrX	102930316	102931634	-	MORF4L2	0x0
5771	chrX	103407200	103408423	+	FAM199X	0x0
5772	chrX	103416323	103417521	+	FAM199X	0x0
5773	chrX	105855261	105856451	+	CXorf57	0x0
5774	chrX	106164212	106165373	-	RIPPLY1	0x0
5775	chrX	106184082	106185253	-	MORC4	0x0
5776	chrX	106236843	106238032	-	MORC4	0x0
5777	chrX	106296930	106298133	-	RBM41	0x0
5778	chrX	106312517	106313695	-	RBM41	0x0
5779	chrX	106351735	106352899	-	RBM41	0x0
5780	chrX	106956061	106957210	-	TSC22D3	0x0
5781	chrX	107083544	107084738	+	MID2	0x0
5782	chrX	107330418	107331641	-	PSMD10	0x0
5783	chrX	107692109	107693273	+	COL4A5	0x0
5784	chrX	107755369	107756586	+	COL4A5	0x0
5785	chrX	107962711	107965128	-	IRS4	0x2
5786	chrX	107965833	107966886	-	IRS4	0x2
5787	chrX	107978161	107979977	-	IRS4	0x2
5788	chrX	108296815	108298321	+	COL4A5	0x0
5789	chrX	108885425	108886557	-	ACSL4	0x0
5790	chrX	109418043	109419259	+	TMEM164	0x0
5791	chrX	109419535	109421324	+	TMEM164	0x0
5792	chrX	109440950	109442127	-	AMMECR1	0x0
5793	chrX	110928049	110929158	+	ALG13	0x0
5794	chrX	111556247	111557485	+	ZCCHC16	0x0
5795	chrX	112018826	112019925	-	AMOT	0x0
5796	chrX	112832649	112833826	-	AMOT	0x0
5797	chrX	114388539	114389720	-	LRCH2	0x0
5798	chrX	114860238	114861417	-	LRCH2	0x0
5799	chrX	114883597	114884758	+	PLS3	0x0
5800	chrX	114937422	114938740	+	PLS3	0x0
5801	chrX	114952760	114953901	-	LRCH2	0x0
5802	chrX	115033924	115035353	-	CXorf61	0x0
5803	chrX	115051152	115052326	-	CXorf61	0x0
5804	chrX	115108241	115109440	-	CXorf61	0x0
5805	chrX	117333430	117334585	-	KLHL13	0x0
5806	chrX	117512110	117513293	+	WDR44	0x0
5807	chrX	118151592	118152740	+	LONRF3	0x0
5808	chrX	118377285	118378507	+	PGRMC1	0x0
5809	chrX	118557172	118558436	+	SLC25A43	0x0
5810	chrX	118603146	118604243	+	SLC25A5	0x0
5811	chrX	118717249	118718392	+	UBE2A	0x2
5812	chrX	118919904	118921072	-	RPL39	0x0
5813	chrX	119005351	119006450	+	NDUFA1	0x0
5814	chrX	119390792	119391981	+	ZBTB33	0x0
5815	chrX	119658057	119660511	-	CUL4B	0x0
5816	chrX	122736393	122737568	-	THOC2	0x0
5817	chrX	123041693	123042887	+	XIAP	0x0
5818	chrX	123095598	123096767	+	STAG2	0x0
5819	chrX	123234731	123236864	+	STAG2	0x0
5820	chrX	128705605	128706804	+	OCRL	0x0
5821	chrX	128725857	128727037	+	OCRL	0x0
5822	chrX	129065075	129066245	-	ZDHHC9	0x0
5823	chrX	129535551	129536727	-	GPR119	0x0
5824	chrX	129538199	129539389	+	RBMX2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5825	chrX	130882834	130884008	-	LOC286467	0x0
5826	chrX	130889093	130890323	-	LOC286467	0x0
5827	chrX	130902059	130903202	-	LOC286467	0x0
5828	chrX	130917396	130918579	-	LOC286467	0x0
5829	chrX	130927787	130929004	-	LOC286467	0x0
5830	chrX	131198110	131199259	+	MST4	0x0
5831	chrX	131337023	131338180	-	RAP2C	0x0
5832	chrX	131512145	131513234	-	MBNL3	0x0
5833	chrX	131760858	131762133	-	HS6ST2	0x0
5834	chrX	132081206	132082401	-	HS6ST2	0x0
5835	chrX	132435951	132437179	-	GPC4	0x0
5836	chrX	132804697	132805894	+	CCDC160	0x0
5837	chrX	133682855	133684020	-	MIR424	0x0
5838	chrX	133683746	133684962	+	LOC100506757	0x0
5839	chrX	133693934	133695138	+	LOC100506757	0x0
5840	chrX	133750415	133751607	-	PLAC1	0x0
5841	chrX	133904208	133905344	-	FAM122B	0x0
5842	chrX	134169327	134170543	+	FAM127A	0x0
5843	chrX	134685389	134686586	+	DDX26B	0x0
5844	chrX	134700591	134701697	+	DDX26B	0x0
5845	chrX	134704442	134705586	+	DDX26B	0x0
5846	chrX	135044994	135047017	-	MMGT1	0x0
5847	chrX	135292161	135293316	+	FHL1	0x0
5848	chrX	135894541	135895736	-	ARHGEF6	0x0
5849	chrX	135960801	135962006	-	RBMX	0x1
5850	chrX	135960801	135962006	-	SNORD61	0x0
5851	chrX	138051867	138053046	+	LOC100129662	0x0
5852	chrX	138822633	138823803	-	ATP11C	0x0
5853	chrX	139806745	139807946	+	RP1-177G6.2	0x0
5854	chrX	144138226	144139456	+	SPANXN1	0x0
5855	chrX	147024021	147025185	+	FMR1	0x0
5856	chrX	147743371	147744594	+	AFF2	0x2
5857	chrX	148615669	148616861	-	LOC100131434	0x0
5858	chrX	148622764	148623954	+	CXorf40A	0x0
5859	chrX	149101387	149102530	-	CXorf40B	0x0
5860	chrX	149283200	149284299	+	LOC100272228	0x0
5861	chrX	149932765	149933963	+	MTMR1	0x0
5862	chrX	149934398	149936217	-	CD99L2	0x0
5863	chrX	150156335	150157614	+	HMGB3	0x0
5864	chrX	150347357	150348535	+	GPR50	0x0
5865	chrX	152138729	152139828	+	ZNF185	0x0
5866	chrX	152615120	152616281	+	ZNF275	0x0
5867	chrX	152712573	152713786	-	HAUS7	0x0
5868	chrX	152907741	152908844	+	DUSP9	0x2
5869	chrX	152931282	152932454	+	DUSP9	0x2
5870	chrX	152961002	152962294	+	SLC6A8	0x0
5871	chrX	153061339	153062580	+	SSR4	0x0
5872	chrX	153212601	153214292	-	HCFC1	0x0
5873	chrX	153229508	153230711	-	HCFC1	0x0
5874	chrX	153275908	153277630	-	IRAK1	0x0
5875	chrX	153282970	153284121	-	IRAK1	0x0
5876	chrX	153290837	153291997	-	MECP2	0x0
5877	chrX	153329200	153330332	-	MECP2	0x0
5878	chrX	153582804	153583968	-	FLNA	0x2
5879	chrX	153590352	153591533	-	FLNA	0x2
5880	chrX	153607528	153608725	+	EMD	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5881	chrX	153626228	153627408	+	RPL10	0x1
5882	chrX	153648801	153649993	+	TAZ	0x0
5883	chrX	153656522	153657630	+	ATP6AP1	0x0
5884	chrX	153663803	153666133	+	ATP6AP1	0x0
5885	chrX	153663803	153666133	+	GDI1	0x0
5886	chrX	153670936	153672130	+	GDI1	0x0
5887	chrX	153677138	153678294	+	FAM50A	0x0
5888	chrX	153736962	153738109	-	FAM3A	0x0
5889	chrX	153743942	153745077	-	FAM3A	0x0
5890	chrX	153996235	153997439	+	DKC1	0x0
5891	chrX	153996235	153997439	+	SNORA36A	0x0
5892	chrX	154002693	154003854	+	DKC1	0x0
5893	chrX	154002693	154003854	+	SNORA56	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5894	chr1	13744	14897	-	WASH7P	0x0
5895	chr1	978981	980134	+	AGRN	0x0
5896	chr1	980619	981773	+	AGRN	0x0
5897	chr1	990236	991302	+	AGRN	0x0
5898	chr1	1152406	1153603	-	SDF4	0x0
5899	chr1	1270292	1271499	-	DVL1	0x4
5900	chr1	1273380	1274480	-	DVL1	0x4
5901	chr1	1284017	1285180	-	DVL1	0x4
5902	chr1	1288991	1290221	-	MXRA8	0x0
5903	chr1	1308590	1309719	-	AURKAIP1	0x0
5904	chr1	1325361	1326462	-	CCNL2	0x0
5905	chr1	1533090	1534207	-	C1orf233	0x0
5906	chr1	1560607	1562894	+	MIB2	0x0
5907	chr1	1592959	1594123	-	SLC35E2B	0x0
5908	chr1	1716221	1718512	-	GNB1	0x0
5909	chr1	1746695	1747793	-	GNB1	0x0
5910	chr1	1756221	1757447	-	GNB1	0x0
5911	chr1	2238009	2240964	+	SKI	0x0
5912	chr1	2334033	2335905	+	RER1	0x0
5913	chr1	3545269	3547088	+	TPRG1L	0x0
5914	chr1	3712164	3713214	-	LRRC47	0x0
5915	chr1	6162770	6164025	-	CHD5	0x1
5916	chr1	6194253	6195433	-	CHD5	0x1
5917	chr1	6244662	6245745	-	RPL22	0x6
5918	chr1	6245901	6247293	-	RPL22	0x6
5919	chr1	6281234	6283322	-	ICMT	0x0
5920	chr1	6307205	6309419	-	GPR153	0x0
5921	chr1	6409308	6410511	-	ACOT7	0x0
5922	chr1	6592890	6594004	-	NOL9	0x0
5923	chr1	6604587	6605755	-	NOL9	0x0
5924	chr1	6650432	6651508	-	KLHL21	0x0
5925	chr1	6683094	6684334	+	PHF13	0x0
5926	chr1	6694626	6696131	-	DNAJC11	0x1
5927	chr1	6884345	6885848	+	CAMTA1	0x1
5928	chr1	7087907	7089121	+	CAMTA1	0x1
5929	chr1	7394525	7395640	+	CAMTA1	0x1
5930	chr1	7491608	7492817	+	CAMTA1	0x1
5931	chr1	7839414	7841942	+	VAMP3	0x0
5932	chr1	8022292	8023448	+	PARK7	0x1
5933	chr1	8044608	8045872	+	PARK7	0x1
5934	chr1	8412062	8413375	-	RERE	0x0
5935	chr1	8413404	8415035	-	RERE	0x0
5936	chr1	8924844	8926060	-	ENO1	0x0
5937	chr1	9222763	9223902	-	MIR34A	0x1
5938	chr1	9304670	9305894	+	H6PD	0x2
5939	chr1	9321622	9322772	+	H6PD	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5940	chr1	9324728	9325861	+	H6PD	0x2
5941	chr1	9329531	9330643	+	H6PD	0x2
5942	chr1	9629814	9630996	+	SLC25A33	0x0
5943	chr1	9641996	9643147	+	SLC25A33	0x0
5944	chr1	9662457	9665144	+	TMEM201	0x0
5945	chr1	9788637	9790979	-	CLSTN1	0x0
5946	chr1	9803929	9805042	-	CLSTN1	0x0
5947	chr1	9808854	9809966	-	CLSTN1	0x0
5948	chr1	9986111	9987213	-	LZIC	0x0
5949	chr1	9989488	9990714	-	LZIC	0x0
5950	chr1	10093059	10094165	+	UBE4B	0x1
5951	chr1	10160625	10161849	+	UBE4B	0x1
5952	chr1	10177004	10178201	+	UBE4B	0x1
5953	chr1	10210866	10212046	+	UBE4B	0x1
5954	chr1	10239684	10240891	+	UBE4B	0x1
5955	chr1	10367287	10368680	+	KIF1B	0x1
5956	chr1	10383422	10384604	+	KIF1B	0x1
5957	chr1	10396196	10397298	+	KIF1B	0x1
5958	chr1	10438563	10439722	+	KIF1B	0x1
5959	chr1	10439946	10441436	+	KIF1B	0x1
5960	chr1	10479813	10480864	+	PGD	0x0
5961	chr1	10726355	10727509	+	PEX14	0x0
5962	chr1	10835429	10836644	-	CASZ1	0x0
5963	chr1	11082832	11084486	+	TARDBP	0x0
5964	chr1	11086450	11087669	+	TARDBP	0x0
5965	chr1	11115305	11116579	-	SRM	0x0
5966	chr1	11118284	11119440	-	SRM	0x0
5967	chr1	11146883	11148058	-	EXOSC10	0x0
5968	chr1	11270285	11271508	-	MTOR	0x0
5969	chr1	11297444	11298640	-	MTOR	0x0
5970	chr1	11346206	11347314	+	UBIAD1	0x0
5971	chr1	11539131	11540325	+	PTCHD2	0x0
5972	chr1	11813482	11815011	+	AGTRAP	0x0
5973	chr1	11845911	11847400	-	MTHFR	0x0
5974	chr1	11900184	11901281	+	CLCN6	0x0
5975	chr1	11900184	11901281	+	NPPA-AS1	0x0
5976	chr1	11902347	11903476	+	CLCN6	0x0
5977	chr1	11982680	11984039	-	KIAA2013	0x0
5978	chr1	12069117	12070299	+	MFN2	0x0
5979	chr1	12071865	12073101	+	MFN2	0x0
5980	chr1	12268991	12270236	+	TNFRSF1B	0x0
5981	chr1	12515497	12516679	+	VPS13D	0x0
5982	chr1	14067940	14069143	+	PRDM2	0x1
5983	chr1	14104837	14105967	+	PRDM2	0x1
5984	chr1	14105980	14107209	+	PRDM2	0x1
5985	chr1	14107832	14108962	+	PRDM2	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
5986	chr1	14112447	14114656	+	PRDM2	0x1
5987	chr1	14150377	14151596	+	PRDM2	0x1
5988	chr1	15256052	15257308	+	KAZN	0x2
5989	chr1	15392753	15394434	+	KAZN	0x2
5990	chr1	15442055	15443290	+	KAZN	0x2
5991	chr1	15755741	15756974	+	EFHD2	0x0
5992	chr1	15818473	15819921	-	CASP9	0x0
5993	chr1	15894969	15896306	+	DNAJC16	0x0
5994	chr1	15944814	15945979	+	DDI2	0x0
5995	chr1	15986559	15988233	+	DDI2	0x0
5996	chr1	15986559	15988233	+	RSC1A1	0x0
5997	chr1	16198805	16201067	+	SPEN	0x0
5998	chr1	16202141	16203397	+	SPEN	0x0
5999	chr1	16244880	16246048	+	SPEN	0x0
6000	chr1	16254191	16255428	+	SPEN	0x0
6001	chr1	16256199	16258980	+	SPEN	0x0
6002	chr1	16260696	16261720	+	SPEN	0x0
6003	chr1	16263792	16265026	+	SPEN	0x0
6004	chr1	16266250	16267374	+	SPEN	0x0
6005	chr1	16450468	16452201	-	EPHA2	0x0
6006	chr1	16461599	16462828	-	EPHA2	0x0
6007	chr1	16463979	16465182	-	EPHA2	0x0
6008	chr1	16573484	16575840	-	FBXO42	0x0
6009	chr1	16641232	16642397	-	FBXO42	0x0
6010	chr1	16712507	16713671	+	C1orf144	0x0
6011	chr1	16721357	16724333	+	C1orf144	0x0
6012	chr1	17011130	17012376	-	ESPNP	0x0
6013	chr1	17312091	17313288	-	ATP13A2	0x0
6014	chr1	17370716	17371820	-	SDHB	0x1
6015	chr1	17393030	17394313	-	PADI2	0x0
6016	chr1	17732814	17735448	-	RCC2	0x0
6017	chr1	17739036	17740139	-	RCC2	0x0
6018	chr1	17746672	17747822	-	RCC2	0x0
6019	chr1	18465166	18466401	+	IGSF21	0x0
6020	chr1	19196681	19198200	-	ALDH4A1	0x0
6021	chr1	19400432	19401884	-	UBR4	0x0
6022	chr1	19414764	19415976	-	UBR4	0x0
6023	chr1	19419966	19421067	-	UBR4	0x0
6024	chr1	19430547	19431718	-	UBR4	0x0
6025	chr1	19436048	19437190	-	UBR4	0x0
6026	chr1	19438702	19439761	-	UBR4	0x0
6027	chr1	19440796	19442477	-	UBR4	0x0
6028	chr1	19452493	19453604	-	UBR4	0x0
6029	chr1	19453631	19455294	-	UBR4	0x0
6030	chr1	19467651	19468852	-	UBR4	0x0
6031	chr1	19470722	19471923	-	UBR4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6032	chr1	19478287	19479445	-	UBR4	0x0
6033	chr1	19482649	19484991	-	UBR4	0x0
6034	chr1	19488366	19489484	-	UBR4	0x0
6035	chr1	19499191	19500293	-	UBR4	0x0
6036	chr1	19503535	19504746	-	UBR4	0x0
6037	chr1	19524556	19526028	-	UBR4	0x0
6038	chr1	19544611	19545775	-	KIAA0090	0x0
6039	chr1	19664970	19666407	-	CAPZB	0x0
6040	chr1	19669345	19670497	-	CAPZB	0x0
6041	chr1	19787252	19788485	-	CAPZB	0x0
6042	chr1	19934147	19935624	+	C1orf151-NBL1	0x0
6043	chr1	19934147	19935624	+	MINOS1	0x0
6044	chr1	19952428	19953537	+	MINOS1	0x0
6045	chr1	19955192	19956353	+	MINOS1	0x0
6046	chr1	20237999	20239204	+	OTUD3	0x0
6047	chr1	20811205	20812372	-	CAMK2N1	0x0
6048	chr1	20978217	20979333	-	DDOST	0x0
6049	chr1	21068709	21069908	-	HP1BP3	0x0
6050	chr1	21901777	21903001	+	ALPL	0x0
6051	chr1	21903865	21905296	+	ALPL	0x0
6052	chr1	22003924	22005224	-	USP48	0x0
6053	chr1	22027489	22028634	-	USP48	0x0
6054	chr1	22054573	22055713	-	USP48	0x0
6055	chr1	22062423	22063501	-	USP48	0x0
6056	chr1	22073008	22074187	-	USP48	0x0
6057	chr1	22078435	22079677	-	USP48	0x0
6058	chr1	22148235	22150132	-	HSPG2	0x0
6059	chr1	22158473	22159676	-	HSPG2	0x0
6060	chr1	22160772	22161942	-	HSPG2	0x0
6061	chr1	22166984	22168246	-	HSPG2	0x0
6062	chr1	22168277	22169473	-	HSPG2	0x0
6063	chr1	22172158	22173568	-	HSPG2	0x0
6064	chr1	22178695	22179795	-	HSPG2	0x0
6065	chr1	22182811	22183972	-	HSPG2	0x0
6066	chr1	22187957	22189081	-	HSPG2	0x0
6067	chr1	22190943	22192055	-	HSPG2	0x0
6068	chr1	22202184	22203374	-	HSPG2	0x0
6069	chr1	22215998	22217133	-	HSPG2	0x0
6070	chr1	22412730	22413931	+	CDC42	0x2
6071	chr1	22417767	22419916	+	CDC42	0x2
6072	chr1	23041125	23042385	+	EPHB2	0x1
6073	chr1	23409058	23410516	+	KDM1A	0x0
6074	chr1	23411614	23412926	-	LUZP1	0x0
6075	chr1	23413030	23414087	-	LUZP1	0x0
6076	chr1	23414950	23416052	-	LUZP1	0x0
6077	chr1	23417480	23419175	-	LUZP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6078	chr1	23481121	23482223	-	LUZP1	0x0
6079	chr1	23635761	23637186	-	HNRNPR	0x0
6080	chr1	23720379	23721557	-	TCEA3	0x0
6081	chr1	23729277	23730825	-	TCEA3	0x0
6082	chr1	24020608	24021813	+	RPL11	0x0
6083	chr1	24086491	24087856	+	TCEB3	0x0
6084	chr1	24087860	24088999	+	TCEB3	0x0
6085	chr1	24295549	24297042	-	SRSF10	0x0
6086	chr1	24680743	24681956	+	GRHL3	0x0
6087	chr1	24746759	24748000	+	NIPAL3	0x0
6088	chr1	24795590	24797690	+	NIPAL3	0x0
6089	chr1	24798712	24799881	+	NIPAL3	0x0
6090	chr1	24969224	24970417	+	SRRM1	0x2
6091	chr1	24971977	24973014	+	SRRM1	0x2
6092	chr1	24973153	24976004	+	SRRM1	0x2
6093	chr1	24998646	25000252	+	SRRM1	0x2
6094	chr1	25167519	25168700	+	CLIC4	0x0
6095	chr1	25169061	25170765	+	CLIC4	0x0
6096	chr1	25399773	25401047	+	RHD	0x0
6097	chr1	25686570	25687791	+	TMEM50A	0x0
6098	chr1	25784719	25785916	+	TMEM57	0x0
6099	chr1	25825019	25826954	+	TMEM57	0x0
6100	chr1	25893853	25894941	+	LDLRAP1	0x0
6101	chr1	25897592	25898841	+	LDLRAP1	0x0
6102	chr1	26006830	26008270	+	MAN1C1	0x0
6103	chr1	26109955	26111111	+	MAN1C1	0x0
6104	chr1	26226590	26230798	-	STMN1	0x0
6105	chr1	26314160	26315272	-	PAFAH2	0x0
6106	chr1	26364197	26365431	-	SLC30A2	0x0
6107	chr1	26604087	26605269	+	CEP85	0x0
6108	chr1	26607221	26608456	+	SH3BGRL3	0x0
6109	chr1	26752747	26754086	+	LIN28A	0x0
6110	chr1	26755287	26756441	+	LIN28A	0x0
6111	chr1	26857074	26858293	+	RPS6KA1	0x0
6112	chr1	26877291	26878514	+	RPS6KA1	0x0
6113	chr1	26900227	26901787	+	RPS6KA1	0x0
6114	chr1	27086826	27087970	+	ARID1A	0x1
6115	chr1	27101073	27102217	+	ARID1A	0x1
6116	chr1	27105303	27106926	+	ARID1A	0x1
6117	chr1	27107173	27108636	+	ARID1A	0x1
6118	chr1	27158413	27159557	+	ZDHHC18	0x0
6119	chr1	27180065	27182555	+	ZDHHC18	0x0
6120	chr1	27425087	27426485	-	SLC9A1	0x0
6121	chr1	27441396	27442792	-	SLC9A1	0x0
6122	chr1	27469807	27471012	-	SLC9A1	0x0
6123	chr1	27526522	27528081	+	WDTC1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6124	chr1	27586895	27588103	+	WDTC1	0x0
6125	chr1	27632202	27635169	+	WDTC1	0x0
6126	chr1	27730587	27733164	-	WASF2	0x0
6127	chr1	27744211	27745332	-	WASF2	0x0
6128	chr1	27853260	27854383	-	AHDC1	0x0
6129	chr1	27868882	27870017	-	AHDC1	0x0
6130	chr1	27874862	27876455	-	AHDC1	0x0
6131	chr1	27877315	27878941	-	AHDC1	0x0
6132	chr1	28053428	28054547	+	FAM76A	0x0
6133	chr1	28087290	28089197	+	FAM76A	0x0
6134	chr1	28148746	28150730	+	STX12	0x0
6135	chr1	28176881	28178291	+	PPP1R8	0x0
6136	chr1	28217915	28219111	-	RPA2	0x0
6137	chr1	28297122	28298236	-	EYA3	0x0
6138	chr1	28299871	28301036	-	EYA3	0x0
6139	chr1	28414163	28415490	-	EYA3	0x0
6140	chr1	28421420	28422638	-	LOC653566	0x0
6141	chr1	28526680	28528098	-	DNAJC8	0x0
6142	chr1	28563926	28565107	+	ATPIF1	0x0
6143	chr1	28607376	28608651	+	SESN2	0x0
6144	chr1	28792407	28793614	+	PHACTR4	0x0
6145	chr1	28826004	28827138	+	PHACTR4	0x0
6146	chr1	28863853	28865745	+	RCC1	0x0
6147	chr1	29042585	29043829	+	GMEB1	0x0
6148	chr1	29095438	29096569	+	YTHDF2	0x0
6149	chr1	29313567	29314723	+	EPB41	0x1
6150	chr1	29445454	29447021	+	EPB41	0x1
6151	chr1	29445481	29446649	-	TMEM200B	0x0
6152	chr1	29473837	29474996	-	SRSF4	0x0
6153	chr1	29480718	29481882	-	SRSF4	0x0
6154	chr1	31205717	31206888	-	LAPTM5	0x0
6155	chr1	31344764	31345921	-	SDC3	0x0
6156	chr1	31350389	31351564	-	SDC3	0x0
6157	chr1	31404276	31405871	-	PUM1	0x0
6158	chr1	31413481	31414582	-	PUM1	0x0
6159	chr1	31437101	31438201	-	PUM1	0x0
6160	chr1	31451859	31452989	-	PUM1	0x0
6161	chr1	31464691	31466003	-	PUM1	0x0
6162	chr1	31467472	31468552	-	PUM1	0x0
6163	chr1	31501111	31502216	-	PUM1	0x0
6164	chr1	31652437	31653977	-	NKAIN1	0x0
6165	chr1	31700023	31701260	-	NKAIN1	0x0
6166	chr1	31836675	31838236	+	ZCCHC17	0x0
6167	chr1	31845252	31846477	-	FABP3	0x1
6168	chr1	32203306	32204457	-	BAI2	0x1
6169	chr1	32371580	32375002	-	PTP4A2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6170	chr1	32384551	32385783	-	PTP4A2	0x0
6171	chr1	32636858	32640482	+	KPNA6	0x0
6172	chr1	32662072	32663953	+	TXLNA	0x0
6173	chr1	32681372	32682750	-	TMEM234	0x0
6174	chr1	32689078	32690275	+	EIF3I	0x0
6175	chr1	32693752	32694929	+	EIF3I	0x0
6176	chr1	32798354	32799544	+	HDAC1	0x0
6177	chr1	32799074	32800593	-	MARCKSL1	0x0
6178	chr1	32801111	32802386	-	MARCKSL1	0x0
6179	chr1	32831500	32832750	-	BSDC1	0x0
6180	chr1	33086887	33088002	-	ZBTB8OS	0x0
6181	chr1	33134126	33135260	+	RBBP4	0x0
6182	chr1	33235301	33236456	+	KIAA1522	0x0
6183	chr1	33237166	33238341	+	KIAA1522	0x0
6184	chr1	33238987	33240858	+	KIAA1522	0x0
6185	chr1	33240315	33242150	-	YARS	0x0
6186	chr1	33245250	33246392	-	YARS	0x0
6187	chr1	33291265	33293005	+	S100PBP	0x0
6188	chr1	33323052	33324567	+	S100PBP	0x0
6189	chr1	33413266	33414452	-	RNF19B	0x0
6190	chr1	33788863	33790085	-	PHC2	0x0
6191	chr1	33977495	33978731	-	CSMD2	0x0
6192	chr1	35222475	35223575	+	GJB5	0x0
6193	chr1	35250745	35252386	+	GJB3	0x0
6194	chr1	35330643	35332148	-	DLGAP3	0x0
6195	chr1	35369765	35370935	-	DLGAP3	0x0
6196	chr1	35578371	35580012	+	ZMYM1	0x0
6197	chr1	35645398	35646560	-	SFPQ	0x2
6198	chr1	35648093	35650168	-	SFPQ	0x2
6199	chr1	35650226	35651451	-	SFPQ	0x2
6200	chr1	35652166	35654143	-	SFPQ	0x2
6201	chr1	35790433	35791622	+	ZMYM4	0x0
6202	chr1	35852570	35853720	+	ZMYM4	0x0
6203	chr1	35864553	35865750	+	ZMYM4	0x0
6204	chr1	35870125	35871381	+	ZMYM4	0x0
6205	chr1	35880717	35881816	+	ZMYM4	0x0
6206	chr1	35884693	35887539	+	ZMYM4	0x0
6207	chr1	36199975	36201880	-	CLSPN	0x2
6208	chr1	36357604	36358759	+	EIF2C1	0x0
6209	chr1	36385450	36389975	+	EIF2C1	0x0
6210	chr1	36521734	36523227	+	EIF2C3	0x0
6211	chr1	36525136	36526240	+	EIF2C3	0x0
6212	chr1	36558435	36559617	+	ADPRHL2	0x0
6213	chr1	36560589	36561704	-	COL8A2	0x0
6214	chr1	36645460	36646704	+	MAP7D1	0x0
6215	chr1	36751897	36753099	+	THRAP3	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6216	chr1	36754494	36755663	+	THRAP3	0x2
6217	chr1	36766019	36767146	+	THRAP3	0x2
6218	chr1	36769073	36771324	+	THRAP3	0x2
6219	chr1	36805138	36807474	-	STK40	0x0
6220	chr1	37260965	37263175	-	GRIK3	0x2
6221	chr1	37263260	37265217	-	GRIK3	0x2
6222	chr1	37265970	37267297	-	GRIK3	0x2
6223	chr1	37359444	37360553	-	GRIK3	0x2
6224	chr1	37436729	37437904	-	GRIK3	0x2
6225	chr1	37496503	37497667	-	GRIK3	0x2
6226	chr1	37879600	37880760	-	LOC728431	0x0
6227	chr1	38060882	38062106	-	GNL2	0x0
6228	chr1	38267139	38268863	+	MANEAL	0x0
6229	chr1	38268923	38270142	-	YRDC	0x0
6230	chr1	38279839	38280990	-	MTF1	0x0
6231	chr1	38309634	38310799	-	MTF1	0x0
6232	chr1	38325880	38327445	-	INPP5B	0x0
6233	chr1	38462247	38463387	-	FHL3	0x0
6234	chr1	39303344	39304556	-	RRAGC	0x0
6235	chr1	39469756	39472181	+	AKIRIN1	0x0
6236	chr1	39571966	39573174	+	MACF1	0x2
6237	chr1	39644318	39645526	+	MACF1	0x2
6238	chr1	39752582	39753729	+	MACF1	0x2
6239	chr1	39760182	39761346	+	MACF1	0x2
6240	chr1	39775381	39776619	+	MACF1	0x2
6241	chr1	39783567	39784768	+	MACF1	0x2
6242	chr1	39788013	39789137	+	MACF1	0x2
6243	chr1	39792419	39793593	+	MACF1	0x2
6244	chr1	39815972	39817187	+	MACF1	0x2
6245	chr1	39825903	39827091	+	MACF1	0x2
6246	chr1	39837596	39838727	+	MACF1	0x2
6247	chr1	39844378	39845548	+	MACF1	0x2
6248	chr1	39850675	39851970	+	MACF1	0x2
6249	chr1	39852465	39854733	+	MACF1	0x2
6250	chr1	39876498	39877645	+	KIAA0754	0x0
6251	chr1	39895824	39897102	+	MACF1	0x2
6252	chr1	39898222	39899358	+	MACF1	0x2
6253	chr1	39904443	39905577	+	MACF1	0x2
6254	chr1	39906807	39909756	+	MACF1	0x2
6255	chr1	39913222	39914296	+	MACF1	0x2
6256	chr1	39916205	39917312	+	MACF1	0x2
6257	chr1	39928695	39929889	+	MACF1	0x2
6258	chr1	39933729	39934962	+	MACF1	0x2
6259	chr1	39950827	39953151	+	MACF1	0x2
6260	chr1	40032911	40037515	-	PABPC4	0x0
6261	chr1	40032911	40037515	-	SNORA55	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6262	chr1	40037563	40042097	-	PABPC4	0x0
6263	chr1	40218411	40219544	-	BMP8B	0x4
6264	chr1	40306281	40307506	-	TRIT1	0x0
6265	chr1	40360829	40361957	-	MYCL1	0x2
6266	chr1	40537447	40538611	+	CAP1	0x0
6267	chr1	40538002	40539322	-	PPT1	0x0
6268	chr1	40538738	40539871	+	CAP1	0x0
6269	chr1	40756030	40757129	+	ZMPSTE24	0x0
6270	chr1	40758978	40760133	+	ZMPSTE24	0x0
6271	chr1	40774757	40776111	-	COL9A2	0x0
6272	chr1	40887883	40889321	+	SMAP2	0x0
6273	chr1	40980358	40981586	+	DEM1	0x0
6274	chr1	41085974	41087055	-	RIMS3	0x0
6275	chr1	41088502	41091395	-	RIMS3	0x0
6276	chr1	41236664	41237808	+	NFYC	0x0
6277	chr1	41444850	41446059	+	CTPS	0x0
6278	chr1	41461039	41462276	+	CTPS	0x0
6279	chr1	41467340	41472237	+	CTPS	0x0
6280	chr1	41492435	41493796	-	SCMH1	0x0
6281	chr1	41509557	41510698	-	SCMH1	0x0
6282	chr1	41607988	41609185	-	SCMH1	0x0
6283	chr1	41703058	41704172	-	SCMH1	0x0
6284	chr1	42643611	42645663	-	FOXJ3	0x0
6285	chr1	42925094	42926361	+	PPCS	0x0
6286	chr1	43167163	43168337	+	YBX1	0x0
6287	chr1	43211549	43213657	-	LEPRE1	0x2
6288	chr1	43231693	43232841	-	LEPRE1	0x2
6289	chr1	43244639	43245745	+	C1orf50	0x0
6290	chr1	43391329	43392981	-	SLC2A1	0x0
6291	chr1	43402379	43403557	-	SLC2A1	0x0
6292	chr1	43408319	43409551	-	SLC2A1	0x0
6293	chr1	43423806	43425082	-	SLC2A1	0x0
6294	chr1	43494535	43495762	+	FLJ32224	0x0
6295	chr1	43824114	43825292	+	CDC20	0x0
6296	chr1	43894866	43895984	+	SZT2	0x0
6297	chr1	43903811	43905013	+	SZT2	0x0
6298	chr1	43916074	43917196	+	SZT2	0x0
6299	chr1	44040457	44041573	+	PTPRF	0x0
6300	chr1	44071406	44072623	+	PTPRF	0x0
6301	chr1	44087191	44089799	+	PTPRF	0x0
6302	chr1	44136739	44137991	+	KDM4A	0x0
6303	chr1	44414907	44416079	+	IPO13	0x0
6304	chr1	44437001	44438202	+	DPH2	0x0
6305	chr1	44441227	44444455	+	ATP6V0B	0x0
6306	chr1	44450410	44451561	+	B4GALT2	0x0
6307	chr1	45114871	45117882	+	RNF220	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6308	chr1	45208203	45209560	+	KIF2C	0x0
6309	chr1	45240955	45242143	+	RPS8	0x0
6310	chr1	45240955	45242143	+	SNORD55	0x0
6311	chr1	45299778	45300978	-	PTCH2	0x1
6312	chr1	45805577	45806825	+	TOE1	0x0
6313	chr1	45810344	45811517	-	TESK2	0x0
6314	chr1	45980866	45981965	-	PRDX1	0x0
6315	chr1	46032008	46034790	+	AKR1A1	0x0
6316	chr1	46056336	46057447	+	NASP	0x0
6317	chr1	46071631	46074483	+	NASP	0x0
6318	chr1	46083575	46084983	+	NASP	0x0
6319	chr1	46092625	46094486	-	GPBP1L1	0x0
6320	chr1	46125326	46126438	-	GPBP1L1	0x0
6321	chr1	46490901	46491997	+	MAST2	0x0
6322	chr1	46499869	46501020	+	MAST2	0x0
6323	chr1	46653912	46655199	-	POMGNT1	0x0
6324	chr1	46744751	46745933	+	RAD54L	0x0
6325	chr1	46781714	46783003	+	UQCRH	0x0
6326	chr1	46805953	46807151	+	NSUN4	0x0
6327	chr1	46885744	46886917	+	FAAH	0x0
6328	chr1	47073823	47074982	-	MOB3C	0x0
6329	chr1	47076056	47077178	-	MOB3C	0x0
6330	chr1	47097992	47099125	-	ATPAF1	0x0
6331	chr1	47141225	47144182	-	KIAA0494	0x0
6332	chr1	47154611	47155811	-	KIAA0494	0x0
6333	chr1	47842263	47843734	+	CMPK1	0x0
6334	chr1	48226124	48227305	-	LOC388630	0x0
6335	chr1	50668374	50669523	+	ELAVL4	0x0
6336	chr1	50882879	50884025	-	DMRTA2	0x0
6337	chr1	51004773	51005915	-	FAF1	0x0
6338	chr1	51737646	51738840	+	RNF11	0x0
6339	chr1	51820158	51822543	-	EPS15	0x2
6340	chr1	52485373	52486958	-	TXNDC12	0x0
6341	chr1	52553187	52554377	+	BTF3L4	0x0
6342	chr1	52703030	52704214	+	ZFYVE9	0x0
6343	chr1	52746804	52747952	+	ZFYVE9	0x0
6344	chr1	52817398	52819047	-	CC2D1B	0x0
6345	chr1	52888608	52889911	-	ZCCHC11	0x0
6346	chr1	52903382	52904507	-	ZCCHC11	0x0
6347	chr1	52911487	52912589	-	ZCCHC11	0x0
6348	chr1	52923495	52924721	-	ZCCHC11	0x0
6349	chr1	52933355	52934528	-	ZCCHC11	0x0
6350	chr1	53122079	53123213	+	FAM159A	0x0
6351	chr1	53291265	53292454	+	ZYG11B	0x0
6352	chr1	53362157	53363492	+	ZYG11A	0x0
6353	chr1	53667429	53668634	+	CPT2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6354	chr1	53675954	53677161	+	CPT2	0x0
6355	chr1	53710909	53712625	-	LRP8	0x0
6356	chr1	54140762	54141938	-	GLIS1	0x0
6357	chr1	54171620	54172836	-	GLIS1	0x0
6358	chr1	54231193	54233615	-	TMEM48	0x0
6359	chr1	54262027	54263511	-	TMEM48	0x0
6360	chr1	54417349	54418513	+	LRRC42	0x0
6361	chr1	54433162	54434347	+	LRRC42	0x0
6362	chr1	54501764	54503056	-	TMEM59	0x0
6363	chr1	54670247	54671414	+	MRPL37	0x0
6364	chr1	54690786	54692127	-	SSBP3	0x0
6365	chr1	54952523	54953726	+	ACOT11	0x0
6366	chr1	55314864	55318450	-	DHCR24	0x0
6367	chr1	55336384	55337605	-	DHCR24	0x0
6368	chr1	55532030	55534688	-	USP24	0x0
6369	chr1	55560415	55561621	-	USP24	0x0
6370	chr1	57174656	57175867	+	PRKAA2	0x0
6371	chr1	57176664	57177953	+	PRKAA2	0x0
6372	chr1	57179243	57180384	+	PRKAA2	0x0
6373	chr1	57826588	57827741	-	DAB1	0x0
6374	chr1	58999083	59000251	-	OMA1	0x0
6375	chr1	59004027	59005381	-	OMA1	0x0
6376	chr1	59120648	59124666	-	MYSM1	0x0
6377	chr1	59165085	59166269	-	MYSM1	0x0
6378	chr1	59464857	59466474	+	LOC100131060	0x0
6379	chr1	60338572	60342407	+	HOOK1	0x0
6380	chr1	62675971	62677077	+	L1TD1	0x0
6381	chr1	62916326	62917943	+	USP1	0x0
6382	chr1	63249606	63250855	+	ATG4C	0x0
6383	chr1	63281806	63282992	+	ATG4C	0x0
6384	chr1	63789739	63791127	+	FOXD3	0x0
6385	chr1	63894102	63895264	+	ALG6	0x0
6386	chr1	64061120	64062318	+	PGM1	0x0
6387	chr1	64381292	64382529	+	ROR1	0x0
6388	chr1	64429377	64430505	+	ROR1	0x0
6389	chr1	64643202	64644309	+	ROR1	0x0
6390	chr1	65157289	65158433	+	CACHD1	0x0
6391	chr1	65297914	65299199	+	RAVER2	0x0
6392	chr1	65424628	65425826	-	JAK1	0x2
6393	chr1	65692881	65695799	+	AK4	0x0
6394	chr1	65696398	65698217	+	AK4	0x0
6395	chr1	65747891	65749044	+	DNAJC6	0x0
6396	chr1	65878923	65881349	+	DNAJC6	0x0
6397	chr1	65895125	65898524	+	LEPROT	0x0
6398	chr1	67450821	67452343	+	MIER1	0x0
6399	chr1	67468664	67469977	-	SLC35D1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6400	chr1	67521335	67522540	+	MIER1	0x0
6401	chr1	67860752	67861948	-	SERBP1	0x0
6402	chr1	67876569	67879289	-	SERBP1	0x0
6403	chr1	67880359	67881435	-	SERBP1	0x0
6404	chr1	67889417	67890514	-	SERBP1	0x0
6405	chr1	67924512	67925672	+	IL12RB2	0x0
6406	chr1	68017691	68018889	+	GADD45A	0x0
6407	chr1	68168945	68170079	-	GNG12	0x0
6408	chr1	68181122	68183085	+	GADD45A	0x0
6409	chr1	68183239	68184575	+	GADD45A	0x0
6410	chr1	68696244	68697512	-	WLS	0x0
6411	chr1	70610770	70612047	-	LRRC40	0x0
6412	chr1	70715973	70718084	+	SRSF11	0x2
6413	chr1	70725937	70727343	-	ANKRD13C	0x0
6414	chr1	70819465	70820633	-	ANKRD13C	0x0
6415	chr1	71528495	71530989	-	ZRANB2	0x0
6416	chr1	71534421	71535627	-	ZRANB2	0x0
6417	chr1	71952943	71954114	+	ZRANB2-AS2	0x0
6418	chr1	74663769	74665081	+	FPGT	0x0
6419	chr1	74663769	74665081	+	FPGT-TNNI3K	0x0
6420	chr1	75233647	75234853	+	TYW3	0x0
6421	chr1	76227998	76229207	+	ACADM	0x2
6422	chr1	76252183	76253339	+	RABGGTB	0x0
6423	chr1	76252183	76253339	+	SNORD45C	0x0
6424	chr1	76256704	76257727	+	RABGGTB	0x0
6425	chr1	76259315	76260409	+	RABGGTB	0x0
6426	chr1	76551738	76552950	+	ST6GALNAC3	0x2
6427	chr1	76605775	76607220	+	ST6GALNAC3	0x2
6428	chr1	76883088	76884238	+	ST6GALNAC3	0x2
6429	chr1	76943705	76945276	+	ST6GALNAC3	0x2
6430	chr1	77038122	77039335	+	ST6GALNAC3	0x2
6431	chr1	77165544	77166712	+	ST6GALNAC3	0x2
6432	chr1	77556300	77557767	-	PIGK	0x0
6433	chr1	77594578	77595855	+	ST6GALNAC5	0x0
6434	chr1	78026161	78027321	-	ZZZ3	0x0
6435	chr1	78097596	78098800	-	ZZZ3	0x0
6436	chr1	78201191	78202393	-	USP33	0x0
6437	chr1	78275063	78276752	-	USP33	0x0
6438	chr1	78298278	78299446	+	FAM73A	0x0
6439	chr1	78341543	78342656	+	FAM73A	0x0
6440	chr1	78342894	78344039	+	FAM73A	0x0
6441	chr1	78410558	78412526	-	FUBP1	0x2
6442	chr1	78412611	78413778	-	FUBP1	0x2
6443	chr1	78423575	78424727	-	FUBP1	0x2
6444	chr1	78428762	78429860	-	FUBP1	0x2
6445	chr1	79520146	79521731	-	ELTD1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6446	chr1	82449715	82450899	+	LPHN2	0x2
6447	chr1	84700816	84702024	+	PRKACB	0x0
6448	chr1	84770182	84771431	+	SAMD13	0x0
6449	chr1	85111473	85113007	-	SSX2IP	0x0
6450	chr1	85655494	85656793	-	SYDE2	0x0
6451	chr1	85666267	85667457	-	SYDE2	0x0
6452	chr1	85783995	85786809	-	DDAH1	0x0
6453	chr1	87212866	87214012	+	SH3GLB1	0x1
6454	chr1	87327909	87329589	-	SEP15	0x0
6455	chr1	89225416	89226635	+	PKN2	0x0
6456	chr1	89236845	89238021	+	PKN2	0x0
6457	chr1	89272474	89273633	+	PKN2	0x0
6458	chr1	89299397	89301911	+	PKN2	0x0
6459	chr1	89569481	89570588	-	GBP2	0x0
6460	chr1	90048755	90049959	+	LRRC8B	0x0
6461	chr1	90058935	90060093	+	LRRC8B	0x0
6462	chr1	90060807	90061959	+	LRRC8B	0x0
6463	chr1	90062025	90063133	+	LRRC8B	0x0
6464	chr1	90182229	90183338	+	LRRC8C	0x0
6465	chr1	90399274	90402377	+	LRRC8D	0x0
6466	chr1	91380657	91381858	-	ZNF644	0x0
6467	chr1	91404718	91406036	-	ZNF644	0x0
6468	chr1	91978701	91979932	+	CDC7	0x0
6469	chr1	92145759	92147048	-	TGFBR3	0x1
6470	chr1	92595227	92596364	+	BTBD8	0x0
6471	chr1	92789151	92790247	+	RPAP2	0x0
6472	chr1	92974905	92976114	-	EVI5	0x0
6473	chr1	92976177	92978228	-	EVI5	0x0
6474	chr1	93089213	93090386	-	EVI5	0x0
6475	chr1	93169593	93170765	-	EVI5	0x0
6476	chr1	93575564	93576726	+	MTF2	0x0
6477	chr1	93580044	93581148	+	MTF2	0x0
6478	chr1	93602026	93605107	+	MTF2	0x0
6479	chr1	93618977	93620139	-	TMED5	0x0
6480	chr1	93825791	93827482	+	DR1	0x0
6481	chr1	94017397	94020532	+	FNBP1L	0x0
6482	chr1	94036720	94037820	-	BCAR3	0x0
6483	chr1	94040621	94041737	-	BCAR3	0x0
6484	chr1	94353094	94354968	-	GCLM	0x0
6485	chr1	94883093	94884317	-	F3	0x0
6486	chr1	94982863	94984409	+	ABCD3	0x0
6487	chr1	94995674	94996789	-	F3	0x0
6488	chr1	95362023	95363759	-	CNN3	0x0
6489	chr1	97245550	97246675	+	PTBP2	0x0
6490	chr1	100169176	100170284	-	FRRS1	0x0
6491	chr1	100170641	100171773	-	FRRS1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6492	chr1	100172967	100174120	-	FRRS1	0x0
6493	chr1	100213626	100214735	-	FRRS1	0x0
6494	chr1	100490870	100492107	+	SLC35A3	0x0
6495	chr1	100547441	100549229	+	HIAT1	0x0
6496	chr1	100661188	100662294	-	DBT	0x0
6497	chr1	100750233	100751383	+	RTCD1	0x0
6498	chr1	101338457	101339596	-	EXTL2	0x1
6499	chr1	101361245	101362473	+	SLC30A7	0x0
6500	chr1	101444956	101446124	+	SLC30A7	0x0
6501	chr1	102728878	102730071	+	DNAJA1P5	0x0
6502	chr1	104095842	104096965	+	AMY2B	0x0
6503	chr1	107600748	107602190	+	PRMT6	0x0
6504	chr1	109242183	109243980	+	PRPF38B	0x0
6505	chr1	109534721	109535883	+	GPSM2	0x0
6506	chr1	109637478	109638884	+	TMEM167B	0x0
6507	chr1	109642537	109643735	+	SCARNA2	0x0
6508	chr1	109772584	109774142	+	SARS	0x0
6509	chr1	109777352	109778451	+	SARS	0x0
6510	chr1	109780955	109782147	+	SARS	0x0
6511	chr1	109821759	109823252	-	PSRC1	0x0
6512	chr1	109823898	109825115	-	PSRC1	0x0
6513	chr1	109853171	109854279	-	SORT1	0x0
6514	chr1	109854765	109855859	-	SORT1	0x0
6515	chr1	109865013	109866205	-	SORT1	0x0
6516	chr1	109944036	109953059	-	PSMA5	0x0
6517	chr1	110040361	110041536	+	CYB561D1	0x0
6518	chr1	110134577	110137398	+	GNAI3	0x0
6519	chr1	110173350	110174549	+	AMPD2	0x0
6520	chr1	110213584	110214789	+	GSTM2	0x0
6521	chr1	110255821	110257213	-	GSTM3	0x0
6522	chr1	110561656	110562755	+	AHCYL1	0x0
6523	chr1	110564064	110566793	+	AHCYL1	0x0
6524	chr1	110883205	110884401	+	RBM15	0x2
6525	chr1	110887183	110889807	+	RBM15	0x2
6526	chr1	110933684	110934842	+	RBM15	0x2
6527	chr1	111980833	111982038	-	WDR77	0x0
6528	chr1	111982343	111984331	-	WDR77	0x0
6529	chr1	111989555	111990703	-	WDR77	0x0
6530	chr1	112001629	112002728	+	ATP5F1	0x0
6531	chr1	112003164	112004435	+	ATP5F1	0x0
6532	chr1	112166447	112167644	+	RAP1A	0x1
6533	chr1	112309040	112310305	+	DDX20	0x0
6534	chr1	113000749	113002357	+	CTTNBP2NL	0x0
6535	chr1	113081058	113082207	-	ST7L	0x0
6536	chr1	113230487	113232745	+	MOV10	0x0
6537	chr1	113240093	113241334	+	MOV10	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6538	chr1	113242047	113243143	+	MOV10	0x0
6539	chr1	113459403	113460784	-	SLC16A1	0x0
6540	chr1	113498164	113499335	-	SLC16A1	0x0
6541	chr1	113670295	113671581	+	LRIG2	0x0
6542	chr1	114268482	114269640	-	PHTF1	0x0
6543	chr1	114305538	114307701	-	RSBN1	0x0
6544	chr1	114347758	114348883	-	RSBN1	0x0
6545	chr1	114483055	114484253	+	HIPK1	0x0
6546	chr1	114512091	114513316	+	HIPK1	0x0
6547	chr1	114515850	114516925	+	HIPK1	0x0
6548	chr1	114517040	114519714	+	HIPK1	0x0
6549	chr1	114938047	114940464	-	TRIM33	0x2
6550	chr1	114947650	114948795	-	TRIM33	0x2
6551	chr1	114973002	114974143	-	TRIM33	0x2
6552	chr1	115078416	115079610	+	SYCP1	0x0
6553	chr1	115110222	115111380	-	BCAS2	0x0
6554	chr1	115126153	115127333	-	DENND2C	0x0
6555	chr1	115246647	115248462	-	NRAS	0x2
6556	chr1	115259084	115260444	-	CSDE1	0x0
6557	chr1	115259084	115260444	-	NRAS	0x2
6558	chr1	115260807	115263784	-	CSDE1	0x0
6559	chr1	115267333	115273504	-	CSDE1	0x0
6560	chr1	115274724	115281190	-	CSDE1	0x0
6561	chr1	115281860	115282986	-	CSDE1	0x0
6562	chr1	115314326	115315413	-	SIKE1	0x0
6563	chr1	116205840	116207085	+	VANGL1	0x0
6564	chr1	116233818	116234945	+	VANGL1	0x0
6565	chr1	116235775	116236939	+	VANGL1	0x0
6566	chr1	116915377	116916623	+	ATP1A1	0x0
6567	chr1	116926825	116928004	+	ATP1A1	0x0
6568	chr1	116930759	116932118	+	ATP1A1	0x0
6569	chr1	116932343	116933517	+	ATP1A1	0x0
6570	chr1	116937289	116938462	+	ATP1A1	0x0
6571	chr1	116938753	116939859	+	ATP1A1	0x0
6572	chr1	116946572	116947719	+	ATP1A1	0x0
6573	chr1	117116397	117117465	-	IGSF3	0x0
6574	chr1	117118756	117119872	-	IGSF3	0x0
6575	chr1	117529364	117532463	+	PTGFRN	0x0
6576	chr1	117910279	117911443	+	MAN1A2	0x0
6577	chr1	118065067	118066268	+	MAN1A2	0x0
6578	chr1	118066755	118069365	+	MAN1A2	0x0
6579	chr1	118501646	118503133	+	WDR3	0x0
6580	chr1	119572226	119573773	-	WARS2	0x0
6581	chr1	120254107	120255294	+	PHGDH	0x0
6582	chr1	120464338	120465544	-	NOTCH2	0x2
6583	chr1	145439955	145442100	+	TXNIP	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6584	chr1	145584889	145586082	+	PIAS3	0x0
6585	chr1	145594582	145595765	-	POLR3C	0x0
6586	chr1	145688234	145690409	+	RNF115	0x0
6587	chr1	146629014	146630242	-	PRKAB2	0x2
6588	chr1	146743262	146744437	+	CHD1L	0x0
6589	chr1	147141574	147142807	-	ACP6	0x0
6590	chr1	147467321	147468399	+	GPR89C	0x0
6591	chr1	149782892	149784263	-	HIST2H2BF	0x0
6592	chr1	149784439	149785615	-	HIST2H3D	0x0
6593	chr1	149822236	149823436	+	HIST2H2AA3	0x0
6594	chr1	149822236	149823436	+	HIST2H2AA4	0x0
6595	chr1	149910910	149912386	-	OTUD7B	0x0
6596	chr1	149915226	149916360	-	OTUD7B	0x0
6597	chr1	150190241	150193076	-	ANP32E	0x0
6598	chr1	150324953	150326188	+	PRPF3	0x0
6599	chr1	150445100	150446265	-	MCL1	0x0
6600	chr1	150446906	150448451	+	RPRD2	0x0
6601	chr1	150522415	150523644	-	MCL1	0x0
6602	chr1	150546788	150549880	-	MCL1	0x0
6603	chr1	150595721	150598250	-	ENSA	0x0
6604	chr1	150782117	150784726	-	ARNT	0x2
6605	chr1	150808261	150809474	-	ARNT	0x2
6606	chr1	150922937	150924048	+	SETDB1	0x0
6607	chr1	150932677	150933837	+	SETDB1	0x0
6608	chr1	150936502	150937812	+	SETDB1	0x0
6609	chr1	150937197	150939015	-	CERS2	0x0
6610	chr1	151023435	151024834	-	CDC42SE1	0x0
6611	chr1	151024919	151026093	-	CDC42SE1	0x0
6612	chr1	151093076	151094145	+	GABPB2	0x0
6613	chr1	151096491	151098224	+	GABPB2	0x0
6614	chr1	151104140	151105327	-	SEMA6C	0x0
6615	chr1	151176850	151177970	+	PIP5K1A	0x0
6616	chr1	151220854	151222089	+	PIP5K1A	0x0
6617	chr1	151263854	151264981	+	ZNF687	0x2
6618	chr1	151278111	151279259	-	PI4KB	0x0
6619	chr1	151287911	151289103	-	PI4KB	0x0
6620	chr1	151373742	151374922	+	PSMB4	0x0
6621	chr1	151377627	151379394	-	POGZ	0x0
6622	chr1	151510333	151511562	+	CGN	0x0
6623	chr1	151634068	151635283	+	SNX27	0x0
6624	chr1	151666237	151668099	+	SNX27	0x0
6625	chr1	151668208	151671077	+	SNX27	0x0
6626	chr1	151734376	151735487	-	MRPL9	0x0
6627	chr1	151954892	151956071	-	S100A10	0x0
6628	chr1	153506604	153507839	-	S100A6	0x0
6629	chr1	153609796	153610898	+	CHTOP	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6630	chr1	153617324	153618844	+	CHTOP	0x0
6631	chr1	153634075	153635544	-	ILF2	0x0
6632	chr1	153740837	153741992	+	INTS3	0x0
6633	chr1	153743793	153745045	+	INTS3	0x0
6634	chr1	153745615	153747043	+	INTS3	0x0
6635	chr1	153777504	153779629	-	GATAD2B	0x0
6636	chr1	153779686	153782556	-	GATAD2B	0x0
6637	chr1	153799992	153801301	-	GATAD2B	0x0
6638	chr1	153908554	153909718	-	DENND4B	0x0
6639	chr1	153929541	153930694	-	CRTC2	0x0
6640	chr1	153931112	153933043	-	CRTC2	0x0
6641	chr1	153931112	153933043	-	SLC39A1	0x1
6642	chr1	154028798	154029954	-	NUP210L	0x0
6643	chr1	154128344	154129627	-	TPM3	0x2
6644	chr1	154197002	154198243	+	UBAP2L	0x0
6645	chr1	154213388	154214615	+	UBAP2L	0x0
6646	chr1	154217916	154219101	+	UBAP2L	0x0
6647	chr1	154223437	154224596	+	UBAP2L	0x0
6648	chr1	154232915	154234095	+	UBAP2L	0x0
6649	chr1	154241416	154242633	+	UBAP2L	0x0
6650	chr1	154321767	154324246	+	ATP8B2	0x0
6651	chr1	154440394	154441516	+	IL6R	0x0
6652	chr1	154452425	154454259	-	SHE	0x0
6653	chr1	154473395	154474499	-	SHE	0x0
6654	chr1	154520558	154521805	-	UBE2Q1	0x0
6655	chr1	154525030	154526169	-	UBE2Q1	0x0
6656	chr1	154529499	154530692	-	UBE2Q1	0x0
6657	chr1	154929498	154931178	-	PYGO2	0x0
6658	chr1	154934265	154935507	-	SHC1	0x2
6659	chr1	154950988	154952187	+	CKS1B	0x2
6660	chr1	154966180	154967317	+	LENEP	0x0
6661	chr1	154986648	154987749	+	ZBTB7B	0x0
6662	chr1	154989794	154991509	+	ZBTB7B	0x0
6663	chr1	155111854	155112963	-	DPM3	0x0
6664	chr1	155144703	155145885	-	KRTCAP2	0x0
6665	chr1	155167735	155168870	-	THBS3	0x2
6666	chr1	155180676	155181850	-	GBAP1	0x0
6667	chr1	155202003	155203151	-	GBA	0x0
6668	chr1	155216838	155218040	-	FAM189B	0x0
6669	chr1	155233152	155234269	-	CLK2	0x0
6670	chr1	155237258	155238410	-	CLK2	0x0
6671	chr1	155254521	155255620	+	HCN3	0x0
6672	chr1	155718566	155719743	+	MSTO2P	0x0
6673	chr1	155719317	155721009	-	GON4L	0x0
6674	chr1	155726439	155727604	-	GON4L	0x0
6675	chr1	155734487	155736442	-	GON4L	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6676	chr1	155740374	155741527	-	GON4L	0x0
6677	chr1	155742379	155743471	-	GON4L	0x0
6678	chr1	155754439	155755637	-	GON4L	0x0
6679	chr1	155826182	155827298	-	GON4L	0x0
6680	chr1	155853781	155855401	+	SYT11	0x0
6681	chr1	155883016	155884148	-	KIAA0907	0x0
6682	chr1	155916280	155917495	-	ARHGEF2	0x0
6683	chr1	155978338	155979849	-	SSR2	0x0
6684	chr1	155987510	155988690	-	SSR2	0x0
6685	chr1	155989251	155990486	-	SSR2	0x0
6686	chr1	156004631	156007103	-	UBQLN4	0x0
6687	chr1	156010674	156011893	-	UBQLN4	0x0
6688	chr1	156043328	156044453	-	MEX3A	0x0
6689	chr1	156045066	156046193	-	MEX3A	0x0
6690	chr1	156046352	156047525	-	MEX3A	0x0
6691	chr1	156219192	156220425	-	SMG5	0x2
6692	chr1	156229722	156231710	-	SMG5	0x2
6693	chr1	156278228	156279653	-	CCT3	0x0
6694	chr1	156280291	156282523	-	CCT3	0x0
6695	chr1	156290105	156291216	-	CCT3	0x0
6696	chr1	156433370	156434726	-	MEF2D	0x0
6697	chr1	156436074	156437513	-	MEF2D	0x0
6698	chr1	156494724	156496800	-	IQGAP3	0x0
6699	chr1	156532985	156534224	-	IQGAP3	0x0
6700	chr1	156563256	156564405	+	APOA1BP	0x0
6701	chr1	156644508	156645917	-	NES	0x0
6702	chr1	156711320	156713479	-	HDGF	0x0
6703	chr1	156755851	156757027	+	PRCC	0x0
6704	chr1	156844913	156846080	+	NTRK1	0x2
6705	chr1	156904274	156905441	-	ARHGEF11	0x0
6706	chr1	157090704	157091853	-	ETV3	0x0
6707	chr1	157972697	157973862	+	KIRREL	0x0
6708	chr1	157990261	157991448	+	KIRREL	0x0
6709	chr1	158062582	158063759	+	KIRREL	0x0
6710	chr1	158067833	158068923	+	KIRREL	0x0
6711	chr1	158150759	158151980	+	CD1D	0x0
6712	chr1	159887403	159888666	-	TAGLN2	0x0
6713	chr1	159997723	159998915	-	PIGM	0x0
6714	chr1	160000304	160001417	-	PIGM	0x0
6715	chr1	160185227	160187727	-	DCAF8	0x0
6716	chr1	160200542	160201725	-	DCAF8	0x0
6717	chr1	160209223	160210445	-	DCAF8	0x0
6718	chr1	160248040	160249647	-	PEX19	0x0
6719	chr1	160263717	160264895	-	COPA	0x0
6720	chr1	160286723	160287896	+	SUMO1P3	0x0
6721	chr1	160309174	160310324	-	COPA	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6722	chr1	160327510	160329112	+	NCSTN	0x0
6723	chr1	160395334	160398745	+	VANGL2	0x0
6724	chr1	160967109	160968803	-	F11R	0x0
6725	chr1	161009003	161010239	-	USF1	0x0
6726	chr1	161016437	161017643	-	ARHGAP30	0x0
6727	chr1	161090066	161091280	+	NIT1	0x0
6728	chr1	161090383	161092508	-	DEDD	0x0
6729	chr1	161127674	161129151	+	UFC1	0x0
6730	chr1	161132221	161133397	+	USP21	0x2
6731	chr1	161134257	161135470	+	USP21	0x2
6732	chr1	161140716	161142006	-	B4GALT3	0x0
6733	chr1	161167430	161168628	-	ADAMTS4	0x0
6734	chr1	161183375	161184637	+	NDUFS2	0x0
6735	chr1	161325926	161327169	+	SDHC	0x2
6736	chr1	161331658	161333435	+	SDHC	0x2
6737	chr1	161927966	161929466	+	ATF6	0x0
6738	chr1	161929501	161931857	+	ATF6	0x0
6739	chr1	162149054	162150286	+	MIR4654	0x0
6740	chr1	162491655	162498613	+	UHMK1	0x0
6741	chr1	162751495	162752710	+	DDR2	0x0
6742	chr1	162753829	162755096	+	DDR2	0x0
6743	chr1	164817500	164818731	+	PBX1	0x2
6744	chr1	165797259	165798474	+	UCK2	0x0
6745	chr1	165876853	165877905	+	MIR3658	0x0
6746	chr1	165876853	165877905	+	UCK2	0x0
6747	chr1	165878446	165881335	+	UCK2	0x0
6748	chr1	166244300	166246218	-	FAM78B	0x0
6749	chr1	167021738	167023490	-	GPA33	0x0
6750	chr1	167037108	167038357	-	GPA33	0x0
6751	chr1	167051413	167052562	-	GPA33	0x0
6752	chr1	167065927	167067187	+	DUSP27	0x0
6753	chr1	167385756	167389591	+	POU2F1	0x0
6754	chr1	167389693	167394754	+	POU2F1	0x0
6755	chr1	167394840	167397027	+	POU2F1	0x0
6756	chr1	167665980	167667154	+	RCSD1	0x0
6757	chr1	167740991	167742225	+	MPZL1	0x0
6758	chr1	167756922	167760559	+	MPZL1	0x0
6759	chr1	167904562	167906917	+	DCAF6	0x0
6760	chr1	167984543	167985684	+	DCAF6	0x0
6761	chr1	168024749	168026004	-	GPR161	0x0
6762	chr1	168049546	168051055	-	GPR161	0x0
6763	chr1	168056201	168057369	-	GPR161	0x0
6764	chr1	168218593	168221098	+	SFT2D2	0x0
6765	chr1	169100458	169102516	+	ATP1B1	0x0
6766	chr1	169355885	169357080	+	BLZF1	0x0
6767	chr1	169434489	169435636	-	SLC19A2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6768	chr1	169453434	169454536	-	SLC19A2	0x0
6769	chr1	169818021	169819259	+	C1orf112	0x0
6770	chr1	169888985	169891349	-	KIFAP3	0x0
6771	chr1	169950548	169951658	-	KIFAP3	0x0
6772	chr1	171501162	171502597	+	PRRC2C	0x0
6773	chr1	171505917	171507089	+	PRRC2C	0x0
6774	chr1	171508615	171510147	+	PRRC2C	0x0
6775	chr1	171510695	171511825	+	PRRC2C	0x0
6776	chr1	171518747	171519882	+	PRRC2C	0x0
6777	chr1	171526204	171527784	+	PRRC2C	0x0
6778	chr1	171560406	171563120	+	PRRC2C	0x0
6779	chr1	171672734	171673908	-	VAMP4	0x0
6780	chr1	172570640	172571884	+	C1orf9	0x0
6781	chr1	172579288	172580530	+	C1orf9	0x0
6782	chr1	173456893	173458430	+	PRDX6	0x0
6783	chr1	173793241	173794464	+	DARS2	0x0
6784	chr1	173854234	173855452	+	ZBTB37	0x0
6785	chr1	173900097	173901277	-	RC3H1	0x0
6786	chr1	173902311	173903576	-	RC3H1	0x0
6787	chr1	173903762	173905010	-	RC3H1	0x0
6788	chr1	173905417	173907113	-	RC3H1	0x0
6789	chr1	173907325	173908518	-	RC3H1	0x0
6790	chr1	174187688	174188901	+	RABGAP1L	0x0
6791	chr1	174463693	174464940	+	GPR52	0x0
6792	chr1	174960034	174961174	+	RABGAP1L	0x0
6793	chr1	174978568	174980391	+	CACYBP	0x0
6794	chr1	177934190	177935469	-	SEC16B	0x0
6795	chr1	178442380	178443574	+	RASAL2	0x2
6796	chr1	178445955	178447672	+	RASAL2	0x2
6797	chr1	178489271	178490468	+	C1orf49	0x0
6798	chr1	178753023	178754163	+	RALGPS2	0x0
6799	chr1	178765044	178766247	+	RALGPS2	0x0
6800	chr1	178888556	178889660	+	RALGPS2	0x0
6801	chr1	179044343	179046233	+	FAM20B	0x0
6802	chr1	179068319	179070084	-	ABL2	0x2
6803	chr1	179071501	179073811	-	ABL2	0x2
6804	chr1	179074072	179075767	-	ABL2	0x2
6805	chr1	179812977	179815003	-	TOR1AIP2	0x0
6806	chr1	179832122	179833665	-	TOR1AIP2	0x0
6807	chr1	179833711	179834834	-	TOR1AIP2	0x0
6808	chr1	179959088	179960271	+	CEP350	0x0
6809	chr1	180062232	180063415	+	CEP350	0x0
6810	chr1	180079753	180083987	+	CEP350	0x0
6811	chr1	180460877	180462004	-	ACBD6	0x0
6812	chr1	180792051	180793335	+	XPR1	0x0
6813	chr1	180849752	180851266	+	XPR1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6814	chr1	180855958	180859669	+	XPR1	0x0
6815	chr1	180943979	180945588	-	STX6	0x0
6816	chr1	180956798	180957969	-	STX6	0x0
6817	chr1	180958565	180959742	-	STX6	0x0
6818	chr1	180973884	180975111	-	STX6	0x0
6819	chr1	182352246	182353409	-	GLUL	0x0
6820	chr1	182567403	182568649	-	RGS16	0x0
6821	chr1	182844592	182845879	+	DHX9	0x0
6822	chr1	182847922	182849046	+	DHX9	0x0
6823	chr1	182849928	182851091	+	DHX9	0x0
6824	chr1	182992399	182993601	+	LAMC1	0x0
6825	chr1	183090545	183091893	+	LAMC1	0x0
6826	chr1	183095803	183097051	+	LAMC1	0x0
6827	chr1	183101063	183102247	+	LAMC1	0x0
6828	chr1	183103585	183104760	+	LAMC1	0x0
6829	chr1	183105012	183106202	+	LAMC1	0x0
6830	chr1	183111755	183114591	+	LAMC1	0x0
6831	chr1	183216979	183219337	-	NMNAT2	0x0
6832	chr1	183498002	183499171	+	SMG7	0x0
6833	chr1	183505745	183506930	+	SMG7	0x0
6834	chr1	183520967	183523891	+	SMG7	0x0
6835	chr1	183594906	183596114	-	ARPC5	0x0
6836	chr1	184023311	184024515	+	TSEN15	0x0
6837	chr1	184589143	184590271	+	C1orf21	0x0
6838	chr1	184595115	184596320	+	C1orf21	0x0
6839	chr1	184660039	184662978	-	EDEM3	0x0
6840	chr1	184762903	184764326	-	FAM129A	0x0
6841	chr1	185069890	185071378	+	RNF2	0x0
6842	chr1	185259788	185261094	+	SWT1	0x0
6843	chr1	185265750	185267095	-	IVNS1ABP	0x0
6844	chr1	186282474	186283633	-	TPR	0x2
6845	chr1	186303959	186305257	-	TPR	0x2
6846	chr1	186311995	186313153	-	TPR	0x2
6847	chr1	186389062	186390466	+	C1orf27	0x0
6848	chr1	192989758	192990978	-	UCHL5	0x0
6849	chr1	192998158	192999312	-	UCHL5	0x0
6850	chr1	193025903	193027075	-	UCHL5	0x0
6851	chr1	193053926	193056128	+	TROVE2	0x0
6852	chr1	193059341	193061164	+	TROVE2	0x0
6853	chr1	193219718	193220881	+	CDC73	0x1
6854	chr1	193223076	193224691	+	CDC73	0x1
6855	chr1	197072295	197073451	-	ASPM	0x0
6856	chr1	197166862	197168085	-	ZBTB41	0x2
6857	chr1	197473956	197476101	-	DENND1B	0x0
6858	chr1	197476790	197479113	-	DENND1B	0x0
6859	chr1	197481470	197482638	-	DENND1B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6860	chr1	197611305	197612514	-	DENND1B	0x0
6861	chr1	197614093	197615414	-	DENND1B	0x0
6862	chr1	197640216	197641321	-	DENND1B	0x0
6863	chr1	198155462	198156637	+	NEK7	0x0
6864	chr1	198288461	198290517	+	NEK7	0x0
6865	chr1	200143032	200147008	+	NR5A2	0x0
6866	chr1	200268560	200269805	-	C1orf98	0x0
6867	chr1	200279325	200280523	-	C1orf98	0x0
6868	chr1	200370442	200373206	-	ZNF281	0x0
6869	chr1	200374277	200375401	-	ZNF281	0x0
6870	chr1	200520091	200521262	-	KIF14	0x2
6871	chr1	200829084	200830344	+	CAMSAP2	0x0
6872	chr1	200939046	200941405	-	KIF21B	0x0
6873	chr1	200973831	200975034	-	KIF21B	0x0
6874	chr1	201103937	201105256	-	TMEM9	0x0
6875	chr1	201434363	201435651	-	PHLDA3	0x1
6876	chr1	201453086	201454314	-	CSRP1	0x0
6877	chr1	201617584	201618752	+	NAV1	0x0
6878	chr1	201751247	201752490	+	NAV1	0x0
6879	chr1	201777043	201778265	+	MIR1231	0x0
6880	chr1	201777043	201778265	+	NAV1	0x0
6881	chr1	201788741	201789899	+	NAV1	0x0
6882	chr1	201790296	201792043	+	NAV1	0x0
6883	chr1	201792358	201793472	+	NAV1	0x0
6884	chr1	201795227	201796365	+	NAV1	0x0
6885	chr1	201847176	201848826	+	IPO9	0x0
6886	chr1	201983931	201985389	+	ELF3	0x0
6887	chr1	202102766	202104001	-	ARL8A	0x0
6888	chr1	202111987	202113187	-	ARL8A	0x0
6889	chr1	202391179	202392408	+	PPP1R12B	0x0
6890	chr1	202435704	202438143	+	PPP1R12B	0x0
6891	chr1	202550561	202551687	+	PPP1R12B	0x0
6892	chr1	202554161	202555651	+	PPP1R12B	0x0
6893	chr1	202556058	202557300	+	PPP1R12B	0x0
6894	chr1	202559228	202560422	+	PPP1R12B	0x0
6895	chr1	202696147	202699433	-	KDM5B	0x2
6896	chr1	202700399	202701558	-	KDM5B	0x2
6897	chr1	202702067	202703368	-	KDM5B	0x2
6898	chr1	202704920	202706067	-	KDM5B	0x2
6899	chr1	202717495	202718751	-	KDM5B	0x2
6900	chr1	202724985	202726149	-	KDM5B	0x2
6901	chr1	202729031	202730191	-	KDM5B	0x2
6902	chr1	202735899	202737107	-	KDM5B	0x2
6903	chr1	202776911	202778120	-	KDM5B	0x2
6904	chr1	202859857	202861110	-	KLHL12	0x0
6905	chr1	202909629	202911312	-	ADIPOR1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6906	chr1	202913624	202914723	-	ADIPOR1	0x0
6907	chr1	202930663	202931930	-	CYB5R1	0x0
6908	chr1	202935440	202936643	-	CYB5R1	0x0
6909	chr1	202984588	202985712	+	TMEM183A	0x0
6910	chr1	202984588	202985712	+	TMEM183B	0x0
6911	chr1	202991850	202993699	+	TMEM183A	0x0
6912	chr1	202991850	202993699	+	TMEM183B	0x0
6913	chr1	203027203	203028365	+	PPFIA4	0x0
6914	chr1	203046622	203047839	+	PPFIA4	0x0
6915	chr1	203276523	203278558	+	BTG2	0x1
6916	chr1	203304344	203305536	+	BTG2	0x1
6917	chr1	203433058	203434213	-	FMOD	0x0
6918	chr1	203702448	203703612	+	ATP2B4	0x0
6919	chr1	203709102	203710382	+	ATP2B4	0x0
6920	chr1	203711984	203713296	+	ATP2B4	0x0
6921	chr1	203769850	203771853	+	ZC3H11A	0x0
6922	chr1	203815989	203817246	+	ZC3H11A	0x0
6923	chr1	203821182	203823573	+	ZC3H11A	0x0
6924	chr1	203838484	203839668	+	SNRPE	0x0
6925	chr1	204093815	204097256	+	SOX13	0x0
6926	chr1	204378263	204380548	-	PPP1R15B	0x0
6927	chr1	204391334	204392492	-	PIK3C2B	0x0
6928	chr1	204414468	204415738	-	PIK3C2B	0x0
6929	chr1	204511340	204512601	+	MDM4	0x2
6930	chr1	204513087	204514368	+	MDM4	0x2
6931	chr1	204515408	204516507	+	MDM4	0x2
6932	chr1	204522281	204524553	+	MDM4	0x2
6933	chr1	204525659	204526979	+	MDM4	0x2
6934	chr1	204641482	204642723	-	LRRN2	0x0
6935	chr1	205046490	205047735	+	CNTN2	0x2
6936	chr1	205056132	205057369	-	RBBP5	0x0
6937	chr1	205112932	205114132	-	DSTYK	0x0
6938	chr1	205128777	205129895	-	DSTYK	0x0
6939	chr1	205241665	205242897	+	TMCC2	0x0
6940	chr1	205319894	205321153	+	LOC284576	0x0
6941	chr1	205500330	205501996	+	CDK18	0x0
6942	chr1	205579152	205580270	-	ELK4	0x2
6943	chr1	205627932	205629298	-	SLC45A3	0x0
6944	chr1	205681936	205687913	-	NUCKS1	0x0
6945	chr1	205757812	205759440	-	SLC41A1	0x0
6946	chr1	205759586	205761076	-	SLC41A1	0x0
6947	chr1	206634964	206637248	+	SRGAP2	0x0
6948	chr1	206757962	206759126	+	RASSF5	0x1
6949	chr1	206761513	206762730	+	RASSF5	0x1
6950	chr1	206784032	206785283	-	EIF2D	0x0
6951	chr1	206822219	206823385	+	DYRK3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6952	chr1	206905681	206907919	+	MAPKAPK2	0x0
6953	chr1	207247710	207249033	+	PFKFB2	0x0
6954	chr1	207532536	207533865	+	CD55	0x0
6955	chr1	208059607	208060814	-	CD34	0x0
6956	chr1	208197102	208198251	-	PLXNA2	0x0
6957	chr1	208403490	208404700	-	PLXNA2	0x0
6958	chr1	210273342	210274570	-	C1orf133	0x0
6959	chr1	210338154	210339871	+	SYT14	0x0
6960	chr1	210847741	210848986	+	HHAT	0x0
6961	chr1	211744509	211746031	-	SLC30A1	0x0
6962	chr1	211753438	211754644	+	LINC00467	0x0
6963	chr1	211916796	211917990	-	LPGAT1	0x0
6964	chr1	211918406	211921079	-	LPGAT1	0x0
6965	chr1	211921213	211922673	-	LPGAT1	0x0
6966	chr1	212113231	212115150	-	INTS7	0x0
6967	chr1	212241070	212242564	+	DTL	0x0
6968	chr1	212273432	212274692	+	DTL	0x0
6969	chr1	212277264	212278717	+	DTL	0x0
6970	chr1	212459729	212460969	+	PPP2R5A	0x2
6971	chr1	212501939	212503175	+	PPP2R5A	0x2
6972	chr1	212533755	212535674	+	PPP2R5A	0x2
6973	chr1	213069074	213070284	+	FLVCR1	0x0
6974	chr1	213152006	213153293	+	VASH2	0x0
6975	chr1	213166502	213168613	-	ANGEL2	0x0
6976	chr1	213250537	213251684	+	RPS6KC1	0x0
6977	chr1	213277251	213278502	+	RPS6KC1	0x0
6978	chr1	213418862	213420011	+	RPS6KC1	0x0
6979	chr1	214528095	214529296	-	PTPN14	0x4
6980	chr1	214817527	214819396	+	CENPF	0x0
6981	chr1	214819900	214821042	+	CENPF	0x0
6982	chr1	214836763	214838930	+	CENPF	0x0
6983	chr1	215751822	215753015	+	KCTD3	0x0
6984	chr1	215794048	215795418	+	KCTD3	0x0
6985	chr1	220141589	220143004	-	EPRS	0x0
6986	chr1	220146023	220147216	-	EPRS	0x0
6987	chr1	220152342	220154072	-	EPRS	0x0
6988	chr1	220178950	220180125	-	EPRS	0x0
6989	chr1	220197025	220198282	-	EPRS	0x0
6990	chr1	220207703	220208906	-	EPRS	0x0
6991	chr1	220213009	220214116	-	EPRS	0x0
6992	chr1	220234660	220235835	-	BPNT1	0x0
6993	chr1	220279831	220280997	+	IARS2	0x0
6994	chr1	220283608	220284798	+	IARS2	0x0
6995	chr1	220322865	220324466	-	RAB3GAP2	0x0
6996	chr1	220427598	220428697	+	IARS2	0x0
6997	chr1	220800663	220801800	+	MARK1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
6998	chr1	220835575	220837571	+	MARK1	0x0
6999	chr1	223393715	223395779	-	SUSD4	0x0
7000	chr1	223421168	223422313	-	SUSD4	0x0
7001	chr1	223962635	223963952	+	CAPN2	0x0
7002	chr1	224001495	224002680	-	TP53BP2	0x1
7003	chr1	224301239	224302461	+	FBXO28	0x0
7004	chr1	224344881	224347182	+	FBXO28	0x0
7005	chr1	224379605	224380714	+	DEGS1	0x0
7006	chr1	224474938	224476219	-	NVL	0x0
7007	chr1	224476728	224477847	-	NVL	0x0
7008	chr1	224481447	224482626	-	NVL	0x0
7009	chr1	224563010	224564302	+	CNIH4	0x0
7010	chr1	224573611	224577830	-	WDR26	0x0
7011	chr1	225588699	225590926	-	LBR	0x0
7012	chr1	225674278	225675930	-	ENAH	0x0
7013	chr1	225676078	225677370	-	ENAH	0x0
7014	chr1	225677960	225679190	-	ENAH	0x0
7015	chr1	225681980	225685893	-	ENAH	0x0
7016	chr1	225699892	225701219	-	ENAH	0x0
7017	chr1	225701713	225702921	-	ENAH	0x0
7018	chr1	225704494	225706062	-	ENAH	0x0
7019	chr1	225777819	225779079	-	ENAH	0x0
7020	chr1	226073475	226074952	-	LEFTY1	0x0
7021	chr1	226076160	226077259	-	LEFTY1	0x0
7022	chr1	226108371	226109535	-	PYCR2	0x0
7023	chr1	226145677	226146933	+	H3F3A	0x0
7024	chr1	226172562	226173727	-	C1orf55	0x0
7025	chr1	226259196	226260525	+	H3F3A	0x0
7026	chr1	226259196	226260525	+	H3F3AP4	0x0
7027	chr1	226333248	226334887	-	ACBD3	0x0
7028	chr1	226418887	226420421	-	LIN9	0x1
7029	chr1	226547904	226549212	-	PARP1	0x0
7030	chr1	226561373	226562569	-	PARP1	0x0
7031	chr1	226568206	226569423	-	PARP1	0x0
7032	chr1	226577574	226578736	-	PARP1	0x0
7033	chr1	226594934	226596171	-	PARP1	0x0
7034	chr1	227180552	227181713	-	CDC42BPA	0x0
7035	chr1	227259337	227260461	-	CDC42BPA	0x0
7036	chr1	227261035	227262237	-	CDC42BPA	0x0
7037	chr1	228285393	228287139	+	ARF1	0x1
7038	chr1	228290110	228291429	-	C1orf35	0x0
7039	chr1	228583256	228584372	-	TRIM11	0x0
7040	chr1	228681551	228683187	+	RNF187	0x0
7041	chr1	228879431	228880524	+	RHOU	0x0
7042	chr1	228881037	228882747	+	RHOU	0x0
7043	chr1	229459387	229460769	-	C1orf96	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7044	chr1	229621630	229622831	-	NUP133	0x2
7045	chr1	229651939	229653062	-	ABCB10	0x0
7046	chr1	229693722	229694946	-	ABCB10	0x0
7047	chr1	229728723	229730191	-	TAF5L	0x0
7048	chr1	229772225	229773416	+	URB2	0x0
7049	chr1	229794794	229796040	+	URB2	0x0
7050	chr1	230204930	230206152	+	GALNT2	0x0
7051	chr1	230208409	230209569	+	GALNT2	0x0
7052	chr1	230247112	230248351	+	GALNT2	0x0
7053	chr1	230415258	230417328	+	GALNT2	0x0
7054	chr1	230457511	230458864	-	PGBD5	0x0
7055	chr1	230826626	230827789	+	COG2	0x0
7056	chr1	230972993	230975801	-	C1orf198	0x0
7057	chr1	231084076	231085352	-	TTC13	0x0
7058	chr1	231125394	231126537	+	ARV1	0x0
7059	chr1	231406006	231407214	+	GNPAT	0x0
7060	chr1	231412873	231414046	+	GNPAT	0x0
7061	chr1	231489725	231490833	+	C1orf124	0x0
7062	chr1	231499325	231501532	-	EGLN1	0x1
7063	chr1	231543049	231544251	-	EGLN1	0x1
7064	chr1	231700234	231701334	+	TSNAX	0x0
7065	chr1	231701428	231702613	+	TSNAX	0x0
7066	chr1	232533756	232535274	-	SIPA1L2	0x0
7067	chr1	232650501	232651772	-	SIPA1L2	0x0
7068	chr1	234525708	234527630	-	TARBP1	0x0
7069	chr1	234528791	234529960	-	TARBP1	0x0
7070	chr1	234555935	234557132	-	TARBP1	0x0
7071	chr1	234583671	234584840	-	TARBP1	0x0
7072	chr1	234613880	234615153	-	TARBP1	0x0
7073	chr1	234740545	234741613	-	IRF2BP2	0x0
7074	chr1	234744188	234745277	-	IRF2BP2	0x0
7075	chr1	235272106	235275372	-	TOMM20	0x0
7076	chr1	235291550	235292575	-	TOMM20	0x0
7077	chr1	235317722	235318857	-	RBM34	0x0
7078	chr1	235330564	235331701	-	ARID4B	0x0
7079	chr1	235345497	235346598	-	ARID4B	0x0
7080	chr1	235610133	235612301	-	B3GALNT2	0x0
7081	chr1	235877992	235879134	-	LYST	0x0
7082	chr1	236139076	236140873	-	NID1	0x0
7083	chr1	236179897	236181015	-	NID1	0x0
7084	chr1	236204903	236206133	-	NID1	0x0
7085	chr1	236369877	236371028	+	GPR137B	0x0
7086	chr1	236721096	236722296	-	HEATR1	0x0
7087	chr1	236766122	236767221	-	HEATR1	0x0
7088	chr1	237049015	237050221	+	MTR	0x0
7089	chr1	237058097	237059284	+	MTR	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7090	chr1	240306622	240308011	-	GREM2	0x0
7091	chr1	240369039	240370235	+	FMN2	0x2
7092	chr1	243663413	243667975	-	AKT3	0x2
7093	chr1	244219548	244220918	+	ZNF238	0x1
7094	chr1	244571739	244573184	-	ADSS	0x0
7095	chr1	244589131	244590266	-	ADSS	0x0
7096	chr1	244868944	244872301	+	PPPDE1	0x0
7097	chr1	245016290	245018276	-	HNRNPU	0x2
7098	chr1	245018648	245022005	-	HNRNPU	0x2
7099	chr1	245025883	245027348	-	HNRNPU	0x2
7100	chr1	245587835	245589020	+	KIF26B	0x0
7101	chr1	245865903	245867082	+	KIF26B	0x0
7102	chr1	245871033	245872175	+	KIF26B	0x0
7103	chr1	245905940	245908339	-	SMYD3	0x0
7104	chr1	246094397	246095625	-	SMYD3	0x0
7105	chr1	246167999	246169152	-	SMYD3	0x0
7106	chr1	246223568	246224748	-	SMYD3	0x0
7107	chr1	246283937	246285082	-	SMYD3	0x0
7108	chr1	246349403	246350673	-	SMYD3	0x0
7109	chr1	246407322	246408462	-	SMYD3	0x0
7110	chr1	246435046	246436292	-	SMYD3	0x0
7111	chr1	246482158	246483380	-	SMYD3	0x0
7112	chr1	246668069	246670340	-	SMYD3	0x0
7113	chr1	246829924	246831137	+	CNST	0x0
7114	chr1	247002266	247004329	-	AHCTF1	0x0
7115	chr1	247012774	247014008	-	AHCTF1	0x0
7116	chr1	247063112	247064274	-	AHCTF1	0x0
7117	chr1	247461051	247463203	-	ZNF496	0x0
7118	chr1	249104116	249106849	-	SH3BP5L	0x0
7119	chr1	249148032	249149232	-	ZNF692	0x0
7120	chr10	299708	301112	+	ZMYND11	0x0
7121	chr10	320261	321711	-	DIP2C	0x0
7122	chr10	322265	323407	-	DIP2C	0x0
7123	chr10	855385	858990	-	LARP4B	0x0
7124	chr10	1046232	1047331	+	GTPBP4	0x1
7125	chr10	1057824	1059025	+	GTPBP4	0x1
7126	chr10	1128288	1129573	+	WDR37	0x0
7127	chr10	1170299	1171447	+	WDR37	0x0
7128	chr10	3109232	3110423	+	PFKP	0x2
7129	chr10	3174886	3176028	+	PFKP	0x2
7130	chr10	3185907	3187090	-	PITRM1	0x0
7131	chr10	3199726	3200842	-	PITRM1	0x0
7132	chr10	5498145	5499290	+	NET1	0x0
7133	chr10	5499311	5500567	+	NET1	0x0
7134	chr10	5806701	5808409	-	GDI2	0x0
7135	chr10	5919646	5920768	-	ANKRD16	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7136	chr10	6151406	6152601	+	RBM17	0x0
7137	chr10	7202774	7204235	-	SFMBT2	0x4
7138	chr10	7261810	7263012	-	SFMBT2	0x4
7139	chr10	7325434	7326618	-	SFMBT2	0x4
7140	chr10	7820311	7821536	-	KIN	0x0
7141	chr10	7889895	7891003	+	TAF3	0x0
7142	chr10	8006076	8007268	+	TAF3	0x0
7143	chr10	11373109	11374853	+	CELF2	0x0
7144	chr10	11495763	11496889	-	USP6NL	0x0
7145	chr10	11503598	11504851	-	USP6NL	0x0
7146	chr10	11962363	11963487	-	UPF2	0x0
7147	chr10	12128853	12130054	+	DHTKD1	0x0
7148	chr10	12130555	12131799	+	DHTKD1	0x0
7149	chr10	12206703	12207942	+	SEC61A2	0x0
7150	chr10	12554833	12555985	+	CAMK1D	0x0
7151	chr10	12874959	12876312	+	LOC283070	0x0
7152	chr10	13177121	13178325	+	OPTN	0x0
7153	chr10	13214054	13215242	+	MCM10	0x0
7154	chr10	13359806	13361423	-	SEPHS1	0x2
7155	chr10	13672268	13673887	+	PRPF18	0x0
7156	chr10	13686477	13687718	-	FRMD4A	0x0
7157	chr10	13739742	13740901	-	FRMD4A	0x0
7158	chr10	14561539	14562843	-	FAM107B	0x0
7159	chr10	14880217	14881342	+	HSPA14	0x0
7160	chr10	14944161	14945289	+	SUV39H2	0x0
7161	chr10	15145870	15147908	-	NMT2	0x0
7162	chr10	15147981	15149211	-	NMT2	0x0
7163	chr10	15253295	15255338	-	FAM171A1	0x0
7164	chr10	17271011	17272233	+	VIM	0x0
7165	chr10	17273296	17274529	+	VIM	0x0
7166	chr10	18522347	18523514	+	CACNB2	0x0
7167	chr10	18965842	18967292	+	ARL5B	0x0
7168	chr10	18967694	18968839	+	ARL5B	0x0
7169	chr10	20573521	20574682	+	PLXDC2	0x0
7170	chr10	21962281	21963400	+	MLLT10	0x0
7171	chr10	22022216	22023388	+	MLLT10	0x0
7172	chr10	22030862	22032450	+	MLLT10	0x0
7173	chr10	22823932	22825153	-	PIP4K2A	0x0
7174	chr10	24171640	24172801	+	KIAA1217	0x0
7175	chr10	24559803	24561500	+	MIR603	0x0
7176	chr10	24565705	24567341	+	MIR603	0x0
7177	chr10	24765973	24767123	+	KIAA1217	0x0
7178	chr10	24834918	24836998	+	KIAA1217	0x0
7179	chr10	24872075	24873388	-	ARHGAP21	0x0
7180	chr10	25314971	25316124	+	THNSL1	0x0
7181	chr10	26986060	26987281	+	PDSS1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7182	chr10	27035547	27036658	-	ABI1	0x2
7183	chr10	27036855	27038053	-	ABI1	0x2
7184	chr10	27052413	27053608	-	ABI1	0x2
7185	chr10	27407725	27408954	-	YME1L1	0x0
7186	chr10	27412007	27413111	-	YME1L1	0x0
7187	chr10	27484812	27486016	-	ACBD5	0x0
7188	chr10	27826923	27829069	+	RAB18	0x0
7189	chr10	28908932	28910226	+	WAC	0x0
7190	chr10	30303794	30305701	-	KIAA1462	0x0
7191	chr10	30963730	30964976	+	MAP3K8	0x2
7192	chr10	31006226	31007416	+	MAP3K8	0x2
7193	chr10	31807199	31808313	+	ZEB1	0x0
7194	chr10	31815718	31816974	+	ZEB1	0x0
7195	chr10	31817215	31818368	+	ZEB1	0x0
7196	chr10	32094353	32096586	-	ARHGAP12	0x0
7197	chr10	32196830	32198368	-	ARHGAP12	0x0
7198	chr10	32297715	32300740	-	KIF5B	0x2
7199	chr10	32319490	32320651	-	KIF5B	0x2
7200	chr10	32323944	32325127	-	KIF5B	0x2
7201	chr10	33189021	33190871	-	ITGB1	0x1
7202	chr10	33196748	33197842	-	ITGB1	0x1
7203	chr10	33200309	33201499	-	ITGB1	0x1
7204	chr10	34534215	34535398	-	PARD3	0x0
7205	chr10	34633306	34634535	-	PARD3	0x0
7206	chr10	35020027	35021222	-	PARD3	0x0
7207	chr10	35302064	35303238	-	CUL2	0x1
7208	chr10	35304601	35305853	-	CUL2	0x1
7209	chr10	35859463	35860919	+	CCNY	0x0
7210	chr10	43679136	43680402	+	CSGALNACT2	0x0
7211	chr10	45490488	45491695	+	RASSF4	0x1
7212	chr10	45499221	45500434	+	ZNF22	0x0
7213	chr10	45949974	45951936	-	MARCH8	0x0
7214	chr10	47161583	47162713	-	ANXA8	0x0
7215	chr10	47161583	47162713	-	ANXA8L1	0x0
7216	chr10	49515882	49517057	+	MAPK8	0x0
7217	chr10	49643077	49645596	+	MAPK8	0x0
7218	chr10	49668270	49669483	-	ARHGAP22	0x0
7219	chr10	50942232	50943489	-	OGDHL	0x0
7220	chr10	50951522	50952699	-	OGDHL	0x0
7221	chr10	51026676	51027901	-	PARG	0x0
7222	chr10	51362290	51363425	-	PARG	0x0
7223	chr10	51869342	51870498	+	FAM21A	0x0
7224	chr10	51869342	51870498	+	FAM21B	0x0
7225	chr10	53457368	53458552	-	CSTF2T	0x0
7226	chr10	58119312	58120629	-	ZWINT	0x0
7227	chr10	59951399	59952501	-	IPMK	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7228	chr10	59953227	59954632	-	IPMK	0x0
7229	chr10	59975478	59976626	-	IPMK	0x0
7230	chr10	60046763	60048081	+	CISD1	0x0
7231	chr10	60107976	60109117	+	UBE2D1	0x2
7232	chr10	60128171	60129723	+	UBE2D1	0x2
7233	chr10	60154973	60156215	+	TFAM	0x0
7234	chr10	61548143	61552421	-	CCDC6	0x0
7235	chr10	61665227	61666428	-	CCDC6	0x0
7236	chr10	61898204	61899397	-	ANK3	0x2
7237	chr10	62551059	62552292	+	CDK1	0x0
7238	chr10	62553117	62554407	+	CDK1	0x0
7239	chr10	63853398	63856861	+	ARID5B	0x0
7240	chr10	64493923	64495034	-	EGR2	0x1
7241	chr10	64565700	64568664	+	ADO	0x0
7242	chr10	64926732	64927934	-	JMJD1C	0x0
7243	chr10	64935626	64936725	-	JMJD1C	0x0
7244	chr10	64967250	64968383	-	JMJD1C	0x0
7245	chr10	64968622	64969701	-	JMJD1C	0x0
7246	chr10	64974606	64975793	-	JMJD1C	0x0
7247	chr10	65929463	65930578	-	JMJD1C	0x0
7248	chr10	68756592	68757697	-	CTNNA3	0x4
7249	chr10	69676329	69678614	+	SIRT1	0x0
7250	chr10	69682143	69683293	-	HERC4	0x0
7251	chr10	69948128	69949341	+	MYPN	0x0
7252	chr10	70104978	70106083	-	RUFY2	0x0
7253	chr10	70242232	70243304	-	SLC25A16	0x0
7254	chr10	70319634	70320818	+	TET1	0x0
7255	chr10	70331492	70334074	+	TET1	0x0
7256	chr10	70404163	70407151	+	TET1	0x0
7257	chr10	70411078	70412202	+	TET1	0x0
7258	chr10	70426269	70427532	+	TET1	0x0
7259	chr10	70452834	70454683	+	TET1	0x0
7260	chr10	70458544	70461015	+	TET1	0x0
7261	chr10	70726278	70727474	+	DDX21	0x0
7262	chr10	70729391	70730594	+	DDX21	0x0
7263	chr10	70742598	70745184	+	DDX21	0x0
7264	chr10	70775857	70777023	+	KIAA1279	0x0
7265	chr10	70930936	70932913	+	VPS26A	0x0
7266	chr10	71127775	71128892	+	HK1	0x0
7267	chr10	71157925	71159140	+	HK1	0x0
7268	chr10	71392065	71393255	+	C10orf35	0x0
7269	chr10	71909517	71911973	-	SAR1A	0x0
7270	chr10	71962194	71963454	-	PPA1	0x0
7271	chr10	71973675	71974870	-	PPA1	0x0
7272	chr10	72079797	72080905	-	LRRC20	0x0
7273	chr10	72182792	72184168	+	EIF4EBP2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7274	chr10	72191504	72192780	-	NODAL	0x0
7275	chr10	72300283	72301449	+	KIAA1274	0x0
7276	chr10	72326269	72328642	+	KIAA1274	0x0
7277	chr10	72520724	72522643	+	ADAMTS14	0x0
7278	chr10	72616851	72617950	+	SGPL1	0x0
7279	chr10	72637591	72640330	+	SGPL1	0x0
7280	chr10	73060417	73063026	+	UNC5B	0x1
7281	chr10	73575672	73577635	-	PSAP	0x0
7282	chr10	73587271	73589207	-	PSAP	0x0
7283	chr10	73818530	73820720	-	SPOCK2	0x0
7284	chr10	73820966	73822080	-	SPOCK2	0x0
7285	chr10	74033459	74034600	+	DDIT4	0x0
7286	chr10	74092120	74094934	-	DNAJB12	0x0
7287	chr10	74126656	74127818	-	MICU1	0x0
7288	chr10	74511941	74513133	+	MIR4676	0x0
7289	chr10	74766768	74768035	-	P4HA1	0x0
7290	chr10	74806190	74807438	-	P4HA1	0x0
7291	chr10	75002163	75003397	-	DNAJC9	0x0
7292	chr10	75135295	75136502	-	ANXA7	0x1
7293	chr10	75196056	75198102	-	PPP3CB	0x0
7294	chr10	75227898	75229052	-	PPP3CB	0x0
7295	chr10	75256934	75258071	-	USP54	0x0
7296	chr10	75529166	75530250	+	SEC24C	0x0
7297	chr10	75530479	75532320	+	FUT11	0x0
7298	chr10	75530479	75532320	+	SEC24C	0x0
7299	chr10	75560267	75561408	+	KIAA0913	0x0
7300	chr10	75572662	75573800	-	CAMK2G	0x0
7301	chr10	75606325	75607509	-	CAMK2G	0x0
7302	chr10	75802340	75803493	+	VCL	0x1
7303	chr10	75863437	75864615	-	AP3M1	0x0
7304	chr10	75877897	75880005	+	VCL	0x1
7305	chr10	75882403	75883884	-	AP3M1	0x0
7306	chr10	76359569	76360772	+	ADK	0x0
7307	chr10	76601874	76603739	+	KAT6B	0x2
7308	chr10	76734749	76736408	+	KAT6B	0x2
7309	chr10	76736552	76737738	+	KAT6B	0x2
7310	chr10	76744326	76745543	+	KAT6B	0x2
7311	chr10	76788288	76790211	+	KAT6B	0x2
7312	chr10	76790543	76792508	+	KAT6B	0x2
7313	chr10	76906243	76907400	+	SAMD8	0x0
7314	chr10	76936212	76937477	+	SAMD8	0x0
7315	chr10	76941034	76942217	+	SAMD8	0x0
7316	chr10	76988579	76989750	+	VDAC2	0x0
7317	chr10	76990388	76991705	+	VDAC2	0x0
7318	chr10	79548404	79549551	-	DLG5	0x2
7319	chr10	79550050	79551560	-	DLG5	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7320	chr10	79794909	79795982	+	RPS24	0x0
7321	chr10	79796491	79797591	+	RPS24	0x0
7322	chr10	79799149	79800339	+	RPS24	0x0
7323	chr10	81073379	81074489	+	ZMIZ1	0x0
7324	chr10	81141776	81142872	-	ZCCHC24	0x0
7325	chr10	81144123	81145348	-	ZCCHC24	0x0
7326	chr10	81272182	81273631	+	EIF5AL1	0x0
7327	chr10	82005962	82007106	-	MAT1A	0x0
7328	chr10	82213480	82214693	+	TSPAN14	0x0
7329	chr10	82274510	82275645	+	TSPAN14	0x0
7330	chr10	82282393	82283480	+	TSPAN14	0x0
7331	chr10	85912451	85913811	+	GHITM	0x0
7332	chr10	85974380	85976765	+	CDHR1	0x0
7333	chr10	86177013	86178241	+	FAM190B	0x0
7334	chr10	87862010	87863520	-	GRID1	0x2
7335	chr10	88194736	88197567	-	WAPAL	0x0
7336	chr10	88259504	88260728	-	WAPAL	0x0
7337	chr10	88686806	88688126	+	BMPR1A	0x2
7338	chr10	88696400	88697598	-	MMRN2	0x0
7339	chr10	88714191	88715337	-	MMRN2	0x0
7340	chr10	88717958	88719056	-	MMRN2	0x0
7341	chr10	88809814	88812033	-	GLUD1	0x0
7342	chr10	88820160	88821328	-	GLUD1	0x0
7343	chr10	88852185	88853338	-	GLUD1	0x0
7344	chr10	89311673	89313108	+	MINPP1	0x0
7345	chr10	89512482	89514695	-	ATAD1	0x0
7346	chr10	89725062	89727880	+	PTEN	0x1
7347	chr10	89729068	89730185	+	PTEN	0x1
7348	chr10	90331990	90333199	-	RNLS	0x0
7349	chr10	90973167	90974449	-	LIPA	0x0
7350	chr10	91371043	91372314	-	PANK1	0x0
7351	chr10	91403104	91404304	-	PANK1	0x0
7352	chr10	91474154	91475344	+	KIF20B	0x0
7353	chr10	91497299	91498492	+	KIF20B	0x0
7354	chr10	91511854	91512939	+	KIF20B	0x0
7355	chr10	92923441	92924598	+	PCGF5	0x0
7356	chr10	93599768	93600915	+	TNKS2	0x0
7357	chr10	93622391	93625307	+	TNKS2	0x0
7358	chr10	93719292	93720460	+	BTAF1	0x0
7359	chr10	93788631	93790265	+	BTAF1	0x0
7360	chr10	93805948	93807171	-	CPEB3	0x0
7361	chr10	94108955	94110055	+	MARCH5	0x0
7362	chr10	94111853	94113196	+	MARCH5	0x0
7363	chr10	94211930	94214033	-	IDE	0x0
7364	chr10	94224916	94226089	-	IDE	0x0
7365	chr10	94234089	94235280	-	IDE	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7366	chr10	94238619	94239745	-	IDE	0x0
7367	chr10	94291011	94292148	-	IDE	0x0
7368	chr10	94388005	94389181	+	KIF11	0x0
7369	chr10	94413043	94415599	+	KIF11	0x0
7370	chr10	95065968	95067193	-	MYOF	0x0
7371	chr10	95088946	95090123	-	MYOF	0x0
7372	chr10	95092367	95093536	-	MYOF	0x0
7373	chr10	95100892	95102044	-	MYOF	0x0
7374	chr10	95120714	95121818	-	MYOF	0x0
7375	chr10	95263305	95264780	+	CEP55	0x0
7376	chr10	95278973	95280110	+	CEP55	0x0
7377	chr10	95287418	95289173	+	CEP55	0x0
7378	chr10	95660540	95663892	+	SLC35G1	0x0
7379	chr10	95802761	95803903	+	PLCE1	0x1
7380	chr10	96092677	96093871	-	NOC3L	0x0
7381	chr10	96347483	96348618	+	HELLS	0x0
7382	chr10	96351518	96352672	+	HELLS	0x0
7383	chr10	96361024	96362338	+	HELLS	0x0
7384	chr10	96996982	96998125	-	PDLIM1	0x0
7385	chr10	97071007	97072188	-	SORBS1	0x0
7386	chr10	97248820	97250042	-	SORBS1	0x0
7387	chr10	97365312	97366665	-	ALDH18A1	0x0
7388	chr10	97391306	97392478	-	ALDH18A1	0x0
7389	chr10	97918547	97919628	+	ZNF518A	0x2
7390	chr10	97920538	97921746	+	ZNF518A	0x2
7391	chr10	97921764	97922923	+	ZNF518A	0x2
7392	chr10	98278552	98279656	-	TM9SF3	0x0
7393	chr10	98280159	98282376	-	TM9SF3	0x0
7394	chr10	98509633	98511190	+	LCOR	0x0
7395	chr10	98742681	98744981	+	C10orf12	0x0
7396	chr10	98752585	98753724	+	C10orf12	0x0
7397	chr10	98754907	98756052	+	C10orf12	0x0
7398	chr10	98981704	98985221	-	ARHGAP19	0x0
7399	chr10	99115881	99117109	-	RRP12	0x0
7400	chr10	99129906	99131101	-	RRP12	0x0
7401	chr10	99191828	99193080	+	PGAM1	0x0
7402	chr10	99194683	99195902	-	EXOSC1	0x0
7403	chr10	99225026	99226223	-	MMS19	0x0
7404	chr10	99373780	99374933	-	MORN4	0x0
7405	chr10	99433710	99435090	+	PI4K2A	0x0
7406	chr10	99436899	99438074	-	AVPI1	0x2
7407	chr10	99474314	99475512	+	MARVELD1	0x0
7408	chr10	99476654	99478220	+	MARVELD1	0x0
7409	chr10	99785820	99787058	-	CRTAC1	0x0
7410	chr10	99967426	99969611	+	C10orf28	0x0
7411	chr10	100003421	100004602	+	C10orf28	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7412	chr10	100005833	100007113	-	LOXL4	0x0
7413	chr10	101152982	101154141	+	CNNM1	0x0
7414	chr10	101156131	101157511	-	GOT1	0x0
7415	chr10	101370618	101371803	-	SLC25A28	0x0
7416	chr10	101438968	101440157	+	ENTPD7	0x0
7417	chr10	101470626	101472500	-	COX15	0x0
7418	chr10	101473731	101474846	-	COX15	0x0
7419	chr10	101716308	101717477	-	DNMBP	0x0
7420	chr10	101947658	101948935	-	CHUK	0x1
7421	chr10	101964352	101965470	-	CHUK	0x1
7422	chr10	102120358	102124943	+	SCD	0x0
7423	chr10	102245906	102247111	-	SEC31B	0x0
7424	chr10	102299998	102301055	+	HIF1AN	0x0
7425	chr10	102308452	102309972	+	HIF1AN	0x0
7426	chr10	102312240	102314376	+	HIF1AN	0x0
7427	chr10	102723194	102724771	+	FAM178A	0x0
7428	chr10	102744633	102745791	+	SEMA4G	0x0
7429	chr10	102748369	102749560	+	C10orf2	0x2
7430	chr10	102799152	102800302	+	SFXN3	0x0
7431	chr10	103370231	103371468	-	FBXW4	0x0
7432	chr10	103435571	103436725	-	FBXW4	0x0
7433	chr10	103544216	103545430	-	MGEA5	0x0
7434	chr10	103552964	103554189	-	MGEA5	0x0
7435	chr10	103605796	103607285	-	C10orf76	0x0
7436	chr10	103799737	103800941	-	C10orf76	0x0
7437	chr10	103869161	103871421	-	LDB1	0x6
7438	chr10	103898924	103900089	+	PPRC1	0x0
7439	chr10	103906175	103907414	+	PPRC1	0x0
7440	chr10	103909160	103910388	+	PPRC1	0x0
7441	chr10	103921583	103922787	+	NOLC1	0x0
7442	chr10	104161585	104162742	+	NFKB2	0x2
7443	chr10	104235849	104237245	+	TMEM180	0x0
7444	chr10	104238990	104240077	-	ACTR1A	0x0
7445	chr10	104392245	104393703	+	SUFU	0x1
7446	chr10	104572266	104576548	+	C10orf26	0x0
7447	chr10	104679219	104680346	+	CNNM2	0x0
7448	chr10	104836964	104838091	+	CNNM2	0x0
7449	chr10	104838781	104841148	+	CNNM2	0x0
7450	chr10	105048731	105049934	+	INA	0x0
7451	chr10	105062774	105063950	-	PCGF6	0x0
7452	chr10	105137522	105138723	+	TAF5	0x0
7453	chr10	105147604	105148992	+	TAF5	0x0
7454	chr10	105177032	105178179	+	PDCD11	0x2
7455	chr10	105199543	105200626	+	PDCD11	0x2
7456	chr10	105252496	105253698	-	CALHM3	0x0
7457	chr10	105350625	105351853	+	NEURL	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7458	chr10	105355701	105357188	-	SH3PXD2A	0x0
7459	chr10	105358961	105360677	-	SH3PXD2A	0x0
7460	chr10	105525585	105526833	-	SH3PXD2A	0x0
7461	chr10	105786351	105787546	+	SLK	0x0
7462	chr10	105787619	105788785	+	SLK	0x0
7463	chr10	105885492	105887292	+	SFR1	0x0
7464	chr10	111624048	111625586	-	XPNPEP1	0x0
7465	chr10	111652266	111653403	-	XPNPEP1	0x0
7466	chr10	111893270	111895603	+	ADD3	0x0
7467	chr10	111985287	111986546	+	MXI1	0x1
7468	chr10	112045280	112046750	+	MXI1	0x1
7469	chr10	112053019	112054249	-	SMNDC1	0x0
7470	chr10	112359708	112360849	+	SMC3	0x2
7471	chr10	112360938	112362074	+	SMC3	0x2
7472	chr10	112657624	112658823	+	MIR4680	0x0
7473	chr10	112657624	112658823	+	PDCD4	0x1
7474	chr10	112658447	112659574	-	BBIP1	0x0
7475	chr10	112723455	112724604	+	SHOC2	0x0
7476	chr10	113909276	113912008	-	GPAM	0x2
7477	chr10	114318489	114319645	+	VTI1A	0x2
7478	chr10	114576689	114577909	+	VTI1A	0x2
7479	chr10	115671955	115673012	+	NHLRC2	0x0
7480	chr10	115675742	115676880	+	NHLRC2	0x0
7481	chr10	115880809	115881989	-	C10orf118	0x0
7482	chr10	116191438	116192661	-	ABLIM1	0x0
7483	chr10	116622632	116623858	+	FAM160B1	0x0
7484	chr10	116623895	116624992	+	FAM160B1	0x0
7485	chr10	116735077	116736228	+	TRUB1	0x0
7486	chr10	116930344	116931535	+	ATRNL1	0x0
7487	chr10	117324143	117325257	+	ATRNL1	0x0
7488	chr10	119039393	119040953	-	PDZD8	0x0
7489	chr10	119041183	119042434	-	PDZD8	0x0
7490	chr10	119070404	119071579	-	PDZD8	0x0
7491	chr10	119565134	119566300	-	RAB11FIP2	0x0
7492	chr10	119764071	119765277	-	RAB11FIP2	0x0
7493	chr10	120068390	120069723	-	FAM204A	0x0
7494	chr10	120440578	120441780	-	C10orf46	0x0
7495	chr10	120443392	120444503	-	C10orf46	0x0
7496	chr10	120444852	120446032	-	C10orf46	0x0
7497	chr10	120794048	120795719	-	EIF3A	0x2
7498	chr10	120801065	120802569	-	EIF3A	0x2
7499	chr10	120815764	120816864	-	EIF3A	0x2
7500	chr10	120819757	120820857	-	EIF3A	0x2
7501	chr10	120824411	120825644	-	EIF3A	0x2
7502	chr10	121217933	121219085	+	GRK5	0x0
7503	chr10	121335592	121337154	-	TIAL1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7504	chr10	121663103	121664254	+	SEC23IP	0x0
7505	chr10	121671080	121672230	+	SEC23IP	0x0
7506	chr10	122664320	122665600	+	WDR11	0x1
7507	chr10	122668057	122669343	+	WDR11	0x1
7508	chr10	123502154	123503266	-	ATE1	0x0
7509	chr10	123600110	123601305	-	ATE1	0x0
7510	chr10	123642549	123643747	-	ATE1	0x0
7511	chr10	123729941	123731138	-	NSMCE4A	0x0
7512	chr10	124013070	124014506	+	TACC2	0x0
7513	chr10	124187010	124188196	+	PLEKHA1	0x0
7514	chr10	124189989	124191512	+	PLEKHA1	0x0
7515	chr10	124585086	124586332	-	CUZD1	0x0
7516	chr10	124585086	124586332	-	FAM24B-CUZD1	0x0
7517	chr10	124814083	124816706	+	ACADSB	0x0
7518	chr10	124924631	124925856	+	BUB3	0x0
7519	chr10	124933448	124934683	+	BUB3	0x0
7520	chr10	126085680	126086965	-	OAT	0x0
7521	chr10	126301848	126303086	+	LHPP	0x0
7522	chr10	126307632	126308742	-	FAM53B	0x0
7523	chr10	126308992	126310192	-	FAM53B	0x0
7524	chr10	126343745	126344959	-	FAM53B	0x0
7525	chr10	126420219	126421439	-	FAM53B	0x0
7526	chr10	126523841	126525032	+	FAM175B	0x0
7527	chr10	126630832	126632324	+	ZRANB1	0x0
7528	chr10	126662291	126663483	+	ZRANB1	0x0
7529	chr10	126673948	126675043	-	CTBP2	0x1
7530	chr10	126675970	126677110	-	CTBP2	0x1
7531	chr10	126682564	126683783	-	CTBP2	0x1
7532	chr10	126694158	126695291	-	CTBP2	0x1
7533	chr10	126767666	126768800	-	CTBP2	0x1
7534	chr10	126799033	126800195	-	CTBP2	0x1
7535	chr10	126845548	126846709	-	CTBP2	0x1
7536	chr10	127451642	127452906	+	C10orf137	0x2
7537	chr10	127518538	127519739	+	BCCIP	0x0
7538	chr10	128835085	128836209	+	DOCK1	0x0
7539	chr10	128838329	128839432	+	DOCK1	0x0
7540	chr10	128840380	128841528	+	DOCK1	0x0
7541	chr10	128842200	128843302	+	DOCK1	0x0
7542	chr10	129001823	129003027	+	DOCK1	0x0
7543	chr10	129236781	129237894	+	DOCK1	0x0
7544	chr10	129899248	129900333	-	MKI67	0x0
7545	chr10	129903771	129906059	-	MKI67	0x0
7546	chr10	129907007	129908110	-	MKI67	0x0
7547	chr10	129912848	129914063	-	MKI67	0x0
7548	chr10	131382386	131383567	+	MGMT	0x0
7549	chr10	133769139	133770402	+	PPP2R2D	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7550	chr10	133780561	133781938	-	BNIP3	0x0
7551	chr10	134595404	134597413	+	INPP5A	0x0
7552	chr10	135043573	135044765	+	UTF1	0x0
7553	chr11	212846	213950	+	RIC8A	0x0
7554	chr11	246830	248006	+	PSMD13	0x0
7555	chr11	251998	253303	+	PSMD13	0x0
7556	chr11	290204	291440	+	ATHL1	0x0
7557	chr11	297862	299071	-	IFITM5	0x0
7558	chr11	320092	321285	-	IFITM3	0x0
7559	chr11	375956	377748	+	B4GALNT4	0x4
7560	chr11	459677	460877	+	PTDSS2	0x0
7561	chr11	488015	489135	+	PTDSS2	0x0
7562	chr11	490275	491675	+	PTDSS2	0x0
7563	chr11	562037	563251	+	RASSF7	0x0
7564	chr11	606864	608046	+	PHRF1	0x0
7565	chr11	686603	687766	-	DEAF1	0x0
7566	chr11	691430	692620	-	DEAF1	0x0
7567	chr11	763737	764951	+	TALDO1	0x0
7568	chr11	769992	771665	-	PDDC1	0x0
7569	chr11	800532	801633	-	PIDD	0x0
7570	chr11	809741	810931	+	RPLP2	0x0
7571	chr11	837964	839300	+	CD151	0x0
7572	chr11	868999	870190	-	CHID1	0x0
7573	chr11	980713	981819	+	AP2A2	0x0
7574	chr11	1773483	1775105	-	CTSD	0x0
7575	chr11	2403918	2405036	+	CD81	0x4
7576	chr11	2684001	2685656	-	KCNQ1OT1	0x4
7577	chr11	2715118	2716339	-	KCNQ1OT1	0x4
7578	chr11	2716416	2718294	-	KCNQ1OT1	0x4
7579	chr11	2965355	2966568	-	NAP1L4	0x4
7580	chr11	2966849	2968098	-	NAP1L4	0x4
7581	chr11	3696181	3697576	-	NUP98	0x2
7582	chr11	3700241	3701426	-	NUP98	0x2
7583	chr11	3706791	3707990	-	NUP98	0x2
7584	chr11	3719965	3721037	-	NUP98	0x2
7585	chr11	3743901	3745113	-	NUP98	0x2
7586	chr11	3799820	3801017	-	NUP98	0x2
7587	chr11	3837378	3838616	+	PGAP2	0x2
7588	chr11	4009277	4010510	-	RHOG	0x0
7589	chr11	4105337	4106536	+	STIM1	0x0
7590	chr11	4113077	4114916	+	STIM1	0x0
7591	chr11	4158953	4160125	+	RRM1	0x0
7592	chr11	4161113	4162286	+	RRM1	0x0
7593	chr11	5630902	5632043	+	TRIM6	0x0
7594	chr11	5630902	5632043	+	TRIM6-TRIM34	0x0
7595	chr11	5633344	5634659	+	TRIM6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7596	chr11	6230922	6232430	-	FAM160A2	0x0
7597	chr11	6620331	6621606	-	RRP8	0x0
7598	chr11	6702670	6704153	-	MRPL17	0x0
7599	chr11	7189294	7190406	+	RBMXL2	0x0
7600	chr11	7303187	7304295	+	SYT9	0x0
7601	chr11	7334142	7335287	+	SYT9	0x0
7602	chr11	7487524	7490738	+	SYT9	0x0
7603	chr11	8008531	8009691	+	EIF3F	0x0
7604	chr11	8012872	8014211	+	EIF3F	0x0
7605	chr11	8015928	8018226	+	EIF3F	0x0
7606	chr11	8122821	8123984	+	TUB	0x0
7607	chr11	8125474	8127443	+	TUB	0x0
7608	chr11	8714835	8715938	-	ST5	0x1
7609	chr11	8968472	8969792	-	TMEM9B	0x0
7610	chr11	9160597	9161777	-	DENND5A	0x0
7611	chr11	9181795	9182969	-	DENND5A	0x0
7612	chr11	9191674	9192889	-	DENND5A	0x0
7613	chr11	9285895	9287141	-	DENND5A	0x0
7614	chr11	9302677	9303945	-	TMEM41B	0x0
7615	chr11	9424336	9425436	+	IPO7	0x0
7616	chr11	9431007	9432128	+	IPO7	0x0
7617	chr11	9441446	9442579	+	IPO7	0x0
7618	chr11	9450165	9451567	+	IPO7	0x0
7619	chr11	9450165	9451567	+	SNORA23	0x0
7620	chr11	9458827	9460330	+	IPO7	0x0
7621	chr11	9461582	9462627	+	IPO7	0x0
7622	chr11	9466470	9468549	+	IPO7	0x0
7623	chr11	9607534	9608656	+	WEE1	0x0
7624	chr11	9772365	9774621	+	SWAP70	0x0
7625	chr11	9799884	9801085	-	SBF2	0x0
7626	chr11	9853270	9854499	-	SBF2	0x0
7627	chr11	10527470	10528877	+	AMPD3	0x4
7628	chr11	10534714	10536611	-	RNF141	0x0
7629	chr11	10818381	10819599	-	EIF4G2	0x0
7630	chr11	11963603	11964939	+	USP47	0x0
7631	chr11	11977916	11979234	+	USP47	0x0
7632	chr11	11983858	11985052	-	DKK3	0x1
7633	chr11	12841512	12842722	+	TEAD1	0x0
7634	chr11	12965199	12966829	+	TEAD1	0x0
7635	chr11	13664065	13665217	+	FAR1	0x0
7636	chr11	13751476	13753490	+	FAR1	0x0
7637	chr11	14299111	14300224	-	RRAS2	0x0
7638	chr11	14789049	14790237	+	PDE3B	0x0
7639	chr11	14852712	14853904	+	PDE3B	0x0
7640	chr11	14891216	14892344	+	PDE3B	0x0
7641	chr11	14987708	14989025	-	CALCA	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7642	chr11	16548468	16549690	-	SOX6	0x0
7643	chr11	16773853	16775047	+	C11orf58	0x0
7644	chr11	16775944	16777150	+	C11orf58	0x0
7645	chr11	16808664	16810921	-	PLEKHA7	0x0
7646	chr11	16923981	16925192	-	PLEKHA7	0x0
7647	chr11	16988012	16989260	-	PLEKHA7	0x0
7648	chr11	16995779	16997075	-	PLEKHA7	0x0
7649	chr11	17096605	17097724	-	RPS13	0x0
7650	chr11	17108260	17110163	-	PIK3C2A	0x0
7651	chr11	18017404	18018549	-	SERGEF	0x0
7652	chr11	18021188	18022692	-	SERGEF	0x0
7653	chr11	18300440	18301747	-	HPS5	0x0
7654	chr11	18423895	18425092	+	LDHA	0x0
7655	chr11	18428497	18429940	+	LDHA	0x0
7656	chr11	18501282	18502474	-	TSG101	0x1
7657	chr11	19197203	19198354	+	ZDHHC13	0x0
7658	chr11	19851500	19852625	+	NAV2	0x0
7659	chr11	20140391	20141482	+	NAV2	0x0
7660	chr11	20141880	20143113	+	NAV2	0x0
7661	chr11	20410782	20411882	+	PRMT3	0x0
7662	chr11	20416860	20418048	+	PRMT3	0x0
7663	chr11	20473056	20474311	+	PRMT3	0x0
7664	chr11	20513421	20514624	+	PRMT3	0x0
7665	chr11	20533333	20534864	+	PRMT3	0x0
7666	chr11	27387483	27389282	-	LGR4	0x0
7667	chr11	27516582	27517764	-	LIN7C	0x0
7668	chr11	27518561	27519790	-	LIN7C	0x0
7669	chr11	27909415	27913038	-	KIF18A	0x0
7670	chr11	28311347	28312507	+	METTL15	0x0
7671	chr11	32118260	32119427	+	RCN1	0x0
7672	chr11	32125446	32127528	+	RCN1	0x0
7673	chr11	32608069	32611628	+	EIF3M	0x0
7674	chr11	32617070	32624370	+	EIF3M	0x0
7675	chr11	32876767	32878586	+	PRRG4	0x0
7676	chr11	32878711	32879818	+	PRRG4	0x0
7677	chr11	32953327	32954459	+	QSER1	0x0
7678	chr11	32955270	32956820	+	QSER1	0x0
7679	chr11	32998050	32999209	+	QSER1	0x0
7680	chr11	33258340	33259515	+	HIPK3	0x0
7681	chr11	33307514	33309615	+	HIPK3	0x0
7682	chr11	33551839	33553003	+	C11orf41	0x0
7683	chr11	33576343	33577495	-	C11orf91	0x0
7684	chr11	33691191	33692396	+	C11orf41	0x0
7685	chr11	33762459	33763609	-	FBXO3	0x0
7686	chr11	33766102	33767275	-	FBXO3	0x0
7687	chr11	34097352	34098505	+	CAPRIN1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7688	chr11	34100678	34101893	+	CAPRIN1	0x0
7689	chr11	34120947	34122900	+	CAPRIN1	0x0
7690	chr11	34140321	34141486	+	NAT10	0x0
7691	chr11	34143485	34144703	+	NAT10	0x0
7692	chr11	35641149	35642340	+	FJX1	0x0
7693	chr11	35828860	35830984	+	TRIM44	0x0
7694	chr11	35983682	35984830	+	LDLRAD3	0x0
7695	chr11	36251355	36252539	+	LDLRAD3	0x0
7696	chr11	36297494	36298650	-	COMMD9	0x0
7697	chr11	36509589	36511794	-	TRAF6	0x0
7698	chr11	43364248	43366481	+	API5	0x0
7699	chr11	43876379	43878250	+	HSD17B12	0x0
7700	chr11	44265234	44266584	+	EXT2	0x1
7701	chr11	44951458	44952626	+	TSPAN18	0x0
7702	chr11	44954085	44956661	-	TP53I11	0x0
7703	chr11	44960502	44961655	-	TP53I11	0x0
7704	chr11	45252063	45254061	+	PRDM11	0x0
7705	chr11	45927199	45928406	+	MAPK8IP1	0x0
7706	chr11	45952369	45953945	-	PHF21A	0x0
7707	chr11	46018792	46019941	-	PHF21A	0x0
7708	chr11	46066000	46067170	-	PHF21A	0x0
7709	chr11	46093315	46094506	-	PHF21A	0x0
7710	chr11	46105190	46106381	-	PHF21A	0x0
7711	chr11	46111498	46112633	-	PHF21A	0x0
7712	chr11	46115356	46116511	-	PHF21A	0x0
7713	chr11	46140186	46141310	-	PHF21A	0x0
7714	chr11	46404468	46405795	+	MDK	0x0
7715	chr11	46563043	46564239	-	AMBRA1	0x0
7716	chr11	46641532	46643049	+	ATG13	0x0
7717	chr11	46690412	46691545	+	ATG13	0x0
7718	chr11	46693512	46696089	+	ATG13	0x0
7719	chr11	46698137	46700969	-	ARHGAP1	0x0
7720	chr11	46764536	46766052	-	CKAP5	0x0
7721	chr11	46772446	46773567	-	CKAP5	0x0
7722	chr11	46774368	46775564	-	CKAP5	0x0
7723	chr11	46783347	46784488	-	CKAP5	0x0
7724	chr11	46783347	46784488	-	SNORD67	0x0
7725	chr11	46805507	46806694	-	CKAP5	0x0
7726	chr11	46879113	46880233	-	LRP4	0x0
7727	chr11	46895905	46897056	-	LRP4	0x0
7728	chr11	47071986	47073137	+	C11orf49	0x0
7729	chr11	47073409	47074635	+	C11orf49	0x0
7730	chr11	47440130	47441248	-	PSMC3	0x0
7731	chr11	47487607	47490755	-	CELF1	0x0
7732	chr11	47503709	47504885	-	CELF1	0x0
7733	chr11	47592725	47593871	+	PTPMT1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7734	chr11	47639491	47640650	-	MTCH2	0x0
7735	chr11	47649559	47651070	-	MTCH2	0x0
7736	chr11	47818760	47819953	-	NUP160	0x0
7737	chr11	48077073	48078251	+	PTPRJ	0x1
7738	chr11	57072870	57074411	-	TNKS1BP1	0x0
7739	chr11	57099206	57100378	-	SSRP1	0x0
7740	chr11	57137107	57138268	+	P2RX3	0x0
7741	chr11	57174483	57175612	-	SLC43A3	0x0
7742	chr11	57280919	57282054	-	SLC43A1	0x0
7743	chr11	57297040	57298165	-	TIMM10	0x0
7744	chr11	57426378	57427499	+	CLP1	0x2
7745	chr11	57457278	57458504	+	ZDHHC5	0x0
7746	chr11	57467610	57469139	+	ZDHHC5	0x0
7747	chr11	57563469	57564684	+	CTNND1	0x1
7748	chr11	57563469	57564684	+	TMX2-CTNND1	0x0
7749	chr11	57583917	57585744	+	CTNND1	0x1
7750	chr11	57583917	57585744	+	TMX2-CTNND1	0x0
7751	chr11	57599064	57600138	+	CTNND1	0x1
7752	chr11	57599064	57600138	+	TMX2-CTNND1	0x0
7753	chr11	57601529	57603195	+	CTNND1	0x1
7754	chr11	57601529	57603195	+	TMX2-CTNND1	0x0
7755	chr11	58384518	58386976	+	ZFP91	0x0
7756	chr11	58384518	58386976	+	ZFP91-CNTF	0x0
7757	chr11	58391011	58392209	+	CNTF	0x0
7758	chr11	58391011	58392209	+	ZFP91-CNTF	0x0
7759	chr11	58974986	58976189	+	DTX4	0x0
7760	chr11	59342546	59344010	-	OSBP	0x0
7761	chr11	59377337	59378437	-	OSBP	0x0
7762	chr11	59404881	59406043	-	PATL1	0x0
7763	chr11	59568425	59570190	+	STX3	0x0
7764	chr11	59570453	59571665	-	MRPL16	0x0
7765	chr11	59571712	59573235	+	STX3	0x0
7766	chr11	60669506	60670805	-	PRPF19	0x0
7767	chr11	60689389	60690810	+	TMEM109	0x0
7768	chr11	60898200	60899417	-	VPS37C	0x0
7769	chr11	61066369	61067955	-	DDB1	0x0
7770	chr11	61069244	61070311	-	DDB1	0x0
7771	chr11	61075892	61077839	-	DDB1	0x0
7772	chr11	61081012	61082160	-	DDB1	0x0
7773	chr11	61083208	61084574	-	DDB1	0x0
7774	chr11	61089268	61090400	-	DDB1	0x0
7775	chr11	61098476	61099679	-	DDB1	0x0
7776	chr11	61170016	61171326	-	CPSF7	0x0
7777	chr11	61188437	61189566	-	CPSF7	0x0
7778	chr11	61204942	61206151	+	SDHAF2	0x0
7779	chr11	61282893	61284053	-	SYT7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7780	chr11	61301081	61302281	-	SYT7	0x0
7781	chr11	61404388	61405679	+	RPLP0P2	0x0
7782	chr11	61553032	61555484	+	C11orf9	0x0
7783	chr11	61563584	61564882	+	FEN1	0x0
7784	chr11	61566853	61570036	-	FADS1	0x0
7785	chr11	61596781	61597948	+	FADS2	0x0
7786	chr11	61612831	61614047	+	FADS2	0x0
7787	chr11	61632892	61634299	+	FADS2	0x0
7788	chr11	61731644	61733499	-	FTH1	0x0
7789	chr11	61734400	61735503	-	FTH1	0x0
7790	chr11	61895734	61896946	+	INCENP	0x0
7791	chr11	61918956	61920286	+	INCENP	0x0
7792	chr11	62159909	62161059	+	ASRGL1	0x0
7793	chr11	62283215	62284351	-	AHNAK	0x2
7794	chr11	62289515	62290619	-	AHNAK	0x2
7795	chr11	62290740	62291839	-	AHNAK	0x2
7796	chr11	62298285	62299391	-	AHNAK	0x2
7797	chr11	62326525	62327836	-	EEF1G	0x0
7798	chr11	62326525	62327836	-	MIR3654	0x0
7799	chr11	62333798	62335003	-	EEF1G	0x0
7800	chr11	62345732	62346952	-	TUT1	0x0
7801	chr11	62370079	62371277	-	EML3	0x0
7802	chr11	62382303	62383524	-	B3GAT3	0x0
7803	chr11	62391811	62393333	-	GANAB	0x0
7804	chr11	62395901	62397270	-	GANAB	0x0
7805	chr11	62397613	62398712	-	GANAB	0x0
7806	chr11	62414810	62415984	-	INTS5	0x0
7807	chr11	62444946	62446060	-	UBXN1	0x0
7808	chr11	62479962	62482928	-	HNRNPUL2	0x0
7809	chr11	62507940	62509436	+	TTC9C	0x0
7810	chr11	62549018	62550236	+	TAF6L	0x0
7811	chr11	62567176	62568316	-	NXF1	0x2
7812	chr11	62570769	62571921	-	NXF1	0x2
7813	chr11	62620889	62622628	-	SNHG1	0x0
7814	chr11	62620889	62622628	-	SNORD27	0x0
7815	chr11	62620889	62622628	-	SNORD28	0x0
7816	chr11	62620889	62622628	-	SNORD29	0x0
7817	chr11	62620889	62622628	-	SNORD30	0x0
7818	chr11	62647942	62650022	+	SLC3A2	0x0
7819	chr11	62651526	62652676	+	SLC3A2	0x0
7820	chr11	62655265	62656792	+	SLC3A2	0x0
7821	chr11	62772662	62773789	+	SLC3A2	0x0
7822	chr11	63391744	63393169	-	ATL3	0x0
7823	chr11	63393659	63394850	-	ATL3	0x0
7824	chr11	63448610	63449679	+	RTN3	0x0
7825	chr11	63525602	63527438	+	RTN3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7826	chr11	63593866	63595383	+	C11orf84	0x0
7827	chr11	63606631	63607830	+	MARK2	0x0
7828	chr11	63677124	63678481	+	MARK2	0x0
7829	chr11	63678260	63680492	-	RCOR2	0x0
7830	chr11	63722385	63725018	+	NAA40	0x0
7831	chr11	63743146	63744456	+	COX8A	0x0
7832	chr11	63764475	63765577	+	OTUB1	0x0
7833	chr11	63915554	63916706	+	FLRT1	0x0
7834	chr11	63961470	63962739	+	STIP1	0x0
7835	chr11	63971032	63972400	+	STIP1	0x0
7836	chr11	64011566	64012898	-	PPP1R14B	0x0
7837	chr11	64056142	64057295	+	GPR137	0x0
7838	chr11	64082624	64083742	+	ESRRA	0x0
7839	chr11	64138829	64140014	+	RPS6KA4	0x0
7840	chr11	64423120	64424238	-	NRXN2	0x2
7841	chr11	64530978	64533682	-	SF1	0x0
7842	chr11	64590625	64592036	-	CDC42BPG	0x2
7843	chr11	64619884	64621879	-	EHD1	0x0
7844	chr11	64788527	64789827	+	ARL2	0x0
7845	chr11	64811465	64812651	+	SAC3D1	0x0
7846	chr11	64845313	64846493	-	CDCA5	0x0
7847	chr11	64894817	64895952	-	SYVN1	0x0
7848	chr11	64971565	64972800	+	CAPN1	0x0
7849	chr11	65118702	65120772	+	DPF2	0x0
7850	chr11	65179622	65180919	+	FRMD8	0x0
7851	chr11	65190231	65193034	+	NEAT1	0x0
7852	chr11	65267318	65268438	+	MALAT1	0x0
7853	chr11	65269967	65271136	+	MALAT1	0x0
7854	chr11	65271674	65272770	+	MALAT1	0x0
7855	chr11	65366459	65367673	-	MAP3K11	0x0
7856	chr11	65385572	65387845	+	PCNXL3	0x0
7857	chr11	65391396	65392537	+	PCNXL3	0x0
7858	chr11	65394316	65395500	+	PCNXL3	0x0
7859	chr11	65404209	65405344	+	PCNXL3	0x0
7860	chr11	65413547	65414747	+	SIPA1	0x0
7861	chr11	65481510	65482705	+	KAT5	0x0
7862	chr11	65621766	65623216	-	CFL1	0x0
7863	chr11	65743617	65744817	+	SART1	0x0
7864	chr11	65745688	65746874	+	SART1	0x0
7865	chr11	65770763	65772078	+	BANF1	0x0
7866	chr11	65835716	65837265	+	SF3B2	0x0
7867	chr11	66011403	66012677	+	PACS1	0x0
7868	chr11	66043590	66045394	+	RAB1B	0x4
7869	chr11	66051634	66052891	-	YIF1A	0x0
7870	chr11	66054500	66055726	-	YIF1A	0x0
7871	chr11	66104541	66105743	-	BRMS1	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7872	chr11	66107904	66109020	-	BRMS1	0x1
7873	chr11	66129564	66130809	-	SLC29A2	0x2
7874	chr11	66244147	66245454	+	PELI3	0x0
7875	chr11	66261992	66263820	+	DPP3	0x0
7876	chr11	66276131	66277606	+	DPP3	0x0
7877	chr11	66330057	66331269	+	ACTN3	0x0
7878	chr11	66331463	66332657	-	CTSF	0x0
7879	chr11	66391572	66393688	+	RBM14	0x1
7880	chr11	66394167	66396722	+	RBM14	0x1
7881	chr11	66405545	66406774	+	RBM4	0x0
7882	chr11	66410479	66412057	+	RBM14-RBM4	0x0
7883	chr11	66410479	66412057	+	RBM4	0x0
7884	chr11	66413015	66414430	+	RBM14-RBM4	0x0
7885	chr11	66413015	66414430	+	RBM4	0x0
7886	chr11	66452362	66453691	-	SPTBN2	0x0
7887	chr11	66456969	66458081	-	SPTBN2	0x0
7888	chr11	66615454	66616644	-	PC	0x0
7889	chr11	66947023	66948162	+	KDM2A	0x0
7890	chr11	66948249	66949446	+	KDM2A	0x0
7891	chr11	66974538	66975657	+	KDM2A	0x0
7892	chr11	66982745	66983927	+	KDM2A	0x0
7893	chr11	66998774	67000010	+	KDM2A	0x0
7894	chr11	67046747	67048005	+	ADRBK1	0x0
7895	chr11	67051123	67052320	+	ADRBK1	0x0
7896	chr11	67053054	67054237	+	ADRBK1	0x0
7897	chr11	67165830	67167028	-	PPP1CA	0x1
7898	chr11	67201297	67202529	+	RPS6KB2	0x0
7899	chr11	67250685	67251958	+	AIP	0x1
7900	chr11	67377973	67379147	+	NDUFV1	0x0
7901	chr11	67449746	67450974	-	ALDH3B2	0x0
7902	chr11	67775890	67777120	+	ALDH3B1	0x0
7903	chr11	67933667	67934825	-	SUV420H1	0x0
7904	chr11	68192105	68193231	+	LRP5	0x2
7905	chr11	68380511	68383220	+	PPP6R3	0x0
7906	chr11	68524170	68525348	-	CPT1A	0x0
7907	chr11	68853562	68854904	+	TPCN2	0x0
7908	chr11	69457261	69458458	+	CCND1	0x2
7909	chr11	69467936	69469689	+	CCND1	0x2
7910	chr11	69585339	69588104	-	FGF4	0x0
7911	chr11	69590318	69591446	-	FGF4	0x0
7912	chr11	70229599	70230894	+	PPFIA1	0x0
7913	chr11	70255439	70257207	+	CTTN	0x0
7914	chr11	70281629	70283003	+	CTTN	0x0
7915	chr11	71149452	71150620	-	DHCR7	0x4
7916	chr11	71707149	71708467	+	RNF121	0x0
7917	chr11	71713423	71714560	-	NUMA1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7918	chr11	71725074	71726263	-	NUMA1	0x2
7919	chr11	71726325	71727475	-	NUMA1	0x2
7920	chr11	71818667	71820547	-	C11orf51	0x0
7921	chr11	72003527	72004825	-	CLPB	0x0
7922	chr11	72067239	72068346	-	CLPB	0x0
7923	chr11	72414191	72415367	-	ARAP1	0x0
7924	chr11	72436288	72437581	-	ARAP1	0x0
7925	chr11	72547599	72549980	-	FCHSD2	0x0
7926	chr11	73018464	73019696	+	ARHGEF17	0x0
7927	chr11	73022582	73023704	+	ARHGEF17	0x0
7928	chr11	73105620	73106833	+	RELT	0x0
7929	chr11	73111702	73113001	-	FAM168A	0x0
7930	chr11	73372956	73374231	+	PLEKHB1	0x0
7931	chr11	73387624	73388750	-	RAB6A	0x0
7932	chr11	73470563	73471670	-	RAB6A	0x0
7933	chr11	73686044	73687205	-	UCP2	0x0
7934	chr11	73688382	73689500	-	UCP2	0x0
7935	chr11	73881297	73882420	-	C2CD3	0x0
7936	chr11	73964791	73966255	+	PPME1	0x0
7937	chr11	74042737	74043913	-	PGM2L1	0x0
7938	chr11	74044021	74045115	-	PGM2L1	0x0
7939	chr11	74086803	74088103	-	PGM2L1	0x0
7940	chr11	74351321	74353999	+	POLD3	0x0
7941	chr11	74500139	74501275	+	RNF169	0x0
7942	chr11	74520628	74521851	+	RNF169	0x0
7943	chr11	74551522	74552627	+	RNF169	0x0
7944	chr11	74688167	74689266	+	SPCS2	0x0
7945	chr11	74717149	74718488	+	NEU3	0x0
7946	chr11	74970824	74971943	-	ARRB1	0x0
7947	chr11	75110971	75114025	+	RPS3	0x0
7948	chr11	75110971	75114025	+	SNORD15A	0x0
7949	chr11	75114466	75116420	+	RPS3	0x0
7950	chr11	75114466	75116420	+	SNORD15B	0x0
7951	chr11	75279476	75280794	+	SERPINH1	0x0
7952	chr11	75308645	75309761	-	MAP6	0x0
7953	chr11	75313786	75316462	-	MAP6	0x0
7954	chr11	75375312	75376471	-	MAP6	0x0
7955	chr11	75772610	75773836	+	UVRAG	0x2
7956	chr11	76060537	76061740	-	PRKRIR	0x0
7957	chr11	76248334	76249511	+	C11orf30	0x2
7958	chr11	76260630	76261728	+	C11orf30	0x2
7959	chr11	76496609	76497839	+	TSKU	0x0
7960	chr11	76814651	76815855	+	OMP	0x0
7961	chr11	76824866	76826006	+	CAPN5	0x0
7962	chr11	76836212	76837433	+	CAPN5	0x0
7963	chr11	77032796	77034018	-	PAK1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
7964	chr11	77333049	77334148	-	CLNS1A	0x0
7965	chr11	77372347	77373520	-	RSF1	0x0
7966	chr11	77445074	77446545	-	RSF1	0x0
7967	chr11	77783495	77784684	-	NDUFC2	0x0
7968	chr11	77783495	77784684	-	NDUFC2-KCTD14	0x0
7969	chr11	78364063	78365284	-	ODZ4	0x0
7970	chr11	78365518	78366573	-	ODZ4	0x0
7971	chr11	78379982	78381149	-	ODZ4	0x0
7972	chr11	78490126	78491261	-	ODZ4	0x0
7973	chr11	78515783	78516985	-	ODZ4	0x0
7974	chr11	78573458	78574624	-	ODZ4	0x0
7975	chr11	78766693	78767875	-	ODZ4	0x0
7976	chr11	79054278	79055355	-	ODZ4	0x0
7977	chr11	79078682	79079961	-	MIR708	0x0
7978	chr11	79093018	79094203	-	MIR708	0x0
7979	chr11	79138482	79139632	-	ODZ4	0x0
7980	chr11	79149543	79150762	-	ODZ4	0x0
7981	chr11	82400190	82401455	+	C11orf82	0x0
7982	chr11	82645020	82646153	+	C11orf82	0x0
7983	chr11	82879756	82881019	+	PCF11	0x0
7984	chr11	82895869	82897114	+	PCF11	0x0
7985	chr11	85371874	85373172	-	CREBZF	0x0
7986	chr11	85373569	85374851	-	CREBZF	0x0
7987	chr11	85667850	85669871	-	PICALM	0x2
7988	chr11	85711485	85712650	-	PICALM	0x2
7989	chr11	85980689	85981814	+	EED	0x0
7990	chr11	85988377	85989574	+	EED	0x0
7991	chr11	86656412	86657603	-	FZD4	0x0
7992	chr11	86723095	86724224	-	FZD4	0x0
7993	chr11	87032983	87034094	+	TMEM135	0x0
7994	chr11	89059097	89060246	-	NOX4	0x0
7995	chr11	89931607	89932719	-	CHORDC1	0x0
7996	chr11	90016509	90017644	+	NAALAD2	0x0
7997	chr11	92068901	92070134	+	FAT3	0x2
7998	chr11	92540698	92541984	+	FAT3	0x2
7999	chr11	92878311	92879452	-	SLC36A4	0x0
8000	chr11	93463650	93464762	-	SNORA25	0x0
8001	chr11	93463650	93464762	-	SNORA32	0x0
8002	chr11	93463650	93464762	-	SNORD6	0x0
8003	chr11	93912281	93913442	+	PANX1	0x0
8004	chr11	94218552	94219662	-	MRE11A	0x2
8005	chr11	94231903	94233075	+	ANKRD49	0x0
8006	chr11	94598627	94599774	+	AMOTL1	0x0
8007	chr11	94603971	94606226	+	AMOTL1	0x0
8008	chr11	94607579	94610282	+	AMOTL1	0x0
8009	chr11	94898663	94899747	-	SESN3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8010	chr11	94900932	94901994	-	SESN3	0x0
8011	chr11	94903047	94905250	-	SESN3	0x0
8012	chr11	95566720	95568889	-	MTMR2	0x0
8013	chr11	95656635	95657800	-	MTMR2	0x0
8014	chr11	100861105	100862685	+	ARHGAP42	0x0
8015	chr11	101981966	101983170	+	YAP1	0x1
8016	chr11	102100219	102103870	+	YAP1	0x1
8017	chr11	102248615	102249796	+	BIRC2	0x2
8018	chr11	105878648	105881192	-	KIAA1826	0x0
8019	chr11	105947967	105949211	+	AASDHPPT	0x0
8020	chr11	105961488	105962682	+	AASDHPPT	0x0
8021	chr11	107297532	107298816	-	CWF19L2	0x0
8022	chr11	107661250	107662351	-	SLC35F2	0x0
8023	chr11	107662643	107663740	-	SLC35F2	0x0
8024	chr11	107778590	107779951	+	RAB39A	0x0
8025	chr11	107975063	107976174	+	CUL5	0x1
8026	chr11	107976810	107978722	+	CUL5	0x1
8027	chr11	108027811	108030045	-	NPAT	0x0
8028	chr11	108042705	108043820	-	NPAT	0x0
8029	chr11	108119147	108120368	+	ATM	0x1
8030	chr11	108238020	108239250	+	ATM	0x1
8031	chr11	108810968	108812115	+	DDX10	0x0
8032	chr11	110100169	110102600	-	RDX	0x0
8033	chr11	110158087	110159216	-	RDX	0x0
8034	chr11	110306062	110307180	+	FDX1	0x0
8035	chr11	111411447	111412756	+	LAYN	0x0
8036	chr11	111519411	111520598	+	SIK2	0x0
8037	chr11	111594440	111595621	+	SIK2	0x0
8038	chr11	111596055	111597160	+	SIK2	0x0
8039	chr11	111610299	111612426	-	PPP2R1B	0x1
8040	chr11	111653206	111654341	-	ALG9	0x0
8041	chr11	111656411	111657513	-	ALG9	0x0
8042	chr11	111706344	111707567	-	ALG9	0x0
8043	chr11	111903614	111904843	+	DLAT	0x0
8044	chr11	111932973	111934111	+	DLAT	0x0
8045	chr11	111953057	111954732	+	C11orf57	0x0
8046	chr11	111955450	111956618	+	C11orf57	0x0
8047	chr11	111965258	111966664	+	SDHD	0x5
8048	chr11	112118668	112119816	-	C11orf34	0x0
8049	chr11	113119470	113120659	+	NCAM1	0x0
8050	chr11	113148505	113149603	+	NCAM1	0x0
8051	chr11	113668131	113670472	-	USP28	0x2
8052	chr11	113675048	113676154	-	USP28	0x2
8053	chr11	115044756	115046356	-	CADM1	0x1
8054	chr11	115098917	115100080	-	CADM1	0x1
8055	chr11	115205645	115206860	-	CADM1	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8056	chr11	115245377	115246505	-	CADM1	0x1
8057	chr11	115357634	115358739	-	CADM1	0x1
8058	chr11	116648712	116650044	-	ZNF259	0x0
8059	chr11	116655682	116656781	-	ZNF259	0x0
8060	chr11	116713483	116715571	-	SIK3	0x2
8061	chr11	116740111	116741445	-	SIK3	0x2
8062	chr11	117038442	117039953	+	PAFAH1B2	0x2
8063	chr11	117066686	117068313	+	SIDT2	0x0
8064	chr11	117073225	117074391	+	TAGLN	0x0
8065	chr11	117156523	117157860	+	RNF214	0x0
8066	chr11	117159010	117163985	+	BACE1-AS	0x0
8067	chr11	117283145	117284345	+	CEP164	0x0
8068	chr11	117609092	117610203	-	DSCAML1	0x2
8069	chr11	117707195	117709322	-	FXYD6	0x0
8070	chr11	118267550	118269861	+	UBE4A	0x0
8071	chr11	118373563	118375211	+	MLL	0x2
8072	chr11	118393473	118395427	+	MLL	0x2
8073	chr11	118471250	118474192	+	ARCN1	0x0
8074	chr11	118618603	118619832	-	DDX6	0x0
8075	chr11	118620559	118621987	-	DDX6	0x0
8076	chr11	118622016	118623085	-	DDX6	0x0
8077	chr11	118767156	118768410	-	BCL9L	0x0
8078	chr11	118887526	118888718	-	RPS25	0x0
8079	chr11	118893673	118894865	+	TRAPPC4	0x0
8080	chr11	118914389	118916578	-	HYOU1	0x0
8081	chr11	118925339	118926572	-	HYOU1	0x0
8082	chr11	118964073	118965931	-	H2AFX	0x0
8083	chr11	119177620	119178800	+	CBL	0x2
8084	chr11	119207106	119208271	+	RNF26	0x0
8085	chr11	119240536	119241665	-	USP2	0x0
8086	chr11	119288547	119290413	-	THY1	0x1
8087	chr11	119531760	119534914	-	PVRL1	0x0
8088	chr11	120348420	120349626	+	ARHGEF12	0x1
8089	chr11	120958239	120959530	+	TBCEL	0x0
8090	chr11	120959542	120961699	+	TBCEL	0x0
8091	chr11	121181688	121182736	+	SC5DL	0x0
8092	chr11	121415462	121416663	+	SORL1	0x2
8093	chr11	121428739	121429923	+	SORL1	0x2
8094	chr11	121477336	121478527	+	SORL1	0x2
8095	chr11	121500163	121504443	+	SORL1	0x2
8096	chr11	122003403	122004510	-	MIRLET7A2	0x1
8097	chr11	122618246	122619714	+	UBASH3B	0x0
8098	chr11	122930112	122932463	-	HSPA8	0x0
8099	chr11	123496246	123498355	+	GRAMD1B	0x0
8100	chr11	123572586	123573750	+	GRAMD1B	0x0
8101	chr11	123600655	123602321	+	GRAMD1B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8102	chr11	123612412	123613592	+	GRAMD1B	0x0
8103	chr11	123628012	123629147	+	GRAMD1B	0x0
8104	chr11	124492210	124493670	+	TBRG1	0x1
8105	chr11	124495863	124497095	+	TBRG1	0x1
8106	chr11	124506002	124507283	-	SIAE	0x0
8107	chr11	124509836	124511047	-	SIAE	0x0
8108	chr11	124636657	124637960	-	C11orf61	0x0
8109	chr11	124958503	124959602	+	SLC37A2	0x0
8110	chr11	125453344	125455026	+	EI24	0x1
8111	chr11	125466849	125467999	+	STT3A	0x0
8112	chr11	125473451	125474699	+	STT3A	0x0
8113	chr11	125475680	125476924	+	STT3A	0x0
8114	chr11	125478853	125479921	+	STT3A	0x0
8115	chr11	125480791	125481957	+	STT3A	0x0
8116	chr11	125482372	125483562	+	STT3A	0x0
8117	chr11	125487720	125488901	+	STT3A	0x0
8118	chr11	125489325	125491585	+	STT3A	0x0
8119	chr11	125504830	125505983	+	CHEK1	0x1
8120	chr11	125819855	125820996	-	CDON	0x0
8121	chr11	125827177	125828287	-	CDON	0x0
8122	chr11	125828440	125830261	-	CDON	0x0
8123	chr11	125936887	125939088	+	FAM118B	0x0
8124	chr11	126080244	126081482	-	RPUSD4	0x0
8125	chr11	126132472	126136360	-	SRPR	0x0
8126	chr11	126136950	126138160	-	SRPR	0x0
8127	chr11	126145160	126146322	+	FOXRED1	0x0
8128	chr11	128391415	128392583	-	ETS1	0x1
8129	chr11	128835161	128837767	-	ARHGAP32	0x0
8130	chr11	128839344	128840867	-	ARHGAP32	0x0
8131	chr11	128848290	128849388	-	ARHGAP32	0x0
8132	chr11	128934176	128935337	-	ARHGAP32	0x0
8133	chr11	129140163	129141345	-	ARHGAP32	0x0
8134	chr11	129733321	129734579	-	NFRKB	0x0
8135	chr11	129751117	129752258	-	NFRKB	0x0
8136	chr11	130012825	130014962	+	APLP2	0x0
8137	chr11	130030281	130031691	+	ST14	0x0
8138	chr11	130096103	130098262	-	ZBTB44	0x0
8139	chr11	130098337	130101253	-	ZBTB44	0x0
8140	chr11	130101840	130104196	-	ZBTB44	0x0
8141	chr11	130106241	130107340	-	ZBTB44	0x0
8142	chr11	130130304	130132129	-	ZBTB44	0x0
8143	chr11	130345844	130347028	+	ADAMTS15	0x0
8144	chr11	133768419	133769729	-	LOC283174	0x0
8145	chr11	133768419	133769729	-	MIR4697	0x0
8146	chr11	133769948	133771464	-	LOC283174	0x0
8147	chr11	133773269	133774656	-	LOC283174	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8148	chr11	133797147	133798248	-	IGSF9B	0x0
8149	chr11	133801406	133802620	-	IGSF9B	0x0
8150	chr11	133813631	133814797	-	IGSF9B	0x0
8151	chr11	133991212	133992292	-	NCAPD3	0x0
8152	chr11	133993334	133994446	-	NCAPD3	0x0
8153	chr11	134019504	134020623	+	JAM3	0x0
8154	chr11	134031372	134032581	-	NCAPD3	0x0
8155	chr11	134115270	134117970	+	VPS26B	0x0
8156	chr12	392524	393608	-	KDM5A	0x2
8157	chr12	588930	590045	+	B4GALNT3	0x0
8158	chr12	661939	663111	+	B4GALNT3	0x0
8159	chr12	993284	995540	+	WNK1	0x0
8160	chr12	1004977	1006171	+	WNK1	0x0
8161	chr12	1018344	1021091	+	WNK1	0x0
8162	chr12	1035830	1036930	-	RAD52	0x0
8163	chr12	1038519	1039651	-	RAD52	0x0
8164	chr12	1100400	1101597	+	ERC1	0x2
8165	chr12	1136970	1138121	+	ERC1	0x2
8166	chr12	1452200	1453434	+	ERC1	0x2
8167	chr12	1600710	1601889	+	ERC1	0x2
8168	chr12	1603897	1604996	+	ERC1	0x2
8169	chr12	1700212	1701869	-	FBXL14	0x0
8170	chr12	1702314	1703439	-	FBXL14	0x0
8171	chr12	1895621	1898170	+	ADIPOR2	0x0
8172	chr12	2788278	2789508	+	CACNA1C	0x0
8173	chr12	2911886	2913535	+	FKBP4	0x0
8174	chr12	2966188	2967796	-	FOXM1	0x0
8175	chr12	3263346	3264537	+	TSPAN9	0x0
8176	chr12	3320320	3321504	-	FOXM1	0x0
8177	chr12	3391984	3395744	+	TSPAN9	0x0
8178	chr12	4657158	4658563	+	RAD51AP1	0x0
8179	chr12	4667684	4669376	+	RAD51AP1	0x0
8180	chr12	4744242	4745372	-	AKAP3	0x0
8181	chr12	6346607	6347844	+	CD9	0x0
8182	chr12	6492830	6494040	+	LTBR	0x0
8183	chr12	6623114	6624268	+	NCAPD2	0x0
8184	chr12	6635214	6636280	+	NCAPD2	0x0
8185	chr12	6637389	6638517	+	NCAPD2	0x0
8186	chr12	6639959	6641653	+	NCAPD2	0x0
8187	chr12	6644127	6645254	+	GAPDH	0x0
8188	chr12	6665834	6667060	-	NOP2	0x0
8189	chr12	6678764	6680201	-	CHD4	0x2
8190	chr12	6686680	6687820	-	CHD4	0x2
8191	chr12	6691813	6693007	-	CHD4	0x2
8192	chr12	6696473	6697675	-	CHD4	0x2
8193	chr12	6701167	6702296	-	CHD4	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8194	chr12	6706605	6707708	-	CHD4	0x2
8195	chr12	6709587	6711707	-	CHD4	0x2
8196	chr12	6802753	6803987	-	C12orf53	0x0
8197	chr12	6837464	6838606	+	COPS7A	0x0
8198	chr12	6839822	6841323	+	COPS7A	0x0
8199	chr12	6856786	6858371	-	MLF2	0x0
8200	chr12	6858537	6859643	-	MLF2	0x0
8201	chr12	6933306	6934492	-	CDCA3	0x0
8202	chr12	6957364	6958890	-	CDCA3	0x0
8203	chr12	6974962	6976293	+	USP5	0x0
8204	chr12	6979106	6980281	+	TPI1	0x0
8205	chr12	7074077	7075274	-	PHB2	0x0
8206	chr12	7075832	7077192	-	PHB2	0x0
8207	chr12	7075832	7077192	-	SCARNA12	0x0
8208	chr12	7079518	7080752	+	EMG1	0x0
8209	chr12	7083228	7084417	+	EMG1	0x0
8210	chr12	7310420	7311640	+	CLSTN3	0x0
8211	chr12	7362556	7364182	+	PEX5	0x0
8212	chr12	7759391	7760612	-	APOBEC1	0x0
8213	chr12	7941555	7943264	+	NANOG	0x0
8214	chr12	8074932	8076116	-	SLC2A3	0x0
8215	chr12	8077910	8078951	-	SLC2A3	0x0
8216	chr12	8085143	8087022	-	SLC2A3	0x0
8217	chr12	8206494	8207761	+	FOXJ2	0x0
8218	chr12	8248835	8250472	+	NECAP1	0x0
8219	chr12	9068051	9069218	+	PHC1	0x0
8220	chr12	9086126	9088398	+	PHC1	0x0
8221	chr12	9091375	9093345	+	PHC1	0x0
8222	chr12	9092585	9094050	-	M6PR	0x0
8223	chr12	9412390	9413489	+	LOC100499405	0x0
8224	chr12	9464397	9465505	+	LOC642846	0x0
8225	chr12	9795189	9796416	+	LOC374443	0x0
8226	chr12	10658825	10660111	+	KLRD1	0x0
8227	chr12	10851235	10852647	-	CSDA	0x0
8228	chr12	10853400	10854441	-	CSDA	0x0
8229	chr12	10856233	10857409	-	CSDA	0x0
8230	chr12	10865253	10866540	-	CSDA	0x0
8231	chr12	10867722	10868943	-	CSDA	0x0
8232	chr12	11323521	11324680	+	LOC100129361	0x0
8233	chr12	12044227	12046340	+	ETV6	0x1
8234	chr12	12268712	12269970	-	LRP6	0x0
8235	chr12	12270754	12274277	-	LRP6	0x0
8236	chr12	12290833	12291935	-	LRP6	0x0
8237	chr12	12299740	12300993	-	LRP6	0x0
8238	chr12	12312275	12313455	-	LRP6	0x0
8239	chr12	12332283	12333442	-	LRP6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8240	chr12	12333466	12334896	-	LRP6	0x0
8241	chr12	12339373	12340543	-	LRP6	0x0
8242	chr12	12396782	12398104	-	LRP6	0x0
8243	chr12	12618516	12619753	+	LOH12CR1	0x0
8244	chr12	12626986	12629162	-	DUSP16	0x0
8245	chr12	12673461	12674621	-	DUSP16	0x0
8246	chr12	12795289	12796516	+	CREBL2	0x1
8247	chr12	12976377	12977614	+	DDX47	0x0
8248	chr12	12981936	12983303	+	DDX47	0x0
8249	chr12	13127378	13128677	-	HEBP1	0x0
8250	chr12	13207475	13208592	+	KIAA1467	0x0
8251	chr12	13233653	13236233	+	KIAA1467	0x0
8252	chr12	13367727	13370136	+	EMP1	0x1
8253	chr12	13698623	13699723	+	EMP1	0x1
8254	chr12	14576702	14577834	+	ATF7IP	0x0
8255	chr12	14588544	14589648	+	ATF7IP	0x0
8256	chr12	14650404	14651509	+	ATF7IP	0x0
8257	chr12	14652972	14655862	+	ATF7IP	0x0
8258	chr12	14927002	14928241	+	H2AFJ	0x0
8259	chr12	14938965	14940246	-	WBP11	0x2
8260	chr12	15773086	15774547	-	EPS8	0x0
8261	chr12	15878548	15879802	-	EPS8	0x0
8262	chr12	15906489	15907630	-	EPS8	0x0
8263	chr12	16034903	16036164	+	STRAP	0x0
8264	chr12	16055507	16057381	+	STRAP	0x0
8265	chr12	16064132	16065394	+	DERA	0x0
8266	chr12	19315084	19319593	+	PLEKHA5	0x0
8267	chr12	19528335	19529648	+	PLEKHA5	0x0
8268	chr12	19565709	19566879	+	AEBP2	0x0
8269	chr12	19614924	19616135	+	AEBP2	0x0
8270	chr12	19646317	19647406	+	AEBP2	0x0
8271	chr12	19671738	19673776	+	AEBP2	0x0
8272	chr12	21621687	21623383	-	RECQL	0x0
8273	chr12	21642708	21643809	-	RECQL	0x0
8274	chr12	21643961	21645175	-	RECQL	0x0
8275	chr12	21660895	21662008	+	GOLT1B	0x0
8276	chr12	21668785	21671599	+	GOLT1B	0x0
8277	chr12	21787825	21789115	-	LDHB	0x0
8278	chr12	22215394	22216582	+	CMAS	0x0
8279	chr12	22609500	22610668	-	KIAA0528	0x0
8280	chr12	22637072	22638311	-	KIAA0528	0x0
8281	chr12	22667001	22668177	-	KIAA0528	0x0
8282	chr12	22796212	22797508	+	ETNK1	0x0
8283	chr12	22820542	22821641	+	ETNK1	0x0
8284	chr12	22839332	22843325	+	ETNK1	0x0
8285	chr12	23824626	23825788	+	MIR920	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8286	chr12	24841463	24842651	-	LINC00477	0x0
8287	chr12	24964579	24965689	-	BCAT1	0x0
8288	chr12	24967394	24968534	-	BCAT1	0x0
8289	chr12	24994558	24995657	-	BCAT1	0x0
8290	chr12	25002084	25003334	-	BCAT1	0x0
8291	chr12	25030977	25032105	-	BCAT1	0x0
8292	chr12	25033686	25034866	-	BCAT1	0x0
8293	chr12	25046670	25047909	-	BCAT1	0x0
8294	chr12	25357693	25358894	-	KRAS	0x2
8295	chr12	25361040	25362392	-	KRAS	0x2
8296	chr12	25957494	25959534	+	RASSF8	0x1
8297	chr12	26217003	26218114	+	RASSF8	0x1
8298	chr12	26221946	26223318	+	RASSF8	0x1
8299	chr12	27117416	27119363	+	FGFR1OP2	0x0
8300	chr12	27125988	27127011	-	TM7SF3	0x0
8301	chr12	27142890	27144093	-	TM7SF3	0x0
8302	chr12	27475320	27477502	+	STK38L	0x0
8303	chr12	27787370	27788529	+	PPFIBP1	0x0
8304	chr12	27847125	27848332	+	PPFIBP1	0x0
8305	chr12	27953497	27954796	+	KLHDC5	0x0
8306	chr12	29492963	29494362	-	ERGIC2	0x0
8307	chr12	29509747	29510859	-	ERGIC2	0x0
8308	chr12	29521118	29522229	-	ERGIC2	0x0
8309	chr12	30781870	30783210	-	IPO8	0x0
8310	chr12	31534698	31535811	-	DENND5B	0x0
8311	chr12	31536794	31538028	-	DENND5B	0x0
8312	chr12	31545011	31546159	-	DENND5B	0x0
8313	chr12	31767186	31768312	-	DENND5B	0x0
8314	chr12	32135501	32136778	+	C12orf35	0x0
8315	chr12	32831717	32832894	+	DNM1L	0x0
8316	chr12	32874974	32884533	+	DNM1L	0x0
8317	chr12	32886106	32887370	+	DNM1L	0x0
8318	chr12	32897603	32898991	+	DNM1L	0x0
8319	chr12	32944313	32945658	-	PKP2	0x0
8320	chr12	38714721	38716667	+	ALG10B	0x0
8321	chr12	38718396	38719686	+	ALG10B	0x0
8322	chr12	38722311	38723408	+	ALG10B	0x0
8323	chr12	42476961	42479077	-	GXYLT1	0x2
8324	chr12	42537717	42538937	-	GXYLT1	0x2
8325	chr12	42792170	42793302	+	PPHLN1	0x0
8326	chr12	42841611	42842912	+	PPHLN1	0x0
8327	chr12	45670377	45671517	+	ANO6	0x0
8328	chr12	45812400	45813640	+	ANO6	0x0
8329	chr12	45823369	45824494	+	ANO6	0x0
8330	chr12	45824857	45826038	+	ANO6	0x0
8331	chr12	46214612	46215848	+	ARID2	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8332	chr12	46298422	46300813	+	ARID2	0x1
8333	chr12	46313081	46314179	-	SCAF11	0x0
8334	chr12	46314982	46316095	-	SCAF11	0x0
8335	chr12	46577869	46578900	-	SLC38A1	0x0
8336	chr12	46579304	46580906	-	SLC38A1	0x0
8337	chr12	46618109	46619289	-	SLC38A1	0x0
8338	chr12	46752393	46755166	-	SLC38A2	0x0
8339	chr12	46757933	46759078	-	SLC38A2	0x0
8340	chr12	46762868	46763984	-	SLC38A2	0x0
8341	chr12	47159109	47160594	-	SLC38A4	0x4
8342	chr12	47349902	47351137	-	AMIGO2	0x0
8343	chr12	47628698	47629797	+	FAM113B	0x0
8344	chr12	48174398	48176789	+	SLC48A1	0x0
8345	chr12	48193462	48194593	-	HDAC7	0x0
8346	chr12	48434497	48435606	-	SENP1	0x0
8347	chr12	48436594	48438471	-	SENP1	0x0
8348	chr12	48467575	48468886	-	SENP1	0x0
8349	chr12	48491212	48492428	-	SENP1	0x0
8350	chr12	49048334	49049404	-	KANSL2	0x0
8351	chr12	49082177	49083387	-	CCNT1	0x0
8352	chr12	49084313	49085502	-	CCNT1	0x0
8353	chr12	49159578	49161561	-	ADCY6	0x0
8354	chr12	49223304	49224975	-	DDX23	0x0
8355	chr12	49229427	49230607	-	DDX23	0x0
8356	chr12	49317637	49318858	-	FKBP11	0x0
8357	chr12	49328434	49333135	-	ARF3	0x0
8358	chr12	49412721	49415311	-	MLL2	0x2
8359	chr12	49415884	49416989	-	MLL2	0x2
8360	chr12	49418117	49419242	-	MLL2	0x2
8361	chr12	49430348	49432360	-	MLL2	0x2
8362	chr12	49434048	49435717	-	MLL2	0x2
8363	chr12	49436297	49437527	-	MLL2	0x2
8364	chr12	49440018	49441060	-	MLL2	0x2
8365	chr12	49442136	49443343	-	MLL2	0x2
8366	chr12	49444549	49445733	-	MLL2	0x2
8367	chr12	49446133	49447401	-	MLL2	0x2
8368	chr12	49458050	49459152	-	RHEBL1	0x2
8369	chr12	49490672	49491811	-	LMBR1L	0x0
8370	chr12	49521097	49522726	-	TUBA1B	0x0
8371	chr12	49521396	49522716	+	TUBA1C	0x0
8372	chr12	49578067	49579279	-	TUBA1A	0x0
8373	chr12	49666360	49667565	+	TUBA1C	0x0
8374	chr12	49882771	49883912	+	SPATS2	0x0
8375	chr12	49953030	49954621	-	MCRS1	0x0
8376	chr12	50156384	50158638	+	TMBIM6	0x0
8377	chr12	50382483	50384336	-	RACGAP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8378	chr12	50390261	50391479	-	RACGAP1	0x0
8379	chr12	50399727	50400846	-	RACGAP1	0x0
8380	chr12	50452263	50453369	+	ACCN2	0x0
8381	chr12	50492835	50494841	+	SMARCD1	0x2
8382	chr12	50523101	50524719	-	CERS5	0x0
8383	chr12	50569206	50570680	-	LIMA1	0x0
8384	chr12	50641925	50643046	-	LIMA1	0x0
8385	chr12	50822268	50823402	+	LARP4	0x0
8386	chr12	50871759	50873982	+	LARP4	0x0
8387	chr12	51053654	51054943	+	DIP2B	0x0
8388	chr12	51138875	51140209	+	DIP2B	0x0
8389	chr12	51141671	51142878	+	DIP2B	0x0
8390	chr12	51207341	51208745	+	ATF1	0x2
8391	chr12	51379378	51381832	-	SLC11A2	0x0
8392	chr12	51636437	51638069	+	DAZAP2	0x0
8393	chr12	51745892	51747416	-	GALNT6	0x0
8394	chr12	51856897	51858099	+	SLC4A8	0x0
8395	chr12	52008087	52009269	+	SCN8A	0x0
8396	chr12	52024146	52025338	+	SCN8A	0x0
8397	chr12	52173396	52174510	+	SCN8A	0x0
8398	chr12	52211166	52213971	-	FIGNL2	0x0
8399	chr12	52377283	52378409	+	ACVR1B	0x2
8400	chr12	52387605	52391197	+	ACVR1B	0x2
8401	chr12	52445608	52446784	+	NR4A1	0x1
8402	chr12	52470505	52471817	+	C12orf44	0x0
8403	chr12	53412115	53413242	+	EIF4B	0x0
8404	chr12	53415795	53416900	+	EIF4B	0x0
8405	chr12	53421314	53422577	+	EIF4B	0x0
8406	chr12	53430798	53431868	+	EIF4B	0x0
8407	chr12	53433513	53436302	+	EIF4B	0x0
8408	chr12	53458622	53459827	-	SPRYD3	0x0
8409	chr12	53582086	53584361	+	ZNF740	0x0
8410	chr12	53603840	53605905	-	RARG	0x0
8411	chr12	53613169	53614346	-	RARG	0x0
8412	chr12	53667491	53668732	+	ESPL1	0x2
8413	chr12	53670800	53671938	+	ESPL1	0x2
8414	chr12	53702815	53703999	-	AAAS	0x0
8415	chr12	53799872	53801031	+	SP1	0x2
8416	chr12	53806302	53807386	+	SP1	0x2
8417	chr12	53807619	53809594	+	SP1	0x2
8418	chr12	53839752	53840924	+	PRR13	0x0
8419	chr12	53846471	53847676	+	PCBP2	0x0
8420	chr12	53849162	53850271	+	PCBP2	0x0
8421	chr12	53852579	53853706	+	PCBP2	0x0
8422	chr12	53857364	53858568	+	PCBP2	0x0
8423	chr12	53864921	53866076	+	PCBP2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8424	chr12	53872694	53875432	+	PCBP2	0x0
8425	chr12	53917804	53918996	-	ATF7	0x0
8426	chr12	54351338	54352515	+	HOXC12	0x0
8427	chr12	54573417	54574975	-	SMUG1	0x0
8428	chr12	54625258	54626306	-	CBX5	0x0
8429	chr12	54625258	54626306	-	MIR3198-2	0x0
8430	chr12	54626811	54627904	-	CBX5	0x0
8431	chr12	54639373	54640507	-	CBX5	0x0
8432	chr12	54650808	54651981	-	CBX5	0x0
8433	chr12	54677960	54679412	+	HNRNPA1	0x0
8434	chr12	54677960	54679412	+	HNRNPA1P10	0x0
8435	chr12	54744502	54746138	+	COPZ1	0x0
8436	chr12	54763476	54764604	-	ZNF385A	0x0
8437	chr12	54936797	54937978	+	NCKAP1L	0x0
8438	chr12	56109293	56110481	+	BLOC1S1	0x0
8439	chr12	56109293	56110481	+	BLOC1S1-RDH5	0x0
8440	chr12	56120396	56121510	-	CD63	0x0
8441	chr12	56183297	56184427	-	SARNP	0x0
8442	chr12	56214451	56215818	-	DNAJC14	0x0
8443	chr12	56229270	56230525	+	TMEM198B	0x0
8444	chr12	56365178	56366388	+	CDK2	0x0
8445	chr12	56386063	56387970	+	RAB5B	0x0
8446	chr12	56435525	56436582	+	RPS26	0x0
8447	chr12	56437352	56438556	+	RPS26	0x0
8448	chr12	56495199	56496847	+	ERBB3	0x2
8449	chr12	56497947	56499115	+	PA2G4	0x0
8450	chr12	56503698	56504959	+	PA2G4	0x0
8451	chr12	56506282	56508155	+	PA2G4	0x0
8452	chr12	56510714	56512078	+	RPL41	0x0
8453	chr12	56510714	56512078	+	ZC3H10	0x1
8454	chr12	56523061	56524542	+	ESYT1	0x0
8455	chr12	56536044	56537241	+	ESYT1	0x0
8456	chr12	56553615	56554840	-	SMARCC2	0x0
8457	chr12	56555637	56557306	-	SMARCC2	0x0
8458	chr12	56581377	56582504	-	SMARCC2	0x0
8459	chr12	56632286	56633490	-	ANKRD52	0x0
8460	chr12	56665063	56667503	-	CS	0x0
8461	chr12	56693417	56694650	-	CS	0x0
8462	chr12	56717619	56718754	-	PAN2	0x0
8463	chr12	56810834	56812081	-	TIMELESS	0x2
8464	chr12	56862936	56864959	+	SPRYD4	0x0
8465	chr12	56974658	56975858	+	RBMS2	0x0
8466	chr12	56984174	56986070	+	RBMS2	0x0
8467	chr12	56987920	56989705	+	RBMS2	0x0
8468	chr12	56989557	56992581	-	BAZ2A	0x0
8469	chr12	56997880	56998979	+	RBMS2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8470	chr12	56999619	57000973	+	RBMS2	0x0
8471	chr12	57005066	57007433	-	BAZ2A	0x0
8472	chr12	57008332	57009848	+	RBMS2	0x0
8473	chr12	57008485	57009622	-	BAZ2A	0x0
8474	chr12	57035977	57039126	-	ATP5B	0x0
8475	chr12	57035977	57039126	-	SNORD59A	0x0
8476	chr12	57035977	57039126	-	SNORD59B	0x0
8477	chr12	57056650	57058543	-	PTGES3	0x0
8478	chr12	57105963	57107253	-	NACA	0x2
8479	chr12	57145380	57146586	-	PRIM1	0x0
8480	chr12	57392493	57394942	-	ZBTB39	0x0
8481	chr12	57399005	57400186	-	ZBTB39	0x0
8482	chr12	57422965	57424119	-	MYO1A	0x0
8483	chr12	57449218	57452656	-	TMEM194A	0x0
8484	chr12	57489658	57490905	-	STAT6	0x2
8485	chr12	57531709	57532883	+	LRP1	0x0
8486	chr12	57567053	57568260	+	LRP1	0x0
8487	chr12	57571639	57572847	+	LRP1	0x0
8488	chr12	57586114	57590151	+	LRP1	0x0
8489	chr12	57586114	57590151	+	MIR1228	0x0
8490	chr12	57590779	57591940	+	LRP1	0x0
8491	chr12	57602361	57603460	+	LRP1	0x0
8492	chr12	57606113	57607342	+	LRP1	0x0
8493	chr12	57647330	57649405	-	R3HDM2	0x0
8494	chr12	57651046	57653330	-	R3HDM2	0x0
8495	chr12	57680415	57681542	-	R3HDM2	0x0
8496	chr12	57688605	57689792	-	R3HDM2	0x0
8497	chr12	57733589	57734756	-	R3HDM2	0x0
8498	chr12	57853927	57855094	-	ARHGAP9	0x0
8499	chr12	57911563	57912792	-	DDIT3	0x2
8500	chr12	57917550	57920161	+	MBD6	0x0
8501	chr12	57920162	57921356	+	MBD6	0x0
8502	chr12	57922561	57923996	+	MBD6	0x0
8503	chr12	57923560	57924722	-	DCTN2	0x0
8504	chr12	57939251	57940385	-	DCTN2	0x0
8505	chr12	57962474	57963661	+	KIF5A	0x0
8506	chr12	57994598	57996415	+	PIP4K2C	0x0
8507	chr12	58000669	58001893	+	DTX3	0x0
8508	chr12	58002548	58003776	+	DTX3	0x0
8509	chr12	58114545	58115765	+	OS9	0x0
8510	chr12	58142466	58143613	-	CDK4	0x6
8511	chr12	58143928	58146585	-	CDK4	0x6
8512	chr12	58152044	58153749	+	MARCH9	0x0
8513	chr12	58161944	58163095	-	METTL1	0x0
8514	chr12	58189466	58190699	+	TSFM	0x0
8515	chr12	58213242	58217041	-	CTDSP2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8516	chr12	59313378	59314631	-	LRIG3	0x1
8517	chr12	62797987	62799300	+	USP15	0x0
8518	chr12	62946161	62947395	+	MON2	0x0
8519	chr12	62953796	62955018	+	MON2	0x0
8520	chr12	63037401	63038712	-	PPM1H	0x0
8521	chr12	63107347	63108449	-	PPM1H	0x0
8522	chr12	63358619	63360069	+	MIRLET7I	0x1
8523	chr12	64201921	64203089	+	TMEM5	0x0
8524	chr12	64215662	64217240	+	TMEM5	0x0
8525	chr12	64585769	64587251	-	C12orf66	0x0
8526	chr12	64823406	64824563	+	XPOT	0x0
8527	chr12	64843034	64844270	+	XPOT	0x0
8528	chr12	64849024	64850136	+	TBK1	0x0
8529	chr12	65090128	65091332	+	RASSF3	0x0
8530	chr12	65106706	65108911	-	GNS	0x0
8531	chr12	65109106	65111094	-	GNS	0x0
8532	chr12	66222668	66223812	+	HMGA2	0x2
8533	chr12	66289833	66291016	+	HMGA2	0x2
8534	chr12	66358584	66359767	+	HMGA2	0x2
8535	chr12	66703301	66704567	+	HELB	0x2
8536	chr12	66962410	66963824	-	GRIP1	0x0
8537	chr12	67123424	67124624	-	GRIP1	0x0
8538	chr12	67127210	67128364	-	GRIP1	0x0
8539	chr12	67272891	67274090	-	GRIP1	0x0
8540	chr12	67383759	67384894	-	GRIP1	0x0
8541	chr12	67389812	67391001	-	GRIP1	0x0
8542	chr12	67402489	67403630	-	GRIP1	0x0
8543	chr12	67429237	67430411	-	GRIP1	0x0
8544	chr12	67692257	67693380	+	CAND1	0x0
8545	chr12	67698396	67700831	+	CAND1	0x0
8546	chr12	67703483	67704652	+	CAND1	0x0
8547	chr12	67706178	67708817	+	CAND1	0x0
8548	chr12	69052826	69054633	+	RAP1B	0x0
8549	chr12	69082722	69083968	+	NUP107	0x0
8550	chr12	69646329	69647504	+	CPSF6	0x0
8551	chr12	69650937	69652093	+	CPSF6	0x0
8552	chr12	69652667	69653849	+	CPSF6	0x0
8553	chr12	69655612	69657876	+	CPSF6	0x0
8554	chr12	69662815	69663929	+	CPSF6	0x0
8555	chr12	69664393	69665483	+	CPSF6	0x0
8556	chr12	69666602	69668126	+	CPSF6	0x0
8557	chr12	69783734	69784862	+	YEATS4	0x2
8558	chr12	69968947	69971780	+	FRS2	0x2
8559	chr12	69972233	69973481	+	FRS2	0x2
8560	chr12	69980787	69981883	+	CCT2	0x0
8561	chr12	69986237	69987903	+	CCT2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8562	chr12	69990887	69992387	+	CCT2	0x0
8563	chr12	69993067	69994259	+	CCT2	0x0
8564	chr12	70208788	70210026	+	RAB3IP	0x0
8565	chr12	70671391	70672635	+	CNOT2	0x0
8566	chr12	70686935	70688147	+	CNOT2	0x0
8567	chr12	70704075	70705315	+	CNOT2	0x0
8568	chr12	70747641	70749236	+	CNOT2	0x0
8569	chr12	72003014	72004173	-	ZFC3H1	0x0
8570	chr12	72179716	72183228	+	RAB21	0x0
8571	chr12	74298083	74299281	+	ATXN7L3B	0x0
8572	chr12	74932425	74934873	+	ATXN7L3B	0x0
8573	chr12	75892254	75893476	-	KRR1	0x0
8574	chr12	76440237	76442728	-	NAP1L1	0x0
8575	chr12	76443777	76444928	-	NAP1L1	0x0
8576	chr12	76446467	76447598	-	NAP1L1	0x0
8577	chr12	76453347	76454499	-	NAP1L1	0x0
8578	chr12	76461887	76463054	-	NAP1L1	0x0
8579	chr12	76477762	76478970	-	NAP1L1	0x0
8580	chr12	76746066	76747208	-	OSBPL8	0x0
8581	chr12	76747704	76750060	-	OSBPL8	0x0
8582	chr12	77150498	77151687	+	ZDHHC17	0x1
8583	chr12	77414629	77415881	-	E2F7	0x4
8584	chr12	77437496	77438618	-	E2F7	0x4
8585	chr12	77553211	77554368	+	ZDHHC17	0x1
8586	chr12	80045629	80046950	-	PAWR	0x1
8587	chr12	80082962	80084144	-	PAWR	0x1
8588	chr12	80166798	80169371	-	PPP1R12A	0x0
8589	chr12	80218260	80219430	-	PPP1R12A	0x0
8590	chr12	85254169	85256016	-	SLC6A15	0x2
8591	chr12	85285201	85286300	-	SLC6A15	0x2
8592	chr12	88176629	88177822	-	MKRN9P	0x0
8593	chr12	88470386	88471603	-	CEP290	0x0
8594	chr12	88522145	88523297	-	CEP290	0x0
8595	chr12	88565837	88567012	+	TMTC3	0x0
8596	chr12	88590346	88591614	+	TMTC3	0x0
8597	chr12	88922779	88924003	-	KITLG	0x0
8598	chr12	89813707	89814892	-	POC1B	0x0
8599	chr12	89981966	89984096	-	ATP2B1	0x0
8600	chr12	89984142	89985253	-	ATP2B1	0x0
8601	chr12	92536588	92537827	-	BTG1	0x2
8602	chr12	93165982	93167207	-	EEA1	0x0
8603	chr12	93168372	93169478	-	EEA1	0x0
8604	chr12	93171225	93172438	-	EEA1	0x0
8605	chr12	93793053	93796363	+	NUDT4	0x0
8606	chr12	93793053	93796363	+	NUDT4P1	0x0
8607	chr12	93801014	93802125	-	UBE2N	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8608	chr12	93929952	93931141	+	MRPL42	0x0
8609	chr12	93968091	93969419	+	SOCS2	0x0
8610	chr12	94152117	94153388	+	CRADD	0x0
8611	chr12	94241966	94243149	+	CRADD	0x0
8612	chr12	94243608	94245344	+	CRADD	0x0
8613	chr12	94726720	94727935	-	CCDC41	0x0
8614	chr12	94817509	94818709	-	CCDC41	0x0
8615	chr12	94820753	94821957	-	CCDC41	0x0
8616	chr12	94855329	94856590	+	LOC144486	0x0
8617	chr12	95364543	95365876	-	NDUFA12	0x0
8618	chr12	95907435	95909834	+	METAP2	0x2
8619	chr12	95909890	95911134	+	METAP2	0x2
8620	chr12	96394234	96395418	-	LTA4H	0x2
8621	chr12	96661641	96662869	+	ELK3	0x0
8622	chr12	96672379	96674053	-	CDK17	0x0
8623	chr12	96688240	96689367	-	CDK17	0x0
8624	chr12	97346248	97347526	+	NEDD1	0x0
8625	chr12	98928507	98929923	+	TMPO	0x0
8626	chr12	98941122	98942942	+	TMPO	0x0
8627	chr12	98943022	98944235	+	TMPO	0x0
8628	chr12	98991793	98992924	+	SLC25A3	0x0
8629	chr12	98994600	98995998	+	SLC25A3	0x0
8630	chr12	100402957	100404131	-	ANKS1B	0x0
8631	chr12	100428676	100431870	-	UHRF1BP1L	0x0
8632	chr12	100451938	100453857	-	UHRF1BP1L	0x0
8633	chr12	100733112	100734301	+	SCYL2	0x0
8634	chr12	101018421	101019558	+	GAS2L3	0x0
8635	chr12	101705339	101706586	+	UTP20	0x2
8636	chr12	101710792	101711965	+	UTP20	0x2
8637	chr12	101738806	101739999	+	UTP20	0x2
8638	chr12	101787861	101789900	-	ARL1	0x0
8639	chr12	102139660	102140898	-	GNPTAB	0x0
8640	chr12	102163651	102164807	-	GNPTAB	0x0
8641	chr12	102470495	102471709	-	NUP37	0x0
8642	chr12	102590343	102591883	+	PARPBP	0x0
8643	chr12	102607137	102608865	+	PARPBP	0x0
8644	chr12	104323585	104324915	+	HSP90B1	0x0
8645	chr12	104323585	104324915	+	MIR3652	0x0
8646	chr12	104325619	104326718	+	HSP90B1	0x0
8647	chr12	104327206	104328559	+	HSP90B1	0x0
8648	chr12	104335883	104336992	+	HSP90B1	0x0
8649	chr12	104340006	104341179	+	HSP90B1	0x0
8650	chr12	104370741	104371993	+	TDG	0x2
8651	chr12	104424409	104426518	+	HCFC2	0x0
8652	chr12	104511638	104513763	-	NFYB	0x0
8653	chr12	104516523	104517661	-	NFYB	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8654	chr12	104658580	104660072	+	TXNRD1	0x0
8655	chr12	104741943	104744531	+	TXNRD1	0x0
8656	chr12	104878095	104879199	+	CHST11	0x0
8657	chr12	105154006	105155195	+	CHST11	0x0
8658	chr12	105416447	105417626	-	ALDH1L2	0x0
8659	chr12	105562060	105563261	+	KIAA1033	0x0
8660	chr12	105566913	105568207	-	APPL2	0x0
8661	chr12	105608879	105610362	-	APPL2	0x0
8662	chr12	106458752	106459990	-	NUAK1	0x0
8663	chr12	106631308	106633479	-	CKAP4	0x0
8664	chr12	106850755	106851952	+	POLR3B	0x0
8665	chr12	106886947	106888154	+	POLR3B	0x0
8666	chr12	107208195	107209325	+	RIC8B	0x0
8667	chr12	107366119	107368334	+	C12orf23	0x0
8668	chr12	107712337	107713537	+	BTBD11	0x0
8669	chr12	107752545	107753703	+	BTBD11	0x0
8670	chr12	108126118	108127497	-	PRDM4	0x1
8671	chr12	108643113	108644259	+	WSCD2	0x0
8672	chr12	108683487	108685190	-	CMKLR1	0x2
8673	chr12	108915986	108917224	-	SART3	0x0
8674	chr12	108919362	108920575	-	SART3	0x0
8675	chr12	108959659	108960910	+	ISCU	0x0
8676	chr12	109038481	109041092	-	CORO1C	0x0
8677	chr12	109092470	109093673	-	CORO1C	0x0
8678	chr12	109176755	109177978	-	SSH1	0x0
8679	chr12	109178920	109180034	-	SSH1	0x0
8680	chr12	109305701	109306902	-	SVOP	0x0
8681	chr12	109548055	109549166	+	UNG	0x0
8682	chr12	109885959	109887203	-	KCTD10	0x0
8683	chr12	109888376	109890026	-	KCTD10	0x0
8684	chr12	109970709	109971887	+	UBE3B	0x0
8685	chr12	109973361	109975031	+	UBE3B	0x0
8686	chr12	110288325	110289502	-	GLTP	0x0
8687	chr12	110367438	110368710	-	GIT2	0x0
8688	chr12	110475786	110476874	+	ANKRD13A	0x0
8689	chr12	110733869	110735039	+	ATP2A2	0x2
8690	chr12	110764913	110765971	+	ATP2A2	0x2
8691	chr12	110771204	110772454	+	ATP2A2	0x2
8692	chr12	110778034	110779169	+	ATP2A2	0x2
8693	chr12	110783819	110785491	+	ATP2A2	0x2
8694	chr12	110866688	110867963	-	ARPC3	0x0
8695	chr12	110882755	110883860	-	ARPC3	0x0
8696	chr12	110923668	110924812	+	FAM216A	0x0
8697	chr12	110972269	110975026	-	PPTC7	0x0
8698	chr12	111160382	111161689	-	PPP1CC	0x0
8699	chr12	111162021	111170107	-	PPP1CC	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8700	chr12	111733909	111735128	+	CUX2	0x0
8701	chr12	111886445	111888058	+	SH2B3	0x0
8702	chr12	111889859	111891289	-	ATXN2	0x0
8703	chr12	111891342	111893372	-	ATXN2	0x0
8704	chr12	112080013	112081511	-	BRAP	0x0
8705	chr12	112193547	112194662	+	ACAD10	0x0
8706	chr12	112229831	112231023	+	ALDH2	0x2
8707	chr12	112326078	112327259	+	MAPKAPK5	0x1
8708	chr12	112450699	112451859	+	ERP29	0x0
8709	chr12	112459971	112461334	+	ERP29	0x0
8710	chr12	112464258	112466617	-	NAA25	0x0
8711	chr12	112512969	112514075	-	NAA25	0x0
8712	chr12	112598687	112599830	-	C12orf51	0x2
8713	chr12	112600837	112601935	-	C12orf51	0x2
8714	chr12	112676391	112677618	-	C12orf51	0x2
8715	chr12	112693539	112694703	-	C12orf51	0x2
8716	chr12	112943650	112946369	+	PTPN11	0x2
8717	chr12	113344855	113345979	+	OAS1	0x0
8718	chr12	113346033	113347131	+	OAS1	0x0
8719	chr12	113534863	113536184	+	DTX1	0x0
8720	chr12	113595880	113597161	-	DDX54	0x0
8721	chr12	113610071	113611346	-	DDX54	0x0
8722	chr12	113736605	113737881	-	SLC24A6	0x0
8723	chr12	113770080	113771250	-	SLC24A6	0x0
8724	chr12	113825877	113827889	+	PLBD2	0x0
8725	chr12	115108190	115109390	-	TBX3	0x2
8726	chr12	116397290	116399380	-	MED13L	0x0
8727	chr12	116420567	116421663	-	MED13L	0x0
8728	chr12	116428348	116429880	-	MED13L	0x0
8729	chr12	116433801	116435005	-	MED13L	0x0
8730	chr12	116443081	116444276	-	MED13L	0x0
8731	chr12	116548657	116549867	-	MED13L	0x0
8732	chr12	116674703	116676084	-	MED13L	0x0
8733	chr12	117147646	117148770	-	C12orf49	0x0
8734	chr12	117447690	117448814	+	FBXW8	0x0
8735	chr12	117581326	117582479	-	FBXO21	0x0
8736	chr12	118465033	118466214	+	RFC5	0x0
8737	chr12	118470475	118472033	-	WSB2	0x0
8738	chr12	118582244	118583402	+	PEBP1	0x0
8739	chr12	118683465	118685281	+	PEBP1	0x0
8740	chr12	118851743	118853697	+	SUDS3	0x0
8741	chr12	119631453	119632694	+	HSPB8	0x0
8742	chr12	119978667	119979856	+	CCDC60	0x0
8743	chr12	120172453	120173603	-	CIT	0x2
8744	chr12	120220848	120222057	-	CIT	0x2
8745	chr12	120532441	120533504	-	RAB35	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8746	chr12	120582227	120583353	-	GCN1L1	0x0
8747	chr12	120587201	120588296	-	GCN1L1	0x0
8748	chr12	120588413	120589524	-	GCN1L1	0x0
8749	chr12	120600163	120601317	-	GCN1L1	0x0
8750	chr12	120634000	120635764	-	RPLP0	0x0
8751	chr12	120635836	120637782	-	RPLP0	0x0
8752	chr12	120719620	120720833	+	SIRT4	0x0
8753	chr12	120779116	120780457	-	MSI1	0x0
8754	chr12	120800292	120801452	-	MSI1	0x0
8755	chr12	120805244	120806384	-	MSI1	0x0
8756	chr12	120877814	120879074	+	COX6A1	0x0
8757	chr12	120899007	120900160	-	SRSF9	0x0
8758	chr12	120901269	120902354	-	SRSF9	0x0
8759	chr12	120989775	120990928	+	RNF10	0x0
8760	chr12	120994596	120995745	+	RNF10	0x0
8761	chr12	121000633	121001948	+	RNF10	0x0
8762	chr12	121002358	121003492	+	RNF10	0x0
8763	chr12	121004170	121005252	+	RNF10	0x0
8764	chr12	121013088	121014228	+	RNF10	0x0
8765	chr12	121084330	121085538	+	CABP1	0x0
8766	chr12	121085717	121087213	+	CABP1	0x0
8767	chr12	121137784	121139338	+	MLEC	0x0
8768	chr12	121157256	121158356	+	UNC119B	0x0
8769	chr12	121175622	121176759	+	ACADS	0x0
8770	chr12	121201187	121203030	-	SPPL3	0x0
8771	chr12	121675128	121676987	-	CAMKK2	0x0
8772	chr12	121677219	121678383	-	CAMKK2	0x0
8773	chr12	121745688	121748187	-	ANAPC5	0x0
8774	chr12	121756994	121758151	-	ANAPC5	0x0
8775	chr12	121764420	121765539	-	ANAPC5	0x0
8776	chr12	121765609	121766943	-	ANAPC5	0x0
8777	chr12	121774216	121775640	-	ANAPC5	0x0
8778	chr12	121783070	121785350	-	ANAPC5	0x0
8779	chr12	121857725	121858855	-	KDM2B	0x2
8780	chr12	121857917	121859109	+	RNF34	0x0
8781	chr12	122233692	122234888	-	LOC338799	0x0
8782	chr12	122260400	122261550	+	SETD1B	0x0
8783	chr12	122269086	122270190	+	SETD1B	0x0
8784	chr12	122619335	122620433	+	MLXIP	0x0
8785	chr12	122627403	122628511	+	MLXIP	0x0
8786	chr12	122628973	122631020	+	MLXIP	0x0
8787	chr12	122713527	122714764	-	VPS33A	0x0
8788	chr12	122734721	122735905	-	VPS33A	0x0
8789	chr12	122965551	122966732	-	ZCCHC8	0x0
8790	chr12	123030825	123032617	+	KNTC1	0x0
8791	chr12	123068928	123070055	+	KNTC1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8792	chr12	123086695	123087910	+	KNTC1	0x0
8793	chr12	123349887	123351151	-	VPS37B	0x0
8794	chr12	123469674	123470821	-	PITPNM2	0x0
8795	chr12	123745011	123746297	-	CDK2AP1	0x1
8796	chr12	123752878	123753997	-	CDK2AP1	0x1
8797	chr12	123754042	123755147	-	CDK2AP1	0x1
8798	chr12	123773435	123776300	-	SBNO1	0x0
8799	chr12	123776597	123779840	-	SBNO1	0x0
8800	chr12	123811463	123812831	-	SBNO1	0x0
8801	chr12	123814446	123815544	-	SBNO1	0x0
8802	chr12	123848740	123849926	-	SBNO1	0x0
8803	chr12	123888985	123890152	+	SETD8	0x0
8804	chr12	123891982	123894317	+	SETD8	0x0
8805	chr12	124081199	124082667	+	TMED2	0x0
8806	chr12	124105428	124106913	-	EIF2B1	0x0
8807	chr12	124243250	124244415	+	ATP6V0A2	0x0
8808	chr12	124245444	124246510	+	ATP6V0A2	0x0
8809	chr12	124497613	124499934	+	ZNF664	0x0
8810	chr12	124808638	124809795	-	NCOR2	0x0
8811	chr12	124817153	124818366	-	NCOR2	0x0
8812	chr12	124906014	124907114	-	NCOR2	0x0
8813	chr12	124954911	124956106	-	NCOR2	0x0
8814	chr12	125284150	125285274	-	SCARB1	0x0
8815	chr12	125398540	125399755	-	UBC	0x0
8816	chr12	125509039	125510237	+	BRI3BP	0x0
8817	chr12	125514346	125515402	+	BRI3BP	0x0
8818	chr12	129283297	129284473	-	SLC15A4	0x0
8819	chr12	130184264	130185416	-	TMEM132D	0x0
8820	chr12	130648370	130649554	+	FZD10	0x0
8821	chr12	131357084	131362725	+	RAN	0x0
8822	chr12	132262191	132263378	+	SFSWAP	0x0
8823	chr12	132266072	132267322	+	SFSWAP	0x0
8824	chr12	132406377	132408057	+	ULK1	0x0
8825	chr12	132445429	132446969	+	EP400	0x0
8826	chr12	132466286	132467512	+	EP400	0x0
8827	chr12	132502261	132503395	+	EP400	0x0
8828	chr12	132509633	132510816	+	EP400	0x0
8829	chr12	132522003	132523067	+	EP400	0x0
8830	chr12	132528287	132529916	+	EP400	0x0
8831	chr12	132538447	132539685	+	EP400	0x0
8832	chr12	132553579	132554699	+	EP400	0x0
8833	chr12	133105167	133106270	+	FBRSL1	0x4
8834	chr12	133147258	133148434	+	FBRSL1	0x4
8835	chr12	133160213	133161888	+	FBRSL1	0x4
8836	chr12	133219509	133220661	-	POLE	0x0
8837	chr12	133280863	133282020	+	PXMP2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8838	chr12	133293994	133295211	+	PGAM5	0x0
8839	chr12	133296770	133297985	+	PGAM5	0x0
8840	chr12	133331083	133332223	-	ANKLE2	0x0
8841	chr12	133401764	133403265	+	PGAM5	0x0
8842	chr13	19537146	19538390	-	PHF2P1	0x0
8843	chr13	20207449	20208654	+	MPHOSPH8	0x0
8844	chr13	20276238	20278161	-	PSPC1	0x0
8845	chr13	20634607	20635816	+	ZMYM2	0x2
8846	chr13	20659934	20661352	+	ZMYM2	0x2
8847	chr13	21302623	21303822	-	N6AMT2	0x0
8848	chr13	21353003	21355558	-	XPO4	0x0
8849	chr13	21356193	21358193	-	XPO4	0x0
8850	chr13	21361130	21362229	-	XPO4	0x0
8851	chr13	21374462	21375649	-	XPO4	0x0
8852	chr13	21436357	21437474	-	XPO4	0x0
8853	chr13	21562255	21563466	-	LATS2	0x1
8854	chr13	23903099	23904446	-	SACS	0x0
8855	chr13	23907894	23908994	-	SACS	0x0
8856	chr13	24247165	24248266	+	TNFRSF19	0x0
8857	chr13	24797156	24798342	+	SPATA13	0x2
8858	chr13	24879435	24880653	+	SPATA13	0x2
8859	chr13	25399274	25400387	+	RNF17	0x0
8860	chr13	25670996	25672760	+	PABPC3	0x2
8861	chr13	25821102	25823371	-	MTMR6	0x0
8862	chr13	25905717	25907086	+	NUPL1	0x0
8863	chr13	25909704	25910827	+	NUPL1	0x0
8864	chr13	25914853	25916405	+	NUPL1	0x0
8865	chr13	26977993	26979564	+	CDK8	0x0
8866	chr13	27250162	27251267	+	WASF3	0x0
8867	chr13	27260404	27262765	+	WASF3	0x0
8868	chr13	27640584	27642516	-	USP12	0x0
8869	chr13	27829016	27830964	+	RPL21	0x0
8870	chr13	27829016	27830964	+	RPL21P28	0x0
8871	chr13	27829016	27830964	+	SNORA27	0x0
8872	chr13	27829016	27830964	+	SNORD102	0x0
8873	chr13	28121023	28122551	-	LNX2	0x0
8874	chr13	28196808	28198096	+	POLR1D	0x0
8875	chr13	28867070	28869750	+	PAN3	0x0
8876	chr13	29292372	29293648	-	SLC46A3	0x0
8877	chr13	30083057	30084248	-	SLC7A1	0x0
8878	chr13	30086260	30087372	-	SLC7A1	0x0
8879	chr13	30339279	30341561	-	UBL3	0x0
8880	chr13	30781248	30782678	-	KATNAL1	0x0
8881	chr13	31033879	31035088	-	HMGB1	0x2
8882	chr13	31194705	31195811	+	USPL1	0x0
8883	chr13	31710345	31711866	-	HSPH1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8884	chr13	32522807	32524020	+	EEF1DP3	0x0
8885	chr13	32811395	32812555	+	FRY	0x0
8886	chr13	32910235	32911369	+	BRCA2	0x1
8887	chr13	33109415	33110548	-	N4BP2L2	0x0
8888	chr13	33241396	33242540	+	PDS5B	0x1
8889	chr13	33348597	33349787	+	PDS5B	0x1
8890	chr13	33351101	33352426	+	PDS5B	0x1
8891	chr13	34404320	34405524	+	RFC3	0x0
8892	chr13	36109665	36110816	+	NBEA	0x0
8893	chr13	36741988	36743507	-	CCDC169-SOHLH2	0x0
8894	chr13	36741988	36743507	-	SOHLH2	0x0
8895	chr13	37265313	37266519	+	SERTM1	0x0
8896	chr13	37539196	37540305	-	ALG5	0x0
8897	chr13	40705998	40707215	+	COG6	0x0
8898	chr13	41131167	41133255	-	FOXO1	0x1
8899	chr13	41656494	41658250	+	WBP4	0x0
8900	chr13	42441949	42443197	-	KIAA0564	0x0
8901	chr13	42772116	42773307	+	DGKH	0x0
8902	chr13	42876580	42877817	+	AKAP11	0x2
8903	chr13	42893977	42897630	+	AKAP11	0x2
8904	chr13	43889553	43890736	-	ENOX1	0x0
8905	chr13	43949082	43950247	-	ENOX1	0x0
8906	chr13	44826408	44827600	-	TSC22D1	0x1
8907	chr13	45007179	45009126	-	TSC22D1	0x1
8908	chr13	45111147	45112406	-	TSC22D1	0x1
8909	chr13	45603746	45604858	+	KIAA1704	0x0
8910	chr13	45857070	45858230	+	GTF2F2	0x0
8911	chr13	45967248	45968389	-	SLC25A30	0x0
8912	chr13	45969134	45970656	-	SLC25A30	0x0
8913	chr13	46109852	46111023	+	COG3	0x0
8914	chr13	46530058	46531195	-	ZC3H13	0x0
8915	chr13	47128769	47129957	+	LRCH1	0x0
8916	chr13	47242687	47243882	+	LRCH1	0x0
8917	chr13	48650539	48651895	-	MED4	0x0
8918	chr13	48900699	48902349	-	LPAR6	0x0
8919	chr13	49054622	49056373	+	RB1	0x5
8920	chr13	49281016	49282235	+	CYSLTR2	0x0
8921	chr13	49558932	49560068	+	FNDC3A	0x0
8922	chr13	49651829	49653051	+	FNDC3A	0x0
8923	chr13	49771745	49772924	+	FNDC3A	0x0
8924	chr13	49782670	49783839	+	FNDC3A	0x0
8925	chr13	49851978	49853154	+	CDADC1	0x0
8926	chr13	49905548	49906713	-	CAB39L	0x0
8927	chr13	50050394	50051563	+	SETDB2	0x0
8928	chr13	50106051	50107136	-	RCBTB1	0x0
8929	chr13	50107908	50109174	-	RCBTB1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8930	chr13	50113721	50114822	-	RCBTB1	0x0
8931	chr13	50272976	50276061	-	KPNA3	0x0
8932	chr13	50591879	50593057	+	KCNRG	0x1
8933	chr13	50591879	50593057	+	TRIM13	0x1
8934	chr13	51820528	51821632	+	FAM124A	0x0
8935	chr13	52506748	52507958	-	ATP7B	0x0
8936	chr13	52547528	52548743	-	ATP7B	0x0
8937	chr13	52597794	52598934	+	ALG11	0x0
8938	chr13	52597794	52598934	+	UTP14C	0x0
8939	chr13	52606715	52608064	+	UTP14C	0x0
8940	chr13	52970917	52972048	-	THSD1	0x1
8941	chr13	52987837	52990369	-	VPS36	0x0
8942	chr13	53048650	53050009	+	CKAP2	0x0
8943	chr13	60239298	60241028	-	DIAPH3	0x0
8944	chr13	60300061	60301208	-	DIAPH3	0x0
8945	chr13	60348463	60349621	-	DIAPH3	0x0
8946	chr13	60452812	60454026	-	DIAPH3	0x0
8947	chr13	60535209	60536399	-	DIAPH3	0x0
8948	chr13	61111042	61112378	+	TDRD3	0x0
8949	chr13	73283361	73284630	-	MZT1	0x0
8950	chr13	73329409	73330682	+	BORA	0x0
8951	chr13	73346331	73347469	-	DIS3	0x2
8952	chr13	73633055	73634272	+	KLF5	0x1
8953	chr13	73649608	73652164	+	KLF5	0x1
8954	chr13	76103980	76105108	-	COMMD6	0x0
8955	chr13	77581168	77582383	-	FBXL3	0x0
8956	chr13	77718106	77719173	-	MYCBP2	0x2
8957	chr13	79885658	79886866	-	RBM26	0x0
8958	chr13	79886879	79888093	-	RBM26	0x0
8959	chr13	79893622	79894771	-	RBM26	0x0
8960	chr13	79940299	79941502	-	RBM26	0x0
8961	chr13	80914272	80915418	-	SPRY2	0x1
8962	chr13	82264463	82265665	+	NDFIP2	0x0
8963	chr13	88327402	88328616	+	SLITRK5	0x0
8964	chr13	92002728	92004162	+	MIR17	0x1
8965	chr13	92002728	92004162	+	MIR17HG	0x0
8966	chr13	92002728	92004162	+	MIR18A	0x1
8967	chr13	92002728	92004162	+	MIR19A	0x0
8968	chr13	92002728	92004162	+	MIR19B1	0x0
8969	chr13	92002728	92004162	+	MIR20A	0x0
8970	chr13	92002728	92004162	+	MIR92A1	0x0
8971	chr13	95672835	95674234	-	ABCC4	0x0
8972	chr13	95837141	95838305	-	ABCC4	0x0
8973	chr13	95859544	95860713	-	ABCC4	0x0
8974	chr13	96283331	96284515	-	DZIP1	0x0
8975	chr13	96443780	96445007	+	DNAJC3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
8976	chr13	96446094	96447397	+	DNAJC3	0x0
8977	chr13	96754577	96755722	+	HS6ST3	0x0
8978	chr13	96915859	96916992	+	HS6ST3	0x0
8979	chr13	98631639	98632763	+	IPO5	0x0
8980	chr13	98640817	98641923	+	IPO5	0x0
8981	chr13	98644873	98653427	+	IPO5	0x0
8982	chr13	98657931	98659105	+	IPO5	0x0
8983	chr13	98661821	98662953	+	IPO5	0x0
8984	chr13	98663971	98665186	+	IPO5	0x0
8985	chr13	98671437	98672585	+	IPO5	0x0
8986	chr13	98673721	98675616	+	IPO5	0x0
8987	chr13	99051144	99052349	+	FARP1	0x0
8988	chr13	99100547	99101711	+	FARP1	0x0
8989	chr13	99102659	99103757	-	STK24	0x0
8990	chr13	99103980	99105061	-	STK24	0x0
8991	chr13	99214060	99215166	-	STK24	0x0
8992	chr13	99367644	99368866	-	SLC15A1	0x2
8993	chr13	99377906	99379061	-	SLC15A1	0x2
8994	chr13	99495266	99496395	-	DOCK9	0x0
8995	chr13	99497577	99498780	-	DOCK9	0x0
8996	chr13	99500893	99502179	-	DOCK9	0x0
8997	chr13	99890165	99891313	+	UBAC2	0x0
8998	chr13	100037345	100038513	+	UBAC2	0x0
8999	chr13	100214768	100216312	+	TM9SF2	0x0
9000	chr13	100594470	100595757	-	ZIC5	0x0
9001	chr13	100598328	100599492	-	ZIC5	0x0
9002	chr13	100615012	100617357	-	ZIC5	0x0
9003	chr13	100638001	100639299	+	ZIC2	0x0
9004	chr13	103492260	103494376	+	BIVM	0x0
9005	chr13	103513987	103515158	+	BIVM-ERCC5	0x0
9006	chr13	103513987	103515158	+	ERCC5	0x2
9007	chr13	107195213	107196740	-	ARGLU1	0x0
9008	chr13	107209127	107210489	-	ARGLU1	0x0
9009	chr13	107211187	107212347	-	ARGLU1	0x0
9010	chr13	108859372	108860613	-	LIG4	0x0
9011	chr13	108882623	108886007	+	ABHD13	0x0
9012	chr13	110406069	110407355	-	IRS2	0x0
9013	chr13	110801273	110803161	-	COL4A1	0x0
9014	chr13	111006342	111007644	-	COL4A1	0x0
9015	chr13	111163920	111165027	+	COL4A2	0x2
9016	chr13	111290587	111291752	+	CARKD	0x0
9017	chr13	111530637	111532366	-	ANKRD10	0x0
9018	chr13	111532500	111533687	-	ANKRD10	0x0
9019	chr13	111551989	111553154	-	ANKRD10	0x0
9020	chr13	111566621	111567775	-	ANKRD10	0x0
9021	chr13	111955514	111956679	+	ARHGEF7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9022	chr13	111957181	111958449	+	ARHGEF7	0x0
9023	chr13	113139138	113140356	-	TUBGCP3	0x0
9024	chr13	113536211	113539044	+	ATP11A	0x2
9025	chr13	113540129	113541479	+	ATP11A	0x2
9026	chr13	113751868	113753004	+	MCF2L	0x0
9027	chr13	113917309	113919505	+	CUL4A	0x1
9028	chr13	113963501	113964688	+	LAMP1	0x0
9029	chr13	113975814	113977023	-	GRTP1	0x0
9030	chr13	113976154	113978206	+	LAMP1	0x0
9031	chr13	114285893	114287065	+	TFDP1	0x0
9032	chr13	114294359	114296278	+	TFDP1	0x0
9033	chr13	114747293	114748406	-	RASA3	0x0
9034	chr13	115008804	115009970	+	CDC16	0x0
9035	chr13	115089564	115090668	+	CHAMP1	0x0
9036	chr14	20766423	20767555	-	TTC5	0x0
9037	chr14	20810900	20812069	-	RPPH1	0x0
9038	chr14	20925540	20927076	-	TMEM55B	0x0
9039	chr14	21484428	21485607	-	NDRG2	0x1
9040	chr14	21557995	21559238	-	ZNF219	0x0
9041	chr14	21561320	21562496	-	ZNF219	0x0
9042	chr14	21678344	21680141	-	HNRNPC	0x0
9043	chr14	21680726	21702936	-	HNRNPC	0x0
9044	chr14	21819235	21820494	-	SUPT16H	0x0
9045	chr14	21830907	21832130	-	SUPT16H	0x0
9046	chr14	21837886	21839144	-	SUPT16H	0x0
9047	chr14	21859069	21860292	-	CHD8	0x0
9048	chr14	21862640	21863865	+	RPGRIP1	0x2
9049	chr14	21896750	21897963	-	CHD8	0x0
9050	chr14	21978700	21979898	-	METTL3	0x2
9051	chr14	23033258	23034602	-	DAD1	0x0
9052	chr14	23080172	23081538	+	ABHD4	0x0
9053	chr14	23235575	23236741	+	OXA1L	0x2
9054	chr14	23242039	23243376	-	SLC7A7	0x0
9055	chr14	23302910	23304045	+	MRPL52	0x0
9056	chr14	23315493	23317062	+	MMP14	0x0
9057	chr14	23344168	23345309	+	LRP10	0x0
9058	chr14	23346219	23347490	+	LRP10	0x0
9059	chr14	23397136	23398336	-	PRMT5	0x0
9060	chr14	23441150	23442381	-	AJUBA	0x0
9061	chr14	23443089	23444296	-	AJUBA	0x0
9062	chr14	23503451	23504617	-	PSMB5	0x0
9063	chr14	23532803	23533918	-	ACIN1	0x2
9064	chr14	23548188	23549408	-	ACIN1	0x2
9065	chr14	23777972	23779148	+	BCL2L2	0x2
9066	chr14	23779196	23780680	+	BCL2L2	0x2
9067	chr14	23790438	23791613	+	BCL2L2-PABPN1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9068	chr14	23790438	23791613	+	PABPN1	0x0
9069	chr14	23794011	23795495	+	BCL2L2-PABPN1	0x0
9070	chr14	23794011	23795495	+	PABPN1	0x0
9071	chr14	23994870	23996050	-	ZFHX2	0x0
9072	chr14	24002616	24004313	-	ZFHX2	0x0
9073	chr14	24036859	24038182	-	AP1G2	0x0
9074	chr14	24036859	24038182	-	JPH4	0x0
9075	chr14	24565694	24566816	+	PCK2	0x0
9076	chr14	24592251	24593443	+	DCAF11	0x0
9077	chr14	24607151	24608329	+	PSME1	0x0
9078	chr14	24685624	24686786	-	NEDD8	0x0
9079	chr14	24708290	24709483	-	TINF2	0x0
9080	chr14	24711399	24712785	+	GMPR2	0x0
9081	chr14	24735134	24736317	-	RABGGTA	0x0
9082	chr14	24773698	24774842	+	C14orf21	0x0
9083	chr14	24845423	24846571	+	NFATC4	0x0
9084	chr14	24847420	24848548	+	NFATC4	0x0
9085	chr14	24885940	24887136	+	NYNRIN	0x0
9086	chr14	24887481	24888688	+	NYNRIN	0x0
9087	chr14	24901406	24902552	+	KHNYN	0x0
9088	chr14	24907239	24909260	+	KHNYN	0x0
9089	chr14	26914858	26916713	-	NOVA1	0x2
9090	chr14	28733292	28734403	+	FOXG1	0x4
9091	chr14	31062003	31063347	+	G2E3	0x0
9092	chr14	31084966	31086066	+	G2E3	0x0
9093	chr14	31086164	31089298	+	G2E3	0x0
9094	chr14	31362771	31364984	-	STRN3	0x0
9095	chr14	31380625	31381850	-	STRN3	0x0
9096	chr14	31415872	31417042	-	STRN3	0x0
9097	chr14	31591627	31592763	-	HECTD1	0x0
9098	chr14	31605231	31606425	-	HECTD1	0x0
9099	chr14	31642235	31643470	-	HECTD1	0x0
9100	chr14	31760657	31762092	-	HEATR5A	0x0
9101	chr14	31781742	31782897	-	HEATR5A	0x0
9102	chr14	32039414	32040634	+	NUBPL	0x0
9103	chr14	32559433	32561537	+	ARHGAP5	0x0
9104	chr14	32561665	32564057	+	ARHGAP5	0x0
9105	chr14	32623389	32624575	+	ARHGAP5	0x0
9106	chr14	32625305	32626908	+	ARHGAP5	0x0
9107	chr14	34393397	34394627	-	EGLN3	0x1
9108	chr14	34902970	34904563	-	SPTSSA	0x0
9109	chr14	35031132	35032337	-	SNX6	0x0
9110	chr14	35037672	35038884	-	SNX6	0x0
9111	chr14	35179860	35181066	-	CFL2	0x0
9112	chr14	35221645	35222857	-	BAZ1A	0x0
9113	chr14	35244770	35245903	-	BAZ1A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9114	chr14	35451781	35452890	+	SRP54	0x0
9115	chr14	35786054	35787188	+	PSMA6	0x0
9116	chr14	35871284	35872498	-	NFKBIA	0x2
9117	chr14	35898697	35899955	+	INSM2	0x0
9118	chr14	36007392	36008551	-	RALGAPA1	0x0
9119	chr14	36166601	36167753	-	RALGAPA1	0x0
9120	chr14	36340377	36341578	+	BRMS1L	0x0
9121	chr14	37687918	37689437	+	MIPOL1	0x0
9122	chr14	39500653	39502129	-	SEC23A	0x0
9123	chr14	39649864	39651012	+	PNN	0x1
9124	chr14	39651193	39652718	+	PNN	0x1
9125	chr14	39745661	39746798	+	CTAGE5	0x0
9126	chr14	44589275	44590507	-	FSCB	0x0
9127	chr14	45375325	45376476	+	C14orf28	0x0
9128	chr14	45396895	45398113	-	KLHL28	0x0
9129	chr14	45431515	45433366	+	FAM179B	0x0
9130	chr14	45579556	45580745	+	PRPF39	0x0
9131	chr14	45579556	45580745	+	SNORD127	0x0
9132	chr14	45604629	45605793	+	FANCM	0x2
9133	chr14	45605829	45606993	+	FANCM	0x2
9134	chr14	47120223	47121370	-	RPL10L	0x0
9135	chr14	50085177	50086429	-	RPL36AL	0x0
9136	chr14	50359282	50361202	+	ARF6	0x0
9137	chr14	50361519	50364245	+	ARF6	0x0
9138	chr14	50710766	50712243	-	L2HGDH	0x0
9139	chr14	50791925	50793791	+	ATP5S	0x0
9140	chr14	50884874	50886578	-	MAP4K5	0x0
9141	chr14	51099928	51102262	-	SAV1	0x2
9142	chr14	51106934	51108077	-	SAV1	0x2
9143	chr14	51186825	51187929	-	NIN	0x2
9144	chr14	51720780	51721897	+	TMX1	0x0
9145	chr14	52196380	52197512	+	FRMD6	0x0
9146	chr14	52464650	52465811	+	C14orf166	0x0
9147	chr14	52471114	52473048	-	NID2	0x0
9148	chr14	52477064	52478899	-	NID2	0x0
9149	chr14	52480507	52481652	-	NID2	0x0
9150	chr14	52493467	52494633	-	NID2	0x0
9151	chr14	52494998	52496064	-	NID2	0x0
9152	chr14	53106546	53107712	-	ERO1L	0x0
9153	chr14	53109040	53110795	-	ERO1L	0x0
9154	chr14	53323494	53324808	-	FERMT2	0x4
9155	chr14	53330589	53331792	-	FERMT2	0x4
9156	chr14	54457486	54458667	-	BMP4	0x0
9157	chr14	54893416	54894829	-	CNIH	0x0
9158	chr14	54941099	54944891	-	GMFB	0x0
9159	chr14	54947584	54948759	-	GMFB	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9160	chr14	55511433	55513503	+	SOCS4	0x0
9161	chr14	55706676	55707840	-	DLGAP5	0x0
9162	chr14	55816870	55817974	+	FBXO34	0x0
9163	chr14	55818823	55820376	+	FBXO34	0x0
9164	chr14	56108330	56109470	+	KTN1	0x2
9165	chr14	56150402	56151806	+	KTN1	0x2
9166	chr14	57170244	57171458	+	C14orf101	0x0
9167	chr14	57756890	57759604	+	MUDENG	0x0
9168	chr14	57877756	57879951	+	NAA30	0x0
9169	chr14	58468746	58469888	-	C14orf37	0x0
9170	chr14	59833650	59834793	+	DAAM1	0x0
9171	chr14	59835857	59837802	+	DAAM1	0x0
9172	chr14	59970408	59971758	+	JKAMP	0x0
9173	chr14	60062166	60063419	-	RTN1	0x0
9174	chr14	60715519	60716812	+	PPM1A	0x0
9175	chr14	60752107	60753335	+	PPM1A	0x0
9176	chr14	60753757	60755032	+	PPM1A	0x0
9177	chr14	60758874	60760503	+	PPM1A	0x0
9178	chr14	60923142	60924328	-	C14orf39	0x2
9179	chr14	61176290	61177504	-	SIX4	0x2
9180	chr14	61177530	61179338	-	SIX4	0x2
9181	chr14	61434426	61435883	+	MNAT1	0x2
9182	chr14	61442243	61443364	-	TRMT5	0x0
9183	chr14	62213818	62215290	+	HIF1A	0x0
9184	chr14	63839555	63840676	-	PPP2R5E	0x0
9185	chr14	63841271	63842798	-	PPP2R5E	0x0
9186	chr14	64453170	64454733	+	SYNE2	0x0
9187	chr14	64908301	64909449	+	MTHFD1	0x0
9188	chr14	64948887	64950015	-	ZBTB25	0x0
9189	chr14	65259851	65261072	-	SPTB	0x2
9190	chr14	65412545	65414693	-	RAB15	0x0
9191	chr14	65527879	65529757	+	CHURC1-FNTB	0x0
9192	chr14	65527879	65529757	+	FNTB	0x0
9193	chr14	65542164	65544317	-	MAX	0x0
9194	chr14	66027575	66028763	+	FUT8	0x0
9195	chr14	66208768	66210197	+	FUT8	0x0
9196	chr14	66478665	66480733	-	LOC645431	0x0
9197	chr14	67800854	67802013	+	MPP5	0x0
9198	chr14	67804288	67805628	-	ATP6V1D	0x0
9199	chr14	67850176	67851473	+	EIF2S1	0x0
9200	chr14	68054205	68055398	+	PLEKHH1	0x0
9201	chr14	68212780	68215103	-	ZFYVE26	0x0
9202	chr14	68222132	68223331	-	ZFYVE26	0x0
9203	chr14	68360206	68361426	+	RAD51B	0x2
9204	chr14	68621240	68622724	+	RAD51B	0x2
9205	chr14	69254634	69256077	-	ZFP36L1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9206	chr14	69340055	69341684	-	ACTN1	0x0
9207	chr14	69346970	69348125	-	ACTN1	0x0
9208	chr14	69520447	69521551	-	DCAF5	0x0
9209	chr14	69819431	69821142	+	GALNTL1	0x0
9210	chr14	69846598	69847840	-	ERH	0x0
9211	chr14	69890323	69891491	+	SLC39A9	0x0
9212	chr14	69924931	69926046	+	SLC39A9	0x0
9213	chr14	69926436	69927770	+	SLC39A9	0x0
9214	chr14	69927797	69929221	+	SLC39A9	0x0
9215	chr14	70178266	70180895	+	KIAA0247	0x0
9216	chr14	70234432	70237009	+	SRSF5	0x0
9217	chr14	70237957	70239118	+	SRSF5	0x0
9218	chr14	70379344	70380637	+	SMOC1	0x0
9219	chr14	70407911	70409071	+	SMOC1	0x0
9220	chr14	70469073	70470188	+	SMOC1	0x0
9221	chr14	70496846	70499136	+	SMOC1	0x0
9222	chr14	71200959	71202101	-	MAP3K9	0x0
9223	chr14	71428476	71429579	+	PCNX	0x0
9224	chr14	71444569	71445767	+	PCNX	0x0
9225	chr14	71485118	71486332	+	PCNX	0x0
9226	chr14	71499545	71500748	+	PCNX	0x0
9227	chr14	71514051	71515248	+	PCNX	0x0
9228	chr14	71523717	71524895	+	PCNX	0x0
9229	chr14	71542404	71543574	+	PCNX	0x0
9230	chr14	71555399	71556563	+	PCNX	0x0
9231	chr14	71576050	71577516	+	PCNX	0x0
9232	chr14	71580310	71582336	+	PCNX	0x0
9233	chr14	72055015	72056604	+	SIPA1L1	0x0
9234	chr14	72059193	72060335	+	SIPA1L1	0x0
9235	chr14	72084935	72086081	+	SIPA1L1	0x0
9236	chr14	72469029	72470174	+	RGS6	0x0
9237	chr14	73420314	73421487	+	DCAF4	0x0
9238	chr14	73444048	73445239	-	ZFYVE1	0x0
9239	chr14	73554214	73555446	+	RBM25	0x0
9240	chr14	73563146	73564352	+	RBM25	0x0
9241	chr14	73566029	73567181	+	RBM25	0x0
9242	chr14	73572090	73573249	+	RBM25	0x0
9243	chr14	73575539	73576687	+	RBM25	0x0
9244	chr14	73586208	73587365	+	RBM25	0x0
9245	chr14	73636962	73638153	+	PSEN1	0x0
9246	chr14	73685789	73687643	+	PSEN1	0x0
9247	chr14	73741551	73742707	-	NUMB	0x0
9248	chr14	74163331	74164501	+	DNAL1	0x0
9249	chr14	74164611	74166081	+	DNAL1	0x0
9250	chr14	74204946	74206115	-	C14orf43	0x0
9251	chr14	74206169	74207340	-	C14orf43	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9252	chr14	74237026	74238134	-	C14orf43	0x0
9253	chr14	74425220	74426416	+	COQ6	0x0
9254	chr14	74429173	74430296	+	COQ6	0x0
9255	chr14	74443435	74444627	-	ENTPD5	0x0
9256	chr14	74469693	74471012	+	C14orf45	0x0
9257	chr14	74608957	74610140	+	LIN52	0x0
9258	chr14	74946236	74947854	-	MIR4709	0x0
9259	chr14	74946236	74947854	-	NPC2	0x0
9260	chr14	74961205	74962464	+	ISCA2	0x0
9261	chr14	75122591	75123761	-	KIAA0317	0x0
9262	chr14	75127530	75129537	-	KIAA0317	0x0
9263	chr14	75284428	75285574	+	YLPM1	0x0
9264	chr14	75287708	75288872	+	YLPM1	0x0
9265	chr14	75368591	75369718	+	DLST	0x0
9266	chr14	75372793	75373927	-	RPS6KL1	0x0
9267	chr14	75408660	75409828	-	PGF	0x0
9268	chr14	75475392	75476806	+	EIF2B2	0x0
9269	chr14	75512539	75513731	-	MLH3	0x0
9270	chr14	75548364	75550781	-	NEK9	0x2
9271	chr14	75598031	75601510	-	TMED10	0x0
9272	chr14	75936435	75937666	+	JDP2	0x1
9273	chr14	76061545	76062738	-	C14orf1	0x0
9274	chr14	76116750	76117985	-	C14orf1	0x0
9275	chr14	76373841	76375107	+	TTLL5	0x0
9276	chr14	76637741	76638846	+	C14orf118	0x0
9277	chr14	76674103	76675280	+	C14orf118	0x0
9278	chr14	76905160	76906329	+	ESRRB	0x0
9279	chr14	76957378	76958618	+	ESRRB	0x0
9280	chr14	76965154	76966378	+	ESRRB	0x0
9281	chr14	76967102	76968551	+	ESRRB	0x0
9282	chr14	77246318	77248370	+	VASH1	0x0
9283	chr14	77248570	77249812	+	VASH1	0x0
9284	chr14	77253749	77255011	-	ANGEL1	0x0
9285	chr14	77270213	77271433	-	ANGEL1	0x0
9286	chr14	77490430	77491527	-	IRF2BPL	0x0
9287	chr14	77493804	77494971	-	IRF2BPL	0x0
9288	chr14	77582777	77583959	+	KIAA1737	0x0
9289	chr14	77740908	77742043	-	POMT2	0x0
9290	chr14	77788264	77789491	-	POMT2	0x0
9291	chr14	77801014	77802089	-	TMED8	0x0
9292	chr14	77806111	77807259	-	TMED8	0x0
9293	chr14	77972540	77974526	-	SPTLC2	0x0
9294	chr14	78184271	78185348	-	SNW1	0x0
9295	chr14	78399488	78400653	+	ADCK1	0x0
9296	chr14	81405927	81407191	-	CEP128	0x0
9297	chr14	81643679	81646206	-	GTF2A1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9298	chr14	81728600	81729770	-	STON2	0x0
9299	chr14	81731832	81732937	-	STON2	0x0
9300	chr14	81743530	81744648	-	STON2	0x0
9301	chr14	81798696	81799882	-	STON2	0x0
9302	chr14	81939607	81940832	-	SEL1L	0x0
9303	chr14	81941788	81943533	-	SEL1L	0x0
9304	chr14	81952147	81953412	-	SEL1L	0x0
9305	chr14	89038389	89039489	+	ZC3H14	0x0
9306	chr14	89068839	89076114	+	ZC3H14	0x0
9307	chr14	89078172	89079644	+	ZC3H14	0x0
9308	chr14	89257052	89258276	-	EML5	0x0
9309	chr14	89623127	89626235	-	FOXN3	0x0
9310	chr14	89626552	89628274	-	FOXN3	0x0
9311	chr14	89711679	89712921	-	FOXN3	0x0
9312	chr14	89781520	89782730	-	FOXN3	0x0
9313	chr14	89877786	89879059	-	FOXN3	0x0
9314	chr14	90047931	90049136	-	FOXN3	0x0
9315	chr14	90488189	90489389	+	TDP1	0x0
9316	chr14	90734075	90735204	+	PSMC1	0x0
9317	chr14	90871060	90872442	+	CALM1	0x0
9318	chr14	90874009	90875136	+	CALM1	0x0
9319	chr14	91006574	91008120	-	TTC7B	0x0
9320	chr14	91737194	91739502	-	CCDC88C	0x0
9321	chr14	91843981	91845148	-	CCDC88C	0x0
9322	chr14	91923915	91925731	-	SMEK1	0x0
9323	chr14	92433930	92435101	-	TRIP11	0x2
9324	chr14	92528723	92530708	-	ATXN3	0x0
9325	chr14	92541468	92542576	-	ATXN3	0x0
9326	chr14	92583280	92584478	-	NDUFB1	0x0
9327	chr14	92629123	92630206	+	CPSF2	0x0
9328	chr14	92631072	92632370	+	CPSF2	0x0
9329	chr14	93198443	93199613	-	LGMN	0x0
9330	chr14	93405746	93408384	-	ITPK1	0x0
9331	chr14	93424097	93425275	-	ITPK1	0x0
9332	chr14	93522309	93523442	-	ITPK1	0x0
9333	chr14	93693317	93695999	+	UBR7	0x0
9334	chr14	93703831	93706535	-	BTBD7	0x0
9335	chr14	95192099	95194064	+	SERPINA13	0x0
9336	chr14	95552451	95554165	-	DICER1	0x2
9337	chr14	95562423	95563542	-	DICER1	0x2
9338	chr14	95598362	95599574	-	DICER1	0x2
9339	chr14	95681456	95682576	-	CLMN	0x0
9340	chr14	95999300	96000531	-	SCARNA13	0x0
9341	chr14	95999300	96000531	-	SNHG10	0x0
9342	chr14	96010088	96011450	+	GLRX5	0x0
9343	chr14	96176543	96177651	-	TCL1A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9344	chr14	96329374	96330566	+	LOC100507043	0x0
9345	chr14	96750571	96751981	-	ATG2B	0x0
9346	chr14	96828559	96829758	-	ATG2B	0x0
9347	chr14	96985952	96987123	+	PAPOLA	0x0
9348	chr14	96993275	96994376	+	PAPOLA	0x0
9349	chr14	97029766	97030860	+	PAPOLA	0x0
9350	chr14	97031181	97033922	+	PAPOLA	0x0
9351	chr14	99864453	99865660	-	SETD3	0x0
9352	chr14	99924307	99925994	-	SETD3	0x0
9353	chr14	99927088	99932576	-	SETD3	0x0
9354	chr14	99976931	99978241	+	CCNK	0x0
9355	chr14	99978204	99981113	-	CCDC85C	0x0
9356	chr14	100067008	100068173	-	CCDC85C	0x0
9357	chr14	100609555	100610741	+	EVL	0x0
9358	chr14	100743809	100745463	+	YY1	0x0
9359	chr14	100747239	100748411	+	YY1	0x0
9360	chr14	100800445	100801712	-	WARS	0x0
9361	chr14	100867599	100868834	+	WDR25	0x0
9362	chr14	101297066	101298195	+	MEG3	0x5
9363	chr14	101298393	101299607	+	MEG3	0x5
9364	chr14	101300402	101301844	+	MEG3	0x5
9365	chr14	101305631	101306853	+	MEG3	0x5
9366	chr14	101317265	101318464	+	MIR770	0x0
9367	chr14	101334933	101336105	+	MIR493	0x0
9368	chr14	101348759	101351626	+	MIR127	0x1
9369	chr14	101348759	101351626	+	MIR136	0x0
9370	chr14	101348759	101351626	+	MIR432	0x0
9371	chr14	101369680	101370916	+	MEG8	0x4
9372	chr14	101379233	101380437	+	MEG8	0x4
9373	chr14	101392311	101393529	+	SNORD113-2	0x0
9374	chr14	101404711	101405871	+	SNORD113-6	0x0
9375	chr14	101406176	101407362	+	SNORD113-7	0x0
9376	chr14	101410616	101411780	+	SNORD113-9	0x0
9377	chr14	101416232	101417320	+	SNORD114-1	0x0
9378	chr14	101443175	101444387	+	SNORD114-19	0x0
9379	chr14	101452866	101453942	+	SNORD114-26	0x0
9380	chr14	101466789	101468733	+	SNORD114-31	0x0
9381	chr14	101494886	101496098	+	MIR494	0x0
9382	chr14	101518712	101519924	+	MIR487A	0x0
9383	chr14	101520341	101521745	+	MIR134	0x0
9384	chr14	101520341	101521745	+	MIR382	0x0
9385	chr14	101520341	101521745	+	MIR668	0x0
9386	chr14	101531675	101532795	+	MIR369	0x0
9387	chr14	101531675	101532795	+	MIR409	0x0
9388	chr14	101531675	101532795	+	MIR410	0x0
9389	chr14	101531675	101532795	+	MIR412	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9390	chr14	102028807	102029942	+	DIO3	0x4
9391	chr14	102231106	102232263	+	PPP2R5C	0x0
9392	chr14	102287413	102288537	+	PPP2R5C	0x0
9393	chr14	102349206	102350381	+	PPP2R5C	0x0
9394	chr14	102378293	102379714	+	PPP2R5C	0x0
9395	chr14	102391839	102394515	+	PPP2R5C	0x0
9396	chr14	102448824	102450047	+	DYNC1H1	0x0
9397	chr14	102452053	102453157	+	DYNC1H1	0x0
9398	chr14	102467002	102468176	+	DYNC1H1	0x0
9399	chr14	102470419	102472992	+	DYNC1H1	0x0
9400	chr14	102474026	102475152	+	DYNC1H1	0x0
9401	chr14	102476685	102477785	+	DYNC1H1	0x0
9402	chr14	102482670	102484037	+	DYNC1H1	0x0
9403	chr14	102493092	102494673	+	DYNC1H1	0x0
9404	chr14	102498126	102500235	+	DYNC1H1	0x0
9405	chr14	102502277	102503479	+	DYNC1H1	0x0
9406	chr14	102505247	102506348	+	DYNC1H1	0x0
9407	chr14	102507867	102508966	+	DYNC1H1	0x0
9408	chr14	102509803	102511304	+	DYNC1H1	0x0
9409	chr14	102513654	102514830	+	DYNC1H1	0x0
9410	chr14	102516277	102517671	+	DYNC1H1	0x0
9411	chr14	102547023	102548476	-	HSP90AA1	0x2
9412	chr14	102549391	102550541	-	HSP90AA1	0x2
9413	chr14	102551112	102553231	-	HSP90AA1	0x2
9414	chr14	102672315	102673564	+	WDR20	0x0
9415	chr14	102909507	102910752	+	TECPR2	0x0
9416	chr14	103193570	103197029	+	RCOR1	0x0
9417	chr14	103336101	103337292	+	TRAF3	0x2
9418	chr14	103373164	103375022	+	TRAF3	0x2
9419	chr14	103804496	103806618	+	EIF5	0x0
9420	chr14	103808088	103809566	+	EIF5	0x0
9421	chr14	103870921	103872060	+	MARK3	0x0
9422	chr14	103931389	103933273	+	MARK3	0x0
9423	chr14	103969148	103970358	+	MARK3	0x0
9424	chr14	103985494	103986708	-	CKB	0x0
9425	chr14	103987815	103989039	-	CKB	0x0
9426	chr14	104199600	104200837	-	PPP1R13B	0x0
9427	chr14	105235510	105236707	-	AKT1	0x2
9428	chr14	105360453	105361668	+	KIAA0284	0x0
9429	chr14	105362359	105363586	+	KIAA0284	0x0
9430	chr14	105607722	105608904	-	JAG2	0x0
9431	chr14	105861800	105864527	+	PACS2	0x0
9432	chr14	105887862	105889067	+	MTA1	0x2
9433	chr14	105936206	105937497	+	MTA1	0x2
9434	chr14	105945839	105946963	+	CRIP2	0x0
9435	chr15	22439891	22441040	-	MIR4509-1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9436	chr15	22439891	22441040	-	MIR4509-2	0x0
9437	chr15	22439891	22441040	-	MIR4509-3	0x0
9438	chr15	23020711	23021922	-	NIPA2	0x0
9439	chr15	23930430	23931872	-	NDN	0x5
9440	chr15	25242850	25244122	+	PAR5	0x0
9441	chr15	25579302	25580391	-	UBE3A	0x4
9442	chr15	25598943	25600073	-	UBE3A	0x4
9443	chr15	25615810	25616998	-	UBE3A	0x4
9444	chr15	25653754	25654894	-	UBE3A	0x4
9445	chr15	25924708	25925919	-	ATP10A	0x6
9446	chr15	28356092	28357307	-	HERC2	0x2
9447	chr15	28421538	28422674	-	HERC2	0x2
9448	chr15	28436633	28437798	-	HERC2	0x2
9449	chr15	28493226	28494389	-	HERC2	0x2
9450	chr15	28505382	28506481	-	HERC2	0x2
9451	chr15	29560069	29561351	-	NDNL2	0x0
9452	chr15	29992339	29993738	-	TJP1	0x0
9453	chr15	30010522	30011695	-	TJP1	0x0
9454	chr15	30024815	30026011	-	TJP1	0x0
9455	chr15	30052814	30054475	-	TJP1	0x0
9456	chr15	30162162	30163338	-	TJP1	0x0
9457	chr15	31664488	31667158	+	KLF13	0x0
9458	chr15	31667916	31668974	+	KLF13	0x0
9459	chr15	33359087	33360237	-	FMN1	0x0
9460	chr15	34432194	34433496	-	C15orf29	0x0
9461	chr15	34522170	34526236	-	SLC12A6	0x0
9462	chr15	34552889	34554000	-	SLC12A6	0x0
9463	chr15	34633425	34634649	-	NOP10	0x0
9464	chr15	35261296	35262509	-	AQR	0x0
9465	chr15	35384652	35385798	+	ANP32AP1	0x0
9466	chr15	35662609	35663903	-	ATPBD4	0x0
9467	chr15	36880405	36881539	+	C15orf41	0x0
9468	chr15	36910020	36911289	+	C15orf41	0x0
9469	chr15	36911422	36912556	+	C15orf41	0x0
9470	chr15	37100207	37101450	+	C15orf41	0x0
9471	chr15	37281320	37282539	-	MEIS2	0x0
9472	chr15	38645332	38647237	+	SPRED1	0x0
9473	chr15	38750621	38752186	-	RASGRP1	0x0
9474	chr15	38776641	38777919	+	FAM98B	0x0
9475	chr15	39888382	39889954	+	THBS1	0x1
9476	chr15	40327692	40328936	-	SRP14	0x0
9477	chr15	40380839	40381962	-	BMF	0x0
9478	chr15	40381982	40383501	-	BMF	0x0
9479	chr15	40456767	40457937	+	BUB1B	0x1
9480	chr15	40476926	40478039	+	BUB1B	0x1
9481	chr15	40501384	40502494	+	BUB1B	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9482	chr15	40504231	40505335	+	BUB1B	0x1
9483	chr15	40510123	40511314	+	BUB1B	0x1
9484	chr15	40617680	40619271	+	PHGR1	0x0
9485	chr15	40685544	40686718	+	C15orf23	0x0
9486	chr15	40751469	40752596	+	BAHD1	0x0
9487	chr15	40886120	40887287	+	CASC5	0x2
9488	chr15	40916340	40918363	+	CASC5	0x2
9489	chr15	40943724	40944853	+	CASC5	0x2
9490	chr15	41022899	41024241	+	RAD51	0x0
9491	chr15	41036813	41038038	-	FAM82A2	0x0
9492	chr15	41062970	41064217	-	DNAJC17	0x0
9493	chr15	41149357	41150553	+	SPINT1	0x0
9494	chr15	41271070	41272505	-	INO80	0x0
9495	chr15	41273123	41274321	-	INO80	0x0
9496	chr15	41289129	41290356	-	INO80	0x0
9497	chr15	41307738	41308936	-	INO80	0x0
9498	chr15	41312701	41313853	-	INO80	0x0
9499	chr15	41336825	41337952	-	INO80	0x0
9500	chr15	41571542	41574487	+	CHP	0x0
9501	chr15	41591351	41592931	+	OIP5-AS1	0x0
9502	chr15	41593097	41594193	+	OIP5-AS1	0x0
9503	chr15	41595850	41596995	+	OIP5-AS1	0x0
9504	chr15	41624622	41625721	-	OIP5	0x0
9505	chr15	41672386	41673491	+	NUSAP1	0x0
9506	chr15	41688126	41689331	-	NDUFAF1	0x0
9507	chr15	41773141	41775717	+	RTF1	0x0
9508	chr15	41809750	41810873	-	RPAP1	0x0
9509	chr15	41812085	41813287	-	RPAP1	0x0
9510	chr15	41869731	41871669	+	TYRO3	0x0
9511	chr15	41987865	41989717	+	MGA	0x2
9512	chr15	42034345	42036225	+	MGA	0x2
9513	chr15	42058036	42059681	+	MGA	0x2
9514	chr15	42060264	42062447	+	MGA	0x2
9515	chr15	42107153	42108267	+	MAPKBP1	0x0
9516	chr15	42133884	42135006	+	JMJD7-PLA2G4B	0x0
9517	chr15	42133884	42135006	+	PLA2G4B	0x0
9518	chr15	42191972	42193190	-	EHD4	0x0
9519	chr15	42502576	42504083	-	TMEM87A	0x0
9520	chr15	42704938	42707258	-	ZFP106	0x0
9521	chr15	42707393	42709187	-	ZFP106	0x0
9522	chr15	42716489	42717766	-	ZFP106	0x0
9523	chr15	42727099	42728201	-	ZFP106	0x0
9524	chr15	42730826	42731975	-	ZFP106	0x0
9525	chr15	42736534	42737634	-	ZFP106	0x0
9526	chr15	42748736	42749875	-	ZFP106	0x0
9527	chr15	42834530	42836606	-	LRRC57	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9528	chr15	42859739	42860891	+	HAUS2	0x0
9529	chr15	43018260	43019328	-	CDAN1	0x0
9530	chr15	43036633	43037789	-	TTBK2	0x2
9531	chr15	43170162	43171297	-	TTBK2	0x2
9532	chr15	43340093	43341263	-	UBR1	0x2
9533	chr15	43359542	43360737	-	UBR1	0x2
9534	chr15	43621893	43623101	-	LCMT2	0x0
9535	chr15	43643895	43645882	+	ADAL	0x0
9536	chr15	43694837	43696744	-	TP53BP1	0x0
9537	chr15	43697916	43699142	-	TP53BP1	0x0
9538	chr15	43748170	43749593	-	TP53BP1	0x0
9539	chr15	43822378	43823824	+	MAP1A	0x0
9540	chr15	44038183	44039395	+	PDIA3	0x0
9541	chr15	44063042	44064186	+	PDIA3	0x0
9542	chr15	44093409	44094552	+	C15orf63	0x0
9543	chr15	44093409	44094552	+	SERF2-C15ORF63	0x0
9544	chr15	44104754	44106053	-	MFAP1	0x0
9545	chr15	44436459	44437776	-	FRMD5	0x0
9546	chr15	44705013	44708315	+	CASC4	0x0
9547	chr15	44816121	44818115	+	CTDSPL2	0x0
9548	chr15	44853083	44854649	+	EIF3J	0x0
9549	chr15	44948756	44949960	-	SPG11	0x0
9550	chr15	45314932	45316035	+	SORD	0x0
9551	chr15	45365326	45367058	+	SORD	0x0
9552	chr15	45773199	45774380	-	SLC30A4	0x0
9553	chr15	45899844	45901066	+	PLDN	0x0
9554	chr15	48443160	48450733	-	MYEF2	0x0
9555	chr15	48633736	48635113	+	DUT	0x0
9556	chr15	48701884	48703018	-	FBN1	0x0
9557	chr15	49283177	49284305	-	SECISBP2L	0x0
9558	chr15	49418071	49419446	-	COPS2	0x1
9559	chr15	49436677	49437823	-	COPS2	0x1
9560	chr15	49612524	49613623	+	GALK2	0x0
9561	chr15	50568925	50570610	-	GABPB1	0x0
9562	chr15	50784421	50785616	+	USP8	0x0
9563	chr15	50791129	50792448	+	USP8	0x0
9564	chr15	50852814	50854394	-	TRPM7	0x0
9565	chr15	50866611	50867836	-	TRPM7	0x0
9566	chr15	50931139	50932529	-	TRPM7	0x0
9567	chr15	50997344	50998537	-	SPPL2A	0x0
9568	chr15	51027747	51028888	-	SPPL2A	0x0
9569	chr15	51772405	51773682	-	DMXL2	0x0
9570	chr15	52104140	52106191	+	TMOD2	0x0
9571	chr15	52200734	52202871	+	TMOD3	0x0
9572	chr15	52356936	52358677	+	MAPK6	0x0
9573	chr15	52387326	52388496	+	MAPK6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9574	chr15	52484028	52485336	-	MYO5C	0x0
9575	chr15	52555798	52556947	-	MYO5C	0x0
9576	chr15	52598977	52600375	-	MYO5A	0x0
9577	chr15	52601007	52602161	-	MYO5A	0x0
9578	chr15	52604630	52605821	-	MYO5A	0x0
9579	chr15	55647776	55648926	-	CCPG1	0x0
9580	chr15	55647776	55648926	-	DYX1C1-CCPG1	0x0
9581	chr15	55903615	55904776	-	PRTG	0x0
9582	chr15	55907791	55909868	-	PRTG	0x0
9583	chr15	55911065	55912234	-	PRTG	0x0
9584	chr15	56119180	56122192	-	NEDD4	0x0
9585	chr15	56125921	56126979	-	NEDD4	0x0
9586	chr15	56129428	56130547	-	NEDD4	0x0
9587	chr15	56133688	56134879	-	NEDD4	0x0
9588	chr15	56144068	56145227	-	NEDD4	0x0
9589	chr15	56152181	56153467	-	NEDD4	0x0
9590	chr15	56243159	56244343	-	NEDD4	0x0
9591	chr15	56285301	56286336	-	NEDD4	0x0
9592	chr15	56383695	56384834	-	RFX7	0x0
9593	chr15	56922081	56923725	-	ZNF280D	0x0
9594	chr15	57388803	57390311	+	TCF12	0x2
9595	chr15	57483821	57484967	+	TCF12	0x2
9596	chr15	57808417	57809644	+	CGNL1	0x0
9597	chr15	57816273	57817464	+	CGNL1	0x0
9598	chr15	57840065	57841252	+	CGNL1	0x0
9599	chr15	57842260	57843349	+	CGNL1	0x0
9600	chr15	58000454	58001929	+	POLR2M	0x0
9601	chr15	58006276	58008515	+	GCOM1	0x0
9602	chr15	58006276	58008515	+	POLR2M	0x0
9603	chr15	58887326	58888532	-	ADAM10	0x2
9604	chr15	58888537	58889790	-	ADAM10	0x2
9605	chr15	59171380	59172644	-	SLTM	0x0
9606	chr15	59178995	59180161	-	SLTM	0x0
9607	chr15	59205268	59206441	-	SLTM	0x0
9608	chr15	59322661	59324160	+	RNF111	0x0
9609	chr15	59752147	59753306	+	FAM81A	0x0
9610	chr15	59814100	59815416	+	FAM81A	0x0
9611	chr15	59955132	59956325	-	BNIP2	0x0
9612	chr15	60060202	60061902	+	GCNT3	0x0
9613	chr15	60639224	60640456	-	ANXA2	0x0
9614	chr15	60741112	60742308	-	NARG2	0x0
9615	chr15	61037278	61038467	-	RORA	0x0
9616	chr15	61252667	61253764	-	RORA	0x0
9617	chr15	61278882	61280027	-	RORA	0x0
9618	chr15	61368711	61369809	-	RORA	0x0
9619	chr15	61459294	61460432	-	RORA	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9620	chr15	61500192	61501386	-	RORA	0x0
9621	chr15	62694295	62695397	+	TLN2	0x0
9622	chr15	62725148	62726345	+	TLN2	0x0
9623	chr15	63000192	63001391	+	TLN2	0x0
9624	chr15	63031023	63032260	+	TLN2	0x0
9625	chr15	63084287	63085415	+	TLN2	0x0
9626	chr15	63134509	63135887	+	TLN2	0x0
9627	chr15	63352574	63353693	+	TPM1	0x0
9628	chr15	63363065	63364355	+	TPM1	0x0
9629	chr15	63558666	63560072	+	RAB8B	0x0
9630	chr15	63616741	63617884	-	CA12	0x0
9631	chr15	63826060	63827220	+	USP3	0x0
9632	chr15	63882803	63884110	+	USP3	0x0
9633	chr15	63920388	63921563	-	HERC1	0x0
9634	chr15	63922151	63923336	-	HERC1	0x0
9635	chr15	63966172	63967859	-	HERC1	0x0
9636	chr15	63990404	63991577	-	HERC1	0x0
9637	chr15	64010174	64011332	-	HERC1	0x0
9638	chr15	64199984	64201180	-	DAPK2	0x0
9639	chr15	64385487	64386701	-	FAM96A	0x0
9640	chr15	64423573	64424883	+	SNX1	0x0
9641	chr15	64425819	64427023	+	SNX1	0x0
9642	chr15	64447531	64448907	-	PPIB	0x0
9643	chr15	64448478	64449602	+	SNX22	0x0
9644	chr15	64631383	64632578	-	CSNK1G1	0x0
9645	chr15	64689319	64690510	+	TRIP4	0x0
9646	chr15	64748729	64749884	+	TRIP4	0x0
9647	chr15	64790957	64792835	+	ZNF609	0x0
9648	chr15	64966904	64968115	+	ZNF609	0x0
9649	chr15	64973859	64977843	+	ZNF609	0x0
9650	chr15	65031541	65033330	-	RBPMS2	0x0
9651	chr15	65042030	65043080	-	RBPMS2	0x0
9652	chr15	65117064	65118309	-	PIF1	0x0
9653	chr15	65157655	65158883	+	PLEKHO2	0x0
9654	chr15	65266609	65267777	-	SPG21	0x0
9655	chr15	65411170	65412290	-	PDCD7	0x0
9656	chr15	65627131	65628242	-	IGDCC3	0x0
9657	chr15	65869737	65871165	+	PTPLAD1	0x0
9658	chr15	65952469	65953599	-	DENND4A	0x2
9659	chr15	65959252	65960451	-	DENND4A	0x2
9660	chr15	65982821	65984027	-	DENND4A	0x2
9661	chr15	66179950	66181508	+	RAB11A	0x0
9662	chr15	66504639	66505856	-	MEGF11	0x0
9663	chr15	66533273	66534419	-	MEGF11	0x0
9664	chr15	66639082	66640187	-	SCARNA14	0x0
9665	chr15	66726865	66728071	+	MAP2K1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9666	chr15	66735062	66736199	+	MAP2K1	0x0
9667	chr15	66781347	66782471	+	MAP2K1	0x0
9668	chr15	66782781	66784224	+	MAP2K1	0x0
9669	chr15	66791569	66794722	-	RPL4	0x0
9670	chr15	66791569	66794722	-	SNORD18B	0x0
9671	chr15	66791569	66794722	-	SNORD18C	0x0
9672	chr15	66812883	66814050	+	ZWILCH	0x2
9673	chr15	66840296	66841517	+	ZWILCH	0x2
9674	chr15	67072816	67074012	+	SMAD6	0x0
9675	chr15	67360806	67362112	+	SMAD3	0x1
9676	chr15	67386102	67387345	+	SMAD3	0x1
9677	chr15	67416517	67417771	+	SMAD3	0x1
9678	chr15	67484308	67485737	+	SMAD3	0x1
9679	chr15	67486390	67487610	+	SMAD3	0x1
9680	chr15	67493232	67494523	-	AAGAB	0x0
9681	chr15	67527721	67528985	-	AAGAB	0x0
9682	chr15	67984254	67985444	+	MAP2K5	0x0
9683	chr15	68065675	68066775	+	MAP2K5	0x0
9684	chr15	68499330	68500483	-	CLN6	0x0
9685	chr15	68585250	68588657	+	FEM1B	0x0
9686	chr15	69006606	69007806	+	CORO2B	0x0
9687	chr15	69018437	69020398	+	CORO2B	0x0
9688	chr15	69070854	69073248	-	ANP32A	0x1
9689	chr15	69561503	69562653	+	GLCE	0x0
9690	chr15	69563631	69564794	+	GLCE	0x0
9691	chr15	69744721	69745882	+	RPLP1	0x0
9692	chr15	69747002	69748351	+	RPLP1	0x0
9693	chr15	70340243	70341371	-	TLE3	0x0
9694	chr15	70344224	70345470	-	TLE3	0x0
9695	chr15	70726184	70727306	-	UACA	0x0
9696	chr15	70948785	70949965	-	UACA	0x0
9697	chr15	70961016	70962163	-	UACA	0x0
9698	chr15	71633059	71634241	-	CT62	0x0
9699	chr15	71633163	71634263	+	THSD4	0x0
9700	chr15	72117415	72118811	-	MYO9A	0x2
9701	chr15	72145572	72146755	-	MYO9A	0x2
9702	chr15	72490867	72493423	-	PKM2	0x0
9703	chr15	72496078	72497178	-	PKM2	0x0
9704	chr15	72498591	72499618	-	PKM2	0x0
9705	chr15	72500435	72502697	-	PKM2	0x0
9706	chr15	72510761	72511930	-	PKM2	0x0
9707	chr15	72522860	72524062	-	PKM2	0x0
9708	chr15	72861919	72863142	+	ARIH1	0x0
9709	chr15	72874942	72876236	+	ARIH1	0x0
9710	chr15	72877479	72879413	+	ARIH1	0x0
9711	chr15	73043352	73044646	-	ADPGK	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9712	chr15	73070939	73072421	-	ADPGK	0x0
9713	chr15	73075393	73076564	-	ADPGK	0x0
9714	chr15	73595546	73597937	+	NEO1	0x1
9715	chr15	73845989	73847127	-	NPTN	0x0
9716	chr15	73851646	73852866	+	C15orf60	0x0
9717	chr15	73851878	73853727	-	NPTN	0x0
9718	chr15	73860513	73861586	-	NPTN	0x0
9719	chr15	73924512	73925740	-	NPTN	0x0
9720	chr15	74005955	74007288	+	CD276	0x0
9721	chr15	74337589	74339651	+	PML	0x1
9722	chr15	74737924	74739090	-	UBL7	0x0
9723	chr15	74748373	74749468	-	UBL7	0x0
9724	chr15	74888952	74890599	+	ARID3B	0x1
9725	chr15	74921643	74924804	-	EDC3	0x0
9726	chr15	75075200	75076385	+	CSK	0x0
9727	chr15	75094784	75096034	+	CSK	0x0
9728	chr15	75193420	75194577	-	C15orf17	0x0
9729	chr15	75212125	75213287	-	COX5A	0x0
9730	chr15	75247345	75249435	-	RPP25	0x0
9731	chr15	75311007	75313948	+	SCAMP5	0x0
9732	chr15	75499785	75501193	+	C15orf39	0x0
9733	chr15	75503478	75504738	+	C15orf39	0x0
9734	chr15	75613780	75615119	-	MIR631	0x0
9735	chr15	75659419	75660490	-	MAN2C1	0x0
9736	chr15	75663067	75664275	-	SIN3A	0x0
9737	chr15	75688245	75689351	-	SIN3A	0x0
9738	chr15	75695916	75697048	-	SIN3A	0x0
9739	chr15	75743220	75744335	-	SIN3A	0x0
9740	chr15	75759618	75761125	-	PTPN9	0x0
9741	chr15	75930612	75932318	-	IMP3	0x0
9742	chr15	76192146	76193330	+	UBE2Q2	0x0
9743	chr15	76196319	76197525	+	FBXO22	0x0
9744	chr15	76200492	76201690	+	FBXO22	0x0
9745	chr15	76221761	76222861	+	FBXO22	0x0
9746	chr15	76224990	76226179	+	FBXO22	0x0
9747	chr15	76579644	76580840	-	ETFA	0x0
9748	chr15	77241274	77242542	+	RCN2	0x1
9749	chr15	77337912	77339571	-	TSPAN3	0x0
9750	chr15	77347907	77349075	-	TSPAN3	0x0
9751	chr15	77401254	77402399	-	PEAK1	0x0
9752	chr15	77405086	77406206	-	PEAK1	0x0
9753	chr15	77773946	77775060	+	HMG20A	0x0
9754	chr15	77776387	77777772	+	HMG20A	0x0
9755	chr15	78089373	78090592	-	LOC645752	0x0
9756	chr15	78460996	78462636	+	IDH3A	0x0
9757	chr15	78575236	78576384	-	WDR61	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9758	chr15	78754775	78756995	+	IREB2	0x0
9759	chr15	78758124	78759321	+	IREB2	0x0
9760	chr15	78790706	78794208	+	IREB2	0x0
9761	chr15	78833384	78834602	+	PSMA4	0x0
9762	chr15	78837568	78841658	+	PSMA4	0x0
9763	chr15	79614285	79615701	+	TMED3	0x0
9764	chr15	80463975	80465090	+	FAH	0x0
9765	chr15	80772152	80773317	+	ARNT2	0x2
9766	chr15	80886024	80887325	+	ARNT2	0x2
9767	chr15	81046063	81048501	+	FAM108C1	0x0
9768	chr15	81270680	81271907	-	MESDC2	0x0
9769	chr15	81295581	81296750	+	MESDC1	0x0
9770	chr15	82335413	82336571	-	MEX3B	0x0
9771	chr15	83207227	83208394	-	RPS17	0x0
9772	chr15	83207227	83208394	-	RPS17L	0x0
9773	chr15	83211458	83212669	-	CPEB1	0x0
9774	chr15	83514886	83516004	-	HOMER2	0x0
9775	chr15	83658617	83660036	+	FAM103A1	0x0
9776	chr15	83684716	83685983	-	BTBD1	0x0
9777	chr15	85212545	85213785	-	SEC11A	0x0
9778	chr15	85369315	85370458	+	ALPK3	0x0
9779	chr15	85411964	85413130	+	ALPK3	0x0
9780	chr15	86291422	86292819	+	AKAP13	0x2
9781	chr15	86303201	86304432	-	KLHL25	0x0
9782	chr15	89414642	89415884	+	ACAN	0x2
9783	chr15	89739554	89743300	+	ABHD2	0x0
9784	chr15	89744723	89746084	+	ABHD2	0x0
9785	chr15	89800886	89802123	+	FANCI	0x0
9786	chr15	89859195	89860852	+	FANCI	0x0
9787	chr15	90162440	90163606	+	C15orf42	0x0
9788	chr15	90352563	90353750	-	ANPEP	0x0
9789	chr15	90377066	90378105	-	AP3S2	0x0
9790	chr15	90377066	90378105	-	C15orf38-AP3S2	0x0
9791	chr15	90564145	90565304	+	ZNF710	0x0
9792	chr15	90587709	90588912	+	ZNF710	0x0
9793	chr15	90610350	90611920	+	ZNF710	0x0
9794	chr15	90623684	90625713	+	ZNF710	0x0
9795	chr15	90626749	90628809	-	IDH2	0x2
9796	chr15	90629881	90630999	-	IDH2	0x2
9797	chr15	90631362	90632466	-	IDH2	0x2
9798	chr15	90771768	90772975	+	SEMA4B	0x0
9799	chr15	90937668	90938871	+	IQGAP1	0x0
9800	chr15	91024730	91025812	+	IQGAP1	0x0
9801	chr15	91029656	91030884	+	IQGAP1	0x0
9802	chr15	91043751	91045944	+	IQGAP1	0x0
9803	chr15	91177529	91178736	+	CRTC3	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9804	chr15	91349329	91350538	+	BLM	0x1
9805	chr15	91421450	91422601	+	FURIN	0x0
9806	chr15	91424774	91426559	+	FURIN	0x0
9807	chr15	91463402	91464875	+	MAN2A2	0x0
9808	chr15	91465122	91466298	+	MAN2A2	0x0
9809	chr15	91508936	91510506	-	PRC1	0x2
9810	chr15	91526503	91527770	-	PRC1	0x2
9811	chr15	92707852	92709113	+	SLCO3A1	0x0
9812	chr15	93160442	93161604	-	FAM174B	0x0
9813	chr15	93470925	93472913	+	CHD2	0x2
9814	chr15	93484255	93485693	+	CHD2	0x2
9815	chr15	93569259	93570523	+	CHD2	0x2
9816	chr15	93570527	93571630	+	CHD2	0x2
9817	chr15	94946189	94947361	+	MCTP2	0x0
9818	chr15	98514667	98517292	+	ARRDC4	0x0
9819	chr15	99372375	99373602	+	MIR4714	0x0
9820	chr15	99477560	99478734	+	IGF1R	0x0
9821	chr15	99501472	99502603	+	IGF1R	0x0
9822	chr15	99503635	99504745	+	IGF1R	0x0
9823	chr15	99505349	99506475	+	IGF1R	0x0
9824	chr15	99674517	99675727	+	SYNM	0x1
9825	chr15	99677366	99678559	-	TTC23	0x0
9826	chr15	99873634	99874852	+	LRRC28	0x0
9827	chr15	100254870	100256092	+	MEF2A	0x0
9828	chr15	101108871	101109981	-	LINS	0x0
9829	chr15	101191149	101192373	+	ASB7	0x0
9830	chr15	101715475	101717210	-	CHSY1	0x0
9831	chr15	101774833	101775994	-	CHSY1	0x0
9832	chr15	101812052	101813462	-	SELS	0x0
9833	chr15	101821159	101822413	-	SNRPA1	0x0
9834	chr15	101843661	101845709	-	PCSK6	0x2
9835	chr15	102018876	102020004	-	PCSK6	0x2
9836	chr15	102189659	102190811	-	TM2D3	0x0
9837	chr16	135194	136349	+	MPG	0x0
9838	chr16	337680	338782	-	AXIN1	0x1
9839	chr16	421076	422453	-	TMEM8A	0x0
9840	chr16	423481	424629	-	TMEM8A	0x0
9841	chr16	547115	548302	+	RAB11FIP3	0x0
9842	chr16	571019	572164	+	RAB11FIP3	0x0
9843	chr16	601878	603013	+	SOLH	0x0
9844	chr16	623550	624756	+	PIGQ	0x0
9845	chr16	678585	679747	+	RAB40C	0x0
9846	chr16	712217	713288	+	WDR90	0x0
9847	chr16	715505	716669	+	WDR90	0x0
9848	chr16	731912	733115	-	JMJD8	0x0
9849	chr16	742639	743825	-	FBXL16	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9850	chr16	1034697	1035899	+	SOX8	0x6
9851	chr16	1375528	1377088	+	UBE2I	0x0
9852	chr16	1666204	1667866	+	CRAMP1L	0x0
9853	chr16	1715934	1717120	+	CRAMP1L	0x0
9854	chr16	1724408	1725782	+	CRAMP1L	0x0
9855	chr16	1726090	1727351	+	CRAMP1L	0x0
9856	chr16	1748988	1751824	+	HN1L	0x0
9857	chr16	1813080	1814255	+	MAPK8IP3	0x2
9858	chr16	1819968	1821200	-	NME3	0x0
9859	chr16	1858614	1859849	-	HAGH	0x0
9860	chr16	1878481	1879617	+	FAHD1	0x0
9861	chr16	2014634	2015800	+	SNHG9	0x0
9862	chr16	2014634	2015800	+	SNORA78	0x0
9863	chr16	2039597	2040788	+	SYNGR3	0x0
9864	chr16	2051163	2053188	-	ZNF598	0x0
9865	chr16	2087755	2089352	+	SLC9A3R2	0x0
9866	chr16	2094227	2095500	-	NTHL1	0x0
9867	chr16	2128329	2130730	+	TSC2	0x1
9868	chr16	2133853	2135003	+	TSC2	0x1
9869	chr16	2138294	2139541	-	PKD1	0x1
9870	chr16	2163845	2164995	-	PKD1	0x1
9871	chr16	2204420	2205691	-	SNORD60	0x0
9872	chr16	2213318	2214495	+	TRAF7	0x0
9873	chr16	2217543	2218642	+	TRAF7	0x0
9874	chr16	2220127	2221229	+	TRAF7	0x0
9875	chr16	2259080	2260311	+	MLST8	0x0
9876	chr16	2262541	2263726	-	PGP	0x0
9877	chr16	2303100	2304348	-	RNPS1	0x0
9878	chr16	2370849	2374163	-	ABCA3	0x0
9879	chr16	2479615	2480768	+	CCNF	0x0
9880	chr16	2493196	2494312	+	CCNF	0x0
9881	chr16	2498404	2499504	+	CCNF	0x0
9882	chr16	2506514	2507807	+	CCNF	0x0
9883	chr16	2565462	2566985	+	ATP6V0C	0x0
9884	chr16	2651332	2652546	+	PDPK1	0x0
9885	chr16	2757529	2759373	+	KCTD5	0x0
9886	chr16	2805990	2807151	+	SRRM2	0x0
9887	chr16	2814249	2815535	+	SRRM2	0x0
9888	chr16	2815728	2818274	+	SRRM2	0x0
9889	chr16	2819252	2821882	+	SRRM2	0x0
9890	chr16	2998990	3000232	-	PKMYT1	0x0
9891	chr16	3024866	3026047	-	PKMYT1	0x0
9892	chr16	3107939	3109084	+	MMP25	0x0
9893	chr16	3492781	3493970	-	ZNF597	0x4
9894	chr16	3535144	3536539	+	NAA60	0x4
9895	chr16	3635535	3636761	-	SLX4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9896	chr16	3774616	3775871	-	CREBBP	0x1
9897	chr16	3776561	3777791	-	CREBBP	0x1
9898	chr16	3900162	3901315	-	CREBBP	0x1
9899	chr16	4013938	4015126	-	ADCY9	0x0
9900	chr16	4101472	4102669	-	ADCY9	0x0
9901	chr16	4239256	4241262	-	SRL	0x0
9902	chr16	4241530	4242629	-	SRL	0x0
9903	chr16	4291356	4292552	-	SRL	0x0
9904	chr16	4323248	4324347	-	TFAP4	0x0
9905	chr16	4386706	4387963	+	GLIS2	0x0
9906	chr16	4388169	4389718	+	GLIS2	0x0
9907	chr16	4423268	4424487	-	CORO7	0x0
9908	chr16	4423268	4424487	-	CORO7-PAM16	0x0
9909	chr16	4490907	4492052	+	DNAJA3	0x0
9910	chr16	4505709	4507227	+	DNAJA3	0x0
9911	chr16	4658892	4660102	-	FAM100A	0x0
9912	chr16	4730730	4732303	+	MGRN1	0x0
9913	chr16	4852833	4855248	-	GLYR1	0x0
9914	chr16	4861092	4862291	-	GLYR1	0x0
9915	chr16	4929904	4932494	+	UBN1	0x0
9916	chr16	4932420	4933774	-	PPL	0x0
9917	chr16	5134234	5135852	+	ALG1	0x0
9918	chr16	8986275	8987979	-	USP7	0x0
9919	chr16	9004022	9005180	-	USP7	0x0
9920	chr16	9013129	9014231	-	USP7	0x0
9921	chr16	9212083	9213357	+	C16orf72	0x0
9922	chr16	9465459	9466683	+	MIR548X	0x0
9923	chr16	9544640	9545806	+	MIR548X	0x0
9924	chr16	10863039	10864646	+	NUBP1	0x0
9925	chr16	11154207	11155413	+	CLEC16A	0x0
9926	chr16	11273452	11274967	+	CLEC16A	0x0
9927	chr16	11771307	11773458	+	SNN	0x0
9928	chr16	11782746	11784025	-	TXNDC11	0x0
9929	chr16	11791408	11792652	-	TXNDC11	0x0
9930	chr16	11814873	11816095	-	TXNDC11	0x0
9931	chr16	11829378	11830572	-	TXNDC11	0x0
9932	chr16	11964262	11965555	-	GSPT1	0x0
9933	chr16	11965560	11966652	-	GSPT1	0x0
9934	chr16	12662281	12663532	+	SNX29	0x0
9935	chr16	12756936	12758284	-	CPPED1	0x0
9936	chr16	14529945	14531182	-	PARN	0x0
9937	chr16	14758254	14759459	+	BFAR	0x0
9938	chr16	14762337	14763453	+	BFAR	0x0
9939	chr16	14765620	14766769	-	PLA2G10	0x2
9940	chr16	14781470	14782722	-	PLA2G10	0x2
9941	chr16	15126639	15127738	+	PDXDC1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9942	chr16	15132091	15133334	+	PDXDC1	0x0
9943	chr16	15153446	15156154	-	RRN3	0x0
9944	chr16	15688008	15689380	-	KIAA0430	0x0
9945	chr16	15709136	15710333	-	KIAA0430	0x0
9946	chr16	15723072	15724207	-	KIAA0430	0x0
9947	chr16	15732445	15733611	-	KIAA0430	0x0
9948	chr16	16215364	16216541	+	ABCC1	0x0
9949	chr16	16236045	16237287	+	ABCC1	0x0
9950	chr16	16380890	16382165	+	NOMO3	0x0
9951	chr16	16387795	16388980	+	NOMO3	0x0
9952	chr16	18798791	18800003	-	RPS15A	0x0
9953	chr16	18802710	18804892	-	ARL6IP1	0x0
9954	chr16	18816978	18819559	-	SMG1	0x0
9955	chr16	18822665	18823927	-	SMG1	0x0
9956	chr16	18845138	18846290	-	SMG1	0x0
9957	chr16	18848924	18850071	-	SMG1	0x0
9958	chr16	18871498	18872647	-	SMG1	0x0
9959	chr16	18879360	18880553	-	SMG1	0x0
9960	chr16	18887032	18888210	-	SMG1	0x0
9961	chr16	18890322	18891636	-	SMG1	0x0
9962	chr16	18906853	18908081	-	SMG1	0x0
9963	chr16	19060210	19061333	+	TMC7	0x0
9964	chr16	19078446	19079640	+	COQ7	0x0
9965	chr16	19514142	19515292	-	GDE1	0x0
9966	chr16	19566592	19567862	+	C16orf62	0x0
9967	chr16	19702070	19703271	+	C16orf62	0x0
9968	chr16	19713333	19714518	-	C16orf88	0x0
9969	chr16	19868390	19869685	-	GPRC5B	0x0
9970	chr16	20744916	20746165	-	THUMPD1	0x0
9971	chr16	20791508	20792696	-	ERI2	0x0
9972	chr16	20865784	20870807	-	DCUN1D3	0x0
9973	chr16	21628700	21629848	+	METTL9	0x0
9974	chr16	21666502	21667733	+	METTL9	0x0
9975	chr16	22093200	22094510	+	C16orf52	0x0
9976	chr16	22336720	22337891	+	POLR3E	0x0
9977	chr16	22358082	22359181	-	CDR2	0x0
9978	chr16	23072672	23074896	-	USP31	0x0
9979	chr16	23075695	23080002	-	USP31	0x0
9980	chr16	23084568	23085667	-	USP31	0x0
9981	chr16	23100086	23101265	-	USP31	0x0
9982	chr16	23116235	23118422	-	USP31	0x0
9983	chr16	23415073	23416220	-	COG7	0x0
9984	chr16	23419736	23420983	+	SCNN1B	0x0
9985	chr16	23420525	23421626	-	COG7	0x0
9986	chr16	23477555	23479443	-	GGA2	0x0
9987	chr16	23497092	23498364	-	GGA2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
9988	chr16	23582073	23584261	+	UBFD1	0x0
9989	chr16	23584975	23586023	+	UBFD1	0x0
9990	chr16	23645995	23647190	-	PALB2	0x1
9991	chr16	23677895	23679092	+	DCTN5	0x0
9992	chr16	23969647	23970804	+	PRKCB	0x2
9993	chr16	24225813	24227408	+	PRKCB	0x2
9994	chr16	24551026	24552229	+	RBBP6	0x0
9995	chr16	24800571	24801721	+	TNRC6A	0x0
9996	chr16	24835195	24837863	+	TNRC6A	0x0
9997	chr16	24880699	24881846	+	SLC5A11	0x0
9998	chr16	24930317	24931543	-	ARHGAP17	0x0
9999	chr16	24952833	24953935	-	ARHGAP17	0x0
10000	chr16	24980181	24981490	-	ARHGAP17	0x0
10001	chr16	27268213	27269391	-	NSMCE1	0x0
10002	chr16	27473141	27474284	-	GTF3C1	0x0
10003	chr16	27480193	27481402	-	GTF3C1	0x0
10004	chr16	27505519	27506713	-	GTF3C1	0x0
10005	chr16	27552224	27553381	-	GTF3C1	0x0
10006	chr16	27751139	27752310	+	KIAA0556	0x0
10007	chr16	28132446	28133605	-	XPO6	0x0
10008	chr16	28167158	28168333	-	XPO6	0x0
10009	chr16	28180459	28181709	-	XPO6	0x0
10010	chr16	28331893	28333350	+	SBK1	0x0
10011	chr16	28334301	28335420	+	SBK1	0x0
10012	chr16	28394064	28395246	-	EIF3C	0x0
10013	chr16	28394064	28395246	-	EIF3CL	0x0
10014	chr16	28398989	28400130	-	EIF3C	0x0
10015	chr16	28398989	28400130	-	EIF3CL	0x0
10016	chr16	28837678	28838875	+	ATXN2L	0x0
10017	chr16	28842952	28844143	+	ATXN2L	0x0
10018	chr16	28845270	28846451	+	ATXN2L	0x0
10019	chr16	28847224	28848841	+	ATXN2L	0x0
10020	chr16	28883817	28884975	+	SH2B1	0x0
10021	chr16	28974784	28976649	+	NFATC2IP	0x0
10022	chr16	28977051	28978136	+	NFATC2IP	0x0
10023	chr16	28995036	28996151	+	LAT	0x0
10024	chr16	28995036	28996151	+	SPNS1	0x0
10025	chr16	29815671	29816824	+	KIF22	0x0
10026	chr16	29820991	29822821	+	MAZ	0x0
10027	chr16	29830521	29831660	+	C16orf53	0x0
10028	chr16	29869158	29870381	-	CDIPT	0x0
10029	chr16	29998482	29999667	+	TAOK2	0x0
10030	chr16	30002873	30004056	+	TAOK2	0x0
10031	chr16	30015902	30017136	+	INO80E	0x0
10032	chr16	30017175	30018315	+	INO80E	0x0
10033	chr16	30078041	30079488	+	ALDOA	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10034	chr16	30080184	30082273	+	ALDOA	0x0
10035	chr16	30095739	30097111	+	PPP4C	0x0
10036	chr16	30128528	30129653	-	MAPK3	0x0
10037	chr16	30203571	30204829	-	BOLA2	0x0
10038	chr16	30203571	30204829	-	BOLA2B	0x0
10039	chr16	30367976	30369411	-	TBC1D10B	0x0
10040	chr16	30408828	30409986	+	ZNF48	0x0
10041	chr16	30429128	30430359	+	ZNF771	0x0
10042	chr16	30454515	30456723	-	SEPHS2	0x2
10043	chr16	30665616	30666795	-	ZNF689	0x0
10044	chr16	30720659	30721812	+	SRCAP	0x0
10045	chr16	30723145	30724279	+	SRCAP	0x0
10046	chr16	30727173	30728278	+	SRCAP	0x0
10047	chr16	30731676	30732820	+	SRCAP	0x0
10048	chr16	30733115	30734278	+	SRCAP	0x0
10049	chr16	30739778	30741447	+	SRCAP	0x0
10050	chr16	30744094	30745252	+	SRCAP	0x0
10051	chr16	30745329	30746434	+	SRCAP	0x0
10052	chr16	30748054	30750212	+	SRCAP	0x0
10053	chr16	30767750	30768852	+	PHKG2	0x0
10054	chr16	30776962	30778193	+	RNF40	0x0
10055	chr16	30785093	30786284	+	RNF40	0x0
10056	chr16	30932977	30934203	-	FBXL19-AS1	0x0
10057	chr16	30938138	30939291	+	FBXL19	0x0
10058	chr16	30958781	30960183	+	FBXL19	0x0
10059	chr16	30972067	30973167	+	SETD1A	0x0
10060	chr16	30974264	30975429	+	SETD1A	0x0
10061	chr16	30982286	30983404	+	SETD1A	0x0
10062	chr16	30990139	30992013	+	SETD1A	0x0
10063	chr16	31011858	31013078	-	STX1B	0x0
10064	chr16	31072136	31073337	-	ZNF668	0x2
10065	chr16	31088552	31089651	+	ZNF646	0x2
10066	chr16	31199970	31201514	+	FUS	0x2
10067	chr16	31202193	31203352	+	FUS	0x2
10068	chr16	31501059	31502279	-	C16orf58	0x0
10069	chr16	31733443	31734600	+	ZNF720	0x0
10070	chr16	46693198	46694651	-	VPS35	0x0
10071	chr16	46705127	46706276	-	VPS35	0x0
10072	chr16	46712344	46713591	-	VPS35	0x0
10073	chr16	46962713	46964545	+	GPT2	0x0
10074	chr16	46989850	46991552	-	DNAJA2	0x0
10075	chr16	46992740	46993807	-	DNAJA2	0x0
10076	chr16	46998008	46999105	-	DNAJA2	0x0
10077	chr16	47004843	47005974	-	DNAJA2	0x0
10078	chr16	47113108	47114308	-	NETO2	0x0
10079	chr16	47177037	47178588	-	NETO2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10080	chr16	47188732	47189979	-	ITFG1	0x0
10081	chr16	47530800	47531962	+	PHKB	0x0
10082	chr16	47621022	47622192	+	PHKB	0x0
10083	chr16	48394628	48396547	-	SIAH1	0x1
10084	chr16	48572113	48573948	-	N4BP1	0x0
10085	chr16	48574379	48576239	-	N4BP1	0x0
10086	chr16	48594339	48596798	-	N4BP1	0x0
10087	chr16	49311374	49313166	-	CBLN1	0x0
10088	chr16	49384050	49385248	-	CBLN1	0x0
10089	chr16	49669514	49671864	-	ZNF423	0x0
10090	chr16	49672091	49673270	-	ZNF423	0x0
10091	chr16	49887952	49889073	+	CNEP1R1	0x0
10092	chr16	50091215	50092387	-	ZNF423	0x0
10093	chr16	50112243	50113419	+	HEATR3	0x0
10094	chr16	50249403	50250597	+	PAPD5	0x0
10095	chr16	50256633	50257752	+	PAPD5	0x0
10096	chr16	50258515	50259680	+	PAPD5	0x0
10097	chr16	50262677	50265797	+	PAPD5	0x0
10098	chr16	50352513	50353785	-	BRD7	0x1
10099	chr16	51169605	51171281	-	SALL1	0x4
10100	chr16	51173050	51174688	-	SALL1	0x4
10101	chr16	51679697	51681537	+	CYLD	0x1
10102	chr16	52689069	52690359	+	CHD9	0x0
10103	chr16	53162764	53163905	-	LOC643802	0x0
10104	chr16	53189518	53191959	+	CHD9	0x0
10105	chr16	53271818	53272967	+	CHD9	0x0
10106	chr16	53276298	53277464	+	CHD9	0x0
10107	chr16	53283286	53284497	+	CHD9	0x0
10108	chr16	53296382	53297493	+	CHD9	0x0
10109	chr16	53307035	53308234	+	CHD9	0x0
10110	chr16	53330334	53331486	+	CHD9	0x0
10111	chr16	53337270	53338974	+	CHD9	0x0
10112	chr16	53341112	53342315	+	CHD9	0x0
10113	chr16	53343700	53344863	+	CHD9	0x0
10114	chr16	53347836	53348933	+	CHD9	0x0
10115	chr16	53354924	53356097	+	CHD9	0x0
10116	chr16	53360169	53361868	+	CHD9	0x0
10117	chr16	53486927	53488059	+	RBL2	0x1
10118	chr16	53525309	53526833	-	AKTIP	0x2
10119	chr16	53860328	53861458	+	FTO	0x0
10120	chr16	53922247	53923447	+	FTO	0x0
10121	chr16	54003001	54004139	+	FTO	0x0
10122	chr16	54044724	54045901	+	FTO	0x0
10123	chr16	54145970	54147519	+	FTO	0x0
10124	chr16	55525400	55526611	+	MMP2	0x2
10125	chr16	56394687	56396930	-	AMFR	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10126	chr16	56442951	56444243	-	AMFR	0x2
10127	chr16	56465720	56467210	-	NUDT21	0x0
10128	chr16	56467853	56474143	-	NUDT21	0x0
10129	chr16	56484576	56485770	-	NUDT21	0x0
10130	chr16	56510202	56511921	+	OGFOD1	0x0
10131	chr16	56517037	56518733	+	OGFOD1	0x0
10132	chr16	56642774	56643911	+	MT2A	0x0
10133	chr16	56669024	56673110	+	MT1A	0x0
10134	chr16	56669024	56673110	+	MT1JP	0x0
10135	chr16	56682821	56687604	+	MT1B	0x0
10136	chr16	56854911	56856050	+	NUP93	0x0
10137	chr16	56865318	56866588	+	NUP93	0x0
10138	chr16	56976829	56978015	+	HERPUD1	0x2
10139	chr16	57187070	57188331	-	FAM192A	0x0
10140	chr16	57207164	57208351	-	FAM192A	0x0
10141	chr16	57286180	57287711	+	ARL2BP	0x0
10142	chr16	57461908	57463463	-	CIAPIN1	0x0
10143	chr16	57494124	57495653	+	COQ9	0x0
10144	chr16	57601424	57602591	+	GPR114	0x0
10145	chr16	57697120	57698278	+	GPR56	0x0
10146	chr16	57792142	57793338	-	KIFC3	0x0
10147	chr16	57793664	57794895	-	KIFC3	0x0
10148	chr16	57821936	57823123	-	KIFC3	0x0
10149	chr16	58054405	58055547	+	C16orf57	0x4
10150	chr16	58148720	58149821	-	C16orf80	0x0
10151	chr16	58193402	58195578	-	CSNK2A2	0x0
10152	chr16	58196912	58198215	-	CSNK2A2	0x0
10153	chr16	58207782	58209016	-	CSNK2A2	0x0
10154	chr16	58554028	58555360	-	CNOT1	0x2
10155	chr16	58556775	58559619	-	CNOT1	0x2
10156	chr16	58561980	58564700	-	CNOT1	0x2
10157	chr16	58565658	58566811	-	CNOT1	0x2
10158	chr16	58571357	58572680	-	CNOT1	0x2
10159	chr16	58577068	58578223	-	CNOT1	0x2
10160	chr16	58579774	58580916	-	CNOT1	0x2
10161	chr16	58581856	58583106	-	SNORA46	0x0
10162	chr16	58584550	58585618	-	CNOT1	0x2
10163	chr16	58588820	58589912	-	CNOT1	0x2
10164	chr16	58607976	58609135	-	CNOT1	0x2
10165	chr16	58612239	58613382	-	CNOT1	0x2
10166	chr16	58618735	58619839	-	CNOT1	0x2
10167	chr16	58632666	58633875	-	CNOT1	0x2
10168	chr16	58699019	58700110	-	SLC38A7	0x0
10169	chr16	58740834	58742541	-	GOT2	0x0
10170	chr16	61089150	61090369	-	CDH8	0x0
10171	chr16	65021940	65023147	-	CDH11	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10172	chr16	65023365	65024476	-	CDH11	0x1
10173	chr16	65031296	65032475	-	CDH11	0x1
10174	chr16	66650451	66651671	-	CMTM4	0x0
10175	chr16	66755572	66757571	-	DYNC1LI2	0x0
10176	chr16	66919903	66921083	+	PDP2	0x0
10177	chr16	66922143	66923289	+	PDP2	0x0
10178	chr16	67100058	67101249	+	CBFB	0x2
10179	chr16	67115577	67116749	+	CBFB	0x2
10180	chr16	67133083	67135350	+	CBFB	0x2
10181	chr16	67180573	67182899	+	C16orf70	0x0
10182	chr16	67187668	67188880	-	TRADD	0x0
10183	chr16	67231509	67233282	+	E2F4	0x0
10184	chr16	67231509	67233282	+	ELMO3	0x0
10185	chr16	67256219	67257350	-	LRRC29	0x0
10186	chr16	67322319	67323423	+	PLEKHG4	0x0
10187	chr16	67471384	67473533	-	ATP6V0D1	0x0
10188	chr16	67576236	67577390	+	FAM65A	0x0
10189	chr16	67577758	67578970	+	FAM65A	0x0
10190	chr16	67596048	67597162	+	CTCF	0x1
10191	chr16	67662828	67663933	+	CTCF	0x1
10192	chr16	67671443	67673591	+	CTCF	0x1
10193	chr16	67694598	67695727	+	PARD6A	0x0
10194	chr16	67756588	67759773	-	RANBP10	0x0
10195	chr16	67877045	67878406	+	THAP11	0x0
10196	chr16	67910905	67912120	+	EDC4	0x0
10197	chr16	67914310	67915409	+	EDC4	0x0
10198	chr16	67961747	67963590	+	PSKH1	0x0
10199	chr16	67979119	67980292	-	SLC12A4	0x0
10200	chr16	68155410	68156966	+	NFATC3	0x0
10201	chr16	68207776	68208895	+	NFATC3	0x0
10202	chr16	68260115	68261224	+	NFATC3	0x0
10203	chr16	68261323	68263486	+	NFATC3	0x0
10204	chr16	68329519	68330681	+	SLC7A6	0x0
10205	chr16	68379326	68380432	+	PRMT7	0x0
10206	chr16	68731883	68733094	+	CDH3	0x0
10207	chr16	68770674	68771906	+	CDH1	0x1
10208	chr16	68843369	68844698	+	CDH1	0x1
10209	chr16	68867043	68869093	+	CDH1	0x1
10210	chr16	68913921	68915057	+	TMCO7	0x0
10211	chr16	68935708	68936891	+	TMCO7	0x0
10212	chr16	69007359	69008595	+	TMCO7	0x0
10213	chr16	69117701	69119278	+	TMCO7	0x0
10214	chr16	69150099	69151333	+	HAS3	0x0
10215	chr16	69151717	69153289	-	CHTF8	0x0
10216	chr16	69153619	69154863	-	CHTF8	0x0
10217	chr16	69159112	69160256	-	CHTF8	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10218	chr16	69170096	69171308	+	CIRH1A	0x0
10219	chr16	69334661	69335899	+	SNTB2	0x0
10220	chr16	69336805	69338016	+	SNTB2	0x0
10221	chr16	69341379	69342538	+	SNTB2	0x0
10222	chr16	69399975	69401139	-	TERF2	0x0
10223	chr16	69469520	69470686	+	CYB5B	0x0
10224	chr16	69497223	69500324	+	CYB5B	0x0
10225	chr16	69680700	69681848	+	NFAT5	0x0
10226	chr16	69731412	69732665	+	NFAT5	0x0
10227	chr16	69732689	69733897	+	NFAT5	0x0
10228	chr16	69735780	69738225	+	NFAT5	0x0
10229	chr16	69789169	69790596	-	NOB1	0x0
10230	chr16	69790609	69791803	-	NOB1	0x0
10231	chr16	69873513	69874689	+	WWP2	0x0
10232	chr16	69960388	69961552	+	WWP2	0x0
10233	chr16	69973395	69974703	+	WWP2	0x0
10234	chr16	70190680	70191832	+	PDPR	0x0
10235	chr16	70192040	70195142	+	PDPR	0x0
10236	chr16	70285760	70287087	-	AARS	0x0
10237	chr16	70285760	70287087	-	EXOSC6	0x0
10238	chr16	70295763	70296876	-	AARS	0x0
10239	chr16	70298907	70300010	-	AARS	0x0
10240	chr16	70358001	70359069	+	DDX19B	0x0
10241	chr16	70367396	70369848	+	DDX19B	0x0
10242	chr16	70406650	70408088	+	DDX19A	0x0
10243	chr16	70406887	70408114	-	ST3GAL2	0x0
10244	chr16	70512641	70513825	+	FUK	0x2
10245	chr16	70575129	70576214	+	SF3B3	0x0
10246	chr16	70581708	70582820	+	SF3B3	0x0
10247	chr16	70587845	70589050	+	SF3B3	0x0
10248	chr16	70590310	70591489	+	SF3B3	0x0
10249	chr16	70593855	70594984	+	SF3B3	0x0
10250	chr16	70604462	70606447	+	SF3B3	0x0
10251	chr16	70695346	70696466	-	MTSS1L	0x0
10252	chr16	70696679	70697736	-	MTSS1L	0x0
10253	chr16	70698039	70699182	-	MTSS1L	0x0
10254	chr16	70722069	70723306	-	VAC14	0x0
10255	chr16	70726231	70727390	-	VAC14	0x0
10256	chr16	70741894	70743146	-	VAC14	0x0
10257	chr16	71008011	71009155	+	LOC100130894	0x0
10258	chr16	71762966	71765590	-	AP1G1	0x0
10259	chr16	71887798	71889631	+	ATXN1L	0x0
10260	chr16	71961249	71963401	+	IST1	0x0
10261	chr16	72131008	72132215	+	DHX38	0x0
10262	chr16	72138583	72139764	+	DHX38	0x0
10263	chr16	72459380	72460487	-	PMFBP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10264	chr16	72829461	72830668	-	ZFHX3	0x1
10265	chr16	72970683	72971821	-	ZFHX3	0x1
10266	chr16	72992199	72994598	-	ZFHX3	0x1
10267	chr16	72996522	72997674	+	HTA	0x0
10268	chr16	73043490	73044610	-	ZFHX3	0x1
10269	chr16	74339178	74340673	+	PSMD7	0x0
10270	chr16	74481659	74483806	-	GLG1	0x0
10271	chr16	74484334	74485920	-	GLG1	0x0
10272	chr16	74486228	74487363	-	GLG1	0x0
10273	chr16	74516374	74517567	-	GLG1	0x0
10274	chr16	74526318	74527541	-	GLG1	0x0
10275	chr16	74640379	74641493	-	GLG1	0x0
10276	chr16	74661806	74663036	-	RFWD3	0x0
10277	chr16	74907469	74908683	-	WDR59	0x0
10278	chr16	74955321	74956554	-	WDR59	0x0
10279	chr16	75327205	75328407	-	CFDP1	0x0
10280	chr16	75338338	75339571	-	CFDP1	0x0
10281	chr16	75423567	75424765	-	CFDP1	0x0
10282	chr16	75476796	75477935	-	TMEM170A	0x0
10283	chr16	75478293	75479509	-	TMEM170A	0x0
10284	chr16	75532439	75534172	-	CHST6	0x0
10285	chr16	75611124	75612295	+	GABARAPL2	0x0
10286	chr16	75661216	75663098	-	KARS	0x0
10287	chr16	75664503	75665619	-	KARS	0x0
10288	chr16	75669038	75670250	-	KARS	0x0
10289	chr16	76268447	76269961	-	KARS	0x0
10290	chr16	77234335	77236050	+	MON1B	0x0
10291	chr16	78197236	78198322	+	WWOX	0x1
10292	chr16	78316350	78317464	+	WWOX	0x1
10293	chr16	78474725	78475833	+	WWOX	0x1
10294	chr16	78495671	78496863	+	WWOX	0x1
10295	chr16	78522581	78523709	+	WWOX	0x1
10296	chr16	78576494	78577658	+	WWOX	0x1
10297	chr16	78616748	78617897	+	WWOX	0x1
10298	chr16	78674925	78676233	+	WWOX	0x1
10299	chr16	78685379	78686837	+	WWOX	0x1
10300	chr16	78689170	78690305	+	WWOX	0x1
10301	chr16	78783077	78784219	+	WWOX	0x1
10302	chr16	78788158	78789275	+	WWOX	0x1
10303	chr16	78964962	78966102	+	WWOX	0x1
10304	chr16	80632928	80634160	-	CDYL2	0x0
10305	chr16	80634384	80635439	-	CDYL2	0x0
10306	chr16	80654107	80655308	-	CDYL2	0x0
10307	chr16	80718083	80719208	-	CDYL2	0x0
10308	chr16	80755755	80756886	-	CDYL2	0x0
10309	chr16	81076620	81077703	+	ATMIN	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10310	chr16	81078374	81081229	+	ATMIN	0x0
10311	chr16	81418395	81419643	+	MIR4720	0x0
10312	chr16	81503415	81504657	+	CMIP	0x0
10313	chr16	81507233	81508551	+	CMIP	0x0
10314	chr16	81530782	81531938	+	CMIP	0x0
10315	chr16	81666274	81667433	+	CMIP	0x0
10316	chr16	81711445	81712644	+	CMIP	0x0
10317	chr16	81743345	81744816	+	CMIP	0x0
10318	chr16	81922315	81923551	+	PLCG2	0x2
10319	chr16	81941562	81942678	+	PLCG2	0x2
10320	chr16	81991263	81992431	+	PLCG2	0x2
10321	chr16	83844520	83846648	+	HSBP1	0x0
10322	chr16	84004609	84005770	+	NECAB2	0x0
10323	chr16	84086988	84088164	-	MBTPS1	0x0
10324	chr16	84096435	84097561	-	MBTPS1	0x0
10325	chr16	84099578	84100682	-	MBTPS1	0x0
10326	chr16	84124808	84125942	-	MBTPS1	0x0
10327	chr16	84128780	84129926	-	MBTPS1	0x0
10328	chr16	84134998	84136206	-	MBTPS1	0x0
10329	chr16	84137709	84138777	-	MBTPS1	0x0
10330	chr16	84156253	84158220	-	HSDL1	0x0
10331	chr16	84213529	84214733	-	TAF1C	0x0
10332	chr16	84598694	84600463	-	COTL1	0x0
10333	chr16	84778175	84779509	+	USP10	0x0
10334	chr16	84812087	84813961	+	USP10	0x0
10335	chr16	85007914	85009828	-	ZDHHC7	0x0
10336	chr16	85688869	85690592	+	KIAA0182	0x0
10337	chr16	85705704	85707091	+	KIAA0182	0x0
10338	chr16	85708192	85709764	+	KIAA0182	0x0
10339	chr16	85740903	85742203	-	C16orf74	0x0
10340	chr16	85812555	85813995	-	COX4NB	0x0
10341	chr16	85838004	85839213	+	COX4I1	0x0
10342	chr16	85839845	85841077	+	COX4I1	0x0
10343	chr16	87442017	87443777	-	ZCCHC14	0x0
10344	chr16	87453673	87454868	-	ZCCHC14	0x0
10345	chr16	87741469	87742659	-	KLHDC4	0x0
10346	chr16	87865849	87866867	-	SLC7A5	0x0
10347	chr16	87902300	87903498	-	SLC7A5	0x0
10348	chr16	88008125	88009364	+	BANP	0x1
10349	chr16	88643542	88654482	+	ZC3H18	0x0
10350	chr16	88697139	88698893	+	ZC3H18	0x0
10351	chr16	88718243	88719461	-	MVD	0x0
10352	chr16	88731074	88732289	+	MGC23284	0x0
10353	chr16	88762899	88764092	-	RNF166	0x0
10354	chr16	88775828	88777044	+	CTU2	0x0
10355	chr16	88785554	88786658	-	PIEZO1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10356	chr16	88799386	88800521	-	PIEZO1	0x0
10357	chr16	88800559	88801653	-	PIEZO1	0x0
10358	chr16	88802074	88803172	-	PIEZO1	0x0
10359	chr16	88871430	88873921	+	CDT1	0x0
10360	chr16	88878617	88880026	-	GALNS	0x2
10361	chr16	89333985	89335338	-	ANKRD11	0x0
10362	chr16	89340985	89342089	-	ANKRD11	0x0
10363	chr16	89346443	89348669	-	ANKRD11	0x0
10364	chr16	89349645	89350942	-	ANKRD11	0x0
10365	chr16	89353029	89354354	-	ANKRD11	0x0
10366	chr16	89554911	89556018	-	ANKRD11	0x0
10367	chr16	89628924	89629970	+	RPL13	0x0
10368	chr16	89715299	89716433	-	CHMP1A	0x0
10369	chr16	89756486	89758410	+	CDK10	0x0
10370	chr16	89808608	89809903	-	FANCA	0x2
10371	chr16	89815523	89816775	-	FANCA	0x2
10372	chr16	89861809	89862972	-	FANCA	0x2
10373	chr16	89949291	89950394	+	TCF25	0x0
10374	chr16	89961894	89962993	+	TCF25	0x0
10375	chr16	89964658	89965827	+	TCF25	0x0
10376	chr16	90020186	90021304	+	DEF8	0x0
10377	chr16	90032373	90034516	+	DEF8	0x0
10378	chr16	90066373	90067472	+	AFG3L1P	0x0
10379	chr16	90103120	90104309	+	GAS8	0x0
10380	chr17	644779	645897	-	GEMIN4	0x0
10381	chr17	648267	649478	-	GEMIN4	0x0
10382	chr17	1247318	1249036	-	YWHAE	0x2
10383	chr17	1263933	1265839	-	YWHAE	0x2
10384	chr17	1267702	1268809	-	YWHAE	0x2
10385	chr17	1325437	1326870	-	CRK	0x0
10386	chr17	1367361	1369195	-	MYO1C	0x0
10387	chr17	1422147	1424313	-	PITPNA	0x0
10388	chr17	1553385	1555590	-	PRPF8	0x2
10389	chr17	1553385	1555590	-	RILP	0x0
10390	chr17	1558168	1559355	-	PRPF8	0x2
10391	chr17	1559450	1560549	-	PRPF8	0x2
10392	chr17	1562645	1563778	-	PRPF8	0x2
10393	chr17	1564364	1565555	-	PRPF8	0x2
10394	chr17	1575933	1577012	-	PRPF8	0x2
10395	chr17	1577195	1580460	-	PRPF8	0x2
10396	chr17	1581303	1582422	-	PRPF8	0x2
10397	chr17	1703453	1704626	-	SMYD4	0x1
10398	chr17	1782104	1783263	+	RPA1	0x0
10399	chr17	1799829	1801699	+	RPA1	0x0
10400	chr17	1905012	1906665	-	RTN4RL1	0x0
10401	chr17	2075407	2076609	-	SMG6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10402	chr17	2139224	2140386	-	SMG6	0x0
10403	chr17	2146732	2147962	-	SMG6	0x0
10404	chr17	2185404	2186601	-	SMG6	0x0
10405	chr17	2200695	2204415	-	SMG6	0x0
10406	chr17	2282448	2284279	+	SGSM2	0x0
10407	chr17	2286997	2288220	-	MNT	0x0
10408	chr17	2288260	2291445	-	MNT	0x0
10409	chr17	2322751	2323906	-	METTL16	0x0
10410	chr17	2576929	2578028	+	PAFAH1B1	0x1
10411	chr17	2582983	2584104	+	PAFAH1B1	0x1
10412	chr17	2584897	2589156	+	PAFAH1B1	0x1
10413	chr17	2596693	2597815	-	KIAA0664	0x2
10414	chr17	2937952	2939700	+	RAP1GAP2	0x0
10415	chr17	3627441	3628632	+	GSG2	0x0
10416	chr17	3713220	3714470	-	C17orf85	0x0
10417	chr17	3715126	3716479	-	C17orf85	0x0
10418	chr17	3826795	3827956	-	ATP2A3	0x0
10419	chr17	3988367	3989512	-	ZZEF1	0x2
10420	chr17	4066923	4070427	-	ANKFY1	0x0
10421	chr17	4172871	4174918	-	UBE2G1	0x0
10422	chr17	4440447	4441666	+	SPNS2	0x0
10423	chr17	4445217	4446538	-	MYBBP1A	0x1
10424	chr17	4447324	4449183	-	MYBBP1A	0x1
10425	chr17	4454881	4456146	-	MYBBP1A	0x1
10426	chr17	4456613	4457712	-	MYBBP1A	0x1
10427	chr17	4494832	4496304	+	SMTNL2	0x0
10428	chr17	4499944	4501154	+	SMTNL2	0x0
10429	chr17	4510800	4512776	+	SMTNL2	0x0
10430	chr17	4513577	4514731	+	SMTNL2	0x0
10431	chr17	4575342	4577223	-	PELP1	0x0
10432	chr17	4577910	4579026	-	PELP1	0x0
10433	chr17	4579124	4580328	-	PELP1	0x0
10434	chr17	4623779	4624915	+	ARRB2	0x0
10435	chr17	4635970	4637173	+	MED11	0x0
10436	chr17	4848493	4850679	-	PFN1	0x1
10437	chr17	4851059	4852164	-	PFN1	0x1
10438	chr17	4882892	4884097	-	CAMTA2	0x0
10439	chr17	4884517	4885654	-	CAMTA2	0x0
10440	chr17	4923290	4924450	+	KIF1C	0x2
10441	chr17	5240801	5241983	+	RABEP1	0x2
10442	chr17	5266475	5267721	+	RABEP1	0x2
10443	chr17	5286058	5287267	+	RABEP1	0x2
10444	chr17	5287851	5289629	+	RABEP1	0x2
10445	chr17	5335644	5336956	-	C1QBP	0x0
10446	chr17	5341769	5342967	-	C1QBP	0x0
10447	chr17	5345228	5346413	-	DHX33	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10448	chr17	5346769	5348039	-	DHX33	0x0
10449	chr17	5375260	5376472	-	DERL2	0x0
10450	chr17	6023947	6025147	+	WSCD1	0x0
10451	chr17	6350443	6351576	+	FAM64A	0x0
10452	chr17	6353332	6354653	+	FAM64A	0x0
10453	chr17	6542195	6543412	-	KIAA0753	0x0
10454	chr17	6917114	6918366	+	C17orf49	0x0
10455	chr17	6917114	6918366	+	RNASEK	0x0
10456	chr17	6917114	6918366	+	RNASEK-C17ORF49	0x0
10457	chr17	7138534	7139706	-	PHF23	0x0
10458	chr17	7143596	7144737	-	GABARAP	0x1
10459	chr17	7145500	7147659	-	CTDNEP1	0x2
10460	chr17	7145500	7147659	-	GABARAP	0x1
10461	chr17	7193849	7195018	-	YBX2	0x0
10462	chr17	7212408	7213519	+	EIF5A	0x2
10463	chr17	7214646	7216214	+	EIF5A	0x2
10464	chr17	7218584	7219832	-	GPS2	0x2
10465	chr17	7218584	7219832	-	NEURL4	0x0
10466	chr17	7309281	7310499	+	NLGN2	0x0
10467	chr17	7317162	7318655	+	NLGN2	0x0
10468	chr17	7320392	7323611	+	NLGN2	0x0
10469	chr17	7404855	7406058	+	POLR2A	0x0
10470	chr17	7414303	7415406	+	POLR2A	0x0
10471	chr17	7417098	7418316	+	POLR2A	0x0
10472	chr17	7468344	7470769	+	SENP3	0x0
10473	chr17	7468344	7470769	+	SENP3-EIF4A1	0x0
10474	chr17	7479618	7482290	+	EIF4A1	0x0
10475	chr17	7479618	7482290	+	SENP3-EIF4A1	0x0
10476	chr17	7479618	7482290	+	SNORA67	0x0
10477	chr17	7479618	7482290	+	SNORD10	0x0
10478	chr17	7490608	7492092	+	MPDU1	0x0
10479	chr17	7494055	7496427	-	FXR2	0x0
10480	chr17	7556199	7557410	+	ATP1B2	0x0
10481	chr17	7571320	7572840	-	TP53	0x1
10482	chr17	7576490	7577641	-	TP53	0x1
10483	chr17	7682131	7683302	+	DNAH2	0x0
10484	chr17	7742128	7743314	+	KDM6B	0x0
10485	chr17	7748058	7749508	+	KDM6B	0x0
10486	chr17	7749743	7750842	+	KDM6B	0x0
10487	chr17	7754383	7756994	+	KDM6B	0x0
10488	chr17	7757008	7759101	+	KDM6B	0x0
10489	chr17	7757008	7759101	+	TMEM88	0x4
10490	chr17	7764619	7765682	+	CYB5D1	0x0
10491	chr17	7797793	7798978	+	CHD3	0x2
10492	chr17	7806067	7807759	+	CHD3	0x2
10493	chr17	7809952	7811051	+	CHD3	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10494	chr17	7815289	7816409	+	CHD3	0x2
10495	chr17	8064400	8065624	-	VAMP2	0x0
10496	chr17	8113036	8114264	-	AURKB	0x0
10497	chr17	8134085	8135288	-	CTC1	0x0
10498	chr17	8138619	8139737	-	CTC1	0x0
10499	chr17	8169201	8170519	+	PFAS	0x0
10500	chr17	8171863	8173041	+	PFAS	0x0
10501	chr17	8191550	8192833	+	RANGRF	0x0
10502	chr17	8221629	8222941	+	ARHGEF15	0x0
10503	chr17	8280278	8281483	-	RPL26	0x0
10504	chr17	8370236	8371434	+	NDEL1	0x0
10505	chr17	8377158	8379407	-	MYH10	0x0
10506	chr17	8932195	8933437	+	NTN1	0x0
10507	chr17	9143226	9144391	+	NTN1	0x0
10508	chr17	9145590	9146862	+	NTN1	0x0
10509	chr17	9233610	9234764	-	STX8	0x0
10510	chr17	9818219	9819444	-	GAS7	0x2
10511	chr17	10080409	10081603	-	GAS7	0x2
10512	chr17	10578259	10579446	-	SCO1	0x0
10513	chr17	11998405	11999558	+	MAP2K4	0x1
10514	chr17	12044296	12047400	+	MAP2K4	0x1
10515	chr17	12698073	12699212	+	ARHGAP44	0x0
10516	chr17	12757957	12759259	+	ARHGAP44	0x0
10517	chr17	12894136	12895415	+	ARHGAP44	0x0
10518	chr17	12898694	12899849	-	ELAC2	0x0
10519	chr17	14251118	14252324	+	HS3ST3B1	0x0
10520	chr17	15340661	15341832	-	CDRT4	0x0
10521	chr17	15340661	15341832	-	FAM18B2-CDRT4	0x0
10522	chr17	15440157	15441961	-	FAM18B2	0x0
10523	chr17	15457506	15458654	-	FAM18B2	0x0
10524	chr17	15457506	15458654	-	FAM18B2-CDRT4	0x0
10525	chr17	15558888	15560085	-	TRIM16	0x0
10526	chr17	15607281	15608512	-	TRIM16	0x0
10527	chr17	15932306	15935380	-	NCOR1	0x2
10528	chr17	15951670	15952810	-	NCOR1	0x2
10529	chr17	15972980	15974170	-	NCOR1	0x2
10530	chr17	16004031	16005277	-	NCOR1	0x2
10531	chr17	16041761	16042954	-	NCOR1	0x2
10532	chr17	16089336	16090484	-	NCOR1	0x2
10533	chr17	16245272	16246515	-	CENPV	0x0
10534	chr17	17286213	17287429	-	COPS3	0x2
10535	chr17	17683279	17684417	+	RAI1	0x0
10536	chr17	17685287	17686652	+	RAI1	0x0
10537	chr17	17698302	17699425	+	RAI1	0x0
10538	chr17	17714888	17716227	-	SREBF1	0x0
10539	chr17	17721745	17722945	-	SREBF1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10540	chr17	17874096	17875234	-	TOM1L2	0x0
10541	chr17	17956931	17958196	+	C17orf39	0x0
10542	chr17	17961660	17962843	+	C17orf39	0x0
10543	chr17	17968177	17972228	+	C17orf39	0x0
10544	chr17	18087339	18088910	+	ALKBH5	0x0
10545	chr17	18111381	18113527	+	ALKBH5	0x0
10546	chr17	18113709	18115036	+	ALKBH5	0x0
10547	chr17	18115971	18117412	+	ALKBH5	0x0
10548	chr17	18118329	18119463	+	ALKBH5	0x0
10549	chr17	18147384	18148634	+	LLGL1	0x2
10550	chr17	18154093	18155227	-	FLII	0x0
10551	chr17	18227794	18229271	+	SMCR8	0x0
10552	chr17	18230735	18231836	+	SMCR8	0x0
10553	chr17	18231198	18232578	-	SHMT1	0x0
10554	chr17	18233348	18234495	-	SHMT1	0x0
10555	chr17	18831682	18834421	+	PRPSAP2	0x0
10556	chr17	18893675	18894941	-	FAM83G	0x0
10557	chr17	18902619	18903838	-	FAM83G	0x0
10558	chr17	19215842	19217023	+	EPN2	0x0
10559	chr17	19237785	19238885	+	EPN2	0x0
10560	chr17	19284298	19285517	+	MAPK7	0x0
10561	chr17	19348750	19350391	-	MFAP4	0x0
10562	chr17	19579611	19581164	+	ALDH3A2	0x0
10563	chr17	19802515	19803824	-	AKAP10	0x0
10564	chr17	19807145	19808296	-	AKAP10	0x0
10565	chr17	19834624	19835758	-	AKAP10	0x0
10566	chr17	19860970	19862184	-	AKAP10	0x0
10567	chr17	20182682	20183887	+	SPECC1	0x0
10568	chr17	20385839	20387220	-	LGALS9B	0x0
10569	chr17	20904530	20905889	-	USP22	0x0
10570	chr17	21095434	21096543	-	TMEM11	0x0
10571	chr17	21100773	21101953	-	TMEM11	0x0
10572	chr17	21319003	21320192	+	KCNJ12	0x2
10573	chr17	21319003	21320192	+	KCNJ18	0x0
10574	chr17	25951885	25953127	+	KSR1	0x2
10575	chr17	26521170	26523655	+	NLK	0x0
10576	chr17	26645720	26646848	+	TMEM97	0x0
10577	chr17	26654220	26656052	+	TMEM97	0x0
10578	chr17	26672336	26674393	+	TNFAIP1	0x0
10579	chr17	26673626	26675653	-	POLDIP2	0x0
10580	chr17	26680918	26682140	-	POLDIP2	0x0
10581	chr17	26688376	26689641	+	TMEM199	0x0
10582	chr17	26723342	26724582	+	SARM1	0x0
10583	chr17	26794346	26795509	+	SLC13A2	0x0
10584	chr17	26873216	26874482	-	UNC119	0x0
10585	chr17	26880239	26881481	-	PIGS	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10586	chr17	26887876	26889099	-	PIGS	0x0
10587	chr17	26940978	26942678	-	KIAA0100	0x0
10588	chr17	26940978	26942678	-	SGK494	0x0
10589	chr17	26943062	26944245	-	KIAA0100	0x0
10590	chr17	26945249	26946425	-	KIAA0100	0x0
10591	chr17	26946987	26948082	-	KIAA0100	0x0
10592	chr17	26950776	26951875	-	KIAA0100	0x0
10593	chr17	26954921	26956056	-	KIAA0100	0x0
10594	chr17	26959382	26962881	-	KIAA0100	0x0
10595	chr17	26964349	26965976	-	KIAA0100	0x0
10596	chr17	26968474	26969664	-	KIAA0100	0x0
10597	chr17	27028214	27029679	+	SUPT6H	0x0
10598	chr17	27040828	27041980	-	RAB34	0x0
10599	chr17	27046502	27048248	+	RPL23A	0x0
10600	chr17	27046502	27048248	+	SNORD42B	0x0
10601	chr17	27074714	27075942	+	TRAF4	0x0
10602	chr17	27205934	27207774	-	FLOT2	0x0
10603	chr17	27209613	27210809	-	FLOT2	0x0
10604	chr17	27245567	27246799	-	PHF12	0x0
10605	chr17	27250304	27251485	-	PHF12	0x0
10606	chr17	27402177	27403400	-	TIAF1	0x0
10607	chr17	27413952	27415140	-	MYO18A	0x0
10608	chr17	27417286	27418399	-	MYO18A	0x0
10609	chr17	27583101	27584315	-	NUFIP2	0x0
10610	chr17	27584714	27585797	-	NUFIP2	0x0
10611	chr17	27587072	27589074	-	NUFIP2	0x0
10612	chr17	27589876	27591241	-	NUFIP2	0x0
10613	chr17	27612844	27614398	-	NUFIP2	0x0
10614	chr17	27870038	27871983	+	TAOK1	0x0
10615	chr17	27872404	27875650	+	TAOK1	0x0
10616	chr17	27875656	27876880	+	TAOK1	0x0
10617	chr17	27900029	27902396	-	GIT1	0x0
10618	chr17	27904735	27905993	-	GIT1	0x0
10619	chr17	27915389	27916605	-	GIT1	0x0
10620	chr17	27953605	27954737	-	SSH2	0x0
10621	chr17	28574684	28576455	-	BLMH	0x0
10622	chr17	28791624	28793128	+	CPD	0x2
10623	chr17	28793874	28795508	+	CPD	0x2
10624	chr17	28851433	28852686	+	GOSR1	0x0
10625	chr17	29120039	29121193	-	CRLF3	0x0
10626	chr17	29283706	29285564	+	ADAP2	0x0
10627	chr17	29559582	29560760	+	NF1	0x1
10628	chr17	29663958	29665090	+	NF1	0x1
10629	chr17	29701836	29704534	+	NF1	0x1
10630	chr17	29760495	29761665	+	RAB11FIP4	0x0
10631	chr17	29859605	29861786	+	RAB11FIP4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10632	chr17	29861901	29863414	+	MIR4724	0x0
10633	chr17	29861901	29863414	+	RAB11FIP4	0x0
10634	chr17	29863581	29865481	+	RAB11FIP4	0x0
10635	chr17	29887004	29888210	+	MIR193A	0x0
10636	chr17	30151995	30153192	-	C17orf79	0x0
10637	chr17	30189859	30191051	-	UTP6	0x0
10638	chr17	30199907	30201058	-	UTP6	0x0
10639	chr17	30224339	30225547	-	UTP6	0x0
10640	chr17	30228015	30229166	-	UTP6	0x0
10641	chr17	30264412	30265555	+	SUZ12	0x2
10642	chr17	30325598	30328313	+	SUZ12	0x2
10643	chr17	30520465	30521809	+	RHOT1	0x0
10644	chr17	30551350	30552990	+	RHOT1	0x0
10645	chr17	30696348	30697944	+	ZNF207	0x0
10646	chr17	30699332	30700473	+	ZNF207	0x0
10647	chr17	30795512	30796724	+	PSMD11	0x0
10648	chr17	30807168	30809733	+	PSMD11	0x0
10649	chr17	31189402	31190607	-	MYO1D	0x0
10650	chr17	31267289	31268470	+	TMEM98	0x0
10651	chr17	31541467	31542677	-	ACCN1	0x0
10652	chr17	33333514	33335010	+	LIG3	0x0
10653	chr17	33934589	33935846	+	AP2B1	0x0
10654	chr17	33954160	33955259	+	AP2B1	0x0
10655	chr17	33966061	33967332	+	AP2B1	0x0
10656	chr17	33998298	33999465	+	AP2B1	0x0
10657	chr17	34050204	34053911	+	AP2B1	0x0
10658	chr17	34160477	34161653	+	TAF15	0x0
10659	chr17	34244681	34245980	-	RDM1	0x0
10660	chr17	34945669	34946822	+	GGNBP2	0x1
10661	chr17	34957631	34958818	+	MRM1	0x0
10662	chr17	35441960	35443432	-	ACACA	0x0
10663	chr17	35590485	35591636	-	ACACA	0x0
10664	chr17	35686558	35687879	-	ACACA	0x0
10665	chr17	35825417	35826623	+	TADA2A	0x2
10666	chr17	35833468	35834864	+	TADA2A	0x2
10667	chr17	35836524	35838767	+	TADA2A	0x2
10668	chr17	35875950	35877217	-	SYNRG	0x0
10669	chr17	35973280	35974455	-	DDX52	0x0
10670	chr17	36353148	36354352	-	LOC440434	0x0
10671	chr17	36558638	36561037	+	SOCS7	0x0
10672	chr17	36621872	36623781	+	ARHGAP23	0x0
10673	chr17	36667492	36668727	+	ARHGAP23	0x0
10674	chr17	36685861	36687028	-	SRCIN1	0x0
10675	chr17	36717800	36718995	-	SRCIN1	0x0
10676	chr17	36828157	36831654	-	C17orf96	0x0
10677	chr17	36864030	36865263	+	MLLT6	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10678	chr17	36871409	36872552	+	MLLT6	0x2
10679	chr17	36873246	36874405	+	MLLT6	0x2
10680	chr17	36881872	36885238	+	MLLT6	0x2
10681	chr17	36895256	36896476	-	PCGF2	0x1
10682	chr17	36918091	36919263	+	PSMB3	0x0
10683	chr17	36921565	36923679	-	PIP4K2B	0x0
10684	chr17	36924491	36925708	-	PIP4K2B	0x0
10685	chr17	36933358	36934550	-	PIP4K2B	0x0
10686	chr17	37075249	37076353	+	LASP1	0x2
10687	chr17	37076615	37078267	+	LASP1	0x2
10688	chr17	37366293	37367389	-	STAC2	0x0
10689	chr17	37409771	37411392	-	FBXL20	0x0
10690	chr17	37413581	37414810	-	FBXL20	0x0
10691	chr17	37561011	37562182	-	MED1	0x2
10692	chr17	37565901	37567078	-	MED1	0x2
10693	chr17	37578947	37580178	-	MED1	0x2
10694	chr17	37618014	37619254	+	CDK12	0x2
10695	chr17	37688217	37690239	+	CDK12	0x2
10696	chr17	37884945	37886152	-	MIEN1	0x0
10697	chr17	37885351	37887032	+	ERBB2	0x2
10698	chr17	38077706	38079363	-	ORMDL3	0x0
10699	chr17	38153318	38154734	+	PSMD3	0x0
10700	chr17	38177663	38178853	-	MED24	0x0
10701	chr17	38289242	38291695	+	MSL1	0x0
10702	chr17	38326340	38328954	+	CASC3	0x0
10703	chr17	38435661	38436854	+	WIPF2	0x0
10704	chr17	38436966	38438791	+	WIPF2	0x0
10705	chr17	38544246	38545927	-	TOP2A	0x0
10706	chr17	38547962	38549132	-	TOP2A	0x0
10707	chr17	38556708	38557862	-	TOP2A	0x0
10708	chr17	38567072	38568387	-	TOP2A	0x0
10709	chr17	38569213	38570421	-	TOP2A	0x0
10710	chr17	39845903	39848366	+	EIF1	0x1
10711	chr17	39878399	39880145	-	HAP1	0x0
10712	chr17	39911103	39912219	-	JUP	0x1
10713	chr17	39925248	39926455	-	JUP	0x1
10714	chr17	40005097	40007015	-	KLHL11	0x0
10715	chr17	40008216	40010525	-	KLHL11	0x0
10716	chr17	40022669	40024315	-	ACLY	0x0
10717	chr17	40027458	40028875	-	ACLY	0x0
10718	chr17	40065260	40066428	-	ACLY	0x0
10719	chr17	40125906	40127712	+	CNP	0x0
10720	chr17	40133374	40134996	-	DNAJC7	0x0
10721	chr17	40175609	40177321	+	NKIRAS2	0x0
10722	chr17	40195346	40197211	+	NKIRAS2	0x0
10723	chr17	40271689	40272895	-	KAT2A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10724	chr17	40276498	40278256	-	RAB5C	0x0
10725	chr17	40281357	40282668	-	RAB5C	0x0
10726	chr17	40351288	40352579	-	STAT5B	0x0
10727	chr17	40466118	40467250	-	STAT3	0x2
10728	chr17	40713625	40714772	+	COASY	0x0
10729	chr17	40731981	40733148	-	FAM134C	0x0
10730	chr17	40852462	40854073	-	EZH1	0x0
10731	chr17	40961594	40962869	-	BECN1	0x1
10732	chr17	40993277	40995746	+	PSME3	0x0
10733	chr17	41166274	41168116	-	VAT1	0x0
10734	chr17	41179876	41181081	+	RND2	0x0
10735	chr17	41195915	41197674	-	BRCA1	0x1
10736	chr17	41244891	41246064	-	BRCA1	0x1
10737	chr17	41344859	41346090	+	NBR1	0x0
10738	chr17	41361681	41363937	+	NBR1	0x0
10739	chr17	41361681	41363937	+	TMEM106A	0x0
10740	chr17	41605173	41606350	-	ETV4	0x2
10741	chr17	41845204	41846394	-	DUSP3	0x0
10742	chr17	42111600	42113758	-	LSM12	0x0
10743	chr17	42157201	42158432	-	HDAC5	0x0
10744	chr17	42160307	42161558	-	HDAC5	0x0
10745	chr17	42168440	42169725	-	HDAC5	0x0
10746	chr17	42239032	42240316	+	C17orf53	0x0
10747	chr17	42254460	42255625	+	ASB16	0x0
10748	chr17	42268814	42271065	-	ATXN7L3	0x0
10749	chr17	42282167	42284169	-	UBTF	0x0
10750	chr17	42291298	42292508	-	UBTF	0x0
10751	chr17	42296092	42297305	+	TMUB2	0x2
10752	chr17	42389902	42391141	+	RUNDC3A	0x0
10753	chr17	42396532	42399400	-	SLC25A39	0x0
10754	chr17	42400289	42401476	-	SLC25A39	0x0
10755	chr17	42425939	42427136	+	GRN	0x0
10756	chr17	42427897	42430889	+	GRN	0x0
10757	chr17	42472311	42473448	-	GPATCH8	0x0
10758	chr17	42754690	42755905	-	CCDC43	0x0
10759	chr17	42879037	42880277	-	GJC1	0x0
10760	chr17	42881256	42882875	-	GJC1	0x0
10761	chr17	42960287	42961531	-	EFTUD2	0x0
10762	chr17	43012447	43013700	-	KIF18B	0x0
10763	chr17	43100239	43102053	-	DCAKD	0x0
10764	chr17	43182742	43186798	+	NMT1	0x0
10765	chr17	43225510	43228147	+	HEXIM1	0x0
10766	chr17	43347920	43349051	-	MAP3K14	0x0
10767	chr17	43393081	43394293	-	MAP3K14	0x0
10768	chr17	43471010	43472864	-	ARHGAP27	0x0
10769	chr17	43513333	43514565	-	PLEKHM1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10770	chr17	43992868	43997852	+	MAPT-IT1	0x0
10771	chr17	44046041	44049474	-	KANSL1	0x0
10772	chr17	44049473	44050620	+	MAPT	0x0
10773	chr17	44101435	44104513	+	MAPT	0x0
10774	chr17	44104599	44106028	+	MAPT	0x0
10775	chr17	44107624	44109189	-	KANSL1	0x0
10776	chr17	44127361	44128550	-	KANSL1	0x0
10777	chr17	44143287	44144601	-	KANSL1	0x0
10778	chr17	44171443	44172671	-	KANSL1	0x0
10779	chr17	44247699	44250118	-	KANSL1	0x0
10780	chr17	44771336	44772484	+	NSF	0x0
10781	chr17	44781551	44782784	+	NSF	0x0
10782	chr17	44832644	44834474	+	NSF	0x0
10783	chr17	45017041	45018842	+	GOSR2	0x0
10784	chr17	45196630	45198804	-	CDC27	0x2
10785	chr17	45218684	45219873	-	CDC27	0x2
10786	chr17	45246707	45247938	-	CDC27	0x2
10787	chr17	45334780	45335962	+	ITGB3	0x1
10788	chr17	45389536	45390671	+	ITGB3	0x1
10789	chr17	45673190	45674350	+	NPEPPS	0x0
10790	chr17	45682196	45683380	+	NPEPPS	0x0
10791	chr17	45698996	45701180	+	NPEPPS	0x0
10792	chr17	45729562	45730733	+	KPNB1	0x0
10793	chr17	45745032	45746274	+	KPNB1	0x0
10794	chr17	45746567	45747666	+	KPNB1	0x0
10795	chr17	45749852	45751141	+	KPNB1	0x0
10796	chr17	45757471	45758561	+	KPNB1	0x0
10797	chr17	45759251	45763166	+	KPNB1	0x0
10798	chr17	45788345	45789793	+	TBKBP1	0x0
10799	chr17	45900390	45901779	-	MRPL10	0x0
10800	chr17	46023766	46024872	+	PNPO	0x0
10801	chr17	46133256	46134437	+	NFE2L1	0x0
10802	chr17	46136747	46138885	+	NFE2L1	0x0
10803	chr17	46147425	46149203	-	CBX1	0x0
10804	chr17	46950008	46951203	+	CALCOCO2	0x0
10805	chr17	46951584	46952960	+	CALCOCO2	0x0
10806	chr17	47004293	47006948	+	UBE2Z	0x0
10807	chr17	47010230	47011916	-	SNF8	0x0
10808	chr17	47127185	47133976	+	IGF2BP1	0x0
10809	chr17	47366121	47367820	-	ZNF652	0x0
10810	chr17	47368135	47371061	-	ZNF652	0x0
10811	chr17	47371933	47375184	-	ZNF652	0x0
10812	chr17	47393484	47395033	-	ZNF652	0x0
10813	chr17	47480938	47482996	-	PHB	0x1
10814	chr17	47484853	47486810	-	PHB	0x1
10815	chr17	47501454	47502653	-	PHB	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10816	chr17	47589974	47592422	+	NGFR	0x1
10817	chr17	47676096	47677362	-	SPOP	0x2
10818	chr17	47688132	47689301	-	SPOP	0x2
10819	chr17	47866710	47867935	+	KAT7	0x0
10820	chr17	47894698	47895892	+	KAT7	0x0
10821	chr17	47904495	47906704	+	KAT7	0x0
10822	chr17	48164528	48165699	+	ITGA3	0x0
10823	chr17	48166456	48168181	+	ITGA3	0x0
10824	chr17	48210577	48212857	-	PPP1R9B	0x0
10825	chr17	48266631	48267836	-	COL1A1	0x2
10826	chr17	48276082	48277238	-	COL1A1	0x2
10827	chr17	48430774	48431999	+	XYLT2	0x0
10828	chr17	48439167	48440389	+	XYLT2	0x0
10829	chr17	48458318	48460803	-	LRRC59	0x0
10830	chr17	48462077	48463104	-	LRRC59	0x0
10831	chr17	48770347	48772872	-	ANKRD40	0x0
10832	chr17	48773799	48774994	-	ANKRD40	0x0
10833	chr17	48823471	48824580	+	LUC7L3	0x0
10834	chr17	48828670	48830578	+	LUC7L3	0x0
10835	chr17	49040242	49041961	-	SPAG9	0x0
10836	chr17	49042311	49043639	-	SPAG9	0x0
10837	chr17	49238580	49239921	+	NME1	0x1
10838	chr17	49238580	49239921	+	NME1-NME2	0x0
10839	chr17	49254409	49257640	-	MBTD1	0x0
10840	chr17	49279554	49281758	-	MBTD1	0x0
10841	chr17	49301902	49303110	-	MBTD1	0x0
10842	chr17	53049799	53050988	+	STXBP4	0x0
10843	chr17	53108052	53109259	+	STXBP4	0x0
10844	chr17	53239598	53240731	+	STXBP4	0x0
10845	chr17	53470059	53471630	-	MMD	0x0
10846	chr17	54924776	54925950	+	DGKE	0x0
10847	chr17	54964736	54967804	-	TRIM25	0x0
10848	chr17	55015230	55017040	-	COIL	0x0
10849	chr17	55026698	55027904	-	COIL	0x0
10850	chr17	55176194	55177402	+	AKAP1	0x0
10851	chr17	55182689	55183789	+	AKAP1	0x0
10852	chr17	55183940	55185039	+	AKAP1	0x0
10853	chr17	55187788	55190547	+	AKAP1	0x0
10854	chr17	55191343	55192508	+	AKAP1	0x0
10855	chr17	55656152	55657332	+	MSI2	0x0
10856	chr17	55692787	55693940	+	MSI2	0x0
10857	chr17	55730467	55731640	+	MSI2	0x0
10858	chr17	55742861	55744098	+	MSI2	0x0
10859	chr17	55756866	55760675	+	MSI2	0x0
10860	chr17	55760849	55762041	+	MSI2	0x0
10861	chr17	55916165	55917408	-	MRPS23	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10862	chr17	55926141	55927319	-	MRPS23	0x0
10863	chr17	56050403	56052795	-	VEZF1	0x0
10864	chr17	56077696	56079339	-	SRSF1	0x2
10865	chr17	56079590	56083131	-	SRSF1	0x2
10866	chr17	56289075	56290333	-	MKS1	0x0
10867	chr17	56378234	56379458	-	BZRAP1	0x0
10868	chr17	56567080	56569133	-	MTMR4	0x0
10869	chr17	57074178	57076497	-	TRIM37	0x0
10870	chr17	57094095	57095342	-	TRIM37	0x0
10871	chr17	57156563	57157818	-	TRIM37	0x0
10872	chr17	57165148	57166298	-	TRIM37	0x0
10873	chr17	57288530	57289692	+	SMG8	0x0
10874	chr17	57352417	57353733	+	GDPD1	0x0
10875	chr17	57474002	57475190	+	YPEL2	0x0
10876	chr17	57737217	57738430	+	CLTC	0x2
10877	chr17	57753879	57755078	+	CLTC	0x2
10878	chr17	57759480	57760678	+	CLTC	0x2
10879	chr17	57770849	57772952	+	CLTC	0x2
10880	chr17	57917537	57918707	+	MIR21	0x0
10881	chr17	57917537	57918707	+	VMP1	0x0
10882	chr17	58007100	58008306	+	RPS6KB1	0x2
10883	chr17	58024139	58025735	+	RPS6KB1	0x2
10884	chr17	58026399	58027570	+	RPS6KB1	0x2
10885	chr17	58255410	58256687	-	USP32	0x0
10886	chr17	58283881	58284984	-	USP32	0x0
10887	chr17	58287854	58288995	-	USP32	0x0
10888	chr17	58520644	58521801	-	APPBP2	0x0
10889	chr17	58522869	58524815	-	APPBP2	0x0
10890	chr17	58766393	58767546	+	BCAS3	0x0
10891	chr17	59048854	59050074	+	BCAS3	0x0
10892	chr17	59286484	59287607	+	BCAS3	0x0
10893	chr17	59359057	59360213	+	BCAS3	0x0
10894	chr17	59469298	59470626	+	BCAS3	0x0
10895	chr17	59833543	59834750	-	BRIP1	0x2
10896	chr17	59942451	59945422	-	INTS2	0x0
10897	chr17	60019668	60024891	-	MED13	0x0
10898	chr17	60032539	60033734	-	MED13	0x0
10899	chr17	60043394	60044570	-	MED13	0x0
10900	chr17	60087985	60089175	-	MED13	0x0
10901	chr17	60110627	60111833	-	MED13	0x0
10902	chr17	60689639	60691549	+	TLK2	0x0
10903	chr17	61509139	61511988	-	CYB561	0x0
10904	chr17	61515731	61516866	-	CYB561	0x0
10905	chr17	61666693	61672105	+	DCAF7	0x0
10906	chr17	61734643	61735807	+	MAP3K3	0x0
10907	chr17	61771347	61774147	+	MAP3K3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10908	chr17	61774661	61775870	-	LIMD2	0x0
10909	chr17	61822357	61824520	-	CCDC47	0x0
10910	chr17	61850283	61851552	-	CCDC47	0x0
10911	chr17	61892407	61893591	+	DDX42	0x0
10912	chr17	61895334	61896846	+	DDX42	0x0
10913	chr17	61908937	61910131	-	SMARCD2	0x0
10914	chr17	61911336	61912669	-	SMARCD2	0x0
10915	chr17	62117421	62118663	-	ERN1	0x0
10916	chr17	62224677	62226198	-	TEX2	0x0
10917	chr17	62290035	62291764	-	TEX2	0x0
10918	chr17	62400129	62401468	-	PECAM1	0x0
10919	chr17	62493945	62496716	-	DDX5	0x2
10920	chr17	62497118	62499879	-	DDX5	0x2
10921	chr17	62497118	62499879	-	MIR5047	0x0
10922	chr17	62538534	62539716	-	SMURF2	0x2
10923	chr17	62540140	62541246	-	SMURF2	0x2
10924	chr17	62547162	62548284	-	SMURF2	0x2
10925	chr17	62576427	62577650	-	SMURF2	0x2
10926	chr17	63006380	63010636	-	GNA13	0x2
10927	chr17	63847323	63848477	-	CEP112	0x0
10928	chr17	64058585	64059736	-	CEP112	0x0
10929	chr17	64170618	64171828	-	CEP112	0x0
10930	chr17	64172355	64173659	-	CEP112	0x0
10931	chr17	65026654	65027791	+	CACNG4	0x0
10932	chr17	65067042	65068141	-	HELZ	0x0
10933	chr17	65072479	65073803	-	HELZ	0x0
10934	chr17	65074049	65075194	-	HELZ	0x0
10935	chr17	65109338	65110555	-	HELZ	0x0
10936	chr17	65116942	65118106	-	HELZ	0x0
10937	chr17	65131568	65132740	-	HELZ	0x0
10938	chr17	65133617	65134820	-	HELZ	0x0
10939	chr17	65736283	65737434	+	SNORA38B	0x0
10940	chr17	65849687	65851386	+	BPTF	0x2
10941	chr17	65907076	65908399	+	BPTF	0x2
10942	chr17	65978901	65980256	+	BPTF	0x2
10943	chr17	66524465	66525653	+	PRKAR1A	0x1
10944	chr17	66526074	66527590	+	PRKAR1A	0x1
10945	chr17	67544288	67545490	+	MAP2K6	0x0
10946	chr17	70641919	70644233	-	SLC39A11	0x0
10947	chr17	70941756	70942997	-	SLC39A11	0x0
10948	chr17	71231360	71232544	+	C17orf80	0x0
10949	chr17	71280713	71281941	-	CDC42EP4	0x0
10950	chr17	71339137	71340358	-	SDK2	0x0
10951	chr17	72989995	72991153	+	CDR2L	0x0
10952	chr17	73001220	73002387	+	CDR2L	0x0
10953	chr17	73131103	73132798	-	HN1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
10954	chr17	73220943	73222095	+	NUP85	0x0
10955	chr17	73230688	73231866	+	NUP85	0x0
10956	chr17	73232469	73234710	-	GGA3	0x0
10957	chr17	73238566	73239744	-	GGA3	0x0
10958	chr17	73313713	73315874	-	GRB2	0x2
10959	chr17	73495079	73496526	+	KIAA0195	0x0
10960	chr17	73568594	73569795	+	LLGL2	0x0
10961	chr17	73699309	73700535	+	SAP30BP	0x0
10962	chr17	73773971	73775279	-	H3F3B	0x0
10963	chr17	73821030	73822217	+	UNK	0x0
10964	chr17	73841401	73843314	-	WBP2	0x0
10965	chr17	74148545	74149726	-	RNF157	0x0
10966	chr17	74169279	74170474	-	RNF157	0x0
10967	chr17	74385112	74387212	-	UBE2O	0x2
10968	chr17	74713964	74715214	-	JMJD6	0x0
10969	chr17	74728863	74730148	+	METTL23	0x0
10970	chr17	74729686	74731511	-	SRSF2	0x2
10971	chr17	74868436	74869548	+	MGAT5B	0x0
10972	chr17	74902024	74903253	+	MGAT5B	0x0
10973	chr17	74913984	74915149	+	MGAT5B	0x0
10974	chr17	74922168	74923364	+	MGAT5B	0x0
10975	chr17	74945194	74946376	+	MGAT5B	0x0
10976	chr17	75088842	75090025	+	LINC00338	0x0
10977	chr17	75088842	75090025	+	SEC14L1	0x0
10978	chr17	75212145	75213605	+	SEC14L1	0x0
10979	chr17	75494564	75497047	+	SEPT9	0x2
10980	chr17	75880393	75881513	+	TNRC6C	0x0
10981	chr17	75959216	75960315	+	TNRC6C	0x0
10982	chr17	76045183	76046395	+	TNRC6C	0x0
10983	chr17	76101402	76102693	+	TNRC6C	0x0
10984	chr17	76119713	76120814	-	TMC6	0x0
10985	chr17	76127967	76129085	+	TMC8	0x0
10986	chr17	76212184	76213379	+	BIRC5	0x0
10987	chr17	76352413	76355489	-	SOCS3	0x1
10988	chr17	76397500	76398809	+	PGS1	0x0
10989	chr17	76791861	76793637	-	USP36	0x0
10990	chr17	76968088	76969312	-	LGALS3BP	0x0
10991	chr17	76989316	76990482	-	CANT1	0x2
10992	chr17	77081736	77083273	+	ENGASE	0x0
10993	chr17	77196439	77197715	-	RBFOX3	0x0
10994	chr17	77911511	77912700	-	TBC1D16	0x0
10995	chr17	77924717	77925966	-	TBC1D16	0x0
10996	chr17	78073148	78074422	+	CCDC40	0x0
10997	chr17	78082009	78083191	+	GAA	0x0
10998	chr17	78091892	78093113	+	GAA	0x0
10999	chr17	78292525	78293685	+	RNF213	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11000	chr17	78311112	78312263	+	RNF213	0x0
11001	chr17	78312997	78314194	+	RNF213	0x0
11002	chr17	78319046	78320266	+	RNF213	0x0
11003	chr17	78320727	78321875	+	RNF213	0x0
11004	chr17	78362696	78363863	-	LOC100294362	0x0
11005	chr17	78440517	78442036	-	NPTX1	0x0
11006	chr17	78442107	78444575	-	NPTX1	0x0
11007	chr17	78933300	78934409	+	RPTOR	0x0
11008	chr17	78937664	78939526	+	RPTOR	0x0
11009	chr17	78970260	78971423	+	CHMP6	0x0
11010	chr17	78972548	78973761	+	CHMP6	0x0
11011	chr17	79090971	79092203	-	AATK	0x0
11012	chr17	79218977	79220809	-	SLC38A10	0x0
11013	chr17	79256682	79257818	-	SLC38A10	0x0
11014	chr17	79476700	79478817	-	ACTG1	0x0
11015	chr17	79524245	79526682	-	NPLOC4	0x0
11016	chr17	79780096	79781296	-	FAM195B	0x0
11017	chr17	79800544	79801733	-	P4HB	0x0
11018	chr17	79825714	79827343	-	ARHGDIA	0x0
11019	chr17	79848776	79850004	-	ALYREF	0x0
11020	chr17	79875895	79878981	-	MAFG	0x0
11021	chr17	79875895	79878981	-	SIRT7	0x0
11022	chr17	79944748	79945869	+	ASPSCR1	0x0
11023	chr17	79974116	79975280	+	ASPSCR1	0x0
11024	chr17	80009302	80012255	+	GPS1	0x0
11025	chr17	80013719	80015107	+	GPS1	0x0
11026	chr17	80036912	80037985	-	FASN	0x0
11027	chr17	80038065	80039707	-	FASN	0x0
11028	chr17	80040066	80041355	-	FASN	0x0
11029	chr17	80042182	80043335	-	FASN	0x0
11030	chr17	80043844	80045042	-	FASN	0x0
11031	chr17	80050266	80051487	-	FASN	0x0
11032	chr17	80197197	80198409	+	SLC16A3	0x0
11033	chr17	80201099	80203714	-	CSNK1D	0x0
11034	chr17	80206818	80208013	-	CSNK1D	0x0
11035	chr17	80400713	80401929	-	C17orf62	0x0
11036	chr17	80446142	80447359	+	NARF	0x0
11037	chr17	80560084	80562840	+	FOXK2	0x0
11038	chr17	80571968	80574361	-	WDR45L	0x0
11039	chr17	80605656	80606853	-	WDR45L	0x0
11040	chr17	80684667	80686084	+	FN3KRP	0x0
11041	chr17	80725766	80726901	+	TBCD	0x0
11042	chr17	80763227	80764376	+	TBCD	0x0
11043	chr18	202624	203729	+	USP14	0x0
11044	chr18	211191	213465	+	USP14	0x0
11045	chr18	213803	215011	+	USP14	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11046	chr18	263105	264269	-	THOC1	0x0
11047	chr18	721152	724881	-	YES1	0x0
11048	chr18	736274	737479	-	YES1	0x0
11049	chr18	742730	743879	-	YES1	0x0
11050	chr18	745425	746530	-	YES1	0x0
11051	chr18	2802644	2804064	+	SMCHD1	0x0
11052	chr18	3255515	3256670	+	MYL12A	0x0
11053	chr18	3449418	3450581	+	TGIF1	0x0
11054	chr18	3457511	3458810	+	TGIF1	0x0
11055	chr18	5392772	5393944	-	EPB41L3	0x1
11056	chr18	6912590	6913813	+	ARHGAP28	0x2
11057	chr18	7039556	7040704	-	LAMA1	0x2
11058	chr18	8412787	8414419	+	PTPRM	0x0
11059	chr18	8610843	8612974	+	RAB12	0x0
11060	chr18	8637961	8639788	+	RAB12	0x0
11061	chr18	8717877	8719048	+	CCDC165	0x0
11062	chr18	8783269	8784474	+	CCDC165	0x0
11063	chr18	8827394	8828691	+	CCDC165	0x0
11064	chr18	8831838	8832950	+	CCDC165	0x0
11065	chr18	9133632	9134821	+	NDUFV2	0x0
11066	chr18	9216261	9217453	+	ANKRD12	0x0
11067	chr18	9400527	9401719	+	TWSG1	0x0
11068	chr18	9535809	9537924	+	RALBP1	0x0
11069	chr18	9546347	9548017	-	PPP4R1	0x0
11070	chr18	9549588	9550674	-	PPP4R1	0x0
11071	chr18	9562825	9563957	-	PPP4R1	0x0
11072	chr18	9576550	9577677	-	PPP4R1	0x0
11073	chr18	9587573	9588733	-	PPP4R1	0x0
11074	chr18	9593191	9594376	-	PPP4R1	0x0
11075	chr18	9860687	9861860	+	RAB31	0x0
11076	chr18	9913494	9914706	+	VAPA	0x0
11077	chr18	9931317	9932513	+	VAPA	0x0
11078	chr18	9953810	9955245	+	VAPA	0x0
11079	chr18	10487766	10488970	+	APCDD1	0x0
11080	chr18	11988627	11989786	+	IMPA2	0x0
11081	chr18	12030007	12031447	+	IMPA2	0x0
11082	chr18	12325728	12326872	+	TUBB6	0x0
11083	chr18	12358279	12359421	-	AFG3L2	0x0
11084	chr18	12446091	12447330	-	SPIRE1	0x0
11085	chr18	12447896	12449899	-	SPIRE1	0x0
11086	chr18	12984985	12988072	+	SEH1L	0x0
11087	chr18	13055904	13057122	+	CEP192	0x0
11088	chr18	13654915	13655942	-	FAM210A	0x0
11089	chr18	13661062	13662168	-	FAM210A	0x0
11090	chr18	13759814	13761057	+	RNMT	0x0
11091	chr18	13763413	13764830	+	RNMT	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11092	chr18	18529302	18531359	-	ROCK1	0x0
11093	chr18	19106653	19107830	-	ESCO1	0x0
11094	chr18	19108925	19110190	-	ESCO1	0x0
11095	chr18	19153253	19155409	-	ESCO1	0x0
11096	chr18	19359003	19360141	+	MIB1	0x0
11097	chr18	19370964	19372025	+	MIB1	0x0
11098	chr18	19377479	19378666	+	MIB1	0x0
11099	chr18	19423538	19424740	+	MIB1	0x0
11100	chr18	19446468	19448386	+	MIB1	0x0
11101	chr18	19448635	19449887	+	MIB1	0x0
11102	chr18	21061665	21063100	+	RIOK3	0x0
11103	chr18	21152827	21154080	-	NPC1	0x0
11104	chr18	21741539	21743160	-	OSBPL1A	0x0
11105	chr18	21942418	21943635	-	OSBPL1A	0x0
11106	chr18	22007370	22008526	+	IMPACT	0x4
11107	chr18	22030767	22032805	+	IMPACT	0x4
11108	chr18	23595796	23598640	-	SS18	0x0
11109	chr18	23783673	23784781	+	PSMA8	0x0
11110	chr18	26231987	26233195	+	MIR302F	0x0
11111	chr18	29118228	29119439	+	DSG2	0x0
11112	chr18	29126738	29129248	+	DSG2	0x0
11113	chr18	29204937	29206029	-	B4GALT6	0x0
11114	chr18	29210413	29211641	-	B4GALT6	0x0
11115	chr18	29409561	29411138	-	TRAPPC8	0x0
11116	chr18	29450401	29451604	-	TRAPPC8	0x0
11117	chr18	29601171	29602183	+	RNF125	0x0
11118	chr18	29648815	29649915	+	RNF125	0x0
11119	chr18	29652237	29653327	+	RNF125	0x0
11120	chr18	29708895	29711089	+	RNF138	0x0
11121	chr18	29843886	29844994	-	FAM59A	0x4
11122	chr18	29846276	29847487	-	FAM59A	0x4
11123	chr18	29991050	29992506	-	FAM59A	0x4
11124	chr18	30050076	30051282	-	FAM59A	0x4
11125	chr18	32832569	32833666	+	ZNF397	0x0
11126	chr18	32914707	32917176	-	ZNF24	0x0
11127	chr18	33044952	33046154	-	INO80C	0x0
11128	chr18	33266461	33267654	+	GALNT1	0x0
11129	chr18	33290234	33291875	+	GALNT1	0x0
11130	chr18	33605187	33606437	-	RPRD1A	0x0
11131	chr18	33688350	33689859	-	SLC39A6	0x0
11132	chr18	34481996	34483207	+	KIAA1328	0x0
11133	chr18	42298053	42299334	+	SETBP1	0x0
11134	chr18	42362766	42363874	+	SETBP1	0x0
11135	chr18	43666412	43667565	-	ATP5A1	0x0
11136	chr18	43669005	43670409	-	ATP5A1	0x0
11137	chr18	43671136	43672206	-	ATP5A1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11138	chr18	43844116	43845361	+	C18orf25	0x0
11139	chr18	43846078	43847227	+	C18orf25	0x0
11140	chr18	43956744	43957863	+	RNF165	0x0
11141	chr18	44036431	44037641	+	RNF165	0x0
11142	chr18	44037948	44039582	+	RNF165	0x0
11143	chr18	44040201	44041295	+	RNF165	0x0
11144	chr18	44041611	44043464	+	RNF165	0x0
11145	chr18	44054036	44055272	+	RNF165	0x0
11146	chr18	44389343	44390449	-	PIAS2	0x0
11147	chr18	44391011	44392124	-	PIAS2	0x0
11148	chr18	44398511	44399659	-	PIAS2	0x0
11149	chr18	44470186	44471391	-	PIAS2	0x0
11150	chr18	44494817	44495976	-	PIAS2	0x0
11151	chr18	44681086	44682335	-	IER3IP1	0x0
11152	chr18	45359288	45360624	-	SMAD2	0x1
11153	chr18	45361572	45362887	-	SMAD2	0x1
11154	chr18	45553656	45554907	-	ZBTB7C	0x1
11155	chr18	46446482	46448731	-	SMAD7	0x0
11156	chr18	46476210	46477735	-	SMAD7	0x0
11157	chr18	46599368	46600619	-	DYM	0x0
11158	chr18	46857727	46858863	-	DYM	0x0
11159	chr18	47007520	47008722	-	C18orf32	0x0
11160	chr18	47007520	47008722	-	RPL17-C18ORF32	0x0
11161	chr18	47309387	47310654	-	ACAA2	0x0
11162	chr18	47321626	47322725	-	ACAA2	0x0
11163	chr18	47660641	47661825	-	MIR4320	0x0
11164	chr18	47795894	47797127	-	MBD1	0x0
11165	chr18	48189034	48191291	+	MAPK4	0x0
11166	chr18	48560899	48562079	+	SMAD4	0x1
11167	chr18	48572883	48574087	+	SMAD4	0x1
11168	chr18	48604584	48606583	+	SMAD4	0x1
11169	chr18	48609088	48610179	+	SMAD4	0x1
11170	chr18	48700616	48703822	-	MEX3C	0x0
11171	chr18	48946762	48948029	-	MEX3C	0x0
11172	chr18	52890205	52891353	-	TCF4	0x1
11173	chr18	52893086	52894281	-	TCF4	0x1
11174	chr18	54814446	54815572	-	FECH	0x0
11175	chr18	55216763	55217930	-	FECH	0x0
11176	chr18	55267308	55269428	-	NARS	0x0
11177	chr18	55273328	55275450	-	NARS	0x0
11178	chr18	55862215	55863399	+	NEDD4L	0x0
11179	chr18	56324588	56325771	-	ALPK2	0x0
11180	chr18	56585589	56588405	+	ZNF532	0x0
11181	chr18	56601234	56602423	+	ZNF532	0x0
11182	chr18	56606137	56607342	+	ZNF532	0x0
11183	chr18	56614757	56616019	+	ZNF532	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11184	chr18	56620269	56621481	+	ZNF532	0x0
11185	chr18	56994841	56998419	-	LMAN1	0x0
11186	chr18	57005530	57006717	-	LMAN1	0x0
11187	chr18	57014420	57015796	-	LMAN1	0x0
11188	chr18	59709910	59711162	-	PIGN	0x0
11189	chr18	59711678	59713064	-	PIGN	0x0
11190	chr18	59942054	59943176	+	KIAA1468	0x0
11191	chr18	59973096	59974888	+	KIAA1468	0x0
11192	chr18	60190368	60191593	+	ZCCHC2	0x0
11193	chr18	60244638	60245859	+	ZCCHC2	0x0
11194	chr18	60998192	60999580	-	KDSR	0x0
11195	chr18	61056415	61057641	-	VPS4B	0x0
11196	chr18	61060155	61061299	-	VPS4B	0x0
11197	chr18	65181001	65182193	-	DSEL	0x0
11198	chr18	67724454	67725574	-	RTTN	0x0
11199	chr18	67726574	67727792	-	RTTN	0x0
11200	chr18	67794343	67795534	-	RTTN	0x0
11201	chr18	67964635	67965901	+	SOCS6	0x0
11202	chr18	67994734	67995908	+	SOCS6	0x0
11203	chr18	71740171	71741399	-	FBXO15	0x0
11204	chr18	71796122	71797233	-	FBXO15	0x0
11205	chr18	71920144	71921283	-	CYB5A	0x0
11206	chr18	72056703	72058076	-	FAM69C	0x0
11207	chr18	72333232	72334430	+	ZNF407	0x2
11208	chr18	72342542	72344400	+	ZNF407	0x2
11209	chr18	72344584	72345697	+	ZNF407	0x2
11210	chr18	72346251	72347441	+	ZNF407	0x2
11211	chr18	72499441	72500603	+	ZNF407	0x2
11212	chr18	72573611	72574725	+	ZNF407	0x2
11213	chr18	72770123	72771307	+	ZNF407	0x2
11214	chr18	73673343	73674511	-	ZNF516	0x0
11215	chr18	74072357	74073413	-	ZNF516	0x0
11216	chr18	74090279	74091443	-	ZNF516	0x0
11217	chr18	74153150	74154587	-	ZNF516	0x0
11218	chr18	74592858	74594039	+	ZNF236	0x0
11219	chr18	74680340	74681834	+	ZNF236	0x0
11220	chr18	76828764	76829965	+	ATP9B	0x0
11221	chr18	76856016	76857178	+	ATP9B	0x0
11222	chr18	77063088	77064188	+	ATP9B	0x0
11223	chr18	77797945	77799108	+	RBFA	0x0
11224	chr18	77805445	77806601	+	RBFA	0x0
11225	chr18	77893153	77894323	+	ADNP2	0x0
11226	chr18	77896889	77897989	+	ADNP2	0x0
11227	chr19	578982	582101	+	BSG	0x0
11228	chr19	647105	648479	-	RNF126	0x0
11229	chr19	746009	747190	+	PALM	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11230	chr19	804572	805758	+	MIR4745	0x0
11231	chr19	804572	805758	+	PTBP1	0x0
11232	chr19	810673	812556	+	PTBP1	0x0
11233	chr19	901024	902520	-	R3HDM4	0x0
11234	chr19	985310	986485	+	WDR18	0x0
11235	chr19	1109127	1110305	-	SBNO2	0x0
11236	chr19	1206348	1207493	+	STK11	0x1
11237	chr19	1217930	1219446	+	STK11	0x1
11238	chr19	1225926	1227127	+	STK11	0x1
11239	chr19	1228564	1229768	-	C19orf26	0x0
11240	chr19	1243610	1244716	+	ATP5D	0x0
11241	chr19	1249891	1251008	+	MIDN	0x0
11242	chr19	1257727	1259022	+	MIDN	0x0
11243	chr19	1390383	1391510	+	NDUFS7	0x0
11244	chr19	1420692	1421744	+	DAZAP1	0x0
11245	chr19	1439371	1440773	+	RPS15	0x0
11246	chr19	1610671	1612433	-	TCF3	0x2
11247	chr19	1615121	1616318	-	TCF3	0x2
11248	chr19	1815809	1817070	-	MIR1909	0x0
11249	chr19	1815809	1817070	-	REXO1	0x0
11250	chr19	1826581	1827770	-	REXO1	0x0
11251	chr19	1876714	1877924	-	FAM108A1	0x0
11252	chr19	1881192	1882328	-	FAM108A1	0x0
11253	chr19	1917613	1918713	+	SCAMP4	0x0
11254	chr19	1923777	1925016	+	SCAMP4	0x0
11255	chr19	1968995	1970125	+	CSNK1G2	0x0
11256	chr19	1980385	1981867	+	CSNK1G2	0x0
11257	chr19	2037007	2039046	-	MKNK2	0x0
11258	chr19	2042917	2044054	-	MKNK2	0x0
11259	chr19	2045641	2046855	-	MKNK2	0x0
11260	chr19	2109217	2110527	-	AP3D1	0x0
11261	chr19	2270916	2273725	+	OAZ1	0x0
11262	chr19	2429980	2431143	-	LMNB2	0x0
11263	chr19	3052592	3054513	-	AES	0x0
11264	chr19	3192809	3193926	+	NCLN	0x0
11265	chr19	3381568	3382744	+	NFIC	0x0
11266	chr19	3538664	3539784	-	MFSD12	0x0
11267	chr19	3543094	3544191	-	MFSD12	0x0
11268	chr19	3975542	3984698	-	EEF2	0x0
11269	chr19	3975542	3984698	-	SNORD37	0x0
11270	chr19	3984776	3986030	-	EEF2	0x0
11271	chr19	4054450	4055670	-	ZBTB7A	0x0
11272	chr19	4499028	4500133	+	HDGFRP2	0x0
11273	chr19	4928770	4929985	+	UHRF1	0x0
11274	chr19	4941266	4942413	+	UHRF1	0x0
11275	chr19	4960588	4962148	+	UHRF1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11276	chr19	5205129	5206410	-	PTPRS	0x2
11277	chr19	5210205	5211394	-	PTPRS	0x2
11278	chr19	5235027	5236257	-	PTPRS	0x2
11279	chr19	5247159	5248344	-	PTPRS	0x2
11280	chr19	5273036	5274144	-	PTPRS	0x2
11281	chr19	5663531	5664666	+	SAFB	0x1
11282	chr19	5895856	5897082	-	NDUFA11	0x0
11283	chr19	5993697	5995372	-	RFX2	0x2
11284	chr19	6210940	6212758	-	MLLT1	0x2
11285	chr19	6413197	6415079	-	KHSRP	0x2
11286	chr19	6469119	6470356	-	DENND1C	0x0
11287	chr19	7112289	7115203	-	INSR	0x0
11288	chr19	7115285	7116457	-	INSR	0x0
11289	chr19	7152226	7153328	-	INSR	0x0
11290	chr19	7165629	7166834	-	INSR	0x0
11291	chr19	7170077	7171191	-	INSR	0x0
11292	chr19	7267193	7268398	-	INSR	0x0
11293	chr19	7536371	7537519	+	ARHGEF18	0x0
11294	chr19	7670432	7671645	+	CAMSAP3	0x0
11295	chr19	7682258	7683430	+	CAMSAP3	0x0
11296	chr19	7709029	7710128	+	STXBP2	0x0
11297	chr19	7711540	7712718	+	STXBP2	0x0
11298	chr19	7978117	7979383	+	MAP2K7	0x2
11299	chr19	7991560	7992772	-	TIMM44	0x0
11300	chr19	8026764	8028674	-	ELAVL1	0x0
11301	chr19	8056122	8057304	-	ELAVL1	0x0
11302	chr19	8320894	8322017	+	CERS4	0x0
11303	chr19	8326694	8327797	+	CERS4	0x0
11304	chr19	8366551	8367946	-	CD320	0x0
11305	chr19	8368277	8369389	-	CD320	0x0
11306	chr19	8375773	8376877	-	NDUFA7	0x0
11307	chr19	8468112	8469314	+	RAB11B	0x0
11308	chr19	8503224	8504463	+	MARCH2	0x0
11309	chr19	8527445	8528603	+	HNRNPM	0x0
11310	chr19	8549970	8551061	+	HNRNPM	0x0
11311	chr19	8553087	8554453	+	HNRNPM	0x0
11312	chr19	9272231	9274481	+	ZNF317	0x0
11313	chr19	9957415	9958538	+	PIN1	0x0
11314	chr19	9960658	9962030	+	PIN1	0x0
11315	chr19	10116296	10117442	-	COL5A3	0x0
11316	chr19	10226209	10227450	-	EIF3G	0x0
11317	chr19	10252168	10253371	-	DNMT1	0x4
11318	chr19	10258978	10260152	-	DNMT1	0x4
11319	chr19	10264464	10265583	-	DNMT1	0x4
11320	chr19	10266585	10267706	-	DNMT1	0x4
11321	chr19	10333747	10334873	-	S1PR2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11322	chr19	10395709	10396898	+	ICAM1	0x0
11323	chr19	10426480	10428502	-	FDX1L	0x0
11324	chr19	10426480	10428502	-	RAVER1	0x0
11325	chr19	10463145	10464331	-	TYK2	0x0
11326	chr19	10501278	10502647	-	CDC37	0x0
11327	chr19	10663265	10664518	+	ATG4D	0x0
11328	chr19	10753959	10755124	+	SLC44A2	0x0
11329	chr19	10781109	10782378	+	ILF3	0x0
11330	chr19	10788753	10789936	+	ILF3	0x0
11331	chr19	10793841	10795057	+	ILF3	0x0
11332	chr19	10795201	10796741	+	ILF3	0x0
11333	chr19	10799689	10800887	+	ILF3	0x0
11334	chr19	10941686	10942802	+	DNM2	0x2
11335	chr19	11032538	11033745	+	CARM1	0x0
11336	chr19	11033192	11034360	-	YIPF2	0x0
11337	chr19	11151596	11152825	+	SMARCA4	0x1
11338	chr19	11172155	11173374	+	SMARCA4	0x1
11339	chr19	11226248	11227386	+	LDLR	0x0
11340	chr19	11243747	11244976	+	LDLR	0x0
11341	chr19	11274809	11276712	-	KANK2	0x0
11342	chr19	11312072	11313858	-	DOCK6	0x0
11343	chr19	11332007	11333247	-	DOCK6	0x0
11344	chr19	11433896	11435674	-	RAB3D	0x0
11345	chr19	11561001	11562251	+	PRKCSH	0x0
11346	chr19	11617760	11618910	-	ECSIT	0x0
11347	chr19	11663543	11664999	-	ELOF1	0x0
11348	chr19	12370666	12371772	+	ZNF136	0x0
11349	chr19	12753522	12755006	-	MAN2B1	0x0
11350	chr19	12778556	12779851	-	WDR83OS	0x0
11351	chr19	12785876	12787084	+	WDR83	0x0
11352	chr19	12809471	12812151	-	TNPO2	0x0
11353	chr19	12813165	12814964	-	TNPO2	0x0
11354	chr19	12816506	12817813	-	SNORD41	0x0
11355	chr19	12816506	12817813	-	TNPO2	0x0
11356	chr19	12821645	12822746	-	TNPO2	0x0
11357	chr19	12825746	12826949	-	TNPO2	0x0
11358	chr19	12844747	12845949	-	C19orf43	0x0
11359	chr19	12857706	12858910	+	ASNA1	0x0
11360	chr19	12873506	12874657	-	HOOK2	0x0
11361	chr19	12912021	12913211	-	PRDX2	0x0
11362	chr19	13003710	13006125	+	GCDH	0x0
11363	chr19	13043866	13045069	-	FARSA	0x0
11364	chr19	13048893	13051778	+	CALR	0x2
11365	chr19	13054000	13055763	+	CALR	0x2
11366	chr19	13063581	13065370	-	GADD45GIP1	0x1
11367	chr19	13063809	13064951	+	RAD23A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11368	chr19	13110376	13111592	+	NFIX	0x0
11369	chr19	13135272	13136457	+	NFIX	0x0
11370	chr19	13186087	13187263	-	LYL1	0x2
11371	chr19	13207707	13208902	+	NFIX	0x0
11372	chr19	13225592	13227127	-	TRMT1	0x0
11373	chr19	13245724	13246878	+	NACC1	0x0
11374	chr19	13249478	13251908	+	NACC1	0x0
11375	chr19	13264578	13266138	+	IER2	0x0
11376	chr19	13363217	13364408	-	CACNA1A	0x0
11377	chr19	13563111	13564329	-	CACNA1A	0x0
11378	chr19	13613161	13614310	-	CACNA1A	0x0
11379	chr19	13875022	13876329	+	MRI1	0x0
11380	chr19	13940669	13942071	+	ZSWIM4	0x0
11381	chr19	14198175	14199260	-	SAMD1	0x0
11382	chr19	14211064	14212241	-	PRKACA	0x0
11383	chr19	14258236	14261166	-	LPHN1	0x2
11384	chr19	14261495	14262600	-	LPHN1	0x2
11385	chr19	14267591	14268659	-	LPHN1	0x2
11386	chr19	14269746	14271569	-	LPHN1	0x2
11387	chr19	14273229	14275430	-	LPHN1	0x2
11388	chr19	14275999	14277162	-	LPHN1	0x2
11389	chr19	14277603	14279144	-	LPHN1	0x2
11390	chr19	14293786	14295049	-	LPHN1	0x2
11391	chr19	14315109	14316323	-	LPHN1	0x2
11392	chr19	14511740	14513060	+	CD97	0x0
11393	chr19	14518451	14519929	+	CD97	0x0
11394	chr19	14520075	14521213	-	DDX39A	0x0
11395	chr19	14521295	14522412	-	DDX39A	0x0
11396	chr19	14523255	14524529	-	DDX39A	0x0
11397	chr19	14568561	14569729	+	PKN1	0x2
11398	chr19	14581754	14582994	+	PKN1	0x2
11399	chr19	14588758	14589968	-	GIPC1	0x0
11400	chr19	14590944	14592122	-	GIPC1	0x0
11401	chr19	14625138	14627473	-	DNAJB1	0x0
11402	chr19	14671830	14672902	+	TECR	0x0
11403	chr19	14676075	14677197	+	TECR	0x0
11404	chr19	15269882	15271155	-	NOTCH3	0x0
11405	chr19	15284314	15285508	-	NOTCH3	0x0
11406	chr19	15287927	15289130	-	NOTCH3	0x0
11407	chr19	15347279	15349612	-	BRD4	0x0
11408	chr19	15357385	15358486	-	BRD4	0x0
11409	chr19	15464257	15465500	-	AKAP8	0x2
11410	chr19	15490544	15491761	-	AKAP8	0x2
11411	chr19	15490544	15491761	-	AKAP8L	0x0
11412	chr19	15532398	15533767	-	WIZ	0x0
11413	chr19	15674505	15675680	+	CYP4F22	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11414	chr19	15682007	15683160	+	CYP4F22	0x0
11415	chr19	16212924	16214084	+	TPM4	0x0
11416	chr19	16242829	16244660	+	RAB8A	0x0
11417	chr19	16302078	16303695	+	FAM32A	0x0
11418	chr19	16437289	16438913	+	KLF2	0x2
11419	chr19	16482837	16484121	-	EPS15L1	0x0
11420	chr19	16511200	16512833	-	EPS15L1	0x0
11421	chr19	16628634	16630113	-	CHERP	0x0
11422	chr19	16630658	16632975	-	CHERP	0x0
11423	chr19	16643294	16644453	-	CHERP	0x0
11424	chr19	16660199	16661465	-	SLC35E1	0x0
11425	chr19	16682474	16683699	-	SLC35E1	0x0
11426	chr19	16685643	16686803	-	MED26	0x0
11427	chr19	16799389	16800802	+	TMEM38A	0x0
11428	chr19	16962149	16963379	+	SIN3B	0x0
11429	chr19	17342318	17343557	-	NR2F6	0x0
11430	chr19	17353400	17354848	-	NR2F6	0x0
11431	chr19	17403118	17404749	-	ABHD8	0x0
11432	chr19	17513296	17514490	-	BST2	0x0
11433	chr19	17532647	17534328	+	FAM125A	0x0
11434	chr19	17597565	17598758	+	SLC27A1	0x0
11435	chr19	17626450	17627650	+	PGLS	0x0
11436	chr19	17691986	17694324	+	GLT25D1	0x0
11437	chr19	17735096	17736294	-	UNC13A	0x0
11438	chr19	17953968	17955367	-	JAK3	0x2
11439	chr19	17971631	17972785	+	RPL18A	0x0
11440	chr19	18098668	18099831	+	KCNN1	0x0
11441	chr19	18141063	18143283	+	ARRDC2	0x0
11442	chr19	18260894	18262058	+	MAST3	0x0
11443	chr19	18285606	18286876	+	IFI30	0x0
11444	chr19	18327068	18328195	-	PDE4C	0x0
11445	chr19	18545640	18546794	-	ISYNA1	0x0
11446	chr19	18547310	18548408	-	ISYNA1	0x0
11447	chr19	18553338	18555296	-	ELL	0x2
11448	chr19	18642108	18643539	-	FKBP8	0x0
11449	chr19	18679124	18680544	+	KXD1	0x0
11450	chr19	18856974	18858157	+	CRTC1	0x2
11451	chr19	18891817	18893039	+	CRTC1	0x2
11452	chr19	18958213	18959319	+	UPF1	0x0
11453	chr19	18961057	18962322	+	UPF1	0x0
11454	chr19	18963490	18964670	+	UPF1	0x0
11455	chr19	19038393	19039486	-	HOMER3	0x0
11456	chr19	19575637	19576981	+	GATAD2A	0x0
11457	chr19	19602499	19603803	+	GATAD2A	0x0
11458	chr19	19616281	19618356	+	GATAD2A	0x0
11459	chr19	19626497	19627680	+	NDUFA13	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11460	chr19	19681115	19682224	-	PBX4	0x0
11461	chr19	19822297	19823410	-	ZNF14	0x0
11462	chr19	20235369	20236785	+	ZNF90	0x0
11463	chr19	22153345	22154530	-	ZNF208	0x0
11464	chr19	22154972	22156559	-	ZNF208	0x0
11465	chr19	22497011	22498722	+	ZNF729	0x0
11466	chr19	22938762	22941098	-	ZNF99	0x0
11467	chr19	22941107	22942279	-	ZNF99	0x0
11468	chr19	29697721	29699610	-	UQCRFS1	0x0
11469	chr19	30312554	30313762	+	CCNE1	0x2
11470	chr19	30314342	30315652	+	CCNE1	0x2
11471	chr19	30497896	30499154	+	URI1	0x0
11472	chr19	30504802	30508027	+	URI1	0x0
11473	chr19	31025224	31026442	+	ZNF536	0x2
11474	chr19	32843183	32844332	+	ZNF507	0x0
11475	chr19	32876306	32877983	+	ZNF507	0x0
11476	chr19	33092424	33093551	-	ANKRD27	0x0
11477	chr19	33118171	33119333	-	ANKRD27	0x0
11478	chr19	33463830	33465353	+	C19orf40	0x0
11479	chr19	33602843	33604023	+	GPATCH1	0x0
11480	chr19	33871289	33873576	+	CEBPG	0x0
11481	chr19	34718009	34720071	+	LSM14A	0x0
11482	chr19	34845323	34846946	+	KIAA0355	0x0
11483	chr19	34855753	34858212	+	GPI	0x0
11484	chr19	34867875	34869164	+	GPI	0x0
11485	chr19	34884296	34885472	+	GPI	0x0
11486	chr19	34886988	34891629	+	GPI	0x0
11487	chr19	34925244	34926426	+	UBA2	0x0
11488	chr19	34928961	34930210	+	UBA2	0x0
11489	chr19	34940626	34941808	+	UBA2	0x0
11490	chr19	34957269	34958381	+	UBA2	0x0
11491	chr19	34959655	34961135	+	UBA2	0x0
11492	chr19	34972236	34973421	+	WTIP	0x0
11493	chr19	34983451	34985031	+	WTIP	0x0
11494	chr19	35530044	35531207	+	SCN1B	0x0
11495	chr19	35761109	35762209	+	USF2	0x0
11496	chr19	35769958	35771871	+	USF2	0x0
11497	chr19	35831263	35832483	-	FAM187B	0x0
11498	chr19	35848003	35849192	+	FFAR3	0x0
11499	chr19	36148974	36150076	+	COX6B1	0x0
11500	chr19	36211621	36212853	+	MLL4	0x0
11501	chr19	36213356	36214498	+	MLL4	0x0
11502	chr19	36228593	36229801	+	MLL4	0x0
11503	chr19	36500983	36502097	-	ALKBH6	0x0
11504	chr19	36573428	36574631	+	WDR62	0x0
11505	chr19	36631496	36632596	+	CAPNS1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11506	chr19	37003058	37004787	-	ZNF260	0x0
11507	chr19	38572563	38573742	+	SIPA1L3	0x0
11508	chr19	38697494	38699493	+	SIPA1L3	0x0
11509	chr19	39002392	39003573	+	RYR1	0x2
11510	chr19	39061154	39062305	+	RYR1	0x2
11511	chr19	39122705	39123894	+	EIF3K	0x0
11512	chr19	39125053	39126258	+	EIF3K	0x0
11513	chr19	39175564	39176759	+	ACTN4	0x0
11514	chr19	39194989	39196195	+	ACTN4	0x0
11515	chr19	39207290	39208389	+	ACTN4	0x0
11516	chr19	39211484	39212684	+	ACTN4	0x0
11517	chr19	39219623	39221620	+	ACTN4	0x0
11518	chr19	39327505	39329780	-	HNRNPL	0x0
11519	chr19	39335898	39337519	-	HNRNPL	0x0
11520	chr19	39407818	39408991	-	SARS2	0x0
11521	chr19	39422963	39424155	+	MRPS12	0x0
11522	chr19	39865773	39867055	+	SAMD4B	0x0
11523	chr19	39873814	39876802	+	SAMD4B	0x0
11524	chr19	39881152	39882387	-	PAF1	0x1
11525	chr19	39897666	39898837	+	ZFP36	0x1
11526	chr19	39923515	39924866	-	RPS16	0x0
11527	chr19	39964674	39965846	+	SUPT5H	0x0
11528	chr19	39966361	39967550	+	SUPT5H	0x0
11529	chr19	40029040	40030314	-	EID2	0x0
11530	chr19	40307003	40308205	-	DYRK1B	0x0
11531	chr19	40309265	40310538	-	DYRK1B	0x0
11532	chr19	40312886	40313946	-	DYRK1B	0x0
11533	chr19	40477528	40478706	+	PSMC4	0x0
11534	chr19	40539298	40540460	-	ZNF780B	0x0
11535	chr19	40698568	40699768	+	MAP3K10	0x0
11536	chr19	40719470	40720730	+	MAP3K10	0x0
11537	chr19	40737511	40738663	-	AKT2	0x2
11538	chr19	40826223	40828772	-	C19orf47	0x0
11539	chr19	40883600	40884821	+	PLD3	0x0
11540	chr19	40899745	40900858	-	PRX	0x0
11541	chr19	40901367	40902552	-	PRX	0x0
11542	chr19	40946469	40947693	-	SERTAD3	0x0
11543	chr19	41118477	41120812	+	LTBP4	0x0
11544	chr19	41131235	41132415	+	LTBP4	0x0
11545	chr19	41302111	41303219	+	MIA-RAB4B	0x0
11546	chr19	41302111	41303219	+	RAB4B	0x0
11547	chr19	41313277	41314498	+	EGLN2	0x0
11548	chr19	41313277	41314498	+	RAB4B-EGLN2	0x0
11549	chr19	41784452	41785655	+	HNRNPUL1	0x0
11550	chr19	41812465	41813858	+	HNRNPUL1	0x0
11551	chr19	42401045	42402271	+	ARHGEF1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11552	chr19	42407864	42408963	+	ARHGEF1	0x0
11553	chr19	42524985	42527043	-	GRIK5	0x0
11554	chr19	42584159	42585276	+	ZNF574	0x0
11555	chr19	42593741	42594843	-	POU2F2	0x2
11556	chr19	42737937	42739097	-	GSK3A	0x0
11557	chr19	42752407	42754281	-	ERF	0x1
11558	chr19	42754732	42755916	-	ERF	0x1
11559	chr19	42776957	42778138	+	CIC	0x2
11560	chr19	42796015	42797183	+	CIC	0x2
11561	chr19	42797418	42798482	+	CIC	0x2
11562	chr19	42798944	42800071	+	CIC	0x2
11563	chr19	42800715	42801862	-	PAFAH1B3	0x0
11564	chr19	42805596	42806788	-	PAFAH1B3	0x0
11565	chr19	42864512	42865667	+	MEGF8	0x0
11566	chr19	42873104	42874323	+	MEGF8	0x0
11567	chr19	42879773	42882102	+	MEGF8	0x0
11568	chr19	43014252	43015454	-	CEACAM1	0x1
11569	chr19	44234962	44236192	-	SMG9	0x0
11570	chr19	45259735	45260913	+	BCL3	0x2
11571	chr19	45390966	45392141	+	PVRL2	0x0
11572	chr19	45394203	45395392	+	TOMM40	0x0
11573	chr19	45411974	45413235	+	APOE	0x0
11574	chr19	45493993	45495126	+	CLPTM1	0x0
11575	chr19	45754463	45755651	+	MARK4	0x0
11576	chr19	45853232	45854599	-	ERCC2	0x2
11577	chr19	45873051	45874305	-	ERCC2	0x2
11578	chr19	45894683	45895851	-	PPP1R13L	0x0
11579	chr19	45912354	45913565	+	CD3EAP	0x0
11580	chr19	45988062	45989229	-	RTN2	0x0
11581	chr19	45997178	45998529	-	RTN2	0x0
11582	chr19	46010335	46011469	+	VASP	0x0
11583	chr19	46053653	46055170	-	OPA3	0x0
11584	chr19	46191116	46192297	-	SNRPD2	0x0
11585	chr19	46272835	46274099	+	LOC388553	0x0
11586	chr19	46286649	46287791	-	DMWD	0x0
11587	chr19	46331634	46332872	-	SYMPK	0x0
11588	chr19	46387850	46389073	-	IRF2BP1	0x0
11589	chr19	46437098	46439784	-	NOVA2	0x0
11590	chr19	46441513	46442707	-	NOVA2	0x0
11591	chr19	46893183	46894398	+	PPP5C	0x0
11592	chr19	47111020	47114440	+	CALM3	0x0
11593	chr19	47150367	47151467	-	DACT3	0x0
11594	chr19	47222435	47223934	-	STRN4	0x0
11595	chr19	47278001	47279545	-	SLC1A5	0x0
11596	chr19	47290192	47291682	-	SLC1A5	0x0
11597	chr19	47421976	47423849	+	ARHGAP35	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11598	chr19	47504812	47506123	+	ARHGAP35	0x1
11599	chr19	47548376	47549886	-	TMEM160	0x0
11600	chr19	47566984	47568150	-	ZC3H4	0x0
11601	chr19	47570027	47571129	-	ZC3H4	0x0
11602	chr19	47574491	47575681	-	ZC3H4	0x0
11603	chr19	47589192	47590419	-	ZC3H4	0x0
11604	chr19	47659922	47661123	+	SAE1	0x0
11605	chr19	47970980	47972584	-	SLC8A2	0x2
11606	chr19	47978067	47979253	-	KPTN	0x0
11607	chr19	47990494	47992047	-	NAPA	0x0
11608	chr19	48017615	48018799	-	NAPA	0x0
11609	chr19	48182195	48183406	+	GLTSCR1	0x1
11610	chr19	48618220	48619419	-	LIG1	0x0
11611	chr19	48625913	48627099	-	LIG1	0x0
11612	chr19	48835339	48836619	-	TMEM143	0x0
11613	chr19	48885537	48886788	-	KDELR1	0x0
11614	chr19	48949391	48950612	+	GRWD1	0x0
11615	chr19	49119329	49120617	-	RPL18	0x0
11616	chr19	49121611	49122842	-	RPL18	0x0
11617	chr19	49421799	49422907	+	NUCB1	0x0
11618	chr19	49425472	49427047	+	NUCB1	0x0
11619	chr19	49468189	49470208	+	FTL	0x0
11620	chr19	49471622	49472738	-	GYS1	0x0
11621	chr19	49476946	49478159	-	GYS1	0x0
11622	chr19	49481829	49482879	-	GYS1	0x0
11623	chr19	49489989	49491222	-	GYS1	0x0
11624	chr19	49571459	49572721	-	KCNA7	0x0
11625	chr19	49607262	49608448	+	SNRNP70	0x0
11626	chr19	49610943	49612252	+	SNRNP70	0x0
11627	chr19	49842341	49843463	+	CD37	0x0
11628	chr19	49843397	49844936	-	TEAD2	0x0
11629	chr19	49845126	49846305	-	TEAD2	0x0
11630	chr19	49849939	49851087	-	TEAD2	0x0
11631	chr19	49993342	49994996	+	RPL13A	0x0
11632	chr19	49993342	49994996	+	RPL13AP5	0x0
11633	chr19	49993342	49994996	+	SNORD33	0x0
11634	chr19	49993342	49994996	+	SNORD34	0x0
11635	chr19	49993342	49994996	+	SNORD35A	0x0
11636	chr19	49999979	50001817	+	RPS11	0x0
11637	chr19	49999979	50001817	+	SNORD35B	0x0
11638	chr19	50046183	50047452	+	RCN3	0x0
11639	chr19	50095244	50096424	+	PRR12	0x0
11640	chr19	50097677	50098811	+	PRR12	0x0
11641	chr19	50099996	50101813	+	PRR12	0x0
11642	chr19	50155859	50156962	+	SCAF1	0x2
11643	chr19	50183246	50184380	+	PRMT1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11644	chr19	50189374	50190519	+	PRMT1	0x0
11645	chr19	50216257	50217465	+	CPT1C	0x0
11646	chr19	50295857	50297077	+	AP2A1	0x0
11647	chr19	50308088	50309342	+	AP2A1	0x0
11648	chr19	50375883	50376995	-	AKT1S1	0x0
11649	chr19	50836582	50837757	+	MYH14	0x0
11650	chr19	50916364	50917624	+	POLD1	0x0
11651	chr19	51135461	51136729	-	SYT3	0x0
11652	chr19	51205261	51206425	-	SHANK1	0x2
11653	chr19	52645866	52647092	+	PPP2R1A	0x2
11654	chr19	52714057	52715244	+	PPP2R1A	0x2
11655	chr19	52715450	52716640	+	PPP2R1A	0x2
11656	chr19	52728779	52730077	+	PPP2R1A	0x2
11657	chr19	53643582	53645402	-	ZNF347	0x0
11658	chr19	54641506	54642848	+	CNOT3	0x2
11659	chr19	54648901	54650015	+	CNOT3	0x2
11660	chr19	54658598	54659751	+	CNOT3	0x2
11661	chr19	54677302	54678478	-	MBOAT7	0x0
11662	chr19	54709593	54710844	+	RPS9	0x0
11663	chr19	54710849	54711998	+	RPS9	0x0
11664	chr19	54967395	54968574	+	LENG8	0x0
11665	chr19	55601855	55603247	-	PPP1R12C	0x0
11666	chr19	55819803	55821074	+	BRSK1	0x2
11667	chr19	55857097	55860049	+	SUV420H2	0x0
11668	chr19	55896926	55898268	+	RPL28	0x0
11669	chr19	55953217	55954420	-	SHISA7	0x0
11670	chr19	55974567	55975703	+	ZNF628	0x0
11671	chr19	56102448	56103560	-	FIZ1	0x0
11672	chr19	56121660	56122799	-	ZNF784	0x0
11673	chr19	56159752	56160916	+	CCDC106	0x0
11674	chr19	56168491	56169685	+	U2AF2	0x2
11675	chr19	56173288	56174446	+	U2AF2	0x2
11676	chr19	56180314	56181491	+	U2AF2	0x2
11677	chr19	56185278	56186588	+	EPN1	0x0
11678	chr19	56185278	56186588	+	U2AF2	0x2
11679	chr19	56205663	56207544	+	EPN1	0x0
11680	chr19	56564423	56565709	+	NLRP5	0x0
11681	chr19	57321034	57322446	-	PEG3	0x5
11682	chr19	57323337	57325188	-	PEG3	0x5
11683	chr19	57331157	57332320	-	PEG3	0x5
11684	chr19	57331157	57332320	-	ZIM2	0x6
11685	chr19	58594597	58595854	-	ZSCAN18	0x0
11686	chr19	58637427	58638482	-	ZNF329	0x0
11687	chr19	58717711	58718821	-	ZNF329	0x0
11688	chr19	58903808	58906684	+	RPS5	0x0
11689	chr19	58987073	58988392	+	ZNF446	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11690	chr19	59056620	59057806	+	TRIM28	0x0
11691	chr19	59058254	59059357	+	TRIM28	0x0
11692	chr19	59059856	59062452	+	TRIM28	0x0
11693	chr19	59067886	59069077	-	UBE2M	0x0
11694	chr2	1635204	1636689	-	PXDN	0x2
11695	chr2	3380907	3382112	-	TSSC1	0x0
11696	chr2	3622604	3623875	+	RPS7	0x0
11697	chr2	7463671	7464970	-	LOC386597	0x0
11698	chr2	8868865	8870118	-	KIDINS220	0x0
11699	chr2	8876419	8877670	-	KIDINS220	0x0
11700	chr2	8925362	8926573	-	KIDINS220	0x0
11701	chr2	8997771	8998871	-	MBOAT2	0x0
11702	chr2	9082766	9083879	-	MBOAT2	0x0
11703	chr2	9098105	9099255	-	MBOAT2	0x0
11704	chr2	9136386	9137544	-	MBOAT2	0x0
11705	chr2	9331023	9332121	+	ASAP2	0x0
11706	chr2	9486539	9487698	+	ASAP2	0x0
11707	chr2	9544808	9545966	+	ASAP2	0x0
11708	chr2	9612476	9613589	+	CPSF3	0x0
11709	chr2	9623713	9624856	+	IAH1	0x0
11710	chr2	9628354	9629720	-	ADAM17	0x0
11711	chr2	9723853	9725197	-	YWHAQ	0x2
11712	chr2	9726965	9728229	-	YWHAQ	0x2
11713	chr2	10192831	10194261	+	KLF11	0x0
11714	chr2	10262324	10263445	+	RRM2	0x0
11715	chr2	10477506	10478662	+	HPCAL1	0x0
11716	chr2	10559581	10560719	+	HPCAL1	0x0
11717	chr2	10566652	10567840	+	HPCAL1	0x0
11718	chr2	10581177	10582764	-	ODC1	0x0
11719	chr2	10582927	10584394	-	ODC1	0x0
11720	chr2	10587029	10588147	-	SNORA80B	0x0
11721	chr2	10711179	10712319	-	NOL10	0x0
11722	chr2	10782359	10783525	-	NOL10	0x0
11723	chr2	10923498	10924955	-	PDIA6	0x0
11724	chr2	10928336	10930493	-	PDIA6	0x0
11725	chr2	10931087	10932433	-	PDIA6	0x0
11726	chr2	10952211	10953476	-	PDIA6	0x0
11727	chr2	11318220	11319425	+	PQLC3	0x0
11728	chr2	11321952	11323146	-	ROCK2	0x0
11729	chr2	11964362	11965523	+	LPIN1	0x0
11730	chr2	11965894	11967054	+	LPIN1	0x0
11731	chr2	15541782	15542984	-	NBAS	0x0
11732	chr2	15742156	15743305	+	DDX1	0x0
11733	chr2	15745744	15746953	+	DDX1	0x0
11734	chr2	15759847	15761012	+	DDX1	0x0
11735	chr2	15770622	15771712	+	DDX1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11736	chr2	16086120	16087544	+	MYCN	0x2
11737	chr2	16733024	16734167	-	FAM49A	0x0
11738	chr2	17895680	17896841	-	SMC6	0x0
11739	chr2	20231900	20233490	-	LAPTM4A	0x0
11740	chr2	20401077	20402806	-	SDC1	0x0
11741	chr2	20448108	20450952	-	PUM2	0x0
11742	chr2	20496757	20497881	-	PUM2	0x0
11743	chr2	20510728	20511949	-	PUM2	0x0
11744	chr2	20816576	20817710	-	HS1BP3	0x0
11745	chr2	24079719	24080880	-	ATAD2B	0x0
11746	chr2	24290315	24291813	-	SF3B14	0x0
11747	chr2	24425408	24426727	-	ITSN2	0x0
11748	chr2	24428386	24429515	-	ITSN2	0x0
11749	chr2	24462774	24463875	-	ITSN2	0x0
11750	chr2	24480350	24481463	-	ITSN2	0x0
11751	chr2	24483924	24485141	-	ITSN2	0x0
11752	chr2	24508506	24509676	-	ITSN2	0x0
11753	chr2	24991705	24993374	+	NCOA1	0x2
11754	chr2	25166041	25168574	-	DNAJC27	0x0
11755	chr2	25361278	25362464	+	EFR3B	0x0
11756	chr2	25451457	25452633	-	DNMT3A	0x2
11757	chr2	25453791	25455802	-	DNMT3A	0x2
11758	chr2	26021707	26022885	-	ASXL2	0x0
11759	chr2	26028504	26029708	-	ASXL2	0x0
11760	chr2	26149459	26150571	+	RAB10	0x0
11761	chr2	26150750	26151987	-	KIF3C	0x0
11762	chr2	26217171	26218337	+	RAB10	0x0
11763	chr2	26256935	26258119	+	RAB10	0x0
11764	chr2	26357908	26359882	+	RAB10	0x0
11765	chr2	26411111	26412552	+	FAM59B	0x0
11766	chr2	26596494	26597715	+	EPT1	0x0
11767	chr2	26617209	26618335	+	EPT1	0x0
11768	chr2	27015124	27017422	+	CENPA	0x0
11769	chr2	27100992	27102204	+	DPYSL5	0x0
11770	chr2	27170019	27171246	+	DPYSL5	0x0
11771	chr2	27171502	27172788	+	DPYSL5	0x0
11772	chr2	27249093	27250415	+	MAPRE3	0x0
11773	chr2	27277415	27278608	+	AGBL5	0x0
11774	chr2	27289831	27291045	-	OST4	0x0
11775	chr2	27444487	27445998	+	CAD	0x0
11776	chr2	27447411	27448510	+	CAD	0x0
11777	chr2	27454763	27455925	+	CAD	0x0
11778	chr2	27456419	27457527	+	CAD	0x0
11779	chr2	27460111	27461228	+	CAD	0x0
11780	chr2	27466014	27467161	+	CAD	0x0
11781	chr2	27548396	27549795	-	GTF3C2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11782	chr2	27558280	27559379	-	GTF3C2	0x0
11783	chr2	27593131	27594324	+	SNX17	0x0
11784	chr2	27603534	27604782	-	PPM1G	0x0
11785	chr2	27603534	27604782	-	ZNF513	0x0
11786	chr2	27669699	27670896	+	KRTCAP3	0x0
11787	chr2	27839842	27840943	+	ZNF512	0x0
11788	chr2	27854857	27856036	+	GPN1	0x0
11789	chr2	27872555	27874033	+	GPN1	0x0
11790	chr2	28001851	28003089	+	MRPL33	0x0
11791	chr2	28560990	28562159	+	BRE	0x2
11792	chr2	29011010	29012198	+	PPP1CB	0x0
11793	chr2	29021753	29024285	+	PPP1CB	0x0
11794	chr2	29124317	29125491	+	WDR43	0x0
11795	chr2	29136056	29137108	+	SNORD92	0x0
11796	chr2	29136056	29137108	+	WDR43	0x0
11797	chr2	29140250	29141350	+	WDR43	0x0
11798	chr2	29148755	29149869	+	WDR43	0x0
11799	chr2	29169417	29171513	+	WDR43	0x0
11800	chr2	30863184	30864687	+	LCLAT1	0x0
11801	chr2	32116500	32117647	-	MEMO1	0x0
11802	chr2	32145322	32146510	-	MEMO1	0x0
11803	chr2	32234835	32236077	-	MEMO1	0x0
11804	chr2	32381641	32383076	+	SPAST	0x0
11805	chr2	32445255	32447064	+	SLC30A6	0x0
11806	chr2	32530732	32531943	+	YIPF4	0x0
11807	chr2	32639926	32641076	+	BIRC6	0x0
11808	chr2	32693980	32695215	+	BIRC6	0x0
11809	chr2	32701992	32703346	+	BIRC6	0x0
11810	chr2	32703927	32705193	+	BIRC6	0x0
11811	chr2	32706991	32708134	+	BIRC6	0x0
11812	chr2	32714626	32715734	+	BIRC6	0x0
11813	chr2	32727413	32728635	+	BIRC6	0x0
11814	chr2	32742831	32743984	+	BIRC6	0x0
11815	chr2	32843250	32844374	+	BIRC6	0x0
11816	chr2	32957637	32958801	+	TTC27	0x0
11817	chr2	33346429	33347533	-	FAM98A	0x0
11818	chr2	33808330	33810056	-	FAM98A	0x0
11819	chr2	37070720	37072198	-	STRN	0x0
11820	chr2	37073377	37075541	-	STRN	0x0
11821	chr2	37192570	37193750	-	STRN	0x0
11822	chr2	37355026	37356200	-	EIF2AK2	0x1
11823	chr2	37474110	37475243	+	C2orf56	0x0
11824	chr2	37477528	37479425	-	PRKD3	0x0
11825	chr2	38521657	38523529	-	ATL2	0x0
11826	chr2	38708667	38710466	+	GALM	0x0
11827	chr2	38789903	38791747	-	HNRPLL	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11828	chr2	38795748	38796943	-	HNRPLL	0x0
11829	chr2	38818073	38819654	-	HNRPLL	0x0
11830	chr2	38970262	38972374	-	SRSF7	0x0
11831	chr2	38976662	38977756	-	SRSF7	0x0
11832	chr2	39049811	39050982	-	DHX57	0x0
11833	chr2	39211892	39213088	-	SOS1	0x2
11834	chr2	39475829	39477783	-	MAP4K3	0x0
11835	chr2	39526013	39527168	-	MAP4K3	0x0
11836	chr2	39722438	39724035	-	MAP4K3	0x0
11837	chr2	42472060	42473262	+	EML4	0x2
11838	chr2	42509445	42510586	+	EML4	0x2
11839	chr2	42515770	42516926	+	EML4	0x2
11840	chr2	42557395	42558787	+	EML4	0x2
11841	chr2	42577128	42578999	-	COX7A2L	0x0
11842	chr2	42886410	42887523	+	MTA3	0x0
11843	chr2	43450117	43452587	-	ZFP36L2	0x4
11844	chr2	43455424	43458126	-	THADA	0x0
11845	chr2	43654735	43655933	-	THADA	0x0
11846	chr2	43711203	43712443	-	THADA	0x0
11847	chr2	43735277	43736411	-	THADA	0x0
11848	chr2	43755623	43756730	-	THADA	0x0
11849	chr2	43799505	43800604	-	THADA	0x0
11850	chr2	43801403	43802596	-	THADA	0x0
11851	chr2	44131775	44132888	-	LRPPRC	0x0
11852	chr2	44139013	44140209	-	LRPPRC	0x0
11853	chr2	44190228	44191327	-	LRPPRC	0x0
11854	chr2	44200810	44202033	-	LRPPRC	0x0
11855	chr2	44427837	44459961	+	PPM1B	0x0
11856	chr2	44460612	44461726	+	PPM1B	0x0
11857	chr2	44545642	44547984	-	PREPL	0x0
11858	chr2	44661512	44662708	-	PREPL	0x0
11859	chr2	46542049	46543223	+	EPAS1	0x0
11860	chr2	47128701	47132900	-	MCFD2	0x2
11861	chr2	47141343	47142523	-	MCFD2	0x2
11862	chr2	47301923	47303188	+	TTC7A	0x0
11863	chr2	47386932	47388252	-	CALM2	0x0
11864	chr2	47388924	47390335	-	CALM2	0x0
11865	chr2	47600423	47601624	+	EPCAM	0x0
11866	chr2	47613396	47614548	+	EPCAM	0x0
11867	chr2	47635041	47636147	+	MSH2	0x1
11868	chr2	47828246	47829382	+	MSH2	0x1
11869	chr2	47840975	47842111	+	MSH2	0x1
11870	chr2	48025862	48026967	+	MSH6	0x2
11871	chr2	48027580	48028748	+	MSH6	0x2
11872	chr2	48032299	48033397	+	MSH6	0x2
11873	chr2	48034549	48035649	-	FBXO11	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11874	chr2	48573290	48574447	+	FOXN2	0x0
11875	chr2	48824904	48826106	+	STON1	0x0
11876	chr2	52153269	52154492	-	NRXN1	0x0
11877	chr2	53940985	53942172	-	ASB3	0x0
11878	chr2	53940985	53942172	-	GPR75-ASB3	0x0
11879	chr2	53943186	53944373	-	ASB3	0x0
11880	chr2	53943186	53944373	-	GPR75-ASB3	0x0
11881	chr2	54091504	54094607	-	PSME4	0x0
11882	chr2	54113872	54115040	-	PSME4	0x0
11883	chr2	54146883	54148058	-	PSME4	0x0
11884	chr2	54149136	54150318	-	PSME4	0x0
11885	chr2	54466626	54467862	+	ACYP2	0x0
11886	chr2	54838827	54840079	+	SPTBN1	0x1
11887	chr2	54852567	54853692	+	SPTBN1	0x1
11888	chr2	54855562	54857587	+	SPTBN1	0x1
11889	chr2	54888112	54889260	+	SPTBN1	0x1
11890	chr2	54895397	54897336	+	SPTBN1	0x1
11891	chr2	55198772	55200662	-	RTN4	0x0
11892	chr2	55209140	55210321	-	RTN4	0x0
11893	chr2	55214050	55215241	-	RTN4	0x0
11894	chr2	55253006	55255075	-	RTN4	0x0
11895	chr2	55276786	55277887	-	RTN4	0x0
11896	chr2	55459258	55460504	+	RPS27A	0x0
11897	chr2	55515359	55516634	-	CCDC88A	0x0
11898	chr2	55535465	55536621	-	CCDC88A	0x0
11899	chr2	55791555	55792654	-	SMEK2	0x0
11900	chr2	58388126	58389403	-	FANCL	0x0
11901	chr2	58425047	58426349	-	FANCL	0x0
11902	chr2	58902489	58903725	+	FLJ30838	0x0
11903	chr2	58923439	58924698	+	FLJ30838	0x0
11904	chr2	58956414	58957520	+	FLJ30838	0x0
11905	chr2	61121029	61122215	+	REL	0x2
11906	chr2	61167475	61168685	-	PUS10	0x0
11907	chr2	61275636	61276805	+	PEX13	0x0
11908	chr2	61300086	61301185	+	KIAA1841	0x0
11909	chr2	61349159	61351400	+	KIAA1841	0x0
11910	chr2	61414211	61415614	-	USP34	0x0
11911	chr2	61433402	61434547	-	USP34	0x0
11912	chr2	61440639	61442196	-	USP34	0x0
11913	chr2	61446994	61448098	-	USP34	0x0
11914	chr2	61453731	61454881	-	USP34	0x0
11915	chr2	61455111	61457245	-	USP34	0x0
11916	chr2	61472940	61474153	-	USP34	0x0
11917	chr2	61492619	61493720	-	USP34	0x0
11918	chr2	61504349	61505934	-	USP34	0x0
11919	chr2	61507676	61508845	-	USP34	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11920	chr2	61509731	61510939	-	USP34	0x0
11921	chr2	61511476	61512579	-	USP34	0x0
11922	chr2	61515294	61516473	-	USP34	0x0
11923	chr2	61541192	61542642	-	USP34	0x0
11924	chr2	61545842	61546950	-	USP34	0x0
11925	chr2	61574662	61575822	-	USP34	0x0
11926	chr2	61596878	61598065	-	USP34	0x0
11927	chr2	61606783	61608052	-	USP34	0x0
11928	chr2	61704623	61706066	-	XPO1	0x2
11929	chr2	61722106	61723205	-	XPO1	0x2
11930	chr2	61752991	61754198	-	XPO1	0x2
11931	chr2	62099117	62100723	-	CCT4	0x0
11932	chr2	62103565	62104770	-	CCT4	0x0
11933	chr2	62716073	62717136	+	EHBP1	0x0
11934	chr2	64117722	64118875	+	UGP2	0x0
11935	chr2	64119311	64121073	-	VPS54	0x0
11936	chr2	64140815	64141914	-	VPS54	0x0
11937	chr2	64146481	64148236	-	VPS54	0x0
11938	chr2	64320574	64321665	-	PELI1	0x0
11939	chr2	64778858	64780881	+	AFTPH	0x0
11940	chr2	64819148	64820392	+	AFTPH	0x0
11941	chr2	64860330	64861576	-	SERTAD2	0x0
11942	chr2	65248311	65249773	+	SLC1A4	0x0
11943	chr2	65249840	65251087	+	SLC1A4	0x0
11944	chr2	65296974	65298197	+	CEP68	0x0
11945	chr2	65298650	65300131	+	CEP68	0x0
11946	chr2	65300917	65302069	+	CEP68	0x0
11947	chr2	65313735	65316055	-	RAB1A	0x0
11948	chr2	65356620	65357738	-	RAB1A	0x0
11949	chr2	65480263	65481457	+	ACTR2	0x0
11950	chr2	65495911	65497081	+	ACTR2	0x0
11951	chr2	65497134	65498675	+	ACTR2	0x0
11952	chr2	65538574	65539845	-	SPRED2	0x0
11953	chr2	65561255	65562396	-	SPRED2	0x0
11954	chr2	65571161	65572447	-	SPRED2	0x0
11955	chr2	65623124	65624276	-	SPRED2	0x0
11956	chr2	65632136	65633237	-	SPRED2	0x0
11957	chr2	65647005	65648166	-	SPRED2	0x0
11958	chr2	67630116	67631295	+	ETAA1	0x0
11959	chr2	68269032	68270343	-	C1D	0x0
11960	chr2	68356598	68358529	-	WDR92	0x0
11961	chr2	68406153	68408064	-	PPP3R1	0x0
11962	chr2	69363480	69364690	+	ANTXR1	0x0
11963	chr2	69548200	69550909	-	GFPT1	0x0
11964	chr2	69550912	69553169	-	GFPT1	0x0
11965	chr2	69582079	69583248	-	GFPT1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
11966	chr2	69600595	69601736	-	GFPT1	0x0
11967	chr2	69610047	69611149	-	GFPT1	0x0
11968	chr2	69622718	69623941	-	NFU1	0x0
11969	chr2	69641778	69642963	-	NFU1	0x0
11970	chr2	69685059	69686679	-	AAK1	0x0
11971	chr2	69686983	69688152	-	AAK1	0x0
11972	chr2	69691095	69692215	-	AAK1	0x0
11973	chr2	69759077	69760192	-	AAK1	0x0
11974	chr2	69855391	69856516	-	AAK1	0x0
11975	chr2	69857613	69858716	-	AAK1	0x0
11976	chr2	70081483	70082652	+	GMCL1	0x0
11977	chr2	70105833	70107791	+	GMCL1	0x0
11978	chr2	70314837	70316690	+	PCBP1	0x0
11979	chr2	70438065	70439254	-	TIA1	0x0
11980	chr2	70504667	70506254	+	PCYOX1	0x0
11981	chr2	70523104	70524776	-	FAM136A	0x0
11982	chr2	71212716	71215810	-	TEX261	0x0
11983	chr2	71360057	71361238	+	MPHOSPH10	0x0
11984	chr2	71367841	71369092	+	MPHOSPH10	0x0
11985	chr2	71412353	71415570	-	PAIP2B	0x0
11986	chr2	71647561	71648665	+	ZNF638	0x2
11987	chr2	71653519	71654648	+	ZNF638	0x2
11988	chr2	71743386	71744630	+	DYSF	0x0
11989	chr2	71856448	71857595	+	DYSF	0x0
11990	chr2	72403303	72405925	-	EXOC6B	0x0
11991	chr2	72561161	72562294	-	EXOC6B	0x0
11992	chr2	73118232	73119654	+	SPR	0x0
11993	chr2	73198691	73199893	-	SFXN5	0x0
11994	chr2	73300314	73302369	-	RAB11FIP5	0x0
11995	chr2	73338827	73340041	-	RAB11FIP5	0x0
11996	chr2	73449969	73451083	-	PRADC1	0x0
11997	chr2	73454715	73455873	-	PRADC1	0x0
11998	chr2	73471186	73472271	+	CCT7	0x0
11999	chr2	73475704	73476882	+	CCT7	0x0
12000	chr2	73479339	73480726	+	CCT7	0x0
12001	chr2	73645737	73646867	+	ALMS1	0x2
12002	chr2	73651038	73653101	+	ALMS1	0x2
12003	chr2	73676945	73678907	+	ALMS1	0x2
12004	chr2	73679761	73681029	+	ALMS1	0x2
12005	chr2	73746459	73747636	+	ALMS1	0x2
12006	chr2	73776854	73778043	+	ALMS1	0x2
12007	chr2	73799638	73800847	+	ALMS1	0x2
12008	chr2	73802289	73803450	+	ALMS1	0x2
12009	chr2	73827741	73828986	+	ALMS1	0x2
12010	chr2	74010669	74011832	-	DUSP11	0x0
12011	chr2	74272970	74274169	+	TET3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12012	chr2	74326804	74333958	+	TET3	0x0
12013	chr2	74379735	74381460	-	MOB1A	0x1
12014	chr2	74381800	74382955	-	MOB1A	0x1
12015	chr2	74440995	74442125	+	MTHFD2	0x0
12016	chr2	74459034	74460205	-	SLC4A5	0x0
12017	chr2	74668276	74669523	+	INO80B	0x0
12018	chr2	74668276	74669523	+	INO80B-WBP1	0x0
12019	chr2	74755457	74757156	-	AUP1	0x0
12020	chr2	74759540	74760708	+	HTRA2	0x1
12021	chr2	75117857	75120927	+	HK2	0x0
12022	chr2	75186511	75187607	+	POLE4	0x0
12023	chr2	75196201	75197412	+	POLE4	0x0
12024	chr2	84650216	84651365	-	SUCLG1	0x0
12025	chr2	85132604	85134273	+	TMSB10	0x0
12026	chr2	85261714	85262799	+	KCMF1	0x0
12027	chr2	85272733	85273900	+	KCMF1	0x0
12028	chr2	85280173	85282516	+	KCMF1	0x0
12029	chr2	85379648	85380859	+	TCF7L1	0x0
12030	chr2	85407458	85408593	+	TCF7L1	0x0
12031	chr2	85476817	85478026	+	TCF7L1	0x0
12032	chr2	85487535	85488731	+	TCF7L1	0x0
12033	chr2	85547283	85550283	-	TGOLN2	0x0
12034	chr2	85565936	85567167	+	ELMOD3	0x0
12035	chr2	85567355	85568676	-	RETSAT	0x0
12036	chr2	85769603	85772730	+	MAT2A	0x0
12037	chr2	85808441	85809696	+	VAMP8	0x0
12038	chr2	85826193	85827325	-	TMEM150A	0x0
12039	chr2	85875391	85876879	+	USP39	0x0
12040	chr2	86110370	86111668	-	ST3GAL5	0x0
12041	chr2	86252939	86255233	-	POLR1A	0x0
12042	chr2	86266989	86268085	-	POLR1A	0x0
12043	chr2	86268496	86269690	-	POLR1A	0x0
12044	chr2	86291879	86293020	-	POLR1A	0x0
12045	chr2	86345519	86346738	+	PTCD3	0x0
12046	chr2	86370659	86372260	-	IMMT	0x0
12047	chr2	86377998	86379247	-	IMMT	0x0
12048	chr2	86439734	86440914	+	MRPL35	0x0
12049	chr2	86440742	86444522	-	REEP1	0x0
12050	chr2	86701413	86702613	+	KDM3A	0x2
12051	chr2	86718690	86720321	+	KDM3A	0x2
12052	chr2	86731564	86733187	-	CHMP3	0x0
12053	chr2	86731564	86733187	-	RNF103-CHMP3	0x0
12054	chr2	86978991	86980276	+	RMND5A	0x0
12055	chr2	87001301	87005143	+	RMND5A	0x0
12056	chr2	88326459	88328633	-	KRCC1	0x0
12057	chr2	88856594	88857833	-	EIF2AK3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12058	chr2	88889920	88891119	-	EIF2AK3	0x0
12059	chr2	89049536	89050671	+	RPIA	0x0
12060	chr2	96689698	96690803	-	GPAT2	0x0
12061	chr2	96778785	96779911	-	ADRA2B	0x0
12062	chr2	96850157	96852712	-	STARD7	0x0
12063	chr2	96873783	96875020	-	STARD7	0x0
12064	chr2	96879901	96881051	+	LOC285033	0x0
12065	chr2	96914975	96916193	-	TMEM127	0x1
12066	chr2	96916932	96918874	-	TMEM127	0x1
12067	chr2	96936595	96937878	+	CIAO1	0x0
12068	chr2	96940198	96941417	-	SNRNP200	0x0
12069	chr2	96943795	96944926	-	SNRNP200	0x0
12070	chr2	96949662	96950839	-	SNRNP200	0x0
12071	chr2	97259568	97260773	-	KANSL3	0x0
12072	chr2	97284591	97285768	-	KANSL3	0x0
12073	chr2	97371489	97372871	-	LMAN2L	0x0
12074	chr2	97476950	97478046	+	CNNM4	0x2
12075	chr2	97499060	97500109	+	CNNM3	0x0
12076	chr2	97525520	97526694	-	SEMA4C	0x0
12077	chr2	97586227	97587400	-	FAM178B	0x0
12078	chr2	98270856	98273102	-	ACTR1B	0x0
12079	chr2	98377956	98379188	-	TMEM131	0x0
12080	chr2	98392544	98393740	-	TMEM131	0x0
12081	chr2	98408396	98409537	-	TMEM131	0x0
12082	chr2	98412203	98413397	-	TMEM131	0x0
12083	chr2	98443997	98445226	+	ZAP70	0x0
12084	chr2	99212924	99216361	-	COA5	0x0
12085	chr2	99216386	99217570	-	COA5	0x0
12086	chr2	99237151	99238363	-	MGAT4A	0x0
12087	chr2	99239805	99240953	-	MGAT4A	0x0
12088	chr2	99998066	99999255	+	EIF5B	0x0
12089	chr2	100006524	100007590	+	EIF5B	0x0
12090	chr2	100015398	100016581	+	EIF5B	0x0
12091	chr2	100020505	100021654	-	REV1	0x0
12092	chr2	100026687	100027847	-	REV1	0x0
12093	chr2	100028635	100029903	-	REV1	0x0
12094	chr2	100037463	100038668	-	REV1	0x0
12095	chr2	100054678	100056294	-	REV1	0x0
12096	chr2	100692084	100693229	-	AFF3	0x2
12097	chr2	101008403	101009610	-	CHST10	0x0
12098	chr2	101880912	101882378	+	C2orf29	0x0
12099	chr2	102136266	102137454	-	RFX8	0x0
12100	chr2	102485569	102486777	+	MAP4K4	0x2
12101	chr2	102504759	102505952	+	MAP4K4	0x2
12102	chr2	102508479	102509737	+	MAP4K4	0x2
12103	chr2	102743046	102744195	+	IL1R1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12104	chr2	105387570	105388809	+	POU3F3	0x0
12105	chr2	105951071	105952173	-	TGFBRAP1	0x0
12106	chr2	105956453	105957647	+	C2orf49	0x0
12107	chr2	105963853	105965469	+	C2orf49	0x0
12108	chr2	106373299	106374409	+	NCK2	0x0
12109	chr2	106481270	106482452	+	NCK2	0x0
12110	chr2	106497708	106498874	+	NCK2	0x0
12111	chr2	106708318	106710510	-	UXS1	0x0
12112	chr2	109301683	109304142	+	LIMS1	0x0
12113	chr2	109382048	109384142	+	RANBP2	0x0
12114	chr2	110300823	110302306	-	SEPT10	0x0
12115	chr2	110321426	110322637	-	SEPT10	0x0
12116	chr2	111418652	111419843	-	BUB1	0x0
12117	chr2	112522903	112524007	-	ANAPC1	0x0
12118	chr2	112525526	112526812	-	ANAPC1	0x0
12119	chr2	112549440	112550727	-	ANAPC1	0x0
12120	chr2	112578355	112579502	-	ANAPC1	0x0
12121	chr2	112697572	112698892	-	ANAPC1	0x0
12122	chr2	112873835	112875490	+	TMEM87B	0x0
12123	chr2	112875901	112877001	+	TMEM87B	0x0
12124	chr2	113286872	113287995	+	TTL	0x2
12125	chr2	113288746	113289904	+	TTL	0x2
12126	chr2	113308941	113310041	+	POLR1B	0x0
12127	chr2	113321474	113322625	+	POLR1B	0x0
12128	chr2	113403930	113405514	+	SLC20A1	0x0
12129	chr2	113409801	113410900	+	SLC20A1	0x0
12130	chr2	113420508	113421911	+	SLC20A1	0x0
12131	chr2	113495375	113496875	-	CKAP2L	0x0
12132	chr2	113499501	113500627	+	SLC20A1	0x0
12133	chr2	114512283	114513430	-	SLC35F5	0x0
12134	chr2	114691323	114692545	+	ACTR3	0x0
12135	chr2	114714556	114716546	+	ACTR3	0x0
12136	chr2	118674240	118675648	-	CCDC93	0x0
12137	chr2	118866027	118867886	+	INSIG2	0x0
12138	chr2	120689493	120690649	+	PTPN4	0x0
12139	chr2	120734214	120735370	+	PTPN4	0x0
12140	chr2	120736249	120738285	+	PTPN4	0x0
12141	chr2	120739849	120742754	+	PTPN4	0x0
12142	chr2	120917980	120919124	+	EPB41L5	0x0
12143	chr2	120933673	120934783	+	EPB41L5	0x0
12144	chr2	121050171	121051346	+	RALB	0x0
12145	chr2	121537307	121538509	+	GLI2	0x0
12146	chr2	121667868	121669104	+	GLI2	0x0
12147	chr2	121748629	121749998	+	GLI2	0x0
12148	chr2	121973807	121975205	-	TFCP2L1	0x0
12149	chr2	122095480	122096627	-	CLASP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12150	chr2	122164464	122165649	-	CLASP1	0x0
12151	chr2	122204388	122205595	-	CLASP1	0x0
12152	chr2	122287907	122289117	+	RNU4ATAC	0x0
12153	chr2	122522657	122524626	+	TSN	0x0
12154	chr2	127314035	127315396	-	BIN1	0x1
12155	chr2	128237323	128238483	-	IWS1	0x0
12156	chr2	128246929	128248035	-	IWS1	0x0
12157	chr2	128484983	128486201	-	WDR33	0x0
12158	chr2	128619088	128620197	-	AMMECR1L	0x0
12159	chr2	128698368	128699781	-	SAP130	0x0
12160	chr2	128929652	128930768	+	UGGT1	0x2
12161	chr2	128946784	128948486	+	UGGT1	0x2
12162	chr2	128949008	128950919	+	UGGT1	0x2
12163	chr2	129023647	129026850	-	HS6ST1	0x0
12164	chr2	130912220	130913360	-	SMPD4	0x0
12165	chr2	131805922	131808510	-	FAM168B	0x0
12166	chr2	131906353	131907555	+	PLEKHB2	0x0
12167	chr2	132235402	132236501	+	TUBA3D	0x0
12168	chr2	133196949	133198219	+	GPR39	0x0
12169	chr2	135101977	135103113	+	MGAT5	0x0
12170	chr2	135206984	135208522	+	MGAT5	0x0
12171	chr2	135209493	135211019	+	MGAT5	0x0
12172	chr2	135684847	135685963	+	CCNT2	0x0
12173	chr2	135703298	135704571	+	CCNT2	0x0
12174	chr2	135712149	135714772	+	CCNT2	0x0
12175	chr2	135894739	135895848	+	RAB3GAP1	0x0
12176	chr2	135926450	135927835	+	RAB3GAP1	0x0
12177	chr2	136072422	136073622	-	ZRANB3	0x0
12178	chr2	136268861	136270091	-	ZRANB3	0x0
12179	chr2	136288533	136289732	+	R3HDM1	0x0
12180	chr2	136388690	136389910	+	R3HDM1	0x0
12181	chr2	136408949	136410153	+	R3HDM1	0x0
12182	chr2	136481108	136483344	+	R3HDM1	0x0
12183	chr2	136540577	136542244	+	UBXN4	0x0
12184	chr2	136597490	136599026	-	MCM6	0x0
12185	chr2	136603296	136604392	-	MCM6	0x0
12186	chr2	136608399	136609519	-	MCM6	0x0
12187	chr2	136609869	136610968	-	MCM6	0x0
12188	chr2	136622086	136623253	-	MCM6	0x0
12189	chr2	139307528	139308622	+	SPOPL	0x0
12190	chr2	139326460	139327690	+	SPOPL	0x0
12191	chr2	141915500	141916819	+	KYNU	0x0
12192	chr2	148686205	148687310	+	ACVR2A	0x2
12193	chr2	148687518	148688673	-	ORC4	0x0
12194	chr2	148701215	148702459	-	ORC4	0x0
12195	chr2	149228812	149230289	+	MBD5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12196	chr2	149447181	149448389	+	EPC2	0x0
12197	chr2	149544085	149545535	+	EPC2	0x0
12198	chr2	149793252	149794407	+	KIF5C	0x0
12199	chr2	149879157	149880373	+	KIF5C	0x0
12200	chr2	149880452	149881613	+	KIF5C	0x0
12201	chr2	149882516	149883707	+	KIF5C	0x0
12202	chr2	152266432	152267677	+	RIF1	0x0
12203	chr2	152272591	152273932	+	RIF1	0x0
12204	chr2	152310950	152312111	+	RIF1	0x0
12205	chr2	152313828	152314944	+	RIF1	0x0
12206	chr2	152318907	152320009	+	RIF1	0x0
12207	chr2	152331446	152335568	+	RIF1	0x0
12208	chr2	152336077	152337862	+	RIF1	0x0
12209	chr2	152337992	152339190	+	RIF1	0x0
12210	chr2	152654815	152657096	-	ARL5A	0x0
12211	chr2	152657302	152659547	-	ARL5A	0x0
12212	chr2	152975744	152976938	-	STAM2	0x0
12213	chr2	153416949	153418120	+	FMNL2	0x0
12214	chr2	153511740	153512992	-	PRPF40A	0x0
12215	chr2	157438865	157440338	+	GPD2	0x0
12216	chr2	157441343	157443039	+	GPD2	0x0
12217	chr2	159311259	159312395	-	CCDC148	0x0
12218	chr2	159514195	159515297	+	PKP4	0x0
12219	chr2	159518931	159520066	+	PKP4	0x0
12220	chr2	159525305	159526417	+	PKP4	0x0
12221	chr2	159536601	159538330	+	PKP4	0x0
12222	chr2	160011996	160013111	+	TANC1	0x0
12223	chr2	160019337	160020544	+	TANC1	0x0
12224	chr2	160087667	160088768	+	TANC1	0x0
12225	chr2	160317293	160318673	-	BAZ2B	0x2
12226	chr2	160603913	160605178	+	MARCH7	0x0
12227	chr2	160624233	160625352	+	MARCH7	0x0
12228	chr2	161128955	161130168	-	RBMS1	0x0
12229	chr2	162227188	162228366	+	PSMD14	0x0
12230	chr2	164368234	164369355	-	FIGN	0x0
12231	chr2	166541679	166542839	+	CSRNP3	0x0
12232	chr2	168810459	168811618	-	STK39	0x0
12233	chr2	168977827	168979828	-	STK39	0x0
12234	chr2	169626355	169632111	+	CERS6	0x0
12235	chr2	170185635	170186773	-	LRP2	0x2
12236	chr2	170493080	170495287	+	PPIG	0x0
12237	chr2	170496519	170497640	+	PPIG	0x0
12238	chr2	170655296	170656480	+	SSB	0x2
12239	chr2	170667936	170669093	+	SSB	0x2
12240	chr2	170798570	170799669	+	UBR3	0x2
12241	chr2	170917084	170918310	+	UBR3	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12242	chr2	170938198	170939311	+	UBR3	0x2
12243	chr2	171607750	171609688	+	LOC100505695	0x0
12244	chr2	171822527	171823825	+	GORASP2	0x0
12245	chr2	171848407	171850019	-	TLK1	0x0
12246	chr2	171876643	171877839	-	TLK1	0x0
12247	chr2	171973705	171974922	-	TLK1	0x0
12248	chr2	172373290	172374764	-	METTL8	0x0
12249	chr2	172603829	172604956	+	DYNC1I2	0x0
12250	chr2	172803005	172804138	+	HAT1	0x0
12251	chr2	172821821	172822999	+	HAT1	0x0
12252	chr2	172847719	172849031	+	HAT1	0x0
12253	chr2	173329655	173330961	+	ITGA6	0x0
12254	chr2	173351547	173352689	+	ITGA6	0x0
12255	chr2	173362001	173363102	+	ITGA6	0x0
12256	chr2	173370109	173371334	+	ITGA6	0x0
12257	chr2	173431082	173432243	+	PDK1	0x0
12258	chr2	173434912	173436138	+	PDK1	0x0
12259	chr2	173460192	173462807	+	PDK1	0x0
12260	chr2	173462909	173464131	+	PDK1	0x0
12261	chr2	174081264	174082426	+	ZAK	0x0
12262	chr2	174088878	174090103	+	ZAK	0x0
12263	chr2	174231904	174233247	+	CDCA7	0x0
12264	chr2	174819780	174821007	-	SP3	0x0
12265	chr2	174939058	174940661	-	OLA1	0x0
12266	chr2	175936693	175939404	-	ATF2	0x0
12267	chr2	176031625	176032877	-	ATF2	0x0
12268	chr2	176031625	176032877	-	MIR933	0x0
12269	chr2	176042325	176043582	-	ATP5G3	0x0
12270	chr2	176790367	176791829	-	KIAA1715	0x0
12271	chr2	176792616	176794061	-	KIAA1715	0x0
12272	chr2	176996605	176997734	+	HOXD8	0x0
12273	chr2	177017555	177018657	+	HOXD4	0x0
12274	chr2	177065087	177066546	-	HOXD-AS1	0x0
12275	chr2	178084454	178086671	+	HNRNPA3	0x0
12276	chr2	178095280	178096893	-	NFE2L2	0x2
12277	chr2	178309801	178310945	+	AGPS	0x0
12278	chr2	178373211	178374348	+	AGPS	0x0
12279	chr2	178403018	178406770	+	AGPS	0x0
12280	chr2	178974600	178975778	-	PDE11A	0x0
12281	chr2	179295836	179297138	-	PRKRA	0x0
12282	chr2	179368126	179369510	+	PLEKHA3	0x0
12283	chr2	179411814	179413336	-	TTN	0x2
12284	chr2	179728663	179729902	-	CCDC141	0x0
12285	chr2	179840740	179841946	-	CCDC141	0x0
12286	chr2	179966717	179968478	-	SESTD1	0x0
12287	chr2	180118637	180119946	-	SESTD1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12288	chr2	180814764	180815937	-	CWC22	0x0
12289	chr2	182536513	182537722	-	NEUROD1	0x0
12290	chr2	182764886	182766086	+	SSFA2	0x0
12291	chr2	182792378	182793588	+	SSFA2	0x0
12292	chr2	182794438	182795636	+	SSFA2	0x0
12293	chr2	183641304	183642410	+	DNAJC10	0x0
12294	chr2	183789097	183790532	-	NCKAP1	0x0
12295	chr2	183847507	183848606	-	NCKAP1	0x0
12296	chr2	187373121	187374590	+	ZC3H15	0x0
12297	chr2	187454474	187455622	+	ITGAV	0x1
12298	chr2	187539888	187540938	+	ITGAV	0x1
12299	chr2	188340897	188342150	-	TFPI	0x0
12300	chr2	190530217	190532869	+	ASNSD1	0x0
12301	chr2	190534622	190535838	+	ASNSD1	0x0
12302	chr2	190634599	190635772	-	ORMDL1	0x0
12303	chr2	190659902	190661129	+	PMS1	0x1
12304	chr2	191046318	191047515	+	C2orf88	0x0
12305	chr2	191066488	191068553	+	C2orf88	0x0
12306	chr2	191366108	191367243	+	MFSD6	0x0
12307	chr2	191795737	191796961	+	GLS	0x0
12308	chr2	191799088	191800217	+	GLS	0x0
12309	chr2	191850546	191851862	+	GLS	0x0
12310	chr2	192288302	192290089	+	MYO1B	0x0
12311	chr2	192551119	192552314	+	OBFC2A	0x0
12312	chr2	195659469	195660565	-	DNAH7	0x2
12313	chr2	196599196	196602036	+	SLC39A10	0x2
12314	chr2	196602216	196603411	+	SLC39A10	0x2
12315	chr2	197000616	197002182	-	STK17B	0x0
12316	chr2	197697357	197698524	-	PGAP1	0x0
12317	chr2	197699030	197700128	-	PGAP1	0x0
12318	chr2	197700793	197702043	-	PGAP1	0x0
12319	chr2	197850998	197852192	-	ANKRD44	0x0
12320	chr2	198255187	198256351	-	SF3B1	0x2
12321	chr2	198256512	198258444	-	SF3B1	0x2
12322	chr2	198260350	198261513	-	SF3B1	0x2
12323	chr2	198266237	198267435	-	SF3B1	0x2
12324	chr2	198272244	198273406	-	SF3B1	0x2
12325	chr2	198299169	198300389	-	SF3B1	0x2
12326	chr2	198350798	198353263	-	HSPD1	0x0
12327	chr2	198357555	198358652	-	HSPD1	0x0
12328	chr2	198362788	198364157	-	HSPD1	0x0
12329	chr2	198367438	198368622	+	HSPE1	0x0
12330	chr2	198416614	198417832	+	HSPE1-MOB4	0x0
12331	chr2	198416614	198417832	+	MOB4	0x0
12332	chr2	200134203	200136970	-	SATB2	0x2
12333	chr2	200213192	200214354	-	SATB2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12334	chr2	200827948	200829156	+	C2orf47	0x0
12335	chr2	201435892	201437712	+	SGOL2	0x0
12336	chr2	201686557	201688520	+	BZW1	0x0
12337	chr2	201724456	201725653	-	CLK1	0x0
12338	chr2	201844437	201845580	-	FAM126B	0x0
12339	chr2	202242276	202243492	-	TRAK2	0x0
12340	chr2	202342639	202343765	+	STRADB	0x0
12341	chr2	202902315	202904061	+	FZD7	0x0
12342	chr2	203070915	203072305	-	SUMO1	0x0
12343	chr2	203154510	203155746	+	NOP58	0x0
12344	chr2	203161631	203162819	+	NOP58	0x0
12345	chr2	203167697	203168938	+	NOP58	0x0
12346	chr2	203331737	203332976	+	BMPR2	0x0
12347	chr2	203420039	203421141	+	BMPR2	0x0
12348	chr2	203428662	203429908	+	BMPR2	0x0
12349	chr2	203431553	203432725	+	BMPR2	0x0
12350	chr2	203630879	203634941	+	FAM117B	0x0
12351	chr2	203850608	203851795	+	ALS2CR8	0x0
12352	chr2	203999988	204001199	+	NBEAL1	0x0
12353	chr2	204054992	204056494	+	NBEAL1	0x0
12354	chr2	204077765	204078947	+	NBEAL1	0x0
12355	chr2	204259800	204260970	+	ABI2	0x1
12356	chr2	204292075	204296628	+	ABI2	0x1
12357	chr2	204298451	204299665	-	RAPH1	0x2
12358	chr2	204300717	204301818	-	RAPH1	0x2
12359	chr2	204302540	204303688	-	RAPH1	0x2
12360	chr2	206569991	206571202	-	INO80D	0x0
12361	chr2	206607351	206608556	+	NRP2	0x0
12362	chr2	206641892	206643625	+	NRP2	0x0
12363	chr2	206660877	206663345	+	NRP2	0x0
12364	chr2	206859240	206860317	-	INO80D	0x0
12365	chr2	206860660	206862527	-	INO80D	0x0
12366	chr2	206863083	206865150	-	INO80D	0x0
12367	chr2	206865412	206868049	-	INO80D	0x0
12368	chr2	206920741	206922096	-	INO80D	0x0
12369	chr2	207006907	207008095	-	NDUFS1	0x0
12370	chr2	207009086	207010328	+	EEF1B2	0x0
12371	chr2	207025531	207028183	+	EEF1B2	0x0
12372	chr2	207025531	207028183	+	SNORA41	0x0
12373	chr2	207025531	207028183	+	SNORD51	0x0
12374	chr2	207077777	207078957	+	EEF1B2	0x0
12375	chr2	207168985	207170175	+	ZDBF2	0x4
12376	chr2	207171240	207172507	+	ZDBF2	0x4
12377	chr2	207180424	207182077	+	ZDBF2	0x4
12378	chr2	207366700	207367864	+	ADAM23	0x0
12379	chr2	207435901	207437084	+	ADAM23	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12380	chr2	207468983	207470943	+	ADAM23	0x0
12381	chr2	207472201	207473347	+	ADAM23	0x0
12382	chr2	207474438	207475548	+	ADAM23	0x0
12383	chr2	207481503	207482949	+	ADAM23	0x0
12384	chr2	207484100	207485718	+	ADAM23	0x0
12385	chr2	207659966	207661193	+	FASTKD2	0x0
12386	chr2	207988296	207989523	-	KLF7	0x0
12387	chr2	208462551	208468219	+	CREB1	0x2
12388	chr2	208589880	208591127	+	CCNYL1	0x0
12389	chr2	208620070	208621312	+	CCNYL1	0x0
12390	chr2	208627058	208631084	-	FZD5	0x0
12391	chr2	208633025	208634249	-	FZD5	0x0
12392	chr2	208685647	208686815	-	PLEKHM3	0x0
12393	chr2	208688844	208690094	-	PLEKHM3	0x0
12394	chr2	208690169	208691466	-	PLEKHM3	0x0
12395	chr2	208796607	208797785	-	PLEKHM3	0x0
12396	chr2	209100484	209102137	-	IDH1	0x1
12397	chr2	209135733	209136880	+	PIKFYVE	0x0
12398	chr2	209152990	209154215	+	PIKFYVE	0x0
12399	chr2	209221294	209223425	+	PIKFYVE	0x0
12400	chr2	210557905	210559053	+	MAP2	0x2
12401	chr2	210596373	210597773	+	MAP2	0x2
12402	chr2	210880686	210882825	+	RPE	0x0
12403	chr2	210884636	210886122	+	RPE	0x0
12404	chr2	215591340	215593257	-	BARD1	0x1
12405	chr2	215609265	215610473	-	BARD1	0x1
12406	chr2	215645222	215646616	-	BARD1	0x1
12407	chr2	215711182	215712410	+	VWC2L	0x0
12408	chr2	216196628	216197742	+	ATIC	0x2
12409	chr2	216213824	216215082	+	ATIC	0x2
12410	chr2	216225073	216227278	-	FN1	0x2
12411	chr2	216229707	216230917	-	FN1	0x2
12412	chr2	216236113	216237478	-	FN1	0x2
12413	chr2	216240822	216241888	-	FN1	0x2
12414	chr2	216249028	216250250	-	FN1	0x2
12415	chr2	216251034	216252228	-	FN1	0x2
12416	chr2	216255853	216257035	-	FN1	0x2
12417	chr2	216257224	216258422	-	FN1	0x2
12418	chr2	216258763	216259992	-	FN1	0x2
12419	chr2	216261936	216263166	-	FN1	0x2
12420	chr2	216284879	216286046	-	FN1	0x2
12421	chr2	216286295	216287494	-	FN1	0x2
12422	chr2	216287575	216288749	-	FN1	0x2
12423	chr2	216289340	216290535	-	FN1	0x2
12424	chr2	216294895	216297218	-	FN1	0x2
12425	chr2	216807400	216808563	-	MREG	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12426	chr2	216983737	216984959	+	XRCC5	0x0
12427	chr2	216991744	216992933	+	XRCC5	0x0
12428	chr2	217028971	217030152	+	XRCC5	0x0
12429	chr2	217054625	217055982	+	XRCC5	0x0
12430	chr2	217069283	217070522	+	XRCC5	0x0
12431	chr2	217474911	217476103	+	IGFBP2	0x0
12432	chr2	217497671	217498900	+	IGFBP2	0x0
12433	chr2	217528328	217529648	+	IGFBP2	0x0
12434	chr2	217536775	217538001	-	IGFBP5	0x1
12435	chr2	218664827	218667893	-	TNS1	0x0
12436	chr2	218668038	218669291	-	TNS1	0x0
12437	chr2	218712857	218714070	-	TNS1	0x0
12438	chr2	218728305	218729566	-	TNS1	0x0
12439	chr2	219128443	219129560	-	AAMP	0x0
12440	chr2	219133679	219134775	-	AAMP	0x0
12441	chr2	219138787	219140021	-	TMBIM1	0x0
12442	chr2	219207717	219208818	+	PNKD	0x0
12443	chr2	219210506	219211694	+	PNKD	0x0
12444	chr2	219314556	219317855	-	USP37	0x0
12445	chr2	219318192	219319488	-	USP37	0x0
12446	chr2	219432093	219433307	-	USP37	0x0
12447	chr2	219458941	219461372	+	RQCD1	0x0
12448	chr2	219508962	219510176	-	ZNF142	0x0
12449	chr2	219598872	219600117	+	TTLL4	0x0
12450	chr2	219611786	219612994	+	TTLL4	0x0
12451	chr2	219617342	219618436	+	TTLL4	0x0
12452	chr2	219621711	219623394	+	TTLL4	0x0
12453	chr2	220047625	220048743	+	FAM134A	0x0
12454	chr2	220083999	220085190	-	ATG9A	0x0
12455	chr2	220113128	220114306	+	STK16	0x0
12456	chr2	220114499	220117493	-	TUBA4A	0x0
12457	chr2	220404332	220405453	-	CHPF	0x0
12458	chr2	220425969	220427163	-	OBSL1	0x0
12459	chr2	220479332	220480477	+	STK11IP	0x0
12460	chr2	222282446	222284960	-	EPHA4	0x2
12461	chr2	222289448	222290872	-	EPHA4	0x2
12462	chr2	222327633	222328854	-	EPHA4	0x2
12463	chr2	222428405	222429619	-	EPHA4	0x2
12464	chr2	222826900	222828825	+	CCDC140	0x0
12465	chr2	223464084	223465281	-	FARSB	0x0
12466	chr2	223467428	223468752	-	FARSB	0x0
12467	chr2	223726444	223727541	+	ACSL3	0x2
12468	chr2	223788729	223789880	+	ACSL3	0x2
12469	chr2	223797340	223798496	+	ACSL3	0x2
12470	chr2	223805899	223807350	+	ACSL3	0x2
12471	chr2	224620971	224622186	-	AP1S3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12472	chr2	224740126	224743253	-	WDFY1	0x0
12473	chr2	225336224	225337931	-	CUL3	0x1
12474	chr2	225367768	225368944	-	CUL3	0x1
12475	chr2	227233678	227234822	+	LOC646736	0x0
12476	chr2	228221176	228222952	+	MFF	0x0
12477	chr2	228395206	228396408	+	AGFG1	0x2
12478	chr2	228420507	228421742	+	AGFG1	0x2
12479	chr2	228441968	228443192	+	AGFG1	0x2
12480	chr2	229739875	229741099	-	PID1	0x0
12481	chr2	230628021	230629552	-	TRIP12	0x0
12482	chr2	230629955	230632965	-	TRIP12	0x0
12483	chr2	230633456	230634528	-	TRIP12	0x0
12484	chr2	230638345	230639430	-	TRIP12	0x0
12485	chr2	230659399	230660530	-	TRIP12	0x0
12486	chr2	230660772	230663028	-	TRIP12	0x0
12487	chr2	230677657	230679189	-	TRIP12	0x0
12488	chr2	230693390	230694589	-	TRIP12	0x0
12489	chr2	230723013	230724498	-	TRIP12	0x0
12490	chr2	230724614	230725809	-	TRIP12	0x0
12491	chr2	230784959	230786101	-	TRIP12	0x0
12492	chr2	230901129	230902311	-	SLC16A14	0x0
12493	chr2	231683930	231685817	+	CAB39	0x0
12494	chr2	231742320	231744245	+	ITM2C	0x0
12495	chr2	231934252	231935465	+	PSMD1	0x0
12496	chr2	231944359	231945493	+	PSMD1	0x0
12497	chr2	231947770	231949004	+	PSMD1	0x0
12498	chr2	232002927	232004095	+	PSMD1	0x0
12499	chr2	232036760	232037964	+	PSMD1	0x0
12500	chr2	232079712	232080848	+	ARMC9	0x0
12501	chr2	232262123	232264429	+	B3GNT7	0x0
12502	chr2	232319306	232320418	-	NCL	0x0
12503	chr2	232321852	232322980	-	NCL	0x0
12504	chr2	232323214	232324380	-	NCL	0x0
12505	chr2	232324966	232326956	-	NCL	0x0
12506	chr2	232324966	232326956	-	SNORD82	0x0
12507	chr2	232576617	232578794	+	MIR1244-1	0x0
12508	chr2	232576617	232578794	+	MIR1244-2	0x0
12509	chr2	232576617	232578794	+	MIR1244-3	0x0
12510	chr2	232576617	232578794	+	PTMA	0x0
12511	chr2	232630693	232631815	-	PDE6D	0x0
12512	chr2	232672130	232673905	+	COPS7B	0x0
12513	chr2	233164604	233165802	+	DIS3L2	0x0
12514	chr2	233433135	233434355	+	EIF4E2	0x0
12515	chr2	233436012	233437419	+	EIF4E2	0x0
12516	chr2	233445267	233446718	+	EIF4E2	0x0
12517	chr2	233613122	233614312	+	GIGYF2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12518	chr2	233721601	233723531	+	GIGYF2	0x0
12519	chr2	234115195	234116416	+	INPP5D	0x0
12520	chr2	234183947	234185220	+	SCARNA5	0x0
12521	chr2	234196814	234198077	+	SCARNA6	0x0
12522	chr2	234202822	234203992	+	ATG16L1	0x0
12523	chr2	234378767	234380639	+	DGKD	0x0
12524	chr2	234746406	234747505	-	HJURP	0x0
12525	chr2	234762585	234763841	-	HJURP	0x0
12526	chr2	236504183	236505355	+	AGAP1	0x0
12527	chr2	236578705	236579911	+	AGAP1	0x0
12528	chr2	237033070	237035359	+	AGAP1	0x0
12529	chr2	237039793	237040901	+	AGAP1	0x0
12530	chr2	237073440	237074590	-	GBX2	0x0
12531	chr2	238903479	238904667	+	UBE2F	0x0
12532	chr2	238903479	238904667	+	UBE2F-SCLY	0x0
12533	chr2	239078537	239079801	-	ILKAP	0x0
12534	chr2	239095842	239097564	-	ILKAP	0x0
12535	chr2	239100389	239101518	-	ILKAP	0x0
12536	chr2	239358639	239360837	+	ASB1	0x0
12537	chr2	239972227	239973515	-	HDAC4	0x2
12538	chr2	240016174	240017278	-	HDAC4	0x2
12539	chr2	240023903	240025145	-	HDAC4	0x2
12540	chr2	240036269	240037464	-	HDAC4	0x2
12541	chr2	240273066	240275086	-	HDAC4	0x2
12542	chr2	240273066	240275086	-	MIR2467	0x0
12543	chr2	241069849	241071019	-	MYEOV2	0x4
12544	chr2	241402273	241403433	+	GPC1	0x0
12545	chr2	241517417	241518649	+	RNPEPL1	0x0
12546	chr2	242122379	242123591	+	PPP1R7	0x0
12547	chr2	242167668	242170189	-	HDLBP	0x2
12548	chr2	242173983	242175185	-	HDLBP	0x2
12549	chr2	242185651	242186750	-	HDLBP	0x2
12550	chr2	242195022	242196251	-	HDLBP	0x2
12551	chr2	242291174	242293311	+	SEPT2	0x0
12552	chr2	242373089	242374208	+	FARP2	0x0
12553	chr2	242384841	242385937	+	FARP2	0x0
12554	chr2	242593672	242594980	+	ATG4B	0x0
12555	chr2	242614893	242616159	-	DTYMK	0x0
12556	chr2	242617377	242618618	-	DTYMK	0x0
12557	chr2	242664480	242666090	+	ING5	0x1
12558	chr2	242668021	242669242	+	ING5	0x1
12559	chr20	279434	280583	+	ZCCHC3	0x0
12560	chr20	306946	309897	+	SOX12	0x0
12561	chr20	377272	378477	+	TRIB3	0x0
12562	chr20	410716	412101	+	RBCK1	0x0
12563	chr20	461285	463228	-	CSNK2A1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12564	chr20	463502	464585	-	CSNK2A1	0x0
12565	chr20	475876	481035	-	CSNK2A1	0x0
12566	chr20	586306	587548	-	TCF15	0x0
12567	chr20	626902	629644	-	SRXN1	0x0
12568	chr20	738820	739970	-	C20orf54	0x0
12569	chr20	1349154	1350831	-	FKBP1A	0x0
12570	chr20	1421593	1422664	-	NSFL1C	0x0
12571	chr20	1446777	1447988	-	NSFL1C	0x0
12572	chr20	1919013	1920979	+	SIRPA	0x0
12573	chr20	2096877	2098489	+	STK35	0x0
12574	chr20	2125284	2126342	+	STK35	0x0
12575	chr20	2126763	2129210	+	STK35	0x0
12576	chr20	2441844	2443059	-	SNRPB	0x0
12577	chr20	2443958	2446993	-	SNRPB	0x0
12578	chr20	2447444	2448647	-	SNRPB	0x0
12579	chr20	2636649	2639102	+	NOP56	0x0
12580	chr20	2636649	2639102	+	SNORD56	0x0
12581	chr20	2636649	2639102	+	SNORD57	0x0
12582	chr20	2636649	2639102	+	SNORD86	0x0
12583	chr20	2777360	2778535	-	CPXM1	0x0
12584	chr20	2795664	2796844	-	CPXM1	0x0
12585	chr20	2841615	2842661	+	VPS16	0x0
12586	chr20	3028096	3029302	+	MRPS26	0x0
12587	chr20	3210666	3211850	-	SLC4A11	0x0
12588	chr20	3339127	3340268	-	C20orf194	0x0
12589	chr20	3628688	3629776	+	ATRN	0x0
12590	chr20	3764711	3767351	-	CENPB	0x0
12591	chr20	3850409	3851630	+	MAVS	0x0
12592	chr20	3888107	3889323	+	PANK2	0x0
12593	chr20	3907660	3908728	+	PANK2	0x0
12594	chr20	3910560	3912384	-	RNF24	0x0
12595	chr20	4004090	4005544	+	PANK2	0x0
12596	chr20	4609536	4611377	-	PRNT	0x0
12597	chr20	4681562	4682672	+	PRNP	0x0
12598	chr20	4832821	4837734	-	SLC23A2	0x0
12599	chr20	4871590	4872820	-	SLC23A2	0x0
12600	chr20	4882551	4883772	-	SLC23A2	0x0
12601	chr20	5080112	5081369	-	C20orf30	0x0
12602	chr20	5130774	5131880	+	CDS2	0x0
12603	chr20	5171119	5173276	+	CDS2	0x0
12604	chr20	5175135	5176765	+	CDS2	0x0
12605	chr20	5177484	5178729	+	CDS2	0x0
12606	chr20	5527285	5528426	-	GPCPD1	0x2
12607	chr20	5917650	5918872	-	TRMT6	0x0
12608	chr20	5986346	5987499	+	CRLS1	0x0
12609	chr20	6020876	6022107	-	LRRN4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12610	chr20	7957989	7959852	-	TMX4	0x0
12611	chr20	7960985	7962053	-	TMX4	0x0
12612	chr20	9061486	9062595	+	PLCB4	0x2
12613	chr20	9459159	9460349	+	PLCB4	0x2
12614	chr20	10566090	10567285	+	C20orf94	0x0
12615	chr20	10618217	10619396	-	JAG1	0x0
12616	chr20	11880714	11881817	+	BTBD3	0x0
12617	chr20	11904794	11906055	+	BTBD3	0x0
12618	chr20	13603516	13604717	-	TASP1	0x0
12619	chr20	13610145	13611332	-	TASP1	0x0
12620	chr20	14122058	14123194	+	MACROD2	0x0
12621	chr20	17587476	17589342	+	DSTN	0x0
12622	chr20	17628933	17630122	-	RRBP1	0x0
12623	chr20	17942758	17944121	-	SNORD17	0x0
12624	chr20	17950343	17951587	+	C20orf72	0x0
12625	chr20	17955871	17956975	+	C20orf72	0x0
12626	chr20	17970933	17972136	+	C20orf72	0x0
12627	chr20	18469067	18470497	-	RBBP9	0x0
12628	chr20	18743572	18744767	+	DTD1	0x0
12629	chr20	20372464	20373607	-	RALGAPA2	0x0
12630	chr20	20452974	20454164	-	RALGAPA2	0x0
12631	chr20	21369552	21370923	+	XRN2	0x0
12632	chr20	21735441	21736799	+	PAX1	0x0
12633	chr20	23334521	23335731	-	NAPB	0x0
12634	chr20	23351006	23352431	+	GZF1	0x0
12635	chr20	23400854	23402211	-	NAPB	0x0
12636	chr20	23613894	23615094	-	CST3	0x0
12637	chr20	24986347	24988057	-	ACSS1	0x0
12638	chr20	25206040	25207356	+	ENTPD6	0x0
12639	chr20	25445742	25446846	-	NINL	0x0
12640	chr20	25461870	25462993	-	NINL	0x0
12641	chr20	30252179	30253411	-	BCL2L1	0x0
12642	chr20	30388650	30390079	+	TPX2	0x0
12643	chr20	30752765	30753999	+	TM9SF4	0x0
12644	chr20	30754296	30755408	+	TM9SF4	0x0
12645	chr20	30921186	30922289	+	KIF3B	0x0
12646	chr20	30956262	30957441	+	ASXL1	0x1
12647	chr20	31020585	31021788	+	ASXL1	0x1
12648	chr20	31023841	31027529	+	ASXL1	0x1
12649	chr20	31032033	31034509	-	C20orf112	0x0
12650	chr20	31160706	31161879	-	C20orf112	0x0
12651	chr20	31436479	31438535	+	MAPRE1	0x0
12652	chr20	32118769	32119984	+	CBFA2T2	0x0
12653	chr20	32232806	32233895	+	CBFA2T2	0x0
12654	chr20	32235002	32236100	+	CBFA2T2	0x0
12655	chr20	32236530	32237664	+	CBFA2T2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12656	chr20	32263009	32265125	-	E2F1	0x1
12657	chr20	32379180	32380370	+	ZNF341	0x0
12658	chr20	32441173	32442623	+	CHMP4B	0x0
12659	chr20	32588655	32589783	+	RALY	0x0
12660	chr20	32659478	32660596	+	RALY	0x0
12661	chr20	32675900	32677712	-	EIF2S2	0x0
12662	chr20	32683936	32685125	-	EIF2S2	0x0
12663	chr20	32879985	32881235	-	AHCY	0x0
12664	chr20	32882816	32883993	-	AHCY	0x0
12665	chr20	33095184	33098152	+	ITCH	0x2
12666	chr20	33299322	33301733	+	TP53INP2	0x0
12667	chr20	33327899	33329075	-	NCOA6	0x2
12668	chr20	33584805	33585995	+	MYH7B	0x0
12669	chr20	33593071	33594583	-	TRPC4AP	0x0
12670	chr20	33599327	33600542	-	TRPC4AP	0x0
12671	chr20	33866249	33867416	-	EIF6	0x0
12672	chr20	33871405	33872624	-	EIF6	0x0
12673	chr20	33934517	33935699	-	UQCC	0x0
12674	chr20	34091882	34093115	+	CEP250	0x0
12675	chr20	34096866	34098075	+	CEP250	0x0
12676	chr20	34130021	34131189	+	ERGIC3	0x0
12677	chr20	34239473	34240908	-	RBM12	0x0
12678	chr20	34241291	34242776	-	CPNE1	0x0
12679	chr20	34241291	34242776	-	RBM12	0x0
12680	chr20	34256608	34257817	-	NFS1	0x0
12681	chr20	34291114	34292332	-	RBM39	0x0
12682	chr20	34301596	34302787	-	RBM39	0x0
12683	chr20	34340392	34341567	+	PHF20	0x0
12684	chr20	34536479	34538563	+	PHF20	0x0
12685	chr20	34541532	34542812	-	SCAND1	0x0
12686	chr20	34633087	34634718	-	LOC647979	0x0
12687	chr20	34634846	34636671	-	LOC647979	0x0
12688	chr20	34718044	34719876	+	EPB41L1	0x0
12689	chr20	34746787	34747948	+	EPB41L1	0x0
12690	chr20	35064138	35065234	+	DLGAP4	0x0
12691	chr20	35118499	35119645	+	DLGAP4	0x0
12692	chr20	35128131	35129269	+	DLGAP4	0x0
12693	chr20	35155588	35156693	+	DLGAP4	0x0
12694	chr20	35221017	35222768	+	TGIF2	0x0
12695	chr20	35240060	35241480	+	C20orf24	0x0
12696	chr20	35240060	35241480	+	TGIF2-C20ORF24	0x0
12697	chr20	35280803	35282152	-	NDRG3	0x0
12698	chr20	35379848	35381387	-	DSN1	0x0
12699	chr20	35440659	35441862	-	KIAA0889	0x0
12700	chr20	35462997	35464168	-	KIAA0889	0x0
12701	chr20	35480276	35481509	-	KIAA0889	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12702	chr20	35520207	35521398	-	SAMHD1	0x0
12703	chr20	35812091	35813272	+	RPN2	0x0
12704	chr20	35826974	35828193	+	RPN2	0x0
12705	chr20	35832665	35833790	+	RPN2	0x0
12706	chr20	35853594	35854797	+	RPN2	0x0
12707	chr20	35856347	35857569	+	RPN2	0x0
12708	chr20	35869148	35870248	+	RPN2	0x0
12709	chr20	35944668	35946229	+	MANBAL	0x0
12710	chr20	35978296	35979576	+	SRC	0x0
12711	chr20	36030309	36031450	+	SRC	0x0
12712	chr20	36033132	36034288	+	SRC	0x0
12713	chr20	36148337	36149596	-	BLCAP	0x5
12714	chr20	36152465	36153657	-	BLCAP	0x5
12715	chr20	36624726	36625942	-	TTI1	0x0
12716	chr20	36641532	36642660	-	TTI1	0x0
12717	chr20	36676218	36677412	+	RPRD1B	0x0
12718	chr20	36718321	36720051	+	RPRD1B	0x0
12719	chr20	37040392	37041595	-	LOC388796	0x0
12720	chr20	37053356	37054479	-	SNORA71B	0x0
12721	chr20	37149716	37150827	+	RALGAPB	0x0
12722	chr20	37203462	37205583	+	RALGAPB	0x0
12723	chr20	37548702	37550126	+	PPP1R16B	0x0
12724	chr20	39725178	39726332	+	TOP1	0x2
12725	chr20	39740915	39742080	+	TOP1	0x2
12726	chr20	39751388	39752840	+	TOP1	0x2
12727	chr20	39797298	39798447	+	PLCG1	0x0
12728	chr20	39803469	39804652	+	PLCG1	0x0
12729	chr20	40030540	40033646	-	CHD6	0x2
12730	chr20	40161479	40162588	-	CHD6	0x2
12731	chr20	41787658	41788805	-	PTPRT	0x2
12732	chr20	42088648	42089802	+	SRSF6	0x2
12733	chr20	42089943	42091900	+	SRSF6	0x2
12734	chr20	42251973	42253209	+	IFT52	0x0
12735	chr20	42274828	42276260	+	IFT52	0x0
12736	chr20	42297737	42298874	+	MYBL2	0x0
12737	chr20	42310876	42312050	+	MYBL2	0x0
12738	chr20	42315072	42316267	+	MYBL2	0x0
12739	chr20	42320271	42321454	+	MYBL2	0x0
12740	chr20	42328076	42329307	+	MYBL2	0x0
12741	chr20	42330635	42331734	+	MYBL2	0x0
12742	chr20	42333511	42345903	+	MYBL2	0x0
12743	chr20	42824643	42825858	-	C20orf111	0x0
12744	chr20	43094659	43095940	-	SERINC3	0x0
12745	chr20	43125761	43127367	-	SERINC3	0x0
12746	chr20	43127755	43129243	-	SERINC3	0x0
12747	chr20	43381651	43383772	-	RIMS4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12748	chr20	43534840	43537429	+	YWHAB	0x2
12749	chr20	43703779	43704871	+	STK4	0x0
12750	chr20	43706117	43708938	+	STK4	0x0
12751	chr20	43953927	43955888	-	SDC4	0x0
12752	chr20	43995363	43996895	+	SYS1	0x0
12753	chr20	44047434	44048536	+	PIGT	0x0
12754	chr20	44054062	44055317	+	PIGT	0x0
12755	chr20	44109497	44110646	+	WFDC2	0x0
12756	chr20	44513242	44514376	+	ZSWIM1	0x0
12757	chr20	44519918	44521633	+	CTSA	0x0
12758	chr20	44526763	44527936	+	CTSA	0x0
12759	chr20	44539168	44540387	-	PLTP	0x0
12760	chr20	44689389	44690846	-	NCOA5	0x0
12761	chr20	45316297	45317453	-	TP53RK	0x0
12762	chr20	45890424	45891626	+	LOC100131496	0x0
12763	chr20	46284560	46286139	+	NCOA3	0x2
12764	chr20	46285684	46287521	-	SULF2	0x2
12765	chr20	46294608	46295806	-	SULF2	0x2
12766	chr20	46330754	46331946	-	SULF2	0x2
12767	chr20	47282346	47283463	-	PREX1	0x0
12768	chr20	47406733	47408006	-	PREX1	0x0
12769	chr20	47436342	47437516	-	PREX1	0x0
12770	chr20	47554757	47555900	+	ARFGEF2	0x2
12771	chr20	47648048	47649285	+	ARFGEF2	0x2
12772	chr20	47649425	47650671	+	ARFGEF2	0x2
12773	chr20	47650696	47653250	+	ARFGEF2	0x2
12774	chr20	47662352	47663557	+	CSE1L	0x0
12775	chr20	47712608	47714037	+	CSE1L	0x0
12776	chr20	47804184	47805317	-	STAU1	0x0
12777	chr20	47839310	47840471	+	DDX27	0x0
12778	chr20	47850953	47852062	+	DDX27	0x0
12779	chr20	47872723	47873940	-	ZNFX1	0x0
12780	chr20	47988152	47989314	-	KCNB1	0x0
12781	chr20	48249345	48250701	-	B4GALT5	0x0
12782	chr20	48251412	48253200	-	B4GALT5	0x0
12783	chr20	48519925	48521184	-	SPATA2	0x0
12784	chr20	48568871	48570750	+	RNF114	0x0
12785	chr20	48740753	48741915	-	TMEM189	0x0
12786	chr20	49199469	49200612	+	PTPN1	0x0
12787	chr20	49506504	49508341	-	ADNP	0x0
12788	chr20	49509881	49511051	-	ADNP	0x0
12789	chr20	50399605	50400638	-	SALL4	0x0
12790	chr20	50407846	50409040	-	SALL4	0x0
12791	chr20	50807625	50808806	-	ZFP64	0x2
12792	chr20	50938397	50939506	+	TSHZ2	0x2
12793	chr20	52184223	52185938	-	ZNF217	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12794	chr20	54941444	54942725	+	FAM210B	0x0
12795	chr20	54944068	54945736	-	AURKA	0x2
12796	chr20	55205811	55207026	+	TFAP2C	0x0
12797	chr20	55213585	55214887	+	TFAP2C	0x0
12798	chr20	55983049	55984305	+	RBM38	0x0
12799	chr20	56225828	56227038	-	PMEPA1	0x0
12800	chr20	56257820	56258990	-	PMEPA1	0x0
12801	chr20	56819540	56820731	-	PPP4R1L	0x0
12802	chr20	56927985	56929122	+	RAB22A	0x0
12803	chr20	57018995	57021092	+	VAPB	0x0
12804	chr20	57022868	57024098	+	VAPB	0x0
12805	chr20	57241550	57242793	+	STX16	0x0
12806	chr20	57241550	57242793	+	STX16-NPEPL1	0x0
12807	chr20	57252023	57253455	+	STX16	0x0
12808	chr20	57290021	57291256	+	NPEPL1	0x0
12809	chr20	57290021	57291256	+	STX16-NPEPL1	0x0
12810	chr20	57415156	57416190	-	GNAS-AS1	0x0
12811	chr20	57466298	57467500	+	GNAS	0x6
12812	chr20	57479918	57481168	+	GNAS	0x6
12813	chr20	57483694	57486545	+	GNAS	0x6
12814	chr20	58518893	58520080	+	FAM217B	0x0
12815	chr20	58522715	58523869	+	FAM217B	0x0
12816	chr20	59795366	59796576	+	CDH4	0x1
12817	chr20	60511251	60512401	+	CDH4	0x1
12818	chr20	60514189	60515421	+	CDH4	0x1
12819	chr20	60549525	60550893	-	TAF4	0x0
12820	chr20	60574685	60576285	-	TAF4	0x0
12821	chr20	60577727	60578852	-	TAF4	0x0
12822	chr20	60709667	60710767	+	LSM14B	0x0
12823	chr20	60713564	60714767	-	PSMA7	0x0
12824	chr20	60868769	60870253	+	OSBPL2	0x0
12825	chr20	60880775	60882271	+	ADRM1	0x0
12826	chr20	60887886	60888939	-	LAMA5	0x0
12827	chr20	60889524	60890695	-	LAMA5	0x0
12828	chr20	60893273	60894519	-	LAMA5	0x0
12829	chr20	60901711	60902915	-	LAMA5	0x0
12830	chr20	60903298	60904449	-	LAMA5	0x0
12831	chr20	60930408	60931581	-	LAMA5	0x0
12832	chr20	60961781	60963146	+	RPS21	0x0
12833	chr20	61297174	61298392	+	SLCO4A1	0x0
12834	chr20	61435665	61436908	+	OGFR	0x0
12835	chr20	61472703	61474031	-	TCFL5	0x0
12836	chr20	61508981	61510793	-	DIDO1	0x1
12837	chr20	61524486	61525685	-	DIDO1	0x1
12838	chr20	61542083	61543316	-	DIDO1	0x1
12839	chr20	61576418	61577518	+	C20orf11	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12840	chr20	61577991	61579769	+	C20orf11	0x0
12841	chr20	61581190	61582460	-	DIDO1	0x1
12842	chr20	61587575	61588707	+	SLC17A9	0x0
12843	chr20	61826274	61828483	-	YTHDF1	0x0
12844	chr20	62034025	62035198	-	KCNQ2	0x0
12845	chr20	62037991	62039213	-	KCNQ2	0x0
12846	chr20	62226491	62227671	-	GMEB2	0x0
12847	chr20	62250153	62251315	-	GMEB2	0x0
12848	chr20	62563022	62564180	+	DNAJC5	0x0
12849	chr20	62564427	62565641	+	DNAJC5	0x0
12850	chr20	62565740	62566924	+	DNAJC5	0x0
12851	chr20	62589274	62591631	-	ZNF512B	0x0
12852	chr20	62599266	62600481	-	ZNF512B	0x0
12853	chr21	18938187	18940035	+	CXADR	0x0
12854	chr21	27011286	27012702	+	JAM2	0x0
12855	chr21	27065592	27066738	+	JAM2	0x0
12856	chr21	27088365	27089914	+	JAM2	0x0
12857	chr21	27113369	27114526	+	GABPA	0x0
12858	chr21	27136347	27137559	+	GABPA	0x0
12859	chr21	27142027	27143094	+	GABPA	0x0
12860	chr21	30300828	30302010	-	LTN1	0x0
12861	chr21	30316227	30317464	-	LTN1	0x0
12862	chr21	30336980	30339384	-	LTN1	0x0
12863	chr21	30411160	30412396	+	USP16	0x2
12864	chr21	30428143	30429357	-	CCT8	0x2
12865	chr21	30438717	30439878	-	CCT8	0x2
12866	chr21	30699070	30700203	+	BACH1	0x0
12867	chr21	30701418	30702607	+	BACH1	0x0
12868	chr21	30714984	30716233	+	BACH1	0x0
12869	chr21	32490208	32491307	-	TIAM1	0x2
12870	chr21	32491596	32492739	-	TIAM1	0x2
12871	chr21	32589376	32590585	-	TIAM1	0x2
12872	chr21	32786594	32788036	-	TIAM1	0x2
12873	chr21	33039038	33040224	+	SOD1	0x0
12874	chr21	33040267	33041520	+	SOD1	0x0
12875	chr21	33075552	33076742	-	SCAF4	0x0
12876	chr21	33686335	33687523	-	URB1	0x0
12877	chr21	33689578	33690687	-	URB1	0x0
12878	chr21	33709059	33710398	-	URB1	0x0
12879	chr21	33748976	33750089	-	SNORA80	0x0
12880	chr21	34728452	34729677	+	IFNAR1	0x0
12881	chr21	34924731	34925870	+	SON	0x2
12882	chr21	34926025	34927152	+	SON	0x2
12883	chr21	34929721	34930910	+	SON	0x2
12884	chr21	34948652	34950326	+	SON	0x2
12885	chr21	34949579	34950929	-	DONSON	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12886	chr21	35057816	35059070	+	ITSN1	0x0
12887	chr21	35445347	35446580	+	MRPS6	0x0
12888	chr21	35445347	35446580	+	SLC5A3	0x0
12889	chr21	35507214	35508281	-	ATP5O	0x0
12890	chr21	35514216	35515379	+	MRPS6	0x0
12891	chr21	35889236	35890692	-	RCAN1	0x0
12892	chr21	35984403	35985608	-	RCAN1	0x0
12893	chr21	37716373	37717491	+	MORC3	0x0
12894	chr21	37746960	37748375	+	MORC3	0x0
12895	chr21	37784730	37785998	+	CHAF1B	0x0
12896	chr21	38459001	38460289	+	TTC3	0x0
12897	chr21	38463077	38464258	+	TTC3	0x0
12898	chr21	38471420	38472586	+	TTC3	0x0
12899	chr21	38475803	38476955	+	TTC3	0x0
12900	chr21	38479943	38481112	+	TTC3	0x0
12901	chr21	38537666	38539392	+	TTC3	0x0
12902	chr21	38574408	38575893	+	TTC3	0x0
12903	chr21	38597018	38598187	-	DSCR3	0x0
12904	chr21	38792019	38793212	+	DYRK1A	0x0
12905	chr21	38885133	38887955	+	DYRK1A	0x0
12906	chr21	40564272	40565359	-	BRWD1	0x0
12907	chr21	40566160	40567373	-	BRWD1	0x0
12908	chr21	40567380	40568487	-	BRWD1	0x0
12909	chr21	40619170	40620269	-	BRWD1	0x0
12910	chr21	40645805	40646907	-	BRWD1	0x0
12911	chr21	40769335	40770486	+	WRB	0x0
12912	chr21	40794353	40795524	+	SH3BGR	0x0
12913	chr21	43407509	43408702	-	ZNF295	0x0
12914	chr21	43409658	43410831	-	ZNF295	0x0
12915	chr21	44000023	44001256	+	SLC37A1	0x0
12916	chr21	44268903	44270140	-	WDR4	0x0
12917	chr21	44328527	44329686	+	NDUFV3	0x0
12918	chr21	44432695	44433887	+	PKNOX1	0x2
12919	chr21	44450782	44451954	+	PKNOX1	0x2
12920	chr21	44512583	44513706	-	U2AF1	0x2
12921	chr21	44834158	44837270	-	SIK1	0x1
12922	chr21	44839719	44840837	-	SIK1	0x1
12923	chr21	44845342	44846575	-	SIK1	0x1
12924	chr21	44948563	44949781	-	HSF2BP	0x0
12925	chr21	45112851	45115000	+	RRP1B	0x0
12926	chr21	45176006	45177179	+	PDXK	0x0
12927	chr21	45180935	45182163	+	PDXK	0x0
12928	chr21	45402619	45405068	+	AGPAT3	0x0
12929	chr21	45405827	45407381	+	AGPAT3	0x0
12930	chr21	45471647	45472811	+	TRAPPC10	0x2
12931	chr21	45475083	45476225	+	TRAPPC10	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12932	chr21	45524079	45525289	+	TRAPPC10	0x2
12933	chr21	45659736	45660967	-	ICOSLG	0x0
12934	chr21	45665460	45666707	-	DNMT3L	0x0
12935	chr21	45678976	45680252	-	DNMT3L	0x0
12936	chr21	45745441	45746730	+	PFKL	0x0
12937	chr21	46189537	46191267	-	UBE2G2	0x2
12938	chr21	46224951	46227112	-	SUMO3	0x0
12939	chr21	46269133	46270315	-	PTTG1IP	0x0
12940	chr21	46873870	46875152	+	COL18A1	0x1
12941	chr21	46887761	46888975	+	COL18A1	0x1
12942	chr21	46912991	46914293	+	COL18A1	0x1
12943	chr21	46929484	46930780	+	COL18A1	0x1
12944	chr21	46931498	46933288	+	COL18A1	0x1
12945	chr21	46935052	46936297	-	SLC19A1	0x0
12946	chr21	47361504	47362789	+	PCBP3	0x0
12947	chr21	47794360	47795537	+	PCNT	0x0
12948	chr21	47961100	47962335	+	DIP2A	0x0
12949	chr21	47988419	47990096	+	DIP2A	0x0
12950	chr22	17591871	17593070	+	IL17RA	0x0
12951	chr22	17618583	17619756	+	CECR5-AS1	0x0
12952	chr22	17951567	17952696	+	CECR2	0x0
12953	chr22	18027556	18028600	+	CECR2	0x0
12954	chr22	18033688	18035682	+	CECR2	0x0
12955	chr22	18036765	18038400	+	CECR2	0x0
12956	chr22	18063331	18064568	+	SLC25A18	0x0
12957	chr22	18072850	18074121	-	ATP6V1E1	0x0
12958	chr22	18074543	18075964	-	ATP6V1E1	0x0
12959	chr22	18210254	18211341	+	BCL2L13	0x0
12960	chr22	18213926	18215385	+	BCL2L13	0x0
12961	chr22	18217393	18218562	-	BID	0x0
12962	chr22	18270737	18272337	-	MICAL3	0x0
12963	chr22	18300508	18301703	-	MICAL3	0x0
12964	chr22	18320752	18321925	-	MICAL3	0x0
12965	chr22	18343857	18345845	-	MICAL3	0x0
12966	chr22	19023230	19026167	-	DGCR2	0x0
12967	chr22	19136634	19137837	-	GSC2	0x0
12968	chr22	19318143	19319511	-	HIRA	0x0
12969	chr22	19347254	19348527	-	HIRA	0x0
12970	chr22	19362678	19363862	-	HIRA	0x0
12971	chr22	19374712	19376988	-	HIRA	0x0
12972	chr22	19383739	19385345	-	HIRA	0x0
12973	chr22	19431137	19432399	-	C22orf39	0x0
12974	chr22	19950663	19951832	+	COMT	0x0
12975	chr22	19950663	19951832	+	MIR4761	0x0
12976	chr22	20098191	20099452	+	DGCR8	0x0
12977	chr22	20113404	20114543	+	RANBP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
12978	chr22	20129983	20131176	+	ZDHHC8	0x0
12979	chr22	20132540	20133679	+	ZDHHC8	0x0
12980	chr22	20795710	20796953	-	KLHL22	0x0
12981	chr22	20800235	20801437	-	KLHL22	0x0
12982	chr22	20819190	20820361	-	KLHL22	0x0
12983	chr22	20890914	20892040	+	MED15	0x0
12984	chr22	20908740	20909936	+	MED15	0x0
12985	chr22	21242828	21244043	+	SNAP29	0x0
12986	chr22	21287835	21288955	+	CRKL	0x0
12987	chr22	21303965	21305163	+	CRKL	0x0
12988	chr22	21305716	21308247	+	CRKL	0x0
12989	chr22	21799291	21800498	+	HIC2	0x0
12990	chr22	21801165	21803862	+	HIC2	0x0
12991	chr22	21803884	21806032	+	HIC2	0x0
12992	chr22	21976099	21978458	+	UBE2L3	0x0
12993	chr22	21997959	21999176	+	SDF2L1	0x0
12994	chr22	22114390	22115501	-	MAPK1	0x0
12995	chr22	22116495	22118848	-	MAPK1	0x0
12996	chr22	22142536	22143736	-	MAPK1	0x0
12997	chr22	22274920	22276012	-	PPM1F	0x0
12998	chr22	22838348	22841587	-	ZNF280B	0x0
12999	chr22	24106971	24108091	-	CHCHD10	0x0
13000	chr22	24134597	24135781	+	SMARCB1	0x1
13001	chr22	24175855	24177226	+	SMARCB1	0x1
13002	chr22	24348254	24349332	+	GSTT2	0x0
13003	chr22	24485041	24486300	+	CABIN1	0x0
13004	chr22	24561778	24563469	+	CABIN1	0x0
13005	chr22	24584422	24585523	+	SUSD2	0x0
13006	chr22	24586496	24587715	+	SUSD2	0x0
13007	chr22	24811392	24813104	+	SPECC1L	0x0
13008	chr22	24936579	24937774	-	C22orf13	0x0
13009	chr22	25590083	25591247	+	KIAA1671	0x0
13010	chr22	25592355	25593589	+	KIAA1671	0x0
13011	chr22	27067908	27069118	+	MIAT	0x0
13012	chr22	28247190	28249409	-	PITPNB	0x0
13013	chr22	28618240	28619416	-	TTC28	0x0
13014	chr22	28645265	28646487	-	TTC28	0x0
13015	chr22	29182124	29185308	+	CCDC117	0x0
13016	chr22	29190760	29192129	-	XBP1	0x0
13017	chr22	29285016	29286166	+	ZNRF3	0x0
13018	chr22	29360839	29362003	-	C22orf31	0x0
13019	chr22	29382536	29383697	+	ZNRF3	0x0
13020	chr22	29449358	29451045	+	ZNRF3	0x0
13021	chr22	29452890	29453986	+	ZNRF3	0x0
13022	chr22	29541681	29542787	+	KREMEN1	0x2
13023	chr22	29684873	29686525	+	EWSR1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13024	chr22	29687994	29689092	+	EWSR1	0x2
13025	chr22	29703407	29704584	+	GAS2L1	0x0
13026	chr22	29708135	29709341	+	GAS2L1	0x0
13027	chr22	29746652	29747767	-	AP1B1	0x0
13028	chr22	29950571	29952366	-	NIPSNAP1	0x0
13029	chr22	29999227	30000433	+	NF2	0x1
13030	chr22	30034615	30035723	+	NF2	0x1
13031	chr22	30050997	30052188	+	NF2	0x1
13032	chr22	30092631	30095056	+	NF2	0x1
13033	chr22	30126936	30128092	+	CABP7	0x0
13034	chr22	30163368	30164571	+	UQCR10	0x0
13035	chr22	30378424	30379644	+	MTMR3	0x0
13036	chr22	30408826	30409970	+	MTMR3	0x0
13037	chr22	30421562	30424423	+	MTMR3	0x0
13038	chr22	30489360	30490584	+	HORMAD2	0x0
13039	chr22	30511180	30512689	+	HORMAD2	0x0
13040	chr22	30517085	30518684	+	HORMAD2	0x0
13041	chr22	30794485	30795583	+	SEC14L2	0x1
13042	chr22	30972133	30973566	-	PES1	0x0
13043	chr22	30980035	30981146	-	PES1	0x0
13044	chr22	30987174	30988405	-	PES1	0x0
13045	chr22	31022250	31023453	+	TCN2	0x0
13046	chr22	31320837	31323216	-	MORC2	0x0
13047	chr22	31367040	31368155	+	TUG1	0x0
13048	chr22	31370663	31371752	+	TUG1	0x0
13049	chr22	31499876	31501070	+	SMTN	0x2
13050	chr22	31600733	31602500	+	RNF185	0x0
13051	chr22	31674223	31676216	+	LIMK2	0x0
13052	chr22	31815758	31816934	+	DRG1	0x0
13053	chr22	31849596	31850778	-	EIF4ENIF1	0x0
13054	chr22	31858474	31860222	-	EIF4ENIF1	0x0
13055	chr22	32014023	32015765	-	PISD	0x0
13056	chr22	32016009	32017217	-	PISD	0x0
13057	chr22	32078238	32080498	-	PRR14L	0x0
13058	chr22	32107636	32109953	-	PRR14L	0x0
13059	chr22	32111709	32113281	-	PRR14L	0x0
13060	chr22	32299457	32300683	+	DEPDC5	0x0
13061	chr22	32352876	32354063	+	YWHAH	0x0
13062	chr22	32435156	32436338	+	SLC5A1	0x0
13063	chr22	32783152	32784468	-	C22orf28	0x0
13064	chr22	32789355	32790505	-	C22orf28	0x0
13065	chr22	32795177	32796277	-	C22orf28	0x0
13066	chr22	32893967	32895215	+	FBXO7	0x0
13067	chr22	33668709	33670338	-	LARGE	0x0
13068	chr22	34186323	34187535	-	LARGE	0x0
13069	chr22	34308047	34309233	-	LARGE	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13070	chr22	34315547	34316690	-	LARGE	0x0
13071	chr22	35689308	35691528	+	HMGXB4	0x0
13072	chr22	35789361	35790598	+	HMOX1	0x0
13073	chr22	35807986	35809169	+	MCM5	0x0
13074	chr22	35819866	35821591	+	MCM5	0x0
13075	chr22	36134291	36138174	-	RBFOX2	0x0
13076	chr22	36138879	36139976	-	RBFOX2	0x0
13077	chr22	36169526	36170746	-	RBFOX2	0x0
13078	chr22	36176438	36178317	-	RBFOX2	0x0
13079	chr22	36290113	36291330	-	RBFOX2	0x0
13080	chr22	36295553	36297012	-	RBFOX2	0x0
13081	chr22	36368517	36369649	-	RBFOX2	0x0
13082	chr22	36677112	36678964	-	MYH9	0x2
13083	chr22	36680857	36681872	-	MYH9	0x2
13084	chr22	36696478	36697636	-	MYH9	0x2
13085	chr22	36704794	36705958	-	MYH9	0x2
13086	chr22	36712049	36713250	-	MYH9	0x2
13087	chr22	36906975	36908198	-	EIF3D	0x0
13088	chr22	36912866	36913975	-	EIF3D	0x0
13089	chr22	36921223	36922651	-	EIF3D	0x0
13090	chr22	37447612	37448788	+	KCTD17	0x0
13091	chr22	37458224	37459693	+	KCTD17	0x0
13092	chr22	38028691	38029876	+	GGA1	0x2
13093	chr22	38150954	38152193	+	TRIOBP	0x2
13094	chr22	38212069	38213284	+	GCAT	0x0
13095	chr22	38245254	38246470	+	EIF3L	0x0
13096	chr22	38250939	38252182	+	EIF3L	0x0
13097	chr22	38269934	38271033	+	EIF3L	0x0
13098	chr22	38273175	38274324	+	EIF3L	0x0
13099	chr22	38468586	38469726	+	PICK1	0x0
13100	chr22	38609920	38611167	+	MAFF	0x0
13101	chr22	38614786	38616005	-	TMEM184B	0x0
13102	chr22	38686225	38688352	-	CSNK1E	0x0
13103	chr22	38878375	38879696	+	KDELR3	0x0
13104	chr22	38879080	38882474	-	DDX17	0x0
13105	chr22	38883378	38884568	-	DDX17	0x0
13106	chr22	38896612	38897794	-	DDX17	0x0
13107	chr22	39079402	39080923	+	TOMM22	0x0
13108	chr22	39081521	39083363	-	JOSD1	0x0
13109	chr22	39123481	39124584	+	GTPBP1	0x0
13110	chr22	39126628	39128095	+	GTPBP1	0x0
13111	chr22	39171344	39172528	+	GTPBP1	0x0
13112	chr22	39215042	39217080	-	NPTXR	0x0
13113	chr22	39217998	39219192	-	NPTXR	0x0
13114	chr22	39256981	39259382	-	CBX6	0x0
13115	chr22	39260645	39262100	-	CBX6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13116	chr22	39526269	39529731	-	CBX7	0x0
13117	chr22	39529990	39531124	+	APOBEC3H	0x0
13118	chr22	39710167	39711346	-	RPL3	0x0
13119	chr22	39710167	39711346	-	SNORD83A	0x0
13120	chr22	39773201	39774416	+	SYNGR1	0x0
13121	chr22	39779564	39780767	+	SYNGR1	0x0
13122	chr22	39885718	39887815	+	MGAT3	0x0
13123	chr22	39911233	39913659	+	SMCR7L	0x0
13124	chr22	39960600	39961866	+	CACNA1I	0x0
13125	chr22	40721998	40723067	+	TNRC6B	0x0
13126	chr22	40726159	40727517	+	TNRC6B	0x0
13127	chr22	40729499	40731712	+	TNRC6B	0x0
13128	chr22	41165740	41166977	-	SLC25A17	0x0
13129	chr22	41220133	41222331	-	ST13	0x1
13130	chr22	41226348	41227545	-	ST13	0x1
13131	chr22	41324295	41325583	+	XPNPEP3	0x0
13132	chr22	41459550	41460812	+	MIR1281	0x0
13133	chr22	41574415	41575702	+	EP300	0x2
13134	chr22	41641547	41643075	-	RANGAP1	0x0
13135	chr22	41651647	41652820	-	RANGAP1	0x0
13136	chr22	41680930	41682194	-	RANGAP1	0x0
13137	chr22	41731382	41732639	+	ZC3H7B	0x0
13138	chr22	41753544	41754643	+	ZC3H7B	0x0
13139	chr22	41755187	41756440	+	ZC3H7B	0x0
13140	chr22	41793084	41795721	+	TEF	0x0
13141	chr22	41915677	41916776	+	ACO2	0x0
13142	chr22	41918696	41919874	+	ACO2	0x0
13143	chr22	41922743	41923956	+	ACO2	0x0
13144	chr22	41924355	41925583	-	POLR3H	0x0
13145	chr22	41924369	41925467	+	ACO2	0x0
13146	chr22	41972433	41973669	-	PMM1	0x0
13147	chr22	41994363	41996027	-	PPPDE2	0x0
13148	chr22	42069619	42071447	-	NHP2L1	0x0
13149	chr22	42266439	42267550	+	SREBF2	0x0
13150	chr22	42280301	42281509	+	SREBF2	0x0
13151	chr22	42295790	42296998	+	MIR33A	0x0
13152	chr22	42295790	42296998	+	SREBF2	0x0
13153	chr22	42301341	42302485	+	SREBF2	0x0
13154	chr22	42333121	42334270	-	CENPM	0x0
13155	chr22	42390196	42393633	+	SEPT3	0x0
13156	chr22	42478611	42479742	+	C22orf32	0x0
13157	chr22	42555773	42557360	-	TCF20	0x0
13158	chr22	42560928	42562090	-	TCF20	0x0
13159	chr22	42575068	42576262	-	TCF20	0x0
13160	chr22	42605194	42606365	-	TCF20	0x0
13161	chr22	42675386	42676653	-	TCF20	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13162	chr22	42721531	42722799	-	NFAM1	0x0
13163	chr22	42979494	42980642	-	POLDIP3	0x0
13164	chr22	43015017	43016156	-	CYB5R3	0x0
13165	chr22	43172350	43173830	-	ARFGAP3	0x0
13166	chr22	43209813	43211050	-	ARFGAP3	0x0
13167	chr22	43266497	43267601	-	PACSIN2	0x0
13168	chr22	43562345	43563515	-	TTLL12	0x0
13169	chr22	43569767	43570930	-	TTLL12	0x0
13170	chr22	43578467	43579662	-	TTLL12	0x0
13171	chr22	44219948	44221141	-	SULT4A1	0x0
13172	chr22	44221404	44222500	-	SULT4A1	0x0
13173	chr22	44358587	44359850	+	SAMM50	0x0
13174	chr22	44385720	44386847	+	SAMM50	0x0
13175	chr22	44564611	44565906	+	PARVB	0x0
13176	chr22	44566195	44567549	+	PARVB	0x0
13177	chr22	44889785	44890997	-	LDOC1L	0x0
13178	chr22	45583200	45584310	+	NUP50	0x0
13179	chr22	45591239	45593157	-	KIAA0930	0x0
13180	chr22	45601133	45602351	-	KIAA0930	0x0
13181	chr22	45782185	45783337	-	SMC1B	0x0
13182	chr22	45929143	45930307	+	FBLN1	0x0
13183	chr22	46092079	46093203	+	ATXN10	0x0
13184	chr22	46134080	46135261	+	ATXN10	0x0
13185	chr22	46135751	46136926	+	ATXN10	0x0
13186	chr22	46239118	46240427	+	ATXN10	0x0
13187	chr22	46367691	46368856	-	WNT7B	0x0
13188	chr22	46627190	46628330	+	PPARA	0x0
13189	chr22	46690321	46691487	+	TTC38	0x0
13190	chr22	46763140	46764346	-	CELSR1	0x0
13191	chr22	47073553	47074754	+	GRAMD4	0x0
13192	chr22	47074848	47075979	+	GRAMD4	0x0
13193	chr22	47570691	47571843	+	TBC1D22A	0x0
13194	chr22	49145526	49146654	+	FAM19A5	0x0
13195	chr22	50166556	50167778	-	BRD1	0x0
13196	chr22	50354736	50355927	+	PIM3	0x0
13197	chr22	50356147	50358166	+	PIM3	0x0
13198	chr22	50590922	50592077	+	MOV10L1	0x0
13199	chr22	50721796	50723036	-	PLXNB2	0x0
13200	chr22	50893332	50894600	-	SBF1	0x0
13201	chr22	50902849	50904082	-	SBF1	0x0
13202	chr22	50942769	50943914	-	LMF2	0x0
13203	chr22	50962238	50963353	+	NCAPH2	0x0
13204	chr22	51062858	51063966	-	ARSA	0x0
13205	chr22	51159740	51160929	+	SHANK3	0x0
13206	chr22	51161471	51162638	+	SHANK3	0x0
13207	chr22	51166998	51169114	+	SHANK3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13208	chr3	3189194	3190401	-	CRBN	0x0
13209	chr3	4403097	4404305	-	SUMF1	0x0
13210	chr3	4726249	4727388	+	ITPR1	0x0
13211	chr3	4747305	4748455	+	ITPR1	0x0
13212	chr3	4946128	4947304	-	LOC100507582	0x0
13213	chr3	5025422	5026853	+	BHLHE40	0x0
13214	chr3	5219908	5222971	+	ARL8B	0x0
13215	chr3	5248356	5249485	+	EDEM1	0x0
13216	chr3	5259259	5261743	+	EDEM1	0x0
13217	chr3	8916908	8918027	-	RAD18	0x0
13218	chr3	8977070	8978301	-	RAD18	0x0
13219	chr3	9022027	9025398	-	SRGAP3	0x2
13220	chr3	9025926	9027268	-	SRGAP3	0x2
13221	chr3	9412651	9413746	+	THUMPD3	0x0
13222	chr3	9440044	9441201	+	SETD5	0x0
13223	chr3	9488349	9489496	+	SETD5	0x0
13224	chr3	9489612	9490755	+	SETD5	0x0
13225	chr3	9494942	9496073	+	SETD5	0x0
13226	chr3	9511930	9513050	+	SETD5	0x0
13227	chr3	9517640	9519893	+	SETD5	0x0
13228	chr3	9726078	9727239	+	MTMR14	0x0
13229	chr3	9801804	9802973	-	CAMK1	0x0
13230	chr3	9828358	9829537	-	TADA3	0x0
13231	chr3	9847578	9849316	+	ARPC4	0x0
13232	chr3	9961958	9963144	+	IL17RC	0x0
13233	chr3	10003845	10006065	-	TMEM111	0x0
13234	chr3	10128296	10129450	+	FANCD2	0x2
13235	chr3	10142939	10144132	+	FANCD2	0x2
13236	chr3	10145340	10146476	+	FANCD2	0x2
13237	chr3	10167591	10169246	+	BRK1	0x0
13238	chr3	10321287	10322523	+	TATDN2	0x0
13239	chr3	10324808	10325899	+	GHRLOS2	0x0
13240	chr3	10346248	10347503	-	SEC13	0x0
13241	chr3	10360152	10361330	-	SEC13	0x0
13242	chr3	11204368	11205579	+	HRH1	0x0
13243	chr3	11245614	11246793	+	HRH1	0x0
13244	chr3	11880144	11881342	-	TAMM41	0x0
13245	chr3	12544348	12545449	+	TSEN2	0x0
13246	chr3	12624034	12625514	+	MKRN2	0x0
13247	chr3	12624833	12626383	-	RAF1	0x2
13248	chr3	12649727	12651360	-	RAF1	0x2
13249	chr3	12652923	12654121	-	RAF1	0x2
13250	chr3	12659421	12660721	-	RAF1	0x2
13251	chr3	12874792	12875937	+	CAND2	0x0
13252	chr3	12939670	12942407	-	IQSEC1	0x0
13253	chr3	12947998	12949218	-	IQSEC1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13254	chr3	13002537	13003764	-	IQSEC1	0x0
13255	chr3	13022059	13023370	-	IQSEC1	0x0
13256	chr3	13024244	13025377	-	IQSEC1	0x0
13257	chr3	13292646	13293835	-	NUP210	0x2
13258	chr3	13322382	13323489	-	NUP210	0x2
13259	chr3	13357270	13358840	-	NUP210	0x2
13260	chr3	13366826	13367925	-	NUP210	0x2
13261	chr3	13370087	13371208	-	NUP210	0x2
13262	chr3	13380783	13381979	-	NUP210	0x2
13263	chr3	13427257	13428429	-	NUP210	0x2
13264	chr3	13649079	13650297	+	FBLN2	0x0
13265	chr3	14182611	14183834	+	TMEM43	0x0
13266	chr3	14183907	14185013	+	TMEM43	0x0
13267	chr3	14238966	14240386	+	LSM3	0x0
13268	chr3	14444851	14446072	+	SLC6A6	0x0
13269	chr3	14488535	14489652	+	SLC6A6	0x0
13270	chr3	14498984	14500153	+	SLC6A6	0x0
13271	chr3	14502351	14503524	+	SLC6A6	0x0
13272	chr3	14508821	14510974	+	SLC6A6	0x0
13273	chr3	14527335	14528523	+	SLC6A6	0x0
13274	chr3	14640257	14641418	-	GRIP2	0x0
13275	chr3	15000448	15001598	+	NR2C2	0x0
13276	chr3	15065034	15066147	+	NR2C2	0x0
13277	chr3	15084326	15086199	+	NR2C2	0x0
13278	chr3	15086581	15088743	+	NR2C2	0x0
13279	chr3	15088873	15090043	+	NR2C2	0x0
13280	chr3	15093285	15094423	-	MRPS25	0x0
13281	chr3	15111130	15112292	-	ZFYVE20	0x0
13282	chr3	15112405	15114702	-	ZFYVE20	0x0
13283	chr3	15292473	15293967	+	CAPN7	0x0
13284	chr3	15481360	15483851	+	EAF1	0x0
13285	chr3	15708409	15710874	-	ANKRD28	0x0
13286	chr3	15855186	15856372	-	ANKRD28	0x0
13287	chr3	16965306	16966533	+	PLCL2	0x0
13288	chr3	20024900	20026108	+	RAB5A	0x0
13289	chr3	20136259	20137386	+	KAT2B	0x0
13290	chr3	20193714	20196147	+	KAT2B	0x0
13291	chr3	20210653	20211839	-	SGOL1	0x0
13292	chr3	22423790	22424913	+	UBE2E2	0x0
13293	chr3	23288828	23290058	+	UBE2E2	0x0
13294	chr3	23931763	23933143	+	UBE2E1	0x0
13295	chr3	23960590	23961906	+	RPL15	0x0
13296	chr3	24003020	24004200	+	NR1D2	0x0
13297	chr3	24020712	24021911	+	NR1D2	0x0
13298	chr3	25659636	25660737	-	TOP2B	0x0
13299	chr3	25664528	25665714	-	TOP2B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13300	chr3	27413996	27418324	-	SLC4A7	0x0
13301	chr3	27516755	27517947	-	SLC4A7	0x0
13302	chr3	27674289	27675482	+	CMC1	0x0
13303	chr3	27676151	27677400	+	CMC1	0x0
13304	chr3	27916034	27917251	+	CMC1	0x0
13305	chr3	31620893	31621992	+	STT3B	0x0
13306	chr3	31663085	31664260	+	STT3B	0x0
13307	chr3	31677447	31679518	+	STT3B	0x0
13308	chr3	32207216	32208656	+	GPD1L	0x0
13309	chr3	32208949	32210686	+	GPD1L	0x0
13310	chr3	32442544	32443805	+	CMTM7	0x0
13311	chr3	32495216	32496678	+	CMTM7	0x0
13312	chr3	32522512	32524692	-	CMTM6	0x0
13313	chr3	32567067	32568185	-	DYNC1LI1	0x0
13314	chr3	32805650	32806790	+	CNOT10	0x0
13315	chr3	32808968	32810176	+	CNOT10	0x0
13316	chr3	32859070	32860810	+	TRIM71	0x0
13317	chr3	32914696	32915951	+	TRIM71	0x0
13318	chr3	32933747	32939303	+	TRIM71	0x0
13319	chr3	33037776	33039234	-	GLB1	0x0
13320	chr3	33099048	33100155	-	GLB1	0x0
13321	chr3	33175124	33176321	+	CRTAP	0x0
13322	chr3	33429868	33432018	-	UBP1	0x0
13323	chr3	33538882	33540151	-	CLASP2	0x0
13324	chr3	33615403	33616549	-	CLASP2	0x0
13325	chr3	36736487	36737766	+	STAC	0x0
13326	chr3	36897422	36898650	-	TRANK1	0x0
13327	chr3	37026715	37027877	-	EPM2AIP1	0x0
13328	chr3	37033279	37034479	-	EPM2AIP1	0x0
13329	chr3	37317437	37318622	+	GOLGA4	0x2
13330	chr3	37323055	37324240	+	GOLGA4	0x2
13331	chr3	37364602	37365797	+	GOLGA4	0x2
13332	chr3	37366254	37367584	+	GOLGA4	0x2
13333	chr3	37374565	37375725	+	GOLGA4	0x2
13334	chr3	37407615	37408764	+	GOLGA4	0x2
13335	chr3	38022363	38023390	+	CTDSPL	0x1
13336	chr3	38024709	38025887	+	CTDSPL	0x1
13337	chr3	38224280	38225452	+	OXSR1	0x0
13338	chr3	38294376	38296440	+	OXSR1	0x0
13339	chr3	38518302	38520493	+	ACVR2B	0x0
13340	chr3	38528797	38531466	+	ACVR2B	0x0
13341	chr3	38532904	38535016	+	ACVR2B	0x0
13342	chr3	39103959	39105125	+	WDR48	0x0
13343	chr3	39119096	39120255	+	WDR48	0x0
13344	chr3	39140336	39141531	-	GORASP1	0x0
13345	chr3	39144398	39145635	-	GORASP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13346	chr3	39183552	39184774	-	CSRNP1	0x0
13347	chr3	39195432	39196560	-	CSRNP1	0x0
13348	chr3	39452959	39454508	+	RPSA	0x0
13349	chr3	39685197	39686424	+	MOBP	0x0
13350	chr3	40350737	40351977	+	EIF1B	0x0
13351	chr3	40502905	40504104	+	RPL14	0x0
13352	chr3	41265471	41267214	+	CTNNB1	0x2
13353	chr3	41279009	41280164	+	CTNNB1	0x2
13354	chr3	41280580	41282239	+	CTNNB1	0x2
13355	chr3	42069342	42070544	+	TRAK1	0x0
13356	chr3	42225670	42226870	+	TRAK1	0x0
13357	chr3	42258017	42259793	+	TRAK1	0x0
13358	chr3	42590659	42591919	-	SEC22C	0x0
13359	chr3	42672240	42673464	+	NKTR	0x0
13360	chr3	42688916	42690102	+	NKTR	0x0
13361	chr3	43344375	43345570	+	SNRK	0x0
13362	chr3	43674463	43675662	-	ANO10	0x0
13363	chr3	43760207	43761433	+	ABHD5	0x0
13364	chr3	44487468	44488639	-	ZNF445	0x0
13365	chr3	44954858	44956118	-	ZDHHC3	0x0
13366	chr3	44957960	44959009	-	ZDHHC3	0x0
13367	chr3	44962543	44963855	-	ZDHHC3	0x0
13368	chr3	44966169	44968428	-	ZDHHC3	0x0
13369	chr3	45200697	45201805	-	CDCP1	0x0
13370	chr3	45499835	45501018	+	LARS2	0x0
13371	chr3	45776241	45777390	+	SACM1L	0x0
13372	chr3	45784799	45787401	+	SACM1L	0x0
13373	chr3	45943003	45944257	+	CCR9	0x0
13374	chr3	45959112	45961516	-	FYCO1	0x0
13375	chr3	46559770	46560993	-	LRRC2	0x0
13376	chr3	46562508	46563657	-	LRRC2	0x0
13377	chr3	46873986	46875106	-	PRSS42	0x0
13378	chr3	47050363	47051603	+	NBEAL2	0x0
13379	chr3	47053336	47054546	+	NRADDP	0x0
13380	chr3	47057480	47059204	-	SETD2	0x2
13381	chr3	47125007	47126116	-	SETD2	0x2
13382	chr3	47138954	47140115	-	SETD2	0x2
13383	chr3	47162426	47163542	-	SETD2	0x2
13384	chr3	47167898	47169435	-	SETD2	0x2
13385	chr3	47386777	47387918	+	KLHL18	0x0
13386	chr3	47450113	47451261	+	PTPN23	0x0
13387	chr3	47461652	47462793	-	SCAP	0x0
13388	chr3	47610117	47611227	-	CSPG5	0x0
13389	chr3	47626993	47629892	-	SMARCC1	0x0
13390	chr3	47703286	47704393	-	SMARCC1	0x0
13391	chr3	47881838	47883034	+	DHX30	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13392	chr3	47888266	47889379	+	DHX30	0x0
13393	chr3	47891834	47893460	-	MAP4	0x0
13394	chr3	47911750	47912873	-	MAP4	0x0
13395	chr3	47957004	47958104	-	MAP4	0x0
13396	chr3	48198210	48199348	-	CDC25A	0x0
13397	chr3	48218713	48219892	-	CDC25A	0x0
13398	chr3	48225378	48226502	-	CDC25A	0x0
13399	chr3	48443231	48444391	-	PLXNB1	0x0
13400	chr3	48462576	48463730	-	PLXNB1	0x0
13401	chr3	48509126	48511042	-	SHISA5	0x0
13402	chr3	48637456	48638738	-	UQCRC1	0x0
13403	chr3	48642672	48643770	-	UQCRC1	0x0
13404	chr3	48675521	48676704	+	TREX1	0x0
13405	chr3	48689291	48690489	-	CELSR3	0x0
13406	chr3	48711203	48712376	-	NCKIPSD	0x2
13407	chr3	48783550	48786690	-	PRKAR2A	0x0
13408	chr3	48787869	48789208	-	PRKAR2A	0x0
13409	chr3	48964380	48965611	+	ARIH2	0x0
13410	chr3	49016420	49017569	+	ARIH2	0x0
13411	chr3	49021371	49023179	+	ARIH2	0x0
13412	chr3	49052663	49053899	+	WDR6	0x0
13413	chr3	49063487	49064667	-	IMPDH2	0x0
13414	chr3	49065393	49068115	-	IMPDH2	0x0
13415	chr3	49065393	49068115	-	QRICH1	0x0
13416	chr3	49083334	49084509	-	QRICH1	0x0
13417	chr3	49093826	49094999	-	QRICH1	0x0
13418	chr3	49113804	49114896	-	QRICH1	0x0
13419	chr3	49129281	49130377	-	QRICH1	0x0
13420	chr3	49132932	49134034	-	QARS	0x0
13421	chr3	49135295	49137573	-	QARS	0x0
13422	chr3	49138400	49139672	-	QARS	0x0
13423	chr3	49161917	49163019	-	LAMB2	0x0
13424	chr3	49335511	49336629	-	USP4	0x0
13425	chr3	49394229	49396050	-	GPX1	0x0
13426	chr3	49396161	49398108	-	RHOA	0x1
13427	chr3	49448760	49449866	-	RHOA	0x1
13428	chr3	49455897	49457010	-	AMT	0x0
13429	chr3	49458400	49459528	-	AMT	0x0
13430	chr3	49461784	49463005	-	NICN1	0x0
13431	chr3	49567891	49569061	+	DAG1	0x0
13432	chr3	49571106	49573414	+	DAG1	0x0
13433	chr3	49713643	49714839	+	APEH	0x0
13434	chr3	49720172	49721404	+	APEH	0x0
13435	chr3	49752709	49753862	+	RNF123	0x0
13436	chr3	49761435	49765084	-	IP6K1	0x0
13437	chr3	49880177	49881370	-	TRAIP	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13438	chr3	49894810	49896012	-	CAMKV	0x0
13439	chr3	50146486	50147683	+	RBM5	0x1
13440	chr3	50294545	50295647	+	GNAI2	0x0
13441	chr3	50295918	50297277	+	GNAI2	0x0
13442	chr3	50335354	50336667	-	HYAL3	0x0
13443	chr3	50335354	50336667	-	NAT6	0x1
13444	chr3	50356747	50357894	-	HYAL2	0x0
13445	chr3	50400903	50402074	-	CACNA2D2	0x0
13446	chr3	50681372	50682471	+	MAPKAPK3	0x0
13447	chr3	50685294	50686643	+	MAPKAPK3	0x0
13448	chr3	51420260	51421395	+	DOCK3	0x0
13449	chr3	51429564	51431304	+	RBM15B	0x0
13450	chr3	51431707	51432933	+	RBM15B	0x0
13451	chr3	51433217	51435033	+	RBM15B	0x0
13452	chr3	51434851	51436219	-	VPRBP	0x0
13453	chr3	51464373	51465494	-	VPRBP	0x0
13454	chr3	51623875	51625080	+	RAD54L2	0x0
13455	chr3	51680143	51681242	+	RAD54L2	0x0
13456	chr3	51698236	51701452	+	RAD54L2	0x0
13457	chr3	51737621	51738853	+	TEX264	0x0
13458	chr3	51966950	51969100	-	RRP9	0x0
13459	chr3	51970001	51971112	-	RRP9	0x0
13460	chr3	51991062	51992583	-	PCBP4	0x0
13461	chr3	52083075	52084430	-	DUSP7	0x2
13462	chr3	52262347	52263482	-	TWF2	0x0
13463	chr3	52288057	52289198	-	WDR82	0x0
13464	chr3	52289233	52291208	-	WDR82	0x0
13465	chr3	52432428	52433622	+	DNAH1	0x0
13466	chr3	52434685	52436674	-	BAP1	0x1
13467	chr3	52490853	52491985	+	NISCH	0x0
13468	chr3	52524865	52525961	+	NISCH	0x0
13469	chr3	52526260	52527477	+	NISCH	0x0
13470	chr3	52558068	52559183	-	NT5DC2	0x0
13471	chr3	52578993	52581905	-	PBRM1	0x1
13472	chr3	52622558	52623760	-	PBRM1	0x1
13473	chr3	52643023	52644437	-	PBRM1	0x1
13474	chr3	53080290	53081565	+	PRKCD	0x1
13475	chr3	53259273	53260372	-	TKT	0x0
13476	chr3	53261450	53263970	-	TKT	0x0
13477	chr3	53320282	53321547	-	DCP1A	0x0
13478	chr3	53530700	53531902	+	CACNA1D	0x0
13479	chr3	53820051	53821252	+	CACNA1D	0x0
13480	chr3	53902071	53903372	-	ACTR8	0x0
13481	chr3	55542096	55543262	-	ERC2	0x0
13482	chr3	55549930	55551053	-	ERC2	0x0
13483	chr3	55846627	55847734	-	MIR3938	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13484	chr3	56277025	56278192	-	ERC2	0x0
13485	chr3	56457215	56458356	-	ERC2	0x0
13486	chr3	56465844	56467371	-	ERC2	0x0
13487	chr3	56657224	56658373	-	FAM208A	0x0
13488	chr3	56694239	56695388	-	FAM208A	0x0
13489	chr3	56715836	56717045	-	FAM208A	0x0
13490	chr3	57123644	57126768	-	IL17RD	0x1
13491	chr3	57138593	57140150	-	IL17RD	0x1
13492	chr3	57273349	57274547	+	APPL1	0x0
13493	chr3	57303716	57304987	+	APPL1	0x0
13494	chr3	57305477	57306508	+	APPL1	0x0
13495	chr3	57556637	57558230	-	ARF4	0x0
13496	chr3	57611350	57612580	-	FAM116A	0x0
13497	chr3	57912768	57915222	+	SLMAP	0x0
13498	chr3	58111827	58112983	+	FLNB	0x2
13499	chr3	58123503	58124707	+	FLNB	0x2
13500	chr3	58127899	58129031	+	FLNB	0x2
13501	chr3	58133399	58134549	+	FLNB	0x2
13502	chr3	58157295	58158498	+	FLNB	0x2
13503	chr3	58412941	58414167	-	PDHB	0x0
13504	chr3	58727500	58728694	-	C3orf67	0x0
13505	chr3	59000150	59001269	-	C3orf67	0x0
13506	chr3	60080331	60081545	-	FHIT	0x1
13507	chr3	60675330	60676433	-	FHIT	0x1
13508	chr3	61608090	61609229	+	PTPRG	0x0
13509	chr3	61683631	61684858	+	PTPRG	0x0
13510	chr3	61727642	61729297	-	ID2B	0x0
13511	chr3	61735154	61736258	+	PTPRG	0x0
13512	chr3	61789154	61790326	+	PTPRG	0x0
13513	chr3	61813500	61814876	+	PTPRG	0x0
13514	chr3	61915449	61916665	+	PTPRG	0x0
13515	chr3	62188776	62189935	+	PTPRG	0x0
13516	chr3	62267888	62269029	+	PTPRG	0x0
13517	chr3	62278913	62280084	+	PTPRG	0x0
13518	chr3	63819081	63820267	-	THOC7	0x0
13519	chr3	64083142	64084760	-	PRICKLE2	0x0
13520	chr3	64247832	64248944	-	PRICKLE2	0x0
13521	chr3	64501417	64502782	-	ADAMTS9	0x1
13522	chr3	64578198	64579455	-	ADAMTS9	0x1
13523	chr3	64777535	64778705	+	ADAMTS9-AS2	0x0
13524	chr3	64968921	64970153	-	ADAMTS9	0x1
13525	chr3	65478634	65479848	-	MAGI1	0x0
13526	chr3	65696200	65697546	-	MAGI1	0x0
13527	chr3	65728181	65729407	-	MAGI1	0x0
13528	chr3	65864710	65865807	-	MAGI1	0x0
13529	chr3	65932250	65933410	-	MAGI1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13530	chr3	65960074	65961295	-	MAGI1	0x0
13531	chr3	65984192	65985604	-	MAGI1	0x0
13532	chr3	66429252	66430915	-	LRIG1	0x0
13533	chr3	66548687	66549868	-	LRIG1	0x0
13534	chr3	67054071	67055133	+	KBTBD8	0x0
13535	chr3	67057842	67058992	+	KBTBD8	0x0
13536	chr3	67059164	67061533	+	KBTBD8	0x0
13537	chr3	67424977	67426309	-	SUCLG2	0x0
13538	chr3	69070100	69071290	-	TMF1	0x0
13539	chr3	69096057	69097691	-	TMF1	0x0
13540	chr3	69103613	69104873	-	UBA3	0x0
13541	chr3	69124049	69125157	-	UBA3	0x0
13542	chr3	69153493	69154650	+	ARL6IP5	0x0
13543	chr3	69511199	69512378	-	FRMD4B	0x0
13544	chr3	70015456	70017943	+	MITF	0x2
13545	chr3	71006236	71007540	-	FOXP1	0x1
13546	chr3	71007620	71008818	-	FOXP1	0x1
13547	chr3	71804586	71805691	+	GPR27	0x0
13548	chr3	72422354	72423622	-	RYBP	0x0
13549	chr3	72424616	72427401	-	RYBP	0x0
13550	chr3	72861269	72862463	-	SHQ1	0x0
13551	chr3	73115701	73117993	+	PPP4R2	0x0
13552	chr3	73431195	73432384	-	PDZRN3	0x0
13553	chr3	78646199	78648176	-	ROBO1	0x2
13554	chr3	78838315	78839494	-	ROBO1	0x2
13555	chr3	81639672	81640867	-	GBE1	0x0
13556	chr3	81809540	81810821	-	GBE1	0x0
13557	chr3	87302622	87303861	+	CHMP2B	0x2
13558	chr3	88100815	88104314	-	CGGBP1	0x0
13559	chr3	88187593	88189550	+	ZNF654	0x0
13560	chr3	93772451	93773663	+	ARL13B	0x0
13561	chr3	96067921	96069326	+	EPHA6	0x0
13562	chr3	97680174	97681340	-	MINA	0x0
13563	chr3	98233876	98235683	-	CLDND1	0x0
13564	chr3	98298152	98299441	-	CPOX	0x0
13565	chr3	98378471	98379849	+	ST3GAL6	0x0
13566	chr3	98514578	98517540	-	DCBLD2	0x0
13567	chr3	99596671	99597924	+	C3orf26	0x0
13568	chr3	99654026	99655218	+	C3orf26	0x0
13569	chr3	100042985	100044357	+	TBC1D23	0x2
13570	chr3	100081958	100084809	-	TOMM70A	0x0
13571	chr3	100247598	100248762	+	TMEM45A	0x0
13572	chr3	100273483	100274682	+	TMEM45A	0x0
13573	chr3	100447085	100448254	+	TFG	0x2
13574	chr3	101175515	101177107	-	SENP7	0x0
13575	chr3	101294781	101296278	-	SENP7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13576	chr3	101312128	101313781	+	PCNP	0x0
13577	chr3	105375988	105377171	-	CBLB	0x2
13578	chr3	107514782	107515994	+	BBX	0x0
13579	chr3	107525560	107527465	+	BBX	0x0
13580	chr3	107527640	107528741	+	BBX	0x0
13581	chr3	107786334	107787596	-	CD47	0x0
13582	chr3	108269008	108270142	-	KIAA1524	0x0
13583	chr3	108362715	108363864	+	DZIP3	0x0
13584	chr3	108408083	108410489	+	DZIP3	0x0
13585	chr3	108697830	108698987	-	MORC1	0x2
13586	chr3	108723412	108724576	-	MORC1	0x2
13587	chr3	110854853	110856042	+	PVRL3	0x0
13588	chr3	110911526	110912755	+	PVRL3	0x0
13589	chr3	111443317	111444480	+	PHLDB2	0x0
13590	chr3	111700044	111701266	+	ABHD10	0x0
13591	chr3	111711278	111712456	+	ABHD10	0x0
13592	chr3	112712051	112713263	+	GTPBP8	0x0
13593	chr3	113367318	113369122	-	KIAA2018	0x0
13594	chr3	113376290	113378057	-	KIAA2018	0x0
13595	chr3	113378745	113379904	-	KIAA2018	0x0
13596	chr3	113438743	113440552	-	NAA50	0x0
13597	chr3	113528048	113529109	+	ATP6V1A	0x0
13598	chr3	113529375	113531282	+	ATP6V1A	0x0
13599	chr3	113679771	113681722	+	ZDHHC23	0x0
13600	chr3	113804045	113805312	+	QTRTD1	0x0
13601	chr3	114041318	114042458	-	MIR568	0x0
13602	chr3	114044815	114045996	-	MIR568	0x0
13603	chr3	114055415	114056606	-	ZBTB20	0x0
13604	chr3	114539760	114540859	-	ZBTB20	0x0
13605	chr3	114572827	114573936	-	ZBTB20	0x0
13606	chr3	114789242	114790360	-	ZBTB20	0x0
13607	chr3	114836154	114837315	-	ZBTB20	0x0
13608	chr3	114863282	114864451	-	ZBTB20	0x0
13609	chr3	118620063	118621237	-	IGSF11	0x0
13610	chr3	119165459	119166559	-	TMEM39A	0x0
13611	chr3	119181685	119182920	-	TMEM39A	0x0
13612	chr3	119210771	119212413	+	POGLUT1	0x0
13613	chr3	119304778	119305951	+	ADPRH	0x1
13614	chr3	119306264	119307413	+	ADPRH	0x1
13615	chr3	119540575	119541711	-	GSK3B	0x2
13616	chr3	119543518	119544717	-	GSK3B	0x2
13617	chr3	119665559	119666746	-	GSK3B	0x2
13618	chr3	120045313	120046570	-	LRRC58	0x0
13619	chr3	120112689	120114514	-	FSTL1	0x0
13620	chr3	120318072	120319249	+	NDUFB4	0x0
13621	chr3	120407373	120408585	-	RABL3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13622	chr3	120500680	120502455	+	GTF2E1	0x0
13623	chr3	121230162	121231337	-	POLQ	0x0
13624	chr3	121382189	121383597	-	GOLGB1	0x0
13625	chr3	121409891	121411052	-	GOLGB1	0x0
13626	chr3	121416789	121417986	-	GOLGB1	0x0
13627	chr3	121437954	121439177	-	GOLGB1	0x0
13628	chr3	121711996	121713196	-	ILDR1	0x0
13629	chr3	122112217	122113758	+	FAM162A	0x0
13630	chr3	122142078	122146258	-	KPNA1	0x0
13631	chr3	122418646	122419839	+	PARP14	0x0
13632	chr3	122459206	122460403	-	HSPBAP1	0x0
13633	chr3	122473183	122474323	-	HSPBAP1	0x0
13634	chr3	122496074	122497198	-	HSPBAP1	0x0
13635	chr3	122502908	122504068	-	HSPBAP1	0x0
13636	chr3	122597832	122599636	+	DIRC2	0x0
13637	chr3	122733316	122734471	-	SEMA5B	0x2
13638	chr3	122871427	122872617	+	PDIA5	0x0
13639	chr3	122997032	122998306	+	SEC22A	0x0
13640	chr3	123149440	123150848	-	ADCY5	0x0
13641	chr3	123213113	123214314	-	PTPLB	0x0
13642	chr3	123653228	123654413	-	CCDC14	0x0
13643	chr3	124376945	124378145	+	KALRN	0x2
13644	chr3	124456072	124457238	+	UMPS	0x0
13645	chr3	124481620	124483007	-	ITGB5	0x0
13646	chr3	124559783	124560925	-	ITGB5	0x0
13647	chr3	124577757	124578925	-	ITGB5	0x0
13648	chr3	124896168	124897377	-	SLC12A8	0x0
13649	chr3	124908735	124909834	-	SLC12A8	0x0
13650	chr3	124947045	124950105	-	ZNF148	0x0
13651	chr3	125031589	125033035	-	ZNF148	0x0
13652	chr3	125041689	125042788	-	ZNF148	0x0
13653	chr3	125165182	125173171	-	SNX4	0x2
13654	chr3	125247390	125248847	-	OSBPL11	0x0
13655	chr3	126155539	126156993	-	ZXDC	0x0
13656	chr3	126169245	126170451	-	ZXDC	0x0
13657	chr3	126178085	126179208	-	ZXDC	0x0
13658	chr3	126179367	126180524	-	ZXDC	0x0
13659	chr3	126325635	126326883	-	TXNRD3	0x0
13660	chr3	126325635	126326883	-	TXNRD3NB	0x0
13661	chr3	126732778	126733992	+	PLXNA1	0x0
13662	chr3	126747346	126748473	+	PLXNA1	0x0
13663	chr3	126753433	126755978	+	PLXNA1	0x0
13664	chr3	127323251	127324357	+	MCM2	0x0
13665	chr3	127335350	127336451	+	MCM2	0x0
13666	chr3	127340333	127341526	+	MCM2	0x0
13667	chr3	127392518	127393774	+	ABTB1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13668	chr3	127775060	127776195	+	SEC61A1	0x0
13669	chr3	127778429	127780003	+	SEC61A1	0x0
13670	chr3	127788312	127791038	+	SEC61A1	0x0
13671	chr3	127887291	127888557	+	EEFSEC	0x0
13672	chr3	127980449	127981622	+	EEFSEC	0x0
13673	chr3	127982913	127984153	+	EEFSEC	0x0
13674	chr3	128338264	128339940	-	RPN1	0x2
13675	chr3	128340500	128341637	-	RPN1	0x2
13676	chr3	128344251	128345403	-	RPN1	0x2
13677	chr3	128356261	128357464	-	RPN1	0x2
13678	chr3	128368957	128370178	-	RPN1	0x2
13679	chr3	128532065	128534171	+	RAB7A	0x0
13680	chr3	128600932	128602136	+	ACAD9	0x0
13681	chr3	128807289	128808534	-	ISY1-RAB43	0x0
13682	chr3	128807289	128808534	-	RAB43	0x0
13683	chr3	128848027	128849250	-	ISY1	0x0
13684	chr3	128848027	128849250	-	ISY1-RAB43	0x0
13685	chr3	128864115	128865216	-	ISY1	0x0
13686	chr3	128864115	128865216	-	ISY1-RAB43	0x0
13687	chr3	128888071	128889807	-	CNBP	0x2
13688	chr3	128889946	128891134	-	CNBP	0x2
13689	chr3	128983875	128985108	+	COPG1	0x0
13690	chr3	128995967	128997206	+	COPG1	0x0
13691	chr3	129367164	129368329	-	TMCC1	0x0
13692	chr3	129695556	129697233	+	TRH	0x0
13693	chr3	130422221	130423429	-	PIK3R4	0x0
13694	chr3	130716002	130717161	+	ATP2C1	0x0
13695	chr3	130719882	130721825	+	ATP2C1	0x0
13696	chr3	131180795	131182084	-	MRPL3	0x0
13697	chr3	132198637	132199889	+	DNAJC13	0x0
13698	chr3	132202841	132204079	+	DNAJC13	0x0
13699	chr3	132234573	132235756	+	DNAJC13	0x0
13700	chr3	132256808	132258025	+	DNAJC13	0x0
13701	chr3	132377959	132379118	-	ACAD11	0x0
13702	chr3	132384377	132385556	+	UBA5	0x0
13703	chr3	132395165	132396404	+	UBA5	0x0
13704	chr3	132802429	132803660	+	TMEM108	0x0
13705	chr3	133306736	133309405	+	CDV3	0x0
13706	chr3	133326858	133328007	-	TOPBP1	0x0
13707	chr3	133373644	133374838	-	TOPBP1	0x0
13708	chr3	133545470	133547194	-	RAB6B	0x0
13709	chr3	133863900	133865064	-	RYK	0x0
13710	chr3	133875381	133877501	-	RYK	0x0
13711	chr3	133877647	133878751	-	RYK	0x0
13712	chr3	133915036	133916203	-	RYK	0x0
13713	chr3	134075159	134076375	-	AMOTL2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13714	chr3	134658197	134659406	+	EPHB1	0x2
13715	chr3	135868775	135870770	-	MSL2	0x0
13716	chr3	136054916	136057082	-	STAG1	0x0
13717	chr3	136341469	136342624	-	STAG1	0x0
13718	chr3	136349113	136350331	-	STAG1	0x0
13719	chr3	137963678	137964834	+	ARMC8	0x0
13720	chr3	138015641	138016839	+	ARMC8	0x0
13721	chr3	138123455	138124841	+	MRAS	0x0
13722	chr3	138460886	138462119	-	PIK3CB	0x0
13723	chr3	139085011	139086160	-	COPB2	0x0
13724	chr3	139090008	139091139	-	COPB2	0x0
13725	chr3	140287457	140288645	+	CLSTN2	0x2
13726	chr3	140695320	140698876	+	SLC25A36	0x0
13727	chr3	141105297	141106462	+	ZBTB38	0x0
13728	chr3	141164739	141165917	+	ZBTB38	0x0
13729	chr3	141166779	141167974	+	ZBTB38	0x0
13730	chr3	141664587	141665908	-	TFDP2	0x0
13731	chr3	141670135	141671388	-	TFDP2	0x0
13732	chr3	141740253	141741541	-	TFDP2	0x0
13733	chr3	141878868	141879975	-	GK5	0x0
13734	chr3	141879987	141881126	-	GK5	0x0
13735	chr3	142026825	142027975	-	XRN1	0x1
13736	chr3	142028737	142029912	-	XRN1	0x1
13737	chr3	142130844	142132090	-	XRN1	0x1
13738	chr3	142184667	142185872	-	ATR	0x1
13739	chr3	142215377	142216549	-	ATR	0x1
13740	chr3	142272166	142273308	-	ATR	0x1
13741	chr3	142278637	142279792	-	ATR	0x1
13742	chr3	142536434	142537643	-	PCOLCE2	0x0
13743	chr3	142558833	142560013	-	PCOLCE2	0x0
13744	chr3	142755574	142756726	+	U2SURP	0x0
13745	chr3	142774871	142777104	+	U2SURP	0x0
13746	chr3	142777780	142779789	+	U2SURP	0x0
13747	chr3	142838244	142839445	-	LOC100289361	0x0
13748	chr3	143708267	143709586	+	C3orf58	0x0
13749	chr3	143710579	143711744	+	C3orf58	0x0
13750	chr3	145787441	145788556	-	PLOD2	0x0
13751	chr3	145838423	145839581	-	PLOD2	0x0
13752	chr3	145840726	145842005	-	PLOD2	0x0
13753	chr3	148747864	148750353	-	HLTF	0x1
13754	chr3	148858330	148859432	+	HPS3	0x0
13755	chr3	148884246	148885408	+	HPS3	0x0
13756	chr3	149236734	149239048	-	WWTR1	0x2
13757	chr3	149627094	149628198	+	RNF13	0x0
13758	chr3	149682200	149683964	-	PFN2	0x0
13759	chr3	150128487	150129587	+	TSC22D2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13760	chr3	150260140	150261835	-	SERP1	0x0
13761	chr3	150285311	150286532	+	EIF2A	0x0
13762	chr3	150346360	150348487	+	SELT	0x0
13763	chr3	150845079	150846276	+	MED12L	0x2
13764	chr3	150910798	150911967	+	MED12L	0x2
13765	chr3	150953094	150954214	+	MED12L	0x2
13766	chr3	151150972	151152128	+	MED12L	0x2
13767	chr3	151152809	151154303	+	MED12L	0x2
13768	chr3	152163071	152164187	+	MBNL1	0x0
13769	chr3	153990055	153991644	-	DHX36	0x0
13770	chr3	153992978	153994176	-	DHX36	0x0
13771	chr3	154860731	154861897	+	MME	0x0
13772	chr3	154897781	154900103	+	MME	0x0
13773	chr3	155198547	155199708	-	PLCH1	0x0
13774	chr3	155479324	155480795	-	C3orf33	0x0
13775	chr3	155545552	155546700	-	SLC33A1	0x0
13776	chr3	155623428	155624623	+	GMPS	0x2
13777	chr3	155633266	155634367	+	GMPS	0x2
13778	chr3	155636529	155637673	+	GMPS	0x2
13779	chr3	155658923	155660076	+	GMPS	0x2
13780	chr3	155705236	155706460	+	GMPS	0x2
13781	chr3	156257507	156260790	-	SSR3	0x0
13782	chr3	156526804	156528011	-	PA2G4P4	0x0
13783	chr3	156866733	156867925	-	CCNL1	0x2
13784	chr3	157187602	157188776	-	VEPH1	0x0
13785	chr3	158127796	158129043	+	RSRC1	0x0
13786	chr3	158388861	158390085	+	GFM1	0x0
13787	chr3	158408811	158409983	+	GFM1	0x0
13788	chr3	158541427	158542527	+	MFSD1	0x0
13789	chr3	158546326	158549422	+	MFSD1	0x0
13790	chr3	159481967	159483409	+	IQCJ-SCHIP1	0x0
13791	chr3	159481967	159483409	+	SCHIP1	0x0
13792	chr3	159505723	159506877	+	IQCJ-SCHIP1	0x0
13793	chr3	159505723	159506877	+	SCHIP1	0x0
13794	chr3	159605059	159606207	+	IQCJ-SCHIP1	0x0
13795	chr3	159605059	159606207	+	SCHIP1	0x0
13796	chr3	160138033	160139181	+	SMC4	0x0
13797	chr3	160217661	160219980	-	KPNA4	0x0
13798	chr3	160786705	160787880	+	PPM1L	0x1
13799	chr3	160787890	160789232	+	PPM1L	0x1
13800	chr3	160802217	160803435	-	B3GALNT1	0x0
13801	chr3	160952066	160953188	+	NMD3	0x0
13802	chr3	160963518	160964643	+	NMD3	0x0
13803	chr3	168554692	168555833	+	EGFEM1P	0x0
13804	chr3	169105093	169106270	-	MECOM	0x0
13805	chr3	169699938	169701141	+	SEC62	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13806	chr3	169710205	169711307	+	SEC62	0x0
13807	chr3	170020540	170024150	+	PRKCI	0x1
13808	chr3	170075809	170077001	+	SKIL	0x0
13809	chr3	170077924	170079080	+	SKIL	0x0
13810	chr3	170109912	170111516	+	SKIL	0x0
13811	chr3	170112130	170115147	+	SKIL	0x0
13812	chr3	170583561	170584849	-	RPL22L1	0x0
13813	chr3	170585267	170586415	-	RPL22L1	0x0
13814	chr3	170608859	170610279	-	EIF5A2	0x2
13815	chr3	171145124	171146333	-	TNIK	0x0
13816	chr3	171177463	171178655	-	TNIK	0x0
13817	chr3	171774078	171775220	+	FNDC3B	0x0
13818	chr3	171856644	171857824	+	FNDC3B	0x0
13819	chr3	172116776	172117913	+	FNDC3B	0x0
13820	chr3	172142041	172144001	-	GHSR	0x2
13821	chr3	172348511	172349620	-	NCEH1	0x0
13822	chr3	172481586	172482773	+	ECT2	0x0
13823	chr3	172520097	172521244	+	ECT2	0x0
13824	chr3	172532838	172534075	+	ECT2	0x0
13825	chr3	172537434	172539994	+	ECT2	0x0
13826	chr3	176739189	176742095	-	TBL1XR1	0x2
13827	chr3	176908348	176909508	-	TBL1XR1	0x2
13828	chr3	178734626	178735842	-	ZMAT3	0x0
13829	chr3	178736047	178738150	-	ZMAT3	0x0
13830	chr3	178784738	178785883	-	ZMAT3	0x0
13831	chr3	178917024	178918156	+	PIK3CA	0x2
13832	chr3	178918656	178919824	+	PIK3CA	0x2
13833	chr3	178926897	178928016	+	PIK3CA	0x2
13834	chr3	178952122	178953292	+	PIK3CA	0x2
13835	chr3	179305259	179306444	+	ACTL6A	0x0
13836	chr3	179335657	179336797	+	NDUFB5	0x0
13837	chr3	179341283	179342532	+	NDUFB5	0x0
13838	chr3	180668583	180669772	+	FXR1	0x0
13839	chr3	180673306	180674453	+	FXR1	0x0
13840	chr3	180687475	180688642	+	FXR1	0x0
13841	chr3	180694089	180695299	+	FXR1	0x0
13842	chr3	181430136	181432621	+	SOX2	0x2
13843	chr3	182635732	182637535	+	ATP11B	0x0
13844	chr3	182659946	182661207	-	DCUN1D1	0x0
13845	chr3	182661219	182662379	-	DCUN1D1	0x0
13846	chr3	182990065	182991385	+	B3GNT5	0x0
13847	chr3	183398272	183399382	+	KLHL24	0x0
13848	chr3	183401474	183402654	+	KLHL24	0x0
13849	chr3	183533060	183534277	-	MAP6D1	0x0
13850	chr3	183637274	183639220	-	ABCC5	0x0
13851	chr3	183642911	183644035	-	ABCC5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13852	chr3	183700661	183701792	-	ABCC5	0x0
13853	chr3	183853960	183855044	+	EIF2B5	0x0
13854	chr3	183855459	183856550	+	EIF2B5	0x0
13855	chr3	183857697	183858876	+	EIF2B5	0x0
13856	chr3	183862301	183863538	+	EIF2B5	0x0
13857	chr3	183867179	183868726	+	EIF2B5	0x0
13858	chr3	183889697	183891254	+	DVL3	0x0
13859	chr3	183896002	183897153	+	AP2M1	0x0
13860	chr3	183899022	183900280	+	AP2M1	0x0
13861	chr3	184019735	184022361	+	PSMD2	0x0
13862	chr3	184023111	184025740	+	PSMD2	0x0
13863	chr3	184038708	184040301	+	EIF4G1	0x0
13864	chr3	184043833	184045693	+	EIF4G1	0x0
13865	chr3	184052028	184053410	+	EIF4G1	0x0
13866	chr3	184074833	184076012	-	CLCN2	0x0
13867	chr3	184085443	184086641	+	POLR2H	0x0
13868	chr3	184299151	184300325	+	EPHB3	0x0
13869	chr3	184580165	184581346	+	VPS8	0x0
13870	chr3	184909659	184910794	-	EHHADH	0x0
13871	chr3	185012119	185013329	+	MAP3K13	0x2
13872	chr3	185134965	185136711	-	TMEM41A	0x0
13873	chr3	185207943	185209226	-	TMEM41A	0x0
13874	chr3	185225452	185226733	-	LIPH	0x0
13875	chr3	185347162	185349659	+	SENP2	0x0
13876	chr3	185361140	185363642	-	IGF2BP2	0x0
13877	chr3	185542085	185543318	-	IGF2BP2	0x0
13878	chr3	185634179	185635605	-	TRA2B	0x0
13879	chr3	185763628	185766450	-	ETV5	0x2
13880	chr3	185797140	185798239	-	ETV5	0x2
13881	chr3	186302656	186304309	+	DNAJB11	0x0
13882	chr3	186501714	186502899	+	EIF4A2	0x2
13883	chr3	186501714	186502899	+	SNORD2	0x0
13884	chr3	186794635	186795788	+	ST6GAL1	0x0
13885	chr3	186838262	186839461	-	RPL39L	0x0
13886	chr3	187967287	187968449	+	LPP	0x0
13887	chr3	188592550	188593706	+	LPP	0x0
13888	chr3	188605490	188606806	+	LPP	0x0
13889	chr3	188607287	188608473	+	LPP	0x0
13890	chr3	190362642	190363893	+	IL1RAP	0x0
13891	chr3	191109400	191110751	+	CCDC50	0x0
13892	chr3	191112184	191113334	+	CCDC50	0x0
13893	chr3	191114354	191116239	+	CCDC50	0x0
13894	chr3	192576414	192577542	-	MB21D2	0x0
13895	chr3	193412150	193413735	+	OPA1	0x0
13896	chr3	193414451	193415755	+	OPA1	0x0
13897	chr3	193708186	193709550	-	LOC100128023	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13898	chr3	194075807	194077006	-	LRRC15	0x0
13899	chr3	194078004	194079224	-	LRRC15	0x0
13900	chr3	194123898	194126716	-	ATP13A3	0x0
13901	chr3	194379201	194380361	-	LSG1	0x0
13902	chr3	194390945	194392510	-	LSG1	0x0
13903	chr3	194788429	194790229	-	XXYLT1	0x0
13904	chr3	194995176	194996354	-	ACAP2	0x0
13905	chr3	194996883	194998144	-	ACAP2	0x0
13906	chr3	195590422	195591562	-	TNK2	0x0
13907	chr3	195608521	195609722	-	TNK2	0x0
13908	chr3	195619514	195620849	-	TNK2	0x0
13909	chr3	195634868	195636036	-	TNK2	0x0
13910	chr3	195777794	195779014	-	TFRC	0x2
13911	chr3	195781395	195782665	-	TFRC	0x2
13912	chr3	195800422	195801523	-	TFRC	0x2
13913	chr3	195962118	195963856	-	PCYT1A	0x0
13914	chr3	196074237	196076853	-	UBXN7	0x0
13915	chr3	196077172	196078256	-	UBXN7	0x0
13916	chr3	196079766	196082370	-	UBXN7	0x0
13917	chr3	196198946	196200153	-	RNF168	0x0
13918	chr3	196312991	196314503	+	FBXO45	0x0
13919	chr3	196554809	196557771	+	PAK2	0x0
13920	chr3	196659085	196662120	+	SENP5	0x0
13921	chr3	196662737	196664089	-	NCBP2	0x0
13922	chr3	196769337	196770838	-	DLG1	0x1
13923	chr3	196770969	196772089	-	DLG1	0x1
13924	chr3	197005609	197006899	-	DLG1	0x1
13925	chr3	197508708	197511162	+	FYTTD1	0x0
13926	chr4	699075	700218	+	PCGF3	0x0
13927	chr4	760045	761195	+	PCGF3	0x0
13928	chr4	761295	762582	+	PCGF3	0x0
13929	chr4	763129	764228	+	PCGF3	0x0
13930	chr4	1019960	1021165	+	FGFRL1	0x4
13931	chr4	1204710	1206630	-	CTBP1	0x1
13932	chr4	1332779	1334091	+	MAEA	0x0
13933	chr4	1550224	1551365	-	FAM53A	0x0
13934	chr4	1558204	1559379	+	TACC3	0x0
13935	chr4	1801016	1809136	-	LETM1	0x2
13936	chr4	1809285	1810453	-	LETM1	0x2
13937	chr4	1901969	1903475	+	WHSC1	0x2
13938	chr4	1905402	1906629	+	WHSC1	0x2
13939	chr4	1940904	1942011	+	WHSC1	0x2
13940	chr4	1948222	1949361	+	WHSC1	0x2
13941	chr4	1949478	1950651	+	WHSC1	0x2
13942	chr4	1957240	1958358	+	WHSC1	0x2
13943	chr4	1960928	1962016	+	WHSC1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13944	chr4	1979959	1981351	+	WHSC1	0x2
13945	chr4	1992780	1993955	-	WHSC2	0x0
13946	chr4	2066723	2067928	+	NAT8L	0x0
13947	chr4	2240010	2241223	-	HAUS3	0x0
13948	chr4	2251207	2252344	-	MIR4800	0x0
13949	chr4	2251207	2252344	-	MXD4	0x0
13950	chr4	2515079	2516866	+	RNF4	0x0
13951	chr4	2597399	2598594	+	FAM193A	0x0
13952	chr4	2733237	2734434	+	FAM193A	0x0
13953	chr4	2747006	2748214	-	TNIP2	0x0
13954	chr4	2900019	2901254	-	MFSD10	0x0
13955	chr4	2929972	2931212	+	ADD1	0x0
13956	chr4	3087924	3089142	+	HTT	0x0
13957	chr4	3116483	3117677	+	HTT	0x0
13958	chr4	3124106	3125223	+	HTT	0x0
13959	chr4	3209968	3211128	+	HTT	0x0
13960	chr4	3244131	3245187	+	HTT	0x0
13961	chr4	3432357	3433518	+	RGS12	0x2
13962	chr4	3513864	3515074	-	LRPAP1	0x0
13963	chr4	4237073	4238316	-	TMEM128	0x0
13964	chr4	4269002	4270271	-	LYAR	0x0
13965	chr4	4280846	4281994	-	LYAR	0x0
13966	chr4	4389189	4390342	-	STX18	0x0
13967	chr4	6301742	6302970	+	WFS1	0x0
13968	chr4	6304105	6305391	+	WFS1	0x0
13969	chr4	6321881	6324704	-	PPP2R2C	0x0
13970	chr4	6576426	6577546	+	MAN2B2	0x0
13971	chr4	6643155	6644933	+	MRFAP1	0x0
13972	chr4	6883247	6884638	+	KIAA0232	0x0
13973	chr4	7000266	7001442	+	TBC1D14	0x0
13974	chr4	7033080	7034848	+	TBC1D14	0x0
13975	chr4	7057625	7058824	+	TADA2B	0x0
13976	chr4	7061778	7063053	-	GRPEL1	0x0
13977	chr4	7273390	7274523	+	MIR4798	0x0
13978	chr4	7762843	7764068	-	AFAP1	0x0
13979	chr4	8133725	8135009	-	ABLIM2	0x2
13980	chr4	8152393	8153551	-	ABLIM2	0x2
13981	chr4	10075485	10076998	-	WDR1	0x0
13982	chr4	11373666	11375379	+	MIR572	0x0
13983	chr4	13369354	13370576	-	RAB28	0x0
13984	chr4	13570807	13571945	-	BOD1L	0x0
13985	chr4	13601019	13602344	-	BOD1L	0x0
13986	chr4	13602956	13604846	-	BOD1L	0x0
13987	chr4	13605651	13606832	-	BOD1L	0x0
13988	chr4	15626441	15627896	-	FBXL5	0x0
13989	chr4	15631832	15632942	-	FBXL5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
13990	chr4	15637598	15638730	-	FBXL5	0x0
13991	chr4	15645568	15646797	-	FBXL5	0x0
13992	chr4	16162510	16163721	-	TAPT1	0x0
13993	chr4	16257504	16258720	-	TAPT1	0x0
13994	chr4	17580943	17582073	+	LAP3	0x0
13995	chr4	20727089	20728187	+	PACRGL	0x0
13996	chr4	22388679	22389875	-	GPR125	0x0
13997	chr4	24528606	24529930	-	DHX15	0x0
13998	chr4	24577662	24578824	-	DHX15	0x0
13999	chr4	25001581	25002732	-	LGI2	0x0
14000	chr4	25123094	25124255	-	SEPSECS	0x0
14001	chr4	25419445	25420639	+	ANAPC4	0x0
14002	chr4	25476446	25477694	+	ANAPC4	0x0
14003	chr4	25930602	25931801	+	C4orf52	0x0
14004	chr4	26322159	26323317	+	RBPJ	0x0
14005	chr4	26433799	26436958	+	RBPJ	0x0
14006	chr4	27024588	27026154	+	STIM2	0x0
14007	chr4	37612455	37613606	-	RELL1	0x0
14008	chr4	37613965	37615062	-	RELL1	0x0
14009	chr4	37841093	37842325	+	PGM2	0x0
14010	chr4	38139809	38141197	+	TBC1D1	0x0
14011	chr4	38698289	38701294	+	KLF3	0x0
14012	chr4	38702019	38703150	+	KLF3	0x0
14013	chr4	39114145	39115347	+	KLHL5	0x0
14014	chr4	39218197	39219365	+	WDR19	0x0
14015	chr4	39288627	39290007	-	RFC1	0x0
14016	chr4	39292843	39293944	-	RFC1	0x0
14017	chr4	39313839	39315055	-	RFC1	0x0
14018	chr4	39459656	39460868	-	RPL9	0x0
14019	chr4	39756760	39757951	+	UBE2K	0x0
14020	chr4	39779615	39781047	+	UBE2K	0x0
14021	chr4	39782202	39783874	+	UBE2K	0x0
14022	chr4	39824075	39827473	-	PDS5A	0x0
14023	chr4	39846921	39848073	-	PDS5A	0x0
14024	chr4	39877766	39879074	-	PDS5A	0x0
14025	chr4	39905178	39906413	-	PDS5A	0x0
14026	chr4	40155685	40160063	+	N4BP2	0x0
14027	chr4	40425186	40427132	-	RBM47	0x0
14028	chr4	40823372	40824512	-	APBB2	0x0
14029	chr4	41258669	41260035	+	UCHL1	0x1
14030	chr4	41269697	41270937	+	UCHL1	0x1
14031	chr4	41956238	41957503	+	TMEM33	0x0
14032	chr4	42068309	42069481	+	SLC30A9	0x0
14033	chr4	42088562	42089962	+	SLC30A9	0x0
14034	chr4	42115869	42117034	-	BEND4	0x0
14035	chr4	42117992	42119049	-	BEND4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14036	chr4	42144932	42146144	-	BEND4	0x0
14037	chr4	42411349	42412922	-	ATP8A1	0x0
14038	chr4	42413218	42414357	-	ATP8A1	0x0
14039	chr4	42600812	42602047	-	ATP8A1	0x0
14040	chr4	42606925	42608231	-	ATP8A1	0x0
14041	chr4	47452802	47454047	-	COMMD8	0x0
14042	chr4	47593433	47595353	+	ATP10D	0x0
14043	chr4	47848857	47850002	-	NFXL1	0x0
14044	chr4	48424582	48426965	+	SLAIN2	0x0
14045	chr4	48506699	48507920	-	FRYL	0x0
14046	chr4	48513995	48515181	-	FRYL	0x0
14047	chr4	48524895	48526115	-	FRYL	0x0
14048	chr4	48862345	48863599	+	OCIAD1	0x0
14049	chr4	52779978	52783053	+	DCUN1D4	0x0
14050	chr4	52888925	52890039	-	SGCB	0x0
14051	chr4	53509101	53510315	-	USP46	0x0
14052	chr4	53578226	53580076	+	DANCR	0x0
14053	chr4	53578226	53580076	+	MIR4449	0x0
14054	chr4	53578226	53580076	+	SNORA26	0x0
14055	chr4	54243418	54244635	+	FIP1L1	0x2
14056	chr4	55130506	55131729	+	PDGFRA	0x2
14057	chr4	55564102	55565246	+	KIT	0x2
14058	chr4	55565288	55566472	+	KIT	0x2
14059	chr4	55604687	55607075	+	KIT	0x2
14060	chr4	56261827	56263044	+	TMEM165	0x0
14061	chr4	56282786	56283925	+	TMEM165	0x0
14062	chr4	56290184	56291282	+	TMEM165	0x0
14063	chr4	56297922	56299764	-	CLOCK	0x0
14064	chr4	56300189	56301348	-	CLOCK	0x0
14065	chr4	57249851	57251007	-	AASDH	0x0
14066	chr4	57260585	57261695	-	PPAT	0x0
14067	chr4	57300986	57302158	-	PPAT	0x0
14068	chr4	57368098	57369858	+	SRP72	0x0
14069	chr4	57773817	57774985	+	REST	0x2
14070	chr4	57776375	57777962	+	REST	0x2
14071	chr4	57798930	57802223	+	REST	0x2
14072	chr4	57872442	57873636	+	POLR2B	0x0
14073	chr4	57889081	57890194	+	POLR2B	0x0
14074	chr4	68195760	68196997	-	CENPC1	0x0
14075	chr4	68481881	68484163	-	UBA6	0x0
14076	chr4	68489373	68490506	-	UBA6	0x0
14077	chr4	69179320	69180533	-	YTHDC1	0x0
14078	chr4	69184125	69185397	-	YTHDC1	0x0
14079	chr4	71553856	71555877	+	UTP3	0x0
14080	chr4	71684840	71686385	-	GRSF1	0x0
14081	chr4	71697520	71698745	-	GRSF1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14082	chr4	71704814	71706016	-	GRSF1	0x0
14083	chr4	71847641	71848737	+	MOB1B	0x0
14084	chr4	71849828	71851164	+	MOB1B	0x0
14085	chr4	71852829	71854083	+	MOB1B	0x0
14086	chr4	72400485	72401681	+	SLC4A4	0x0
14087	chr4	73940586	73942501	-	ANKRD17	0x0
14088	chr4	75974134	75975288	+	PARM1	0x0
14089	chr4	76439011	76440197	-	RCHY1	0x0
14090	chr4	76568029	76570490	-	G3BP2	0x0
14091	chr4	76579592	76580982	-	G3BP2	0x0
14092	chr4	76597839	76599035	-	G3BP2	0x0
14093	chr4	76734046	76735636	+	USO1	0x0
14094	chr4	77035615	77036783	-	NUP54	0x0
14095	chr4	77064741	77065945	-	NUP54	0x0
14096	chr4	77079463	77083183	-	SCARB2	0x0
14097	chr4	77295690	77296821	-	CCDC158	0x0
14098	chr4	77505299	77506472	+	MIR4450	0x0
14099	chr4	77941133	77942333	+	SEPT11	0x0
14100	chr4	77955417	77956484	+	SEPT11	0x0
14101	chr4	77957471	77959359	+	SEPT11	0x0
14102	chr4	77967809	77970045	-	CCNI	0x0
14103	chr4	77976628	77977940	-	CCNI	0x0
14104	chr4	78086970	78088200	+	CCNG2	0x0
14105	chr4	78637373	78638460	-	CNOT6L	0x0
14106	chr4	78702391	78703664	-	CNOT6L	0x0
14107	chr4	79840062	79841410	-	PAQR3	0x0
14108	chr4	80246140	80247342	-	NAA11	0x0
14109	chr4	81000879	81002047	+	PRDM8	0x0
14110	chr4	83266962	83268653	-	HNRNPD	0x0
14111	chr4	83274485	83275769	-	HNRNPD	0x0
14112	chr4	83279401	83281476	-	HNRNPD	0x0
14113	chr4	83344013	83345143	-	HNRPDL	0x0
14114	chr4	83345351	83346556	-	HNRPDL	0x0
14115	chr4	83774219	83775365	-	SEC31A	0x0
14116	chr4	83787455	83788631	-	SEC31A	0x0
14117	chr4	83818796	83819844	-	LOC100499177	0x0
14118	chr4	83846585	83849805	-	LIN54	0x0
14119	chr4	83905343	83906497	-	LIN54	0x0
14120	chr4	84184382	84185789	-	COQ2	0x0
14121	chr4	84381798	84383005	+	MRPS18C	0x0
14122	chr4	85569473	85570646	+	CDS1	0x0
14123	chr4	85571330	85572482	+	CDS1	0x0
14124	chr4	85591688	85592807	-	WDFY3	0x0
14125	chr4	85593223	85594300	-	WDFY3	0x0
14126	chr4	85635946	85637481	-	WDFY3	0x0
14127	chr4	85722269	85723398	-	WDFY3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14128	chr4	85835428	85836619	-	WDFY3	0x0
14129	chr4	85856157	85857337	-	WDFY3	0x0
14130	chr4	86354301	86355511	+	ARHGAP24	0x0
14131	chr4	87621998	87623316	+	PTPN13	0x0
14132	chr4	87967647	87968788	+	AFF1	0x0
14133	chr4	88057981	88059057	+	AFF1	0x0
14134	chr4	88059616	88061726	+	AFF1	0x0
14135	chr4	88355743	88356919	+	NUDT9	0x0
14136	chr4	88812454	88815622	+	HSP90AB3P	0x0
14137	chr4	88896337	88897531	+	SPP1	0x0
14138	chr4	88903606	88904928	+	SPP1	0x0
14139	chr4	88996816	88998659	+	PKD2	0x0
14140	chr4	89042248	89043385	-	ABCG2	0x0
14141	chr4	89442370	89443564	-	PIGY	0x0
14142	chr4	89584799	89586096	+	HERC3	0x0
14143	chr4	89608867	89610052	+	HERC3	0x0
14144	chr4	91229729	91230895	+	FAM190A	0x0
14145	chr4	94984456	94985754	-	HPGDS	0x0
14146	chr4	95173466	95174565	+	SMARCAD1	0x2
14147	chr4	95183246	95184486	+	SMARCAD1	0x2
14148	chr4	95191374	95192529	+	SMARCAD1	0x2
14149	chr4	95210680	95212928	+	SMARCAD1	0x2
14150	chr4	95506241	95507428	+	PDLIM5	0x0
14151	chr4	95587637	95589560	+	PDLIM5	0x0
14152	chr4	99363229	99365495	+	RAP1GDS1	0x0
14153	chr4	99392600	99393856	-	TSPAN5	0x0
14154	chr4	99529637	99530800	-	TSPAN5	0x0
14155	chr4	99800005	99801567	-	EIF4E	0x0
14156	chr4	99982354	99984416	+	METAP1	0x0
14157	chr4	99997035	99998226	-	ADH5	0x0
14158	chr4	100469056	100470299	-	RG9MTD2	0x0
14159	chr4	100820075	100821266	-	DNAJB14	0x0
14160	chr4	100869070	100871381	-	H2AFZ	0x0
14161	chr4	102152896	102154101	-	PPP3CA	0x0
14162	chr4	102232092	102233508	-	PPP3CA	0x0
14163	chr4	103421915	103423103	+	NFKB1	0x1
14164	chr4	103452388	103453611	+	NFKB1	0x1
14165	chr4	103635084	103636188	-	MANBA	0x0
14166	chr4	103715610	103718633	-	UBE2D3	0x0
14167	chr4	104026615	104027743	-	CENPE	0x0
14168	chr4	106156312	106157459	+	TET2	0x1
14169	chr4	106157703	106158912	+	TET2	0x1
14170	chr4	106164189	106165397	+	TET2	0x1
14171	chr4	106197443	106200668	+	TET2	0x1
14172	chr4	106406337	106407562	+	ARHGEF38	0x2
14173	chr4	106638535	106639635	+	GSTCD	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14174	chr4	106891050	106892156	+	NPNT	0x0
14175	chr4	107245634	107246785	+	AIMP1	0x1
14176	chr4	108534678	108535902	-	PAPSS1	0x0
14177	chr4	108948254	108949404	+	HADH	0x0
14178	chr4	109464538	109465735	+	RPL34	0x0
14179	chr4	109588197	109589479	+	OSTC	0x0
14180	chr4	110446891	110448045	+	SEC24B	0x0
14181	chr4	110634133	110636029	-	PLA2G12A	0x0
14182	chr4	110966644	110972127	-	ELOVL6	0x2
14183	chr4	111117084	111118367	-	ELOVL6	0x2
14184	chr4	111532770	111533928	-	PITX2	0x0
14185	chr4	112036654	112037800	-	PITX2	0x0
14186	chr4	113189237	113191003	+	AP1AR	0x0
14187	chr4	114373320	114374457	-	CAMK2D	0x0
14188	chr4	114425775	114426888	-	CAMK2D	0x0
14189	chr4	119652006	119653169	-	SEC24D	0x0
14190	chr4	119664632	119665808	-	SEC24D	0x0
14191	chr4	119728438	119729594	-	SEC24D	0x0
14192	chr4	119736107	119737344	-	SEC24D	0x0
14193	chr4	119737948	119739086	-	SEC24D	0x0
14194	chr4	119754178	119755247	-	SEC24D	0x0
14195	chr4	119757042	119758310	-	SEC24D	0x0
14196	chr4	121675147	121676339	-	PRDM5	0x0
14197	chr4	121718915	121720124	-	PRDM5	0x0
14198	chr4	121720255	121721466	-	PRDM5	0x0
14199	chr4	121739068	121740167	-	PRDM5	0x0
14200	chr4	121741788	121743005	-	PRDM5	0x0
14201	chr4	121777372	121778535	-	PRDM5	0x0
14202	chr4	123117318	123118499	+	KIAA1109	0x0
14203	chr4	123121612	123122740	+	KIAA1109	0x0
14204	chr4	123171108	123172206	+	KIAA1109	0x0
14205	chr4	123184107	123185305	+	KIAA1109	0x0
14206	chr4	123191840	123192988	+	KIAA1109	0x0
14207	chr4	123228739	123229830	+	KIAA1109	0x0
14208	chr4	123229910	123231053	+	KIAA1109	0x0
14209	chr4	123236061	123237431	+	KIAA1109	0x0
14210	chr4	123251967	123253132	+	KIAA1109	0x0
14211	chr4	123280165	123281324	+	KIAA1109	0x0
14212	chr4	123282774	123283899	+	KIAA1109	0x0
14213	chr4	124318022	124319328	+	SPRY1	0x0
14214	chr4	125592101	125593244	-	ANKRD50	0x0
14215	chr4	128634589	128635761	+	INTU	0x0
14216	chr4	128645117	128646221	+	SLC25A31	0x0
14217	chr4	128810832	128813295	+	PLK4	0x0
14218	chr4	129189922	129192446	-	PGRMC2	0x0
14219	chr4	129673882	129675052	+	PHF17	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14220	chr4	129678669	129679853	-	SCLT1	0x0
14221	chr4	129767034	129768191	+	PHF17	0x0
14222	chr4	129769675	129770906	+	PHF17	0x0
14223	chr4	129772716	129773955	+	PHF17	0x0
14224	chr4	129793301	129795983	+	PHF17	0x0
14225	chr4	135117721	135118906	-	PABPC4L	0x0
14226	chr4	139965832	139968081	+	CCRN4L	0x0
14227	chr4	140045789	140046953	-	ELF2	0x0
14228	chr4	140058243	140059595	-	ELF2	0x0
14229	chr4	140257458	140258641	+	NAA15	0x0
14230	chr4	140263475	140264591	+	NAA15	0x0
14231	chr4	140309095	140310669	+	NAA15	0x0
14232	chr4	140310765	140312275	+	NAA15	0x0
14233	chr4	140429386	140430611	-	SETD7	0x0
14234	chr4	140430804	140432025	-	SETD7	0x0
14235	chr4	140867404	140868582	-	MAML3	0x0
14236	chr4	141302940	141304168	+	SCOC	0x0
14237	chr4	142141550	142142739	+	ZNF330	0x0
14238	chr4	144141547	144143099	+	USP38	0x0
14239	chr4	144293497	144294597	+	GAB1	0x6
14240	chr4	144302648	144303907	+	GAB1	0x6
14241	chr4	144332148	144333310	+	GAB1	0x6
14242	chr4	144391394	144392595	+	GAB1	0x6
14243	chr4	144473886	144475979	+	SMARCA5	0x0
14244	chr4	146048374	146050534	+	ABCE1	0x2
14245	chr4	146054242	146058117	-	OTUD4	0x0
14246	chr4	146080089	146081284	-	OTUD4	0x0
14247	chr4	146479155	146480348	+	SMAD1	0x0
14248	chr4	146823568	146824772	-	ZNF827	0x0
14249	chr4	146831439	146832555	-	ZNF827	0x0
14250	chr4	147111140	147113121	+	LSM6	0x0
14251	chr4	147175183	147176604	-	SLC10A7	0x0
14252	chr4	147301096	147302231	-	SLC10A7	0x0
14253	chr4	147376271	147377375	-	SLC10A7	0x0
14254	chr4	147407708	147408874	-	SLC10A7	0x0
14255	chr4	147442361	147443508	-	SLC10A7	0x0
14256	chr4	148999879	149001205	-	NR3C2	0x0
14257	chr4	151006875	151008035	+	DCLK2	0x0
14258	chr4	151142266	151143444	+	DCLK2	0x0
14259	chr4	151176733	151177966	+	DCLK2	0x0
14260	chr4	152024825	152026335	+	RPS3A	0x0
14261	chr4	152024825	152026335	+	SNORD73A	0x0
14262	chr4	152041142	152042425	-	SH3D19	0x0
14263	chr4	152095698	152096797	-	SH3D19	0x0
14264	chr4	152588141	152589273	+	FAM160A1	0x0
14265	chr4	153241987	153243882	-	FBXW7	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14266	chr4	153332105	153333302	-	FBXW7	0x1
14267	chr4	153789355	153790530	+	ARFIP1	0x0
14268	chr4	153831941	153833406	+	ARFIP1	0x0
14269	chr4	154255899	154257059	+	TRIM2	0x0
14270	chr4	154258887	154259977	+	TRIM2	0x0
14271	chr4	154399810	154401009	+	KIAA0922	0x0
14272	chr4	154543535	154544729	+	KIAA0922	0x0
14273	chr4	155457944	155459135	-	PLRG1	0x0
14274	chr4	156727753	156728891	+	GUCY1B3	0x0
14275	chr4	157885321	157886464	-	PDGFC	0x2
14276	chr4	159637773	159643009	-	PPID	0x0
14277	chr4	159780159	159781336	+	FNIP2	0x0
14278	chr4	159789884	159791087	+	FNIP2	0x0
14279	chr4	159825683	159829225	+	FNIP2	0x0
14280	chr4	160185071	160186304	+	RAPGEF2	0x0
14281	chr4	164057879	164059012	-	NAF1	0x0
14282	chr4	164084988	164086127	-	NAF1	0x0
14283	chr4	164853717	164855533	+	C4orf43	0x0
14284	chr4	165816223	165817338	+	LOC100506013	0x0
14285	chr4	165863990	165865545	+	C4orf39	0x0
14286	chr4	165999981	166001265	-	TMEM192	0x0
14287	chr4	166233806	166235018	+	KLHL2	0x0
14288	chr4	166243144	166244248	+	KLHL2	0x0
14289	chr4	166262835	166264396	+	MSMO1	0x0
14290	chr4	169811501	169812675	+	PALLD	0x0
14291	chr4	169847378	169849245	+	PALLD	0x0
14292	chr4	170015019	170016180	-	SH3RF1	0x0
14293	chr4	170034651	170035855	-	SH3RF1	0x0
14294	chr4	170051102	170052230	-	SH3RF1	0x0
14295	chr4	170130161	170131352	-	SH3RF1	0x0
14296	chr4	170641414	170644236	+	CLCN3	0x2
14297	chr4	170909940	170911152	-	MFAP3L	0x0
14298	chr4	174109484	174110589	+	GALNT7	0x0
14299	chr4	174238242	174239450	+	GALNT7	0x0
14300	chr4	175157488	175158804	-	FBXO8	0x0
14301	chr4	175237934	175239127	+	CEP44	0x0
14302	chr4	175411970	175413108	-	HPGD	0x1
14303	chr4	177244630	177245808	+	SPCS3	0x0
14304	chr4	177249586	177253061	+	SPCS3	0x0
14305	chr4	178283186	178284379	+	NEIL3	0x0
14306	chr4	183650864	183651998	+	ODZ3	0x0
14307	chr4	183675276	183676405	+	ODZ3	0x0
14308	chr4	183682867	183684081	+	ODZ3	0x0
14309	chr4	183712887	183714051	+	ODZ3	0x0
14310	chr4	183721455	183722575	+	ODZ3	0x0
14311	chr4	183811219	183812620	-	DCTD	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14312	chr4	184040781	184041997	+	WWC2	0x0
14313	chr4	184050399	184051545	+	WWC2	0x0
14314	chr4	184091142	184092669	+	WWC2	0x0
14315	chr4	184128617	184129797	+	WWC2	0x0
14316	chr4	184169366	184170558	+	WWC2	0x0
14317	chr4	184203321	184204503	+	WWC2	0x0
14318	chr4	184233021	184234120	+	WWC2	0x0
14319	chr4	184236915	184238106	+	WWC2	0x0
14320	chr4	184238392	184239616	+	WWC2	0x0
14321	chr4	184368298	184370115	+	CDKN2AIP	0x0
14322	chr4	184445288	184446525	+	ING2	0x1
14323	chr4	184561607	184562831	-	RWDD4	0x0
14324	chr4	184830736	184831933	+	STOX2	0x0
14325	chr4	184931831	184933004	+	STOX2	0x0
14326	chr4	184938036	184941171	+	STOX2	0x0
14327	chr4	184941176	184942787	+	STOX2	0x0
14328	chr4	184943157	184944747	+	STOX2	0x0
14329	chr4	185548936	185550009	-	CASP3	0x0
14330	chr4	185617856	185619015	+	CCDC111	0x0
14331	chr4	185630716	185631823	-	MLF1IP	0x0
14332	chr4	185676421	185678466	-	ACSL1	0x0
14333	chr4	186065437	186066885	+	SLC25A4	0x0
14334	chr4	186080502	186081950	-	KIAA1430	0x0
14335	chr4	186274062	186275353	+	SNX25	0x0
14336	chr4	186284120	186285489	+	SNX25	0x0
14337	chr4	187467904	187469003	-	MTNR1A	0x0
14338	chr4	187508457	187509828	-	FAT1	0x1
14339	chr4	187523892	187525346	-	FAT1	0x1
14340	chr4	187539111	187543229	-	FAT1	0x1
14341	chr4	187624636	187625744	-	FAT1	0x1
14342	chr4	187627799	187630934	-	FAT1	0x1
14343	chr4	187647175	187648377	-	FAT1	0x1
14344	chr4	188920234	188921293	+	ZFP42	0x0
14345	chr4	188923791	188926479	+	ZFP42	0x0
14346	chr4	189011909	189013063	-	TRIML2	0x0
14347	chr4	189019679	189020842	-	TRIML2	0x0
14348	chr4	189060433	189061578	+	TRIML1	0x0
14349	chr4	189062376	189064136	+	TRIML1	0x0
14350	chr5	203313	204437	-	CCDC127	0x0
14351	chr5	306198	307359	+	PDCD6	0x2
14352	chr5	917061	918440	+	TRIP13	0x0
14353	chr5	1050618	1052106	-	SLC12A7	0x0
14354	chr5	1073237	1074383	-	SLC12A7	0x0
14355	chr5	1287415	1288558	-	TERT	0x2
14356	chr5	1317504	1318633	-	CLPTM1L	0x0
14357	chr5	1461455	1463999	-	LPCAT1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14358	chr5	1494423	1495529	-	LPCAT1	0x0
14359	chr5	1815423	1816687	+	NDUFS6	0x0
14360	chr5	6598847	6600166	-	NSUN2	0x0
14361	chr5	6606808	6607920	-	NSUN2	0x0
14362	chr5	6631451	6633599	-	NSUN2	0x0
14363	chr5	6755280	6757495	+	PAPD7	0x0
14364	chr5	8188122	8189250	-	LOC729506	0x0
14365	chr5	10255588	10256759	+	CCT5	0x0
14366	chr5	10257795	10258910	+	CCT5	0x0
14367	chr5	10261248	10262320	+	CCT5	0x0
14368	chr5	10409591	10410733	+	MARCH6	0x0
14369	chr5	10415118	10416336	+	MARCH6	0x0
14370	chr5	10433410	10437614	+	MARCH6	0x0
14371	chr5	10654128	10655241	+	ANKRD33B	0x0
14372	chr5	10972561	10973694	-	CTNND2	0x0
14373	chr5	14144968	14146089	+	TRIO	0x0
14374	chr5	14279913	14281114	+	TRIO	0x0
14375	chr5	14651288	14653048	-	ANKH	0x0
14376	chr5	14692632	14693819	+	FAM105B	0x0
14377	chr5	14710015	14711395	-	ANKH	0x0
14378	chr5	14797101	14798220	-	ANKH	0x0
14379	chr5	16472875	16474498	-	FAM134B	0x0
14380	chr5	16665364	16666660	-	MYO10	0x0
14381	chr5	16700645	16701856	-	MYO10	0x0
14382	chr5	17275735	17276897	+	BASP1	0x0
14383	chr5	21882282	21884258	+	PMCHL1	0x0
14384	chr5	31423346	31424484	-	DROSHA	0x2
14385	chr5	31448830	31450038	-	DROSHA	0x2
14386	chr5	32124613	32126684	-	GOLPH3	0x0
14387	chr5	32173773	32174948	-	GOLPH3	0x0
14388	chr5	32228408	32229650	-	MTMR12	0x0
14389	chr5	32270399	32271496	-	MTMR12	0x0
14390	chr5	32273440	32274636	-	MTMR12	0x0
14391	chr5	32274984	32276153	-	MTMR12	0x0
14392	chr5	32354203	32356084	-	ZFR	0x0
14393	chr5	32379643	32380793	-	ZFR	0x0
14394	chr5	34823227	34824373	+	RAI14	0x0
14395	chr5	34831392	34832830	+	RAI14	0x0
14396	chr5	34924773	34925931	+	BRIX1	0x0
14397	chr5	36098978	36101273	-	LMBRD2	0x0
14398	chr5	36101386	36102624	-	LMBRD2	0x0
14399	chr5	36176709	36177910	+	SKP2	0x2
14400	chr5	36193331	36194451	-	NADKD1	0x0
14401	chr5	37005998	37007128	+	NIPBL	0x0
14402	chr5	37021821	37022970	+	NIPBL	0x0
14403	chr5	37058699	37059795	+	NIPBL	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14404	chr5	37289607	37290732	-	NUP155	0x0
14405	chr5	37291517	37292614	-	NUP155	0x0
14406	chr5	37396013	37397248	+	WDR70	0x0
14407	chr5	38475430	38476731	-	LIFR	0x2
14408	chr5	38477187	38478377	-	LIFR	0x2
14409	chr5	38532679	38533912	-	LIFR	0x2
14410	chr5	38937663	38938814	-	RICTOR	0x0
14411	chr5	38941401	38942493	-	RICTOR	0x0
14412	chr5	40713880	40716578	-	TTC33	0x0
14413	chr5	40759979	40762364	-	PRKAA1	0x0
14414	chr5	40832289	40833337	-	RPL37	0x0
14415	chr5	40832289	40833337	-	SNORD72	0x0
14416	chr5	40834074	40835707	-	RPL37	0x0
14417	chr5	41729759	41731763	-	OXCT1	0x0
14418	chr5	41919709	41921949	+	C5orf51	0x0
14419	chr5	42799602	42800790	-	SEPP1	0x0
14420	chr5	43290405	43291667	-	HMGCS1	0x0
14421	chr5	43512210	43513336	-	C5orf34	0x0
14422	chr5	43586910	43588057	-	PAIP1	0x0
14423	chr5	43704392	43705768	+	NNT	0x0
14424	chr5	44809034	44810165	+	MRPS30	0x0
14425	chr5	44814662	44815785	+	MRPS30	0x0
14426	chr5	49701048	49702219	-	EMB	0x0
14427	chr5	49735286	49736521	-	EMB	0x0
14428	chr5	52393371	52394941	-	MOCS2	0x0
14429	chr5	52909902	52911122	+	NDUFS4	0x0
14430	chr5	53179742	53180964	-	ARL15	0x0
14431	chr5	53406079	53407229	-	ARL15	0x0
14432	chr5	53476195	53477392	-	ARL15	0x0
14433	chr5	53838836	53840186	+	SNX18	0x0
14434	chr5	53840190	53842099	+	SNX18	0x0
14435	chr5	54103456	54104556	-	ESM1	0x0
14436	chr5	54167015	54168188	-	ESM1	0x0
14437	chr5	54653892	54655025	+	SKIV2L2	0x0
14438	chr5	54700708	54701892	+	SKIV2L2	0x0
14439	chr5	54718101	54719350	+	SKIV2L2	0x0
14440	chr5	54766047	54767216	-	PPAP2A	0x1
14441	chr5	54823009	54824504	-	RNF138P1	0x0
14442	chr5	54828906	54830072	-	RNF138P1	0x0
14443	chr5	54917450	54918671	-	SLC38A9	0x0
14444	chr5	55232945	55234014	-	IL6ST	0x2
14445	chr5	55234690	55236102	-	IL6ST	0x2
14446	chr5	55249377	55250541	-	IL6ST	0x2
14447	chr5	55263519	55264673	-	IL6ST	0x2
14448	chr5	55800113	55801349	-	ANKRD55	0x0
14449	chr5	56189636	56191981	+	MAP3K1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14450	chr5	56215618	56218445	-	MIER3	0x2
14451	chr5	56558146	56559852	+	GPBP1	0x0
14452	chr5	58266244	58267451	-	PDE4D	0x0
14453	chr5	58268144	58269594	-	PDE4D	0x0
14454	chr5	58903917	58905178	-	PDE4D	0x0
14455	chr5	59995065	59996301	-	DEPDC1B	0x0
14456	chr5	60368440	60369660	+	NDUFAF2	0x0
14457	chr5	60454437	60456038	-	C5orf43	0x0
14458	chr5	60704704	60705865	+	ZSWIM6	0x0
14459	chr5	61681937	61683474	+	KIF2A	0x0
14460	chr5	61747037	61748222	+	IPO11	0x0
14461	chr5	61771957	61773135	+	IPO11	0x0
14462	chr5	61922794	61924009	+	IPO11	0x0
14463	chr5	64018608	64020423	-	SREK1IP1	0x0
14464	chr5	64089392	64090568	+	CWC27	0x0
14465	chr5	64961893	64963221	-	SGTB	0x0
14466	chr5	64964315	64965403	-	SGTB	0x0
14467	chr5	65119092	65120280	+	NLN	0x2
14468	chr5	65467118	65468360	+	SREK1	0x0
14469	chr5	65475661	65477262	+	SREK1	0x0
14470	chr5	65906999	65908193	+	MAST4	0x0
14471	chr5	68472627	68473924	+	CCNB1	0x0
14472	chr5	68490011	68491824	+	CENPH	0x0
14473	chr5	68709726	68710996	+	MARVELD2	0x0
14474	chr5	68709726	68710996	+	RAD17	0x0
14475	chr5	70213398	70214638	+	SERF1A	0x0
14476	chr5	70213398	70214638	+	SERF1B	0x0
14477	chr5	70819294	70820483	+	BDP1	0x0
14478	chr5	70860312	70861478	+	BDP1	0x0
14479	chr5	70861655	70863303	+	BDP1	0x0
14480	chr5	70897840	70898982	+	MCCC2	0x0
14481	chr5	71491162	71492296	+	MAP1B	0x2
14482	chr5	71502436	71505712	+	MAP1B	0x2
14483	chr5	71631135	71632326	+	PTCD2	0x0
14484	chr5	71883946	71885098	-	ZNF366	0x1
14485	chr5	72144394	72145661	+	TNPO1	0x2
14486	chr5	72157064	72158303	+	TNPO1	0x2
14487	chr5	72178408	72179568	+	TNPO1	0x2
14488	chr5	72188426	72189778	+	TNPO1	0x2
14489	chr5	72204952	72207414	+	TNPO1	0x2
14490	chr5	72208330	72210703	+	TNPO1	0x2
14491	chr5	72345608	72347116	+	FCHO2	0x0
14492	chr5	72350448	72351695	+	FCHO2	0x0
14493	chr5	72384401	72386780	+	FCHO2	0x0
14494	chr5	72877276	72878561	+	UTP15	0x0
14495	chr5	73380153	73381387	+	RGNEF	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14496	chr5	73651813	73653042	-	ENC1	0x0
14497	chr5	73653262	73655492	-	ENC1	0x0
14498	chr5	73657012	73658149	-	ENC1	0x0
14499	chr5	73666517	73667632	-	ENC1	0x0
14500	chr5	73667826	73671033	-	ENC1	0x0
14501	chr5	73673644	73674737	-	ENC1	0x0
14502	chr5	73678712	73679815	-	ENC1	0x0
14503	chr5	73923115	73924257	-	ENC1	0x0
14504	chr5	74075205	74076315	-	FAM169A	0x0
14505	chr5	74134218	74135382	-	FAM169A	0x0
14506	chr5	74136833	74137940	-	FAM169A	0x0
14507	chr5	74144572	74145782	-	FAM169A	0x0
14508	chr5	74644743	74645892	+	HMGCR	0x0
14509	chr5	74655763	74658206	+	HMGCR	0x0
14510	chr5	74666587	74668518	-	COL4A3BP	0x0
14511	chr5	74714626	74715864	-	COL4A3BP	0x0
14512	chr5	76029518	76030905	+	F2R	0x0
14513	chr5	76128908	76130550	+	F2RL1	0x0
14514	chr5	76359114	76360444	+	AGGF1	0x0
14515	chr5	76620443	76622006	+	PDE8B	0x0
14516	chr5	76727788	76729000	-	WDR41	0x0
14517	chr5	76986688	76987864	-	TBCA	0x0
14518	chr5	77080704	77081810	-	TBCA	0x0
14519	chr5	77297614	77298871	-	AP3B1	0x0
14520	chr5	77403686	77404868	-	AP3B1	0x0
14521	chr5	77773331	77774483	+	SCAMP1	0x0
14522	chr5	78074746	78075961	-	ARSB	0x0
14523	chr5	78620137	78621461	+	JMY	0x0
14524	chr5	78622215	78623405	+	JMY	0x0
14525	chr5	78662829	78664027	-	HOMER1	0x0
14526	chr5	78669828	78670962	-	HOMER1	0x0
14527	chr5	79434188	79435307	-	SERINC5	0x0
14528	chr5	80056863	80058061	+	MSH3	0x2
14529	chr5	80715501	80716706	-	SSBP2	0x0
14530	chr5	81326231	81327507	+	ATG10	0x0
14531	chr5	81549933	81551168	+	ATG10	0x0
14532	chr5	82348719	82349946	-	TMEM167A	0x0
14533	chr5	82807737	82808914	+	VCAN	0x0
14534	chr5	82875903	82877045	+	VCAN	0x0
14535	chr5	82877312	82878368	+	VCAN	0x0
14536	chr5	83672793	83673997	-	EDIL3	0x0
14537	chr5	85814962	85816185	+	COX7C	0x0
14538	chr5	85914642	85915741	+	COX7C	0x0
14539	chr5	85915848	85917088	+	COX7C	0x0
14540	chr5	85915848	85917088	+	MIR3607	0x0
14541	chr5	86686470	86687622	+	RASA1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14542	chr5	86703300	86704405	-	CCNH	0x0
14543	chr5	87491172	87492311	-	TMEM161B	0x0
14544	chr5	89807809	89810587	+	POLR3G	0x0
14545	chr5	89812922	89814027	-	LYSMD3	0x0
14546	chr5	89937127	89939353	+	GPR98	0x0
14547	chr5	89974413	89975528	+	GPR98	0x0
14548	chr5	92923249	92924417	+	NR2F1	0x0
14549	chr5	92953728	92956323	-	FAM172A	0x0
14550	chr5	93017712	93019844	-	POU5F2	0x0
14551	chr5	93038135	93039315	-	POU5F2	0x0
14552	chr5	94799760	94800857	-	TTC37	0x0
14553	chr5	95222657	95224367	-	ELL2	0x0
14554	chr5	95241709	95242857	-	ELL2	0x0
14555	chr5	95296839	95298061	-	ELL2	0x0
14556	chr5	96089263	96090382	+	CAST	0x0
14557	chr5	96367167	96369321	+	LNPEP	0x0
14558	chr5	96371154	96373681	+	LNPEP	0x0
14559	chr5	96498064	96499188	-	RIOK2	0x0
14560	chr5	96502676	96503925	-	RIOK2	0x0
14561	chr5	96782713	96784192	-	RIOK2	0x0
14562	chr5	98131467	98132706	+	RGMB	0x0
14563	chr5	98190303	98191477	-	CHD1	0x2
14564	chr5	98210877	98211982	-	CHD1	0x2
14565	chr5	98216477	98217529	-	CHD1	0x2
14566	chr5	99921608	99922907	+	FAM174A	0x0
14567	chr5	101569852	101571146	-	SLCO4C1	0x0
14568	chr5	101582472	101583655	-	SLCO4C1	0x0
14569	chr5	101618162	101619264	-	SLCO4C1	0x0
14570	chr5	102536993	102538718	+	PPIP5K2	0x0
14571	chr5	102611814	102613875	+	C5orf30	0x0
14572	chr5	106714467	106715665	-	EFNA5	0x1
14573	chr5	107178426	107179545	-	FBXL17	0x0
14574	chr5	107179984	107181218	-	FBXL17	0x0
14575	chr5	107478540	107479738	-	FBXL17	0x0
14576	chr5	107699959	107701149	-	FBXL17	0x0
14577	chr5	108257414	108258534	+	FER	0x0
14578	chr5	108515856	108517041	+	FER	0x0
14579	chr5	108670324	108673326	-	PJA2	0x0
14580	chr5	108711831	108713046	-	PJA2	0x0
14581	chr5	109027093	109028254	+	MAN2A1	0x0
14582	chr5	109120073	109121219	+	MAN2A1	0x0
14583	chr5	109203422	109205688	+	MAN2A1	0x0
14584	chr5	110098423	110099680	+	SLC25A46	0x0
14585	chr5	110460792	110461986	+	WDR36	0x0
14586	chr5	110831762	110832996	-	STARD4	0x0
14587	chr5	110833716	110834831	-	STARD4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14588	chr5	111616503	111617673	-	EPB41L4A	0x0
14589	chr5	112078325	112079505	+	APC	0x1
14590	chr5	112154194	112155441	+	APC	0x1
14591	chr5	112177390	112178477	+	APC	0x1
14592	chr5	112179943	112181383	+	APC	0x1
14593	chr5	112181672	112183556	+	APC	0x1
14594	chr5	112212999	112214103	-	REEP5	0x0
14595	chr5	112257361	112258469	-	REEP5	0x0
14596	chr5	112349332	112352216	+	DCP2	0x0
14597	chr5	112353584	112355656	+	DCP2	0x0
14598	chr5	112356033	112357257	+	DCP2	0x0
14599	chr5	114544435	114545657	-	PGGT1B	0x0
14600	chr5	114857615	114858998	-	FEM1C	0x0
14601	chr5	114915542	114916659	-	TICAM2	0x0
14602	chr5	114915542	114916659	-	TMED7-TICAM2	0x0
14603	chr5	114948779	114951695	-	TMED7	0x0
14604	chr5	114997519	114998647	+	AP3S1	0x0
14605	chr5	115166705	115167888	-	ATG12	0x0
14606	chr5	115387048	115388419	-	ATG12	0x0
14607	chr5	115394275	115395578	+	LOC644100	0x0
14608	chr5	115569245	115570512	-	SEMA6A	0x0
14609	chr5	115627997	115629368	+	COMMD10	0x0
14610	chr5	118308950	118311011	+	MIR1244-1	0x0
14611	chr5	118308950	118311011	+	MIR1244-2	0x0
14612	chr5	118308950	118311011	+	MIR1244-3	0x0
14613	chr5	118406615	118407844	+	DMXL1	0x0
14614	chr5	118484614	118486266	+	DMXL1	0x0
14615	chr5	118574222	118575330	+	DMXL1	0x0
14616	chr5	118583620	118584839	+	DMXL1	0x0
14617	chr5	121767098	121768273	+	SNCAIP	0x0
14618	chr5	122164936	122166197	+	SNX2	0x0
14619	chr5	122241311	122242491	+	SNX24	0x0
14620	chr5	122343134	122344409	+	SNX24	0x0
14621	chr5	122361222	122362376	-	PPIC	0x0
14622	chr5	122680018	122682248	-	CEP120	0x0
14623	chr5	122734337	122735511	-	CEP120	0x0
14624	chr5	122950557	122952909	+	CSNK1G3	0x0
14625	chr5	125823869	125825003	+	GRAMD3	0x0
14626	chr5	125880047	125881255	-	ALDH7A1	0x0
14627	chr5	126146915	126148056	+	LMNB1	0x0
14628	chr5	126889002	126890266	+	PRRC1	0x0
14629	chr5	127419203	127420396	+	SLC12A2	0x0
14630	chr5	127447082	127448345	+	SLC12A2	0x0
14631	chr5	127470929	127472032	+	SLC12A2	0x0
14632	chr5	127522176	127523434	+	SLC12A2	0x0
14633	chr5	127524685	127525792	+	SLC12A2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14634	chr5	128448648	128449794	+	ISOC1	0x0
14635	chr5	128449834	128451848	+	ISOC1	0x0
14636	chr5	130325365	130326564	+	LYRM7	0x0
14637	chr5	130660132	130661276	+	CDC42SE2	0x0
14638	chr5	130694556	130695818	+	CDC42SE2	0x0
14639	chr5	130728853	130730854	+	CDC42SE2	0x0
14640	chr5	130760485	130761646	-	RAPGEF6	0x0
14641	chr5	130800621	130802411	-	RAPGEF6	0x0
14642	chr5	130978547	130979751	-	FNIP1	0x0
14643	chr5	131006716	131007929	-	FNIP1	0x0
14644	chr5	131818509	131819710	-	IRF1	0x1
14645	chr5	132029860	132031235	-	KIF3A	0x0
14646	chr5	132091374	132093663	-	SEPT8	0x0
14647	chr5	132093823	132094831	-	SEPT8	0x0
14648	chr5	132201851	132203864	+	UQCRQ	0x0
14649	chr5	132211480	132212653	-	AFF4	0x2
14650	chr5	132214085	132216891	-	AFF4	0x2
14651	chr5	132269357	132271123	-	AFF4	0x2
14652	chr5	132405536	132406720	+	HSPA4	0x0
14653	chr5	132411874	132413182	+	HSPA4	0x0
14654	chr5	132439844	132442528	+	HSPA4	0x0
14655	chr5	133326426	133327575	-	VDAC1	0x0
14656	chr5	133492364	133494777	-	SKP1	0x0
14657	chr5	133531616	133534088	-	PPP2CA	0x0
14658	chr5	133556151	133557667	-	PPP2CA	0x0
14659	chr5	133726060	133727234	+	UBE2B	0x0
14660	chr5	133917207	133919289	+	PHF15	0x0
14661	chr5	133941622	133942825	-	SAR1B	0x0
14662	chr5	133956081	133957259	-	SAR1B	0x0
14663	chr5	134038850	134040056	+	SEC24A	0x0
14664	chr5	134060367	134061493	+	SEC24A	0x0
14665	chr5	134131209	134132308	+	DDX46	0x0
14666	chr5	134151646	134152773	+	DDX46	0x0
14667	chr5	134190536	134191657	+	C5orf24	0x0
14668	chr5	134193477	134194665	+	C5orf24	0x0
14669	chr5	134687945	134689116	-	H2AFY	0x0
14670	chr5	134694753	134695887	-	H2AFY	0x0
14671	chr5	134698565	134700696	-	H2AFY	0x0
14672	chr5	135513159	135514931	+	SMAD5	0x0
14673	chr5	137086750	137088398	-	HNRNPA0	0x0
14674	chr5	137274157	137275480	-	FAM13B	0x0
14675	chr5	137500994	137502843	-	BRD8	0x2
14676	chr5	137519154	137521286	+	KIF20A	0x0
14677	chr5	137683188	137684281	+	FAM53C	0x0
14678	chr5	137684358	137685613	+	FAM53C	0x0
14679	chr5	137726422	137728004	+	KDM3B	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14680	chr5	137728232	137729495	+	KDM3B	0x1
14681	chr5	137760666	137761835	+	KDM3B	0x1
14682	chr5	137771223	137773089	+	KDM3B	0x1
14683	chr5	137803749	137804848	+	EGR1	0x1
14684	chr5	137841772	137844074	-	ETF1	0x0
14685	chr5	137890390	137892056	-	HSPA9	0x0
14686	chr5	137895076	137896199	-	HSPA9	0x0
14687	chr5	138118392	138119610	+	CTNNA1	0x0
14688	chr5	138145259	138146416	+	CTNNA1	0x0
14689	chr5	138264379	138265480	+	CTNNA1	0x0
14690	chr5	138269434	138271085	+	CTNNA1	0x0
14691	chr5	138485810	138486991	-	SIL1	0x0
14692	chr5	138611409	138612521	+	MATR3	0x0
14693	chr5	138611409	138612521	+	SNHG4	0x0
14694	chr5	138642976	138644534	+	MATR3	0x0
14695	chr5	138660639	138661800	+	MATR3	0x0
14696	chr5	138664875	138666629	+	MATR3	0x0
14697	chr5	138703947	138705107	+	PAIP2	0x0
14698	chr5	138745400	138746635	-	DNAJC18	0x0
14699	chr5	138993829	139006917	+	UBE2D2	0x0
14700	chr5	139007048	139008203	+	UBE2D2	0x0
14701	chr5	139029550	139030780	+	CXXC5	0x0
14702	chr5	139061047	139063101	+	CXXC5	0x0
14703	chr5	139409921	139411233	-	NRG2	0x2
14704	chr5	139492526	139498757	+	PURA	0x0
14705	chr5	139503379	139504552	+	IGIP	0x0
14706	chr5	139506094	139507225	+	IGIP	0x0
14707	chr5	139625000	139626165	-	PFDN1	0x0
14708	chr5	139824844	139826066	+	ANKHD1	0x0
14709	chr5	139824844	139826066	+	ANKHD1-EIF4EBP3	0x0
14710	chr5	139943432	139944673	-	APBB3	0x0
14711	chr5	139947553	139949065	+	SLC35A4	0x0
14712	chr5	140024555	140025800	-	NDUFA2	0x0
14713	chr5	140053217	140055256	-	HARS	0x2
14714	chr5	140083471	140084679	+	ZMAT2	0x0
14715	chr5	140090275	140091504	+	VTRNA1-1	0x0
14716	chr5	140697766	140698942	-	TAF7	0x0
14717	chr5	140890211	140893024	+	PCDHGA1	0x0
14718	chr5	140890211	140893024	+	PCDHGA10	0x0
14719	chr5	140890211	140893024	+	PCDHGA11	0x0
14720	chr5	140890211	140893024	+	PCDHGA12	0x0
14721	chr5	140890211	140893024	+	PCDHGA2	0x0
14722	chr5	140890211	140893024	+	PCDHGA3	0x0
14723	chr5	140890211	140893024	+	PCDHGA4	0x0
14724	chr5	140890211	140893024	+	PCDHGA5	0x0
14725	chr5	140890211	140893024	+	PCDHGA6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14726	chr5	140890211	140893024	+	PCDHGA7	0x0
14727	chr5	140890211	140893024	+	PCDHGA8	0x0
14728	chr5	140890211	140893024	+	PCDHGA9	0x0
14729	chr5	140890211	140893024	+	PCDHGB1	0x0
14730	chr5	140890211	140893024	+	PCDHGB2	0x0
14731	chr5	140890211	140893024	+	PCDHGB3	0x0
14732	chr5	140890211	140893024	+	PCDHGB4	0x0
14733	chr5	140890211	140893024	+	PCDHGB5	0x0
14734	chr5	140890211	140893024	+	PCDHGB6	0x0
14735	chr5	140890211	140893024	+	PCDHGB7	0x0
14736	chr5	140890211	140893024	+	PCDHGC3	0x0
14737	chr5	140890211	140893024	+	PCDHGC4	0x0
14738	chr5	140890211	140893024	+	PCDHGC5	0x2
14739	chr5	140894212	140896508	-	DIAPH1	0x2
14740	chr5	140905082	140906263	-	DIAPH1	0x2
14741	chr5	140913395	140914543	-	DIAPH1	0x2
14742	chr5	140999962	141001220	-	HDAC3	0x1
14743	chr5	141304465	141305607	+	KIAA0141	0x0
14744	chr5	141357373	141358518	+	RNF14	0x0
14745	chr5	141367335	141369233	+	RNF14	0x0
14746	chr5	141380587	141381819	-	GNPDA1	0x0
14747	chr5	141511225	141512405	+	NDFIP1	0x0
14748	chr5	141530989	141532849	+	NDFIP1	0x0
14749	chr5	141689729	141690952	-	SPRY4	0x0
14750	chr5	141692711	141693848	-	SPRY4	0x0
14751	chr5	142152096	142153261	+	ARHGAP26	0x2
14752	chr5	142657573	142658780	-	NR3C1	0x0
14753	chr5	142779145	142780344	-	NR3C1	0x0
14754	chr5	145492997	145494276	-	LARS	0x0
14755	chr5	145523260	145524485	-	LARS	0x0
14756	chr5	145556620	145557708	-	LARS	0x0
14757	chr5	145608836	145609944	+	RBM27	0x0
14758	chr5	145665428	145667859	+	RBM27	0x0
14759	chr5	145889579	145891493	+	TCERG1	0x2
14760	chr5	146769933	146771046	-	DPYSL3	0x0
14761	chr5	146771626	146773805	-	DPYSL3	0x0
14762	chr5	148730769	148731960	+	GRPEL2	0x0
14763	chr5	148873514	148876565	-	CSNK1A1	0x0
14764	chr5	149403382	149404510	+	HMGXB3	0x0
14765	chr5	149431546	149432781	+	HMGXB3	0x0
14766	chr5	149473575	149475182	+	HMGXB3	0x0
14767	chr5	149600095	149601191	-	CAMK2A	0x0
14768	chr5	149766937	149768119	+	TCOF1	0x0
14769	chr5	149823286	149824509	-	RPS14	0x0
14770	chr5	149824621	149825753	-	RPS14	0x0
14771	chr5	149825847	149827051	-	RPS14	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14772	chr5	149933882	149935832	+	NDST1	0x0
14773	chr5	149936010	149937268	+	NDST1	0x0
14774	chr5	150069957	150071094	-	RBM22	0x0
14775	chr5	150407606	150408824	+	GPX3	0x1
14776	chr5	150646939	150648162	+	GM2A	0x0
14777	chr5	150869300	150871228	+	SLC36A1	0x0
14778	chr5	151041711	151043672	-	SPARC	0x0
14779	chr5	151134639	151135833	-	ATOX1	0x0
14780	chr5	151183322	151185295	+	G3BP1	0x2
14781	chr5	151185418	151186561	+	G3BP1	0x2
14782	chr5	153371078	153372716	-	FAM114A2	0x0
14783	chr5	153432398	153433596	+	MFAP3	0x0
14784	chr5	153433817	153434981	+	MFAP3	0x0
14785	chr5	153796384	153797650	+	GALNT10	0x0
14786	chr5	153837921	153839095	+	SAP30L	0x0
14787	chr5	154171721	154175758	+	LARP1	0x0
14788	chr5	154179825	154180948	+	LARP1	0x0
14789	chr5	154181446	154184436	+	LARP1	0x0
14790	chr5	154193423	154197265	+	LARP1	0x0
14791	chr5	154254367	154256798	+	CNOT8	0x0
14792	chr5	154286689	154287847	-	GEMIN5	0x0
14793	chr5	156769052	156770217	+	CYFIP2	0x0
14794	chr5	156903874	156906962	-	ADAM19	0x2
14795	chr5	156929287	156930390	-	ADAM19	0x2
14796	chr5	156986201	156987354	-	ADAM19	0x2
14797	chr5	157181376	157182521	+	LSM11	0x0
14798	chr5	157213780	157214901	-	CLINT1	0x0
14799	chr5	157236124	157237335	-	CLINT1	0x0
14800	chr5	158584115	158585801	-	RNF145	0x0
14801	chr5	158587693	158588879	-	RNF145	0x0
14802	chr5	158603207	158604391	-	RNF145	0x0
14803	chr5	159502916	159504152	-	PWWP2A	0x0
14804	chr5	159519562	159521428	-	PWWP2A	0x0
14805	chr5	162868989	162870051	+	CCNG1	0x0
14806	chr5	162870169	162871950	+	CCNG1	0x0
14807	chr5	162944996	162946353	+	MAT2B	0x0
14808	chr5	167811673	167812799	+	WWC1	0x0
14809	chr5	167840944	167842090	+	WWC1	0x0
14810	chr5	167978114	167979358	-	PANK3	0x0
14811	chr5	168231456	168232613	-	SLIT3	0x0
14812	chr5	168601810	168603030	-	SLIT3	0x0
14813	chr5	170231840	170232976	-	KCNMB1	0x0
14814	chr5	170304583	170305726	+	RANBP17	0x2
14815	chr5	170345918	170347102	+	RANBP17	0x2
14816	chr5	170350901	170352034	+	RANBP17	0x2
14817	chr5	170380042	170381189	+	RANBP17	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14818	chr5	170679113	170680346	+	RANBP17	0x2
14819	chr5	170728833	170730069	+	RANBP17	0x2
14820	chr5	170814298	170815599	+	NPM1	0x2
14821	chr5	170817782	170819328	+	NPM1	0x2
14822	chr5	170819376	170820468	+	NPM1	0x2
14823	chr5	170837027	170838428	+	NPM1	0x2
14824	chr5	171288165	171289476	-	FBXW11	0x0
14825	chr5	171468637	171472356	-	STK10	0x0
14826	chr5	171594689	171595977	-	STK10	0x0
14827	chr5	171636782	171638816	-	UBTD2	0x0
14828	chr5	171762356	171763481	-	SH3PXD2B	0x0
14829	chr5	172296492	172297608	+	ERGIC1	0x0
14830	chr5	172377295	172380223	+	ERGIC1	0x0
14831	chr5	172410375	172411551	+	ATP6V0E1	0x0
14832	chr5	172460967	172462331	+	ATP6V0E1	0x0
14833	chr5	172517714	172518887	+	C5orf41	0x0
14834	chr5	172561019	172562885	+	C5orf41	0x0
14835	chr5	172562950	172566074	+	C5orf41	0x0
14836	chr5	173034156	173037218	-	BOD1	0x0
14837	chr5	173534144	173535248	+	HMP19	0x0
14838	chr5	174938575	174939808	+	SFXN1	0x0
14839	chr5	174955095	174956307	+	SFXN1	0x0
14840	chr5	175799717	175800880	+	ARL10	0x0
14841	chr5	175934863	175937108	+	FAF2	0x0
14842	chr5	175953385	175954972	-	RNF44	0x0
14843	chr5	176081384	176082489	+	TSPAN17	0x0
14844	chr5	176408953	176410109	-	UIMC1	0x0
14845	chr5	176636157	176639251	+	NSD1	0x2
14846	chr5	176686601	176687706	+	NSD1	0x2
14847	chr5	176710235	176711407	+	NSD1	0x2
14848	chr5	176715363	176716418	+	NSD1	0x2
14849	chr5	176723124	176725174	+	NSD1	0x2
14850	chr5	176726378	176727506	+	NSD1	0x2
14851	chr5	176727988	176729205	-	RAB24	0x2
14852	chr5	176730360	176731590	-	RAB24	0x2
14853	chr5	176731100	176732289	+	PRELID1	0x0
14854	chr5	176755333	176757109	-	LMAN2	0x0
14855	chr5	176861478	176862570	+	GRK6	0x0
14856	chr5	176862815	176863967	+	GRK6	0x0
14857	chr5	176868809	176870415	+	GRK6	0x0
14858	chr5	176883477	176884676	-	DBN1	0x2
14859	chr5	176895968	176897137	+	PRR7	0x0
14860	chr5	176953248	176954430	-	FAM193B	0x0
14861	chr5	177018786	177020035	+	TMED9	0x0
14862	chr5	177022452	177023524	+	TMED9	0x0
14863	chr5	177613080	177614244	-	GMCL1P1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14864	chr5	177631086	177632329	+	HNRNPAB	0x0
14865	chr5	177637330	177638526	+	HNRNPAB	0x0
14866	chr5	178029797	178030939	-	CLK4	0x0
14867	chr5	178508189	178509405	+	ZNF354C	0x0
14868	chr5	179018079	179019279	+	RUFY1	0x2
14869	chr5	179040889	179042205	-	HNRNPH1	0x0
14870	chr5	179125449	179126920	+	CANX	0x0
14871	chr5	179149332	179150552	+	CANX	0x0
14872	chr5	179151203	179152288	+	CANX	0x0
14873	chr5	179155259	179157892	+	CANX	0x0
14874	chr5	179202610	179204541	+	MAML1	0x0
14875	chr5	179221822	179223117	-	MGAT4B	0x0
14876	chr5	179264040	179265167	-	C5orf45	0x0
14877	chr5	179481917	179483222	-	RNF130	0x0
14878	chr5	179660553	179663882	-	MAPK9	0x0
14879	chr5	179727194	179729050	-	GFPT2	0x0
14880	chr5	179731276	179732428	+	CNOT6	0x0
14881	chr5	179995698	179996849	+	CNOT6	0x0
14882	chr5	180001243	180003823	+	CNOT6	0x0
14883	chr5	180621998	180623155	-	TRIM7	0x0
14884	chr5	180661951	180663209	+	TRIM41	0x0
14885	chr5	180664111	180665187	-	GNB2L1	0x0
14886	chr5	180665564	180667053	-	GNB2L1	0x0
14887	chr5	180667982	180669821	-	GNB2L1	0x0
14888	chr5	180667982	180669821	-	SNORD96A	0x0
14889	chr5	180670186	180671246	-	GNB2L1	0x0
14890	chr5	180670186	180671246	-	SNORD95	0x0
14891	chr6	484723	486201	-	EXOC2	0x2
14892	chr6	564272	565478	-	EXOC2	0x2
14893	chr6	3127055	3128172	+	BPHL	0x0
14894	chr6	3130772	3131874	+	BPHL	0x0
14895	chr6	3224426	3226467	-	TUBB2B	0x0
14896	chr6	3978536	3979887	+	PRPF4B	0x2
14897	chr6	4060670	4062624	+	PRPF4B	0x2
14898	chr6	4062948	4064180	+	PRPF4B	0x2
14899	chr6	4064532	4065632	+	PRPF4B	0x2
14900	chr6	4951970	4953148	+	CDYL	0x2
14901	chr6	4954973	4956258	+	CDYL	0x2
14902	chr6	4983360	4984532	-	RPP40	0x0
14903	chr6	5370748	5371947	+	FARS2	0x0
14904	chr6	5391124	5392342	+	FARS2	0x0
14905	chr6	5972334	5973721	+	FARS2	0x0
14906	chr6	5973844	5975359	+	FARS2	0x0
14907	chr6	7150210	7151372	+	RREB1	0x0
14908	chr6	7246038	7247228	+	RREB1	0x0
14909	chr6	7249563	7250812	+	RREB1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14910	chr6	7286091	7288130	-	SSR1	0x0
14911	chr6	7582881	7584042	+	DSP	0x0
14912	chr6	7881482	7883717	-	MUTED-TXNDC5	0x0
14913	chr6	7881482	7883717	-	TXNDC5	0x0
14914	chr6	7891279	7892454	-	MUTED-TXNDC5	0x0
14915	chr6	7891279	7892454	-	TXNDC5	0x0
14916	chr6	7899308	7900407	-	MUTED-TXNDC5	0x0
14917	chr6	7899308	7900407	-	TXNDC5	0x0
14918	chr6	8145610	8146708	+	PIP5K1P1	0x0
14919	chr6	10419926	10421142	-	TFAP2A	0x1
14920	chr6	10559245	10560443	+	GCNT2	0x0
14921	chr6	10562480	10563616	+	GCNT2	0x0
14922	chr6	10627780	10628932	+	GCNT2	0x0
14923	chr6	10756256	10757674	+	TMEM14B	0x0
14924	chr6	11135775	11137158	+	C6orf228	0x0
14925	chr6	11137474	11138764	+	C6orf228	0x0
14926	chr6	11578904	11580004	+	TMEM170B	0x0
14927	chr6	11581022	11582124	+	TMEM170B	0x0
14928	chr6	12120214	12121365	+	HIVEP1	0x0
14929	chr6	12121722	12122896	+	HIVEP1	0x0
14930	chr6	12125732	12126828	+	HIVEP1	0x0
14931	chr6	12514233	12515457	+	PHACTR1	0x0
14932	chr6	13358222	13359367	-	GFOD1	0x0
14933	chr6	13358345	13359518	+	PHACTR1	0x0
14934	chr6	13365020	13366217	-	GFOD1	0x0
14935	chr6	13373090	13374206	+	PHACTR1	0x0
14936	chr6	13644224	13645457	-	RANBP9	0x0
14937	chr6	13656860	13658011	-	RANBP9	0x0
14938	chr6	14756238	14757345	-	DTNBP1	0x0
14939	chr6	15329029	15330191	+	JARID2	0x2
14940	chr6	15373844	15374946	+	JARID2	0x2
14941	chr6	15468229	15469421	+	JARID2	0x2
14942	chr6	15487165	15488302	+	JARID2	0x2
14943	chr6	15495866	15497677	+	JARID2	0x2
14944	chr6	15500650	15502115	+	JARID2	0x2
14945	chr6	15500843	15502062	-	DTNBP1	0x0
14946	chr6	15520501	15522679	+	JARID2	0x2
14947	chr6	17608179	17609291	+	FAM8A1	0x0
14948	chr6	17609682	17610948	+	FAM8A1	0x0
14949	chr6	17615254	17617431	-	NUP153	0x0
14950	chr6	17628672	17629850	-	NUP153	0x0
14951	chr6	17632467	17633695	-	NUP153	0x0
14952	chr6	17664959	17666069	-	NUP153	0x0
14953	chr6	17759152	17760556	-	KIF13A	0x0
14954	chr6	17778662	17779848	-	KIF13A	0x0
14955	chr6	17931733	17932855	-	KIF13A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
14956	chr6	18223902	18226383	-	DEK	0x2
14957	chr6	20437808	20438928	+	E2F3	0x2
14958	chr6	20490730	20491915	+	E2F3	0x2
14959	chr6	20491976	20493945	+	E2F3	0x2
14960	chr6	21596331	21597541	+	SOX4	0x0
14961	chr6	21597690	21598802	+	SOX4	0x0
14962	chr6	23600440	23601597	-	DCDC2	0x0
14963	chr6	24430063	24431262	+	MRS2	0x0
14964	chr6	24650015	24651365	-	TDP2	0x0
14965	chr6	24666850	24668002	+	ACOT13	0x0
14966	chr6	24701262	24702443	+	ACOT13	0x0
14967	chr6	24704846	24706714	-	C6orf62	0x0
14968	chr6	24714029	24715199	-	C6orf62	0x0
14969	chr6	24715854	24716982	-	C6orf62	0x0
14970	chr6	24718230	24719465	-	C6orf62	0x0
14971	chr6	25023605	25025155	-	CMAHP	0x0
14972	chr6	26016923	26018325	-	HIST1H1A	0x0
14973	chr6	26021426	26022800	+	HIST1H4A	0x0
14974	chr6	26026708	26028035	-	HIST1H4B	0x0
14975	chr6	26103625	26104884	+	HIST1H4C	0x0
14976	chr6	26156063	26157476	+	HIST1H1E	0x2
14977	chr6	26183487	26184592	+	HIST1H2BE	0x0
14978	chr6	26216283	26217463	-	HIST1H2BG	0x0
14979	chr6	26216651	26217756	+	HIST1H2AE	0x0
14980	chr6	26234562	26235775	-	HIST1H1D	0x0
14981	chr6	26240412	26241546	+	HIST1H4F	0x0
14982	chr6	26250082	26251242	-	HIST1H3F	0x0
14983	chr6	26251436	26252622	+	HIST1H2BH	0x0
14984	chr6	26270987	26272137	-	HIST1H3G	0x0
14985	chr6	26598569	26599726	+	ABT1	0x0
14986	chr6	26634838	26635977	-	ZNF322	0x0
14987	chr6	27106601	27107960	+	HIST1H4I	0x0
14988	chr6	27747324	27749198	-	HIST1H2BL	0x0
14989	chr6	27798431	27799610	-	HIST1H4K	0x0
14990	chr6	27832805	27833879	+	HIST1H2AL	0x0
14991	chr6	27834205	27835385	-	HIST1H1B	0x2
14992	chr6	27840405	27841549	-	HIST1H4L	0x0
14993	chr6	27857632	27858761	-	HIST1H3J	0x0
14994	chr6	28871612	28872795	-	TRIM27	0x2
14995	chr6	29555893	29556995	-	GABBR1	0x2
14996	chr6	29569722	29571948	-	GABBR1	0x2
14997	chr6	29575881	29577001	-	GABBR1	0x2
14998	chr6	29580046	29581217	-	GABBR1	0x2
14999	chr6	29588322	29589527	-	GABBR1	0x2
15000	chr6	29591070	29592344	-	GABBR1	0x2
15001	chr6	29595191	29597568	-	GABBR1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15002	chr6	29597656	29598797	-	GABBR1	0x2
15003	chr6	29638736	29639848	-	ZFP57	0x0
15004	chr6	29639980	29641676	-	ZFP57	0x0
15005	chr6	29644303	29645453	-	ZFP57	0x0
15006	chr6	29856616	29857822	+	HLA-H	0x0
15007	chr6	29896885	29898068	+	HLA-A	0x2
15008	chr6	29975896	29977102	+	HLA-J	0x0
15009	chr6	30031918	30033144	+	ZNRD1	0x0
15010	chr6	30513425	30514650	-	GNL1	0x0
15011	chr6	30557113	30559530	+	ABCF1	0x0
15012	chr6	30583680	30584842	-	PPP1R10	0x0
15013	chr6	30612217	30613355	+	ATAT1	0x0
15014	chr6	30618520	30619685	+	C6orf136	0x0
15015	chr6	30620408	30621615	-	DHX16	0x0
15016	chr6	30643756	30644925	-	PPP1R18	0x0
15017	chr6	30651667	30652867	-	PPP1R18	0x0
15018	chr6	30672043	30673143	-	MDC1	0x0
15019	chr6	30682265	30683404	-	MDC1	0x0
15020	chr6	30690175	30691282	+	TUBB	0x2
15021	chr6	30691424	30693616	+	TUBB	0x2
15022	chr6	30710902	30712120	-	IER3	0x0
15023	chr6	30860252	30861452	+	DDR1	0x0
15024	chr6	31132413	31133567	-	POU5F1	0x2
15025	chr6	31137570	31138908	-	POU5F1	0x2
15026	chr6	31498096	31499411	-	ATP6V1G2-DDX39B	0x0
15027	chr6	31498096	31499411	-	DDX39B	0x0
15028	chr6	31499998	31501164	-	ATP6V1G2-DDX39B	0x0
15029	chr6	31499998	31501164	-	DDX39B	0x0
15030	chr6	31590310	31591495	+	PRRC2A	0x0
15031	chr6	31590310	31591495	+	SNORA38	0x0
15032	chr6	31592407	31593596	+	PRRC2A	0x0
15033	chr6	31599602	31601761	+	PRRC2A	0x0
15034	chr6	31602148	31603195	+	PRRC2A	0x0
15035	chr6	31603501	31605595	+	PRRC2A	0x0
15036	chr6	31614970	31616098	-	BAG6	0x0
15037	chr6	31629394	31630544	-	GPANK1	0x0
15038	chr6	31635751	31636933	+	CSNK2B	0x2
15039	chr6	31694274	31695485	-	DDAH2	0x0
15040	chr6	31701116	31702273	-	CLIC1	0x0
15041	chr6	31746403	31748907	-	VARS	0x0
15042	chr6	31750335	31751437	-	VARS	0x0
15043	chr6	31760067	31761166	-	VARS	0x0
15044	chr6	31777807	31778950	+	HSPA1A	0x0
15045	chr6	31846971	31848388	-	EHMT2	0x0
15046	chr6	31850151	31851259	-	EHMT2	0x0
15047	chr6	31919488	31920683	-	RDBP	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15048	chr6	32135903	32137230	-	AGPAT1	0x0
15049	chr6	32153584	32154706	-	PBX2	0x0
15050	chr6	32162201	32163463	-	GPSM3	0x0
15051	chr6	32162201	32163463	-	NOTCH4	0x0
15052	chr6	32163568	32164671	-	NOTCH4	0x0
15053	chr6	32171419	32172745	-	NOTCH4	0x0
15054	chr6	32545976	32547185	-	HLA-DRB1	0x0
15055	chr6	32939823	32940952	+	BRD2	0x0
15056	chr6	32941867	32943040	+	BRD2	0x0
15057	chr6	32943892	32945819	+	BRD2	0x0
15058	chr6	32947855	32949197	+	BRD2	0x0
15059	chr6	33161050	33162711	-	RXRB	0x0
15060	chr6	33168895	33170180	+	SLC39A7	0x0
15061	chr6	33170209	33172677	+	HSD17B8	0x0
15062	chr6	33170209	33172677	+	SLC39A7	0x0
15063	chr6	33235139	33236241	-	VPS52	0x0
15064	chr6	33243153	33244769	+	RPS18	0x0
15065	chr6	33245758	33246872	+	B3GALT4	0x0
15066	chr6	33272423	33273523	-	TAPBP	0x0
15067	chr6	33283728	33284925	-	ZBTB22	0x0
15068	chr6	33286709	33287808	-	DAXX	0x2
15069	chr6	33384758	33385956	-	CUTA	0x0
15070	chr6	33404881	33406152	+	SYNGAP1	0x0
15071	chr6	33408181	33409666	+	SYNGAP1	0x0
15072	chr6	33424067	33425202	+	ZBTB9	0x0
15073	chr6	33540013	33541322	-	BAK1	0x0
15074	chr6	33634375	33635578	+	ITPR3	0x2
15075	chr6	33635751	33636942	+	ITPR3	0x2
15076	chr6	33637619	33638898	+	ITPR3	0x2
15077	chr6	33658967	33660072	+	ITPR3	0x2
15078	chr6	33663510	33664755	+	ITPR3	0x2
15079	chr6	33739203	33740424	-	LEMD2	0x0
15080	chr6	33989058	33990315	-	GRM4	0x0
15081	chr6	34003467	34004633	-	GRM4	0x0
15082	chr6	34107763	34109030	-	GRM4	0x0
15083	chr6	34208040	34209208	+	HMGA1	0x2
15084	chr6	34213040	34214245	+	HMGA1	0x2
15085	chr6	34230521	34231959	-	C6orf1	0x0
15086	chr6	34254576	34256433	-	NUDT3	0x0
15087	chr6	34254576	34256433	-	RPS10-NUDT3	0x0
15088	chr6	34556092	34558688	-	C6orf106	0x0
15089	chr6	34711469	34713030	+	SNRPC	0x0
15090	chr6	34840920	34841957	+	UHRF1BP1	0x0
15091	chr6	34842078	34843359	+	UHRF1BP1	0x0
15092	chr6	34843380	34844601	+	UHRF1BP1	0x0
15093	chr6	34883966	34885172	+	ANKS1A	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15094	chr6	34961582	34962867	+	ANKS1A	0x0
15095	chr6	34984659	34985850	+	ANKS1A	0x0
15096	chr6	35055154	35057920	+	ANKS1A	0x0
15097	chr6	35216066	35217408	+	SCUBE3	0x0
15098	chr6	35218939	35220665	+	SCUBE3	0x0
15099	chr6	35286990	35288196	+	DEF6	0x0
15100	chr6	35387380	35388560	+	PPARD	0x0
15101	chr6	35393910	35395245	+	PPARD	0x0
15102	chr6	35437885	35439042	+	RPL10A	0x0
15103	chr6	35541118	35542956	-	FKBP5	0x0
15104	chr6	35654978	35656149	-	FKBP5	0x0
15105	chr6	35800416	35802797	-	SRPK1	0x0
15106	chr6	36040216	36041430	+	MAPK14	0x0
15107	chr6	36043048	36044439	+	MAPK14	0x0
15108	chr6	36077021	36078907	+	MAPK14	0x0
15109	chr6	36103049	36104174	+	MAPK13	0x0
15110	chr6	36167852	36169735	+	BRPF3	0x0
15111	chr6	36190200	36191601	+	BRPF3	0x0
15112	chr6	36197878	36199058	+	BRPF3	0x0
15113	chr6	36199099	36200978	+	BRPF3	0x0
15114	chr6	36454442	36455823	+	KCTD20	0x0
15115	chr6	36461285	36463382	-	STK38	0x0
15116	chr6	36474705	36475880	-	STK38	0x0
15117	chr6	36569549	36571029	+	SRSF3	0x2
15118	chr6	36651546	36652657	+	CDKN1A	0x1
15119	chr6	36653542	36654991	+	CDKN1A	0x1
15120	chr6	36822231	36824052	-	PPIL1	0x0
15121	chr6	36883712	36884900	+	C6orf89	0x0
15122	chr6	37138373	37139530	+	PIM1	0x2
15123	chr6	37141242	37142988	+	PIM1	0x2
15124	chr6	37299582	37301126	+	TBC1D22B	0x0
15125	chr6	37327781	37328885	+	RNF8	0x0
15126	chr6	37358033	37359333	+	RNF8	0x0
15127	chr6	37425931	37428006	+	FTSJD2	0x0
15128	chr6	37448537	37450459	+	FTSJD2	0x0
15129	chr6	37449228	37450611	-	CCDC167	0x0
15130	chr6	37926807	37927917	+	ZFAND3	0x0
15131	chr6	37951751	37952853	+	ZFAND3	0x0
15132	chr6	38192419	38193655	-	BTBD9	0x0
15133	chr6	38504618	38505850	-	BTBD9	0x0
15134	chr6	38547565	38548714	-	BTBD9	0x0
15135	chr6	38559783	38560887	-	BTBD9	0x0
15136	chr6	38561324	38562467	-	BTBD9	0x0
15137	chr6	38643267	38652669	-	GLO1	0x0
15138	chr6	38705084	38706285	+	DNAH8	0x2
15139	chr6	38812788	38814003	+	DNAH8	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15140	chr6	38893303	38894449	+	DNAH8	0x2
15141	chr6	39053174	39054322	+	GLP1R	0x0
15142	chr6	39156828	39158059	-	KCNK5	0x0
15143	chr6	39163144	39164288	-	KCNK5	0x0
15144	chr6	39189583	39190776	-	KCNK5	0x0
15145	chr6	39925770	39927099	-	MOCS1	0x2
15146	chr6	41034216	41035565	-	C6orf130	0x0
15147	chr6	41049897	41051034	+	NFYA	0x0
15148	chr6	41065526	41066861	+	NFYA	0x0
15149	chr6	41562041	41563272	+	FOXP4	0x0
15150	chr6	41651315	41652587	-	TFEB	0x2
15151	chr6	41739923	41741095	+	PRICKLE4	0x0
15152	chr6	41758951	41760323	-	USP49	0x0
15153	chr6	41760436	41763176	-	USP49	0x0
15154	chr6	41899879	41901094	+	BYSL	0x0
15155	chr6	41902247	41903782	-	CCND3	0x2
15156	chr6	42332793	42333952	-	TRERF1	0x0
15157	chr6	42833686	42835799	+	KIAA0240	0x0
15158	chr6	42976472	42977714	+	PPP2R5D	0x0
15159	chr6	42978957	42980433	+	PPP2R5D	0x0
15160	chr6	42982619	42984143	+	KLHDC3	0x0
15161	chr6	42988018	42989426	+	KLHDC3	0x0
15162	chr6	42988018	42989426	+	RRP36	0x0
15163	chr6	43012517	43013645	-	CUL7	0x2
15164	chr6	43110604	43111780	+	PTK7	0x0
15165	chr6	43112531	43113757	+	PTK7	0x0
15166	chr6	43128002	43129515	+	PTK7	0x0
15167	chr6	43146939	43149594	+	SRF	0x0
15168	chr6	43414414	43415595	+	ABCC10	0x0
15169	chr6	43457070	43458284	+	TJAP1	0x0
15170	chr6	43468761	43469919	+	TJAP1	0x0
15171	chr6	43472377	43473476	+	TJAP1	0x0
15172	chr6	43483390	43484582	-	YIPF3	0x0
15173	chr6	43486926	43488025	+	POLR1C	0x0
15174	chr6	43488096	43489639	+	POLR1C	0x0
15175	chr6	43490190	43491445	-	XPO5	0x0
15176	chr6	43506053	43507720	-	XPO5	0x0
15177	chr6	43513108	43514371	-	XPO5	0x0
15178	chr6	43514797	43515954	-	XPO5	0x0
15179	chr6	43638647	43639899	-	MRPS18A	0x0
15180	chr6	43748422	43749642	+	VEGFA	0x0
15181	chr6	43752211	43753410	+	VEGFA	0x0
15182	chr6	43875478	43876612	+	LOC100132354	0x0
15183	chr6	44115738	44116925	+	TMEM63B	0x0
15184	chr6	44191979	44193078	+	SLC29A1	0x2
15185	chr6	44199544	44202204	+	SLC29A1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15186	chr6	44217577	44221984	+	HSP90AB1	0x2
15187	chr6	44223634	44224952	-	SLC35B2	0x0
15188	chr6	44242604	44243804	+	TMEM151B	0x0
15189	chr6	44245068	44246254	+	TMEM151B	0x0
15190	chr6	44348035	44349183	+	SPATS1	0x0
15191	chr6	44386647	44387845	+	CDC5L	0x0
15192	chr6	44391699	44392859	+	CDC5L	0x0
15193	chr6	46112485	46113620	+	ENPP4	0x0
15194	chr6	47198749	47200592	-	TNFRSF21	0x0
15195	chr6	47253315	47254456	-	TNFRSF21	0x0
15196	chr6	47544175	47545444	+	CD2AP	0x0
15197	chr6	47576359	47577625	+	CD2AP	0x0
15198	chr6	47591539	47592637	+	CD2AP	0x0
15199	chr6	47593886	47595075	+	CD2AP	0x0
15200	chr6	48917414	48918586	-	MUT	0x0
15201	chr6	49398066	49399409	-	MUT	0x0
15202	chr6	49409029	49410180	-	MUT	0x0
15203	chr6	51612512	51613702	-	PKHD1	0x2
15204	chr6	52128687	52130822	-	MCM3	0x0
15205	chr6	52138056	52139155	-	MCM3	0x0
15206	chr6	52362351	52363451	-	TRAM2	0x0
15207	chr6	52363587	52367221	-	TRAM2	0x0
15208	chr6	52615795	52616997	-	GSTA2	0x0
15209	chr6	52803650	52804828	-	GSTA3	0x0
15210	chr6	52883490	52884604	-	ICK	0x2
15211	chr6	53131792	53134227	-	ELOVL5	0x0
15212	chr6	53156027	53157233	-	ELOVL5	0x0
15213	chr6	54765343	54766454	+	FAM83B	0x0
15214	chr6	56322339	56324299	-	DST	0x2
15215	chr6	56340475	56341604	-	DST	0x2
15216	chr6	56347583	56348706	-	DST	0x2
15217	chr6	56349571	56350750	-	DST	0x2
15218	chr6	56351381	56352561	-	DST	0x2
15219	chr6	56356517	56357713	-	DST	0x2
15220	chr6	56361668	56362811	-	DST	0x2
15221	chr6	56370970	56372116	-	DST	0x2
15222	chr6	56372803	56373918	-	DST	0x2
15223	chr6	56390673	56391858	-	DST	0x2
15224	chr6	56417008	56419009	-	DST	0x2
15225	chr6	56419654	56420886	-	DST	0x2
15226	chr6	56425689	56426803	-	DST	0x2
15227	chr6	56437065	56439204	-	DST	0x2
15228	chr6	56462099	56463275	-	DST	0x2
15229	chr6	56465661	56466940	-	DST	0x2
15230	chr6	56470203	56472110	-	DST	0x2
15231	chr6	56492239	56493349	-	DST	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15232	chr6	56493462	56494662	-	DST	0x2
15233	chr6	56495578	56497298	-	DST	0x2
15234	chr6	56534942	56536096	-	DST	0x2
15235	chr6	56574503	56575682	-	DST	0x2
15236	chr6	56968387	56969620	+	ZNF451	0x0
15237	chr6	57012282	57013414	+	ZNF451	0x0
15238	chr6	63921233	63922431	+	PTP4A1	0x0
15239	chr6	64289701	64290841	+	PTP4A1	0x0
15240	chr6	64355947	64357175	+	PHF3	0x2
15241	chr6	64393679	64394828	+	PHF3	0x2
15242	chr6	66012632	66013870	+	MCART3P	0x0
15243	chr6	66015238	66016405	+	MCART3P	0x0
15244	chr6	69942703	69943879	+	BAI3	0x1
15245	chr6	70384791	70385987	-	LMBRD1	0x0
15246	chr6	71569523	71571177	+	SMAP1	0x0
15247	chr6	73016409	73017556	+	RIMS1	0x0
15248	chr6	74002028	74003209	+	C6orf221	0x0
15249	chr6	74062486	74064527	-	DPPA5	0x0
15250	chr6	74082158	74083533	-	OOEP	0x0
15251	chr6	74227106	74229055	-	EEF1A1	0x1
15252	chr6	74229118	74230294	-	EEF1A1	0x1
15253	chr6	75963333	75965586	-	TMEM30A	0x0
15254	chr6	76311571	76312793	-	FILIP1	0x0
15255	chr6	76345985	76347415	+	SENP6	0x0
15256	chr6	76625707	76626824	+	MYO6	0x0
15257	chr6	77226918	77228048	+	MYO6	0x0
15258	chr6	78413210	78414327	+	IRAK1BP1	0x0
15259	chr6	79645879	79647696	-	PHIP	0x2
15260	chr6	79648174	79649286	-	PHIP	0x2
15261	chr6	79650280	79651379	-	PHIP	0x2
15262	chr6	79735160	79736388	-	PHIP	0x2
15263	chr6	79751981	79753186	-	PHIP	0x2
15264	chr6	80409922	80412344	+	SH3BGRL2	0x0
15265	chr6	80624066	80625208	-	ELOVL4	0x0
15266	chr6	80751552	80752851	+	TTK	0x2
15267	chr6	80815820	80817061	+	BCKDHB	0x0
15268	chr6	82879592	82881385	-	IBTK	0x0
15269	chr6	82923775	82924918	-	IBTK	0x0
15270	chr6	82925371	82926470	-	IBTK	0x0
15271	chr6	83753608	83754821	-	UBE3D	0x0
15272	chr6	83919880	83921765	-	ME1	0x0
15273	chr6	84117500	84118679	-	ME1	0x0
15274	chr6	86318156	86319212	-	SYNCRIP	0x0
15275	chr6	86319540	86322361	-	SYNCRIP	0x0
15276	chr6	86386506	86387878	-	SNHG5	0x0
15277	chr6	86386506	86387878	-	SNORD50A	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15278	chr6	86386506	86387878	-	SNORD50B	0x0
15279	chr6	87954663	87955841	+	ZNF292	0x0
15280	chr6	87968075	87969255	+	ZNF292	0x0
15281	chr6	87971517	87973778	+	ZNF292	0x0
15282	chr6	88221207	88222421	+	SLC35A1	0x0
15283	chr6	88321305	88322505	+	ORC3	0x0
15284	chr6	88365184	88366317	-	AKIRIN2	0x0
15285	chr6	88410786	88412029	-	AKIRIN2	0x0
15286	chr6	89320139	89321953	-	RNGTT	0x0
15287	chr6	89650279	89651462	-	RNGTT	0x0
15288	chr6	90074346	90077063	-	RRAGD	0x0
15289	chr6	90352590	90354409	-	MDN1	0x0
15290	chr6	90364995	90366188	-	MDN1	0x0
15291	chr6	90377135	90378380	-	MDN1	0x0
15292	chr6	90421320	90422437	-	MDN1	0x0
15293	chr6	90454461	90455624	-	MDN1	0x0
15294	chr6	90458771	90459967	-	MDN1	0x0
15295	chr6	90465422	90466618	-	MDN1	0x0
15296	chr6	90503804	90505021	-	MDN1	0x0
15297	chr6	90573019	90574258	+	CASP8AP2	0x0
15298	chr6	90575343	90576560	+	CASP8AP2	0x0
15299	chr6	91222689	91223905	-	MAP3K7	0x0
15300	chr6	91224216	91226142	-	MAP3K7	0x0
15301	chr6	96653705	96655934	+	FUT9	0x2
15302	chr6	96661058	96662943	+	FUT9	0x2
15303	chr6	97001664	97002851	+	UFL1	0x1
15304	chr6	97269641	97270832	-	GPR63	0x0
15305	chr6	97336946	97338669	-	NDUFAF4	0x0
15306	chr6	97676248	97677375	-	MMS22L	0x0
15307	chr6	97678815	97680024	-	MMS22L	0x0
15308	chr6	97681126	97682310	-	MMS22L	0x0
15309	chr6	99726249	99727494	-	FAXC	0x0
15310	chr6	99816670	99817814	-	COQ3	0x0
15311	chr6	99848687	99849834	-	PNISR	0x0
15312	chr6	99879766	99883576	-	USP45	0x0
15313	chr6	99893436	99894611	-	USP45	0x0
15314	chr6	99989588	99991081	-	CCNC	0x1
15315	chr6	101543827	101544976	+	GRIK2	0x0
15316	chr6	105404487	105406690	+	LIN28B	0x4
15317	chr6	105473664	105474838	+	LIN28B	0x4
15318	chr6	105526780	105527979	+	LIN28B	0x4
15319	chr6	105529717	105531144	+	LIN28B	0x4
15320	chr6	105607034	105608148	-	POPDC3	0x0
15321	chr6	106556285	106557389	+	PRDM1	0x1
15322	chr6	107010873	107012112	-	RTN4IP1	0x0
15323	chr6	107043346	107044532	-	RTN4IP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15324	chr6	107385927	107386986	-	BEND3	0x0
15325	chr6	107387196	107388245	-	BEND3	0x0
15326	chr6	107388490	107389766	-	BEND3	0x0
15327	chr6	107957630	107958894	+	SOBP	0x0
15328	chr6	107960657	107961853	+	SOBP	0x0
15329	chr6	108189911	108191052	-	SEC63	0x0
15330	chr6	108191235	108193154	-	SEC63	0x0
15331	chr6	108203713	108204831	-	SEC63	0x0
15332	chr6	108325100	108327239	-	OSTM1	0x0
15333	chr6	108532364	108533672	-	SNX3	0x0
15334	chr6	108984837	108986354	+	FOXO3	0x1
15335	chr6	109002010	109003118	+	FOXO3	0x1
15336	chr6	109003715	109006023	+	FOXO3	0x1
15337	chr6	109483660	109485138	+	CEP57L1	0x0
15338	chr6	109687236	109689895	-	CD164	0x0
15339	chr6	109702987	109704177	-	CD164	0x0
15340	chr6	109769982	109771268	-	MICAL1	0x0
15341	chr6	110095717	110096926	+	FIG4	0x0
15342	chr6	110100078	110101257	+	FIG4	0x0
15343	chr6	110116251	110117900	+	FIG4	0x0
15344	chr6	110422289	110423388	-	WASF1	0x0
15345	chr6	110551416	110552655	+	CDC40	0x0
15346	chr6	111044499	111045775	-	CDK19	0x0
15347	chr6	111215313	111216927	+	AMD1	0x0
15348	chr6	111619952	111621642	-	REV3L	0x0
15349	chr6	111630701	111631891	-	REV3L	0x0
15350	chr6	111688349	111689689	-	REV3L	0x0
15351	chr6	111696785	111697907	-	REV3L	0x0
15352	chr6	111709823	111711899	-	REV3L	0x0
15353	chr6	114181559	114183381	+	MARCKS	0x0
15354	chr6	114183612	114184785	+	MARCKS	0x0
15355	chr6	116579221	116580408	-	TSPYL4	0x0
15356	chr6	116598216	116600176	-	TSPYL1	0x0
15357	chr6	116756336	116757523	+	DSE	0x2
15358	chr6	117881762	117882992	-	GOPC	0x2
15359	chr6	117883182	117884315	-	GOPC	0x2
15360	chr6	117996266	117997377	+	NUS1	0x0
15361	chr6	118028399	118031256	+	NUS1	0x0
15362	chr6	118782447	118783646	-	CEP85L	0x0
15363	chr6	119233896	119235097	-	MCM9	0x0
15364	chr6	121623800	121624980	-	C6orf170	0x2
15365	chr6	121769319	121771053	+	GJA1	0x1
15366	chr6	126210281	126211495	+	NCOA7	0x0
15367	chr6	126243250	126244462	+	NCOA7	0x0
15368	chr6	127608520	127609623	+	RNF146	0x0
15369	chr6	127610640	127611805	+	RNF146	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15370	chr6	128290481	128291810	-	PTPRK	0x1
15371	chr6	128603028	128604208	-	PTPRK	0x1
15372	chr6	131160066	131161830	-	EPB41L2	0x0
15373	chr6	131465898	131467098	+	AKAP7	0x0
15374	chr6	131919242	131920423	-	MED23	0x0
15375	chr6	132054203	132055389	+	ENPP3	0x0
15376	chr6	132269283	132270458	-	CTGF	0x1
15377	chr6	132780490	132782526	-	STX7	0x0
15378	chr6	134300771	134301955	+	TBPL1	0x0
15379	chr6	134308871	134310071	+	TBPL1	0x0
15380	chr6	134492805	134493908	-	SGK1	0x2
15381	chr6	135285349	135286803	-	HBS1L	0x0
15382	chr6	135303046	135304221	-	HBS1L	0x0
15383	chr6	135305948	135307047	-	HBS1L	0x0
15384	chr6	135317435	135318584	-	HBS1L	0x0
15385	chr6	135323386	135324491	-	HBS1L	0x0
15386	chr6	135328756	135329868	-	HBS1L	0x0
15387	chr6	135355637	135356794	-	HBS1L	0x0
15388	chr6	136579686	136580867	-	BCLAF1	0x2
15389	chr6	136581882	136583020	-	BCLAF1	0x2
15390	chr6	136598673	136600429	-	BCLAF1	0x2
15391	chr6	136663589	136664732	-	MAP7	0x2
15392	chr6	136692964	136694217	-	MAP7	0x2
15393	chr6	136882109	136883335	-	MAP3K5	0x2
15394	chr6	137518389	137519614	-	IFNGR1	0x0
15395	chr6	138411477	138413311	-	PERP	0x0
15396	chr6	139247438	139248599	-	REPS1	0x0
15397	chr6	139260841	139262033	-	REPS1	0x0
15398	chr6	139264074	139265672	-	REPS1	0x0
15399	chr6	139304290	139305431	-	REPS1	0x0
15400	chr6	139498061	139499434	+	HECA	0x1
15401	chr6	139501122	139502293	+	HECA	0x1
15402	chr6	139693246	139694493	-	CITED2	0x0
15403	chr6	142539108	142540301	+	VTA1	0x0
15404	chr6	143145594	143146709	-	HIVEP2	0x0
15405	chr6	143223398	143224495	-	HIVEP2	0x0
15406	chr6	143749191	143750364	-	ADAT2	0x0
15407	chr6	143810164	143811432	+	PEX3	0x0
15408	chr6	144415626	144416916	-	SF3B5	0x0
15409	chr6	144521050	144522660	-	SF3B5	0x0
15410	chr6	144650674	144651839	+	UTRN	0x0
15411	chr6	144907162	144908376	+	UTRN	0x0
15412	chr6	145102596	145103789	+	UTRN	0x0
15413	chr6	145157023	145158214	+	UTRN	0x0
15414	chr6	145166795	145168039	+	UTRN	0x0
15415	chr6	145172141	145174418	+	UTRN	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15416	chr6	146205560	146206696	-	SHPRH	0x1
15417	chr6	146262296	146263496	-	SHPRH	0x1
15418	chr6	147706805	147708035	+	STXBP5	0x0
15419	chr6	148788808	148789937	+	SASH1	0x1
15420	chr6	148869386	148870635	+	SASH1	0x1
15421	chr6	148870818	148872304	+	SASH1	0x1
15422	chr6	149109414	149110554	+	UST	0x0
15423	chr6	149730510	149732988	+	TAB2	0x0
15424	chr6	150066554	150067701	-	NUP43	0x0
15425	chr6	150139602	150141593	-	LRP11	0x0
15426	chr6	150201460	150202661	+	LOC100652739	0x0
15427	chr6	151208462	151209607	+	MTHFD1L	0x0
15428	chr6	151336120	151337315	+	MTHFD1L	0x0
15429	chr6	151388485	151389700	+	MTHFD1L	0x0
15430	chr6	151422230	151423434	+	MTHFD1L	0x0
15431	chr6	151671361	151673133	+	AKAP12	0x1
15432	chr6	151673785	151674823	+	AKAP12	0x1
15433	chr6	151676324	151678367	+	AKAP12	0x1
15434	chr6	151789799	151791494	+	C6orf211	0x0
15435	chr6	153292931	153294686	+	VIP	0x0
15436	chr6	153295896	153297083	+	VIP	0x0
15437	chr6	153603040	153604147	-	RGS17	0x0
15438	chr6	155153905	155155085	+	SCAF8	0x0
15439	chr6	155159705	155160866	+	SCAF8	0x0
15440	chr6	155253333	155254504	+	SCAF8	0x0
15441	chr6	155577374	155578601	-	TFB1M	0x0
15442	chr6	157288526	157289690	+	ARID1B	0x2
15443	chr6	157510720	157511878	+	ARID1B	0x2
15444	chr6	157524346	157525618	+	ARID1B	0x2
15445	chr6	157528977	157530145	+	ARID1B	0x2
15446	chr6	158234727	158235963	-	SERAC1	0x0
15447	chr6	158519109	158520397	-	SERAC1	0x0
15448	chr6	158732941	158734952	+	TULP4	0x0
15449	chr6	158829539	158830702	+	TULP4	0x0
15450	chr6	158924638	158925743	+	TULP4	0x0
15451	chr6	158931553	158932757	+	TULP4	0x0
15452	chr6	159010042	159011261	+	TMEM181	0x0
15453	chr6	159053907	159056010	+	TMEM181	0x0
15454	chr6	159186811	159187910	-	EZR	0x2
15455	chr6	159455582	159456814	-	TAGAP	0x0
15456	chr6	160175819	160177809	+	WTAP	0x0
15457	chr6	160199717	160200859	+	ACAT2	0x0
15458	chr6	160200152	160202090	-	SNORA20	0x0
15459	chr6	160200152	160202090	-	TCP1	0x0
15460	chr6	160208274	160209358	-	TCP1	0x0
15461	chr6	160431131	160432319	+	IGF2R	0x5

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15462	chr6	160445097	160446351	+	IGF2R	0x5
15463	chr6	160465032	160466177	+	IGF2R	0x5
15464	chr6	160467064	160468222	+	IGF2R	0x5
15465	chr6	160484936	160486441	+	IGF2R	0x5
15466	chr6	160494259	160495441	+	IGF2R	0x5
15467	chr6	160500655	160501783	+	IGF2R	0x5
15468	chr6	160516200	160517408	+	LOC729603	0x0
15469	chr6	160525553	160527913	+	IGF2R	0x5
15470	chr6	161454796	161456006	+	MAP3K4	0x2
15471	chr6	161470220	161471452	+	MAP3K4	0x2
15472	chr6	161537567	161538745	+	MAP3K4	0x2
15473	chr6	163577675	163578843	+	PACRG	0x1
15474	chr6	163834295	163835494	-	CAHM	0x0
15475	chr6	163875789	163877017	+	QKI	0x0
15476	chr6	163991619	163992684	+	QKI	0x0
15477	chr6	163992895	163995320	+	QKI	0x0
15478	chr6	163995439	163996510	+	QKI	0x0
15479	chr6	167453868	167455112	+	FGFR1OP	0x2
15480	chr6	168291034	168292259	+	MLLT4	0x2
15481	chr6	168315413	168316585	+	MLLT4	0x2
15482	chr6	168318870	168320063	+	MLLT4	0x2
15483	chr6	168343506	168344697	+	MLLT4	0x2
15484	chr6	168370806	168373052	+	MLLT4	0x2
15485	chr6	170117354	170118503	-	PHF10	0x0
15486	chr6	170197082	170198367	+	LINC00574	0x0
15487	chr6	170843863	170845057	-	PSMB1	0x0
15488	chr6	170861693	170862907	-	PSMB1	0x0
15489	chr7	537478	538652	-	PDGFA	0x0
15490	chr7	793861	794968	+	HEATR2	0x0
15491	chr7	809608	810885	+	HEATR2	0x0
15492	chr7	882479	883687	+	SUN1	0x0
15493	chr7	912658	914976	+	SUN1	0x0
15494	chr7	926498	927640	+	GET4	0x0
15495	chr7	930064	931215	+	GET4	0x0
15496	chr7	1518726	1519904	-	INTS1	0x0
15497	chr7	1538074	1539266	-	INTS1	0x0
15498	chr7	2116323	2117479	-	MAD1L1	0x1
15499	chr7	2296383	2297602	-	SNX8	0x0
15500	chr7	2399817	2400998	+	EIF3B	0x0
15501	chr7	2401856	2403019	+	EIF3B	0x0
15502	chr7	2419478	2420759	+	EIF3B	0x0
15503	chr7	2577638	2579449	-	BRAT1	0x0
15504	chr7	2702141	2703270	+	TTYH3	0x0
15505	chr7	2703663	2704743	+	TTYH3	0x0
15506	chr7	2767873	2771732	-	GNA12	0x0
15507	chr7	3500995	3502216	+	SDK1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15508	chr7	3769511	3770695	+	SDK1	0x0
15509	chr7	5253719	5254850	+	WIPI2	0x0
15510	chr7	5342924	5344196	+	SLC29A4	0x0
15511	chr7	5416525	5417713	-	TNRC18	0x0
15512	chr7	5518521	5519654	-	FBXL18	0x0
15513	chr7	5520329	5521565	-	FBXL18	0x0
15514	chr7	5567220	5569467	-	ACTB	0x2
15515	chr7	5644796	5645898	+	FSCN1	0x0
15516	chr7	5718577	5719784	-	RNF216	0x0
15517	chr7	5964728	5965979	+	CCZ1	0x0
15518	chr7	6026242	6027598	-	PMS2	0x1
15519	chr7	6062115	6063214	-	EIF2AK1	0x0
15520	chr7	6203439	6204553	-	CYTH3	0x0
15521	chr7	6441512	6444065	+	RAC1	0x0
15522	chr7	6501464	6502727	-	KDELR2	0x0
15523	chr7	6504658	6505823	-	KDELR2	0x0
15524	chr7	6624188	6625437	+	ZDHHC4	0x0
15525	chr7	7273572	7274679	+	C1GALT1	0x0
15526	chr7	7277366	7278830	+	C1GALT1	0x0
15527	chr7	7285601	7288416	+	C1GALT1	0x0
15528	chr7	7622266	7623430	+	MIOS	0x0
15529	chr7	7646305	7647512	+	MIOS	0x0
15530	chr7	7917127	7918447	+	LOC729852	0x0
15531	chr7	7959412	7960524	+	LOC729852	0x0
15532	chr7	9655019	9656211	+	PER4	0x0
15533	chr7	10490500	10493188	+	PHF14	0x0
15534	chr7	10972557	10973849	-	NDUFA4	0x0
15535	chr7	11101853	11103012	+	PHF14	0x0
15536	chr7	11244908	11246086	-	THSD7A	0x0
15537	chr7	12275082	12276411	+	TMEM106B	0x0
15538	chr7	13931978	13933143	-	ETV1	0x2
15539	chr7	13933237	13934688	-	ETV1	0x2
15540	chr7	13939866	13946610	-	ETV1	0x2
15541	chr7	16638867	16640535	-	ANKMY2	0x0
15542	chr7	16713579	16714761	+	BZW2	0x0
15543	chr7	16733934	16735115	+	BZW2	0x0
15544	chr7	16745365	16746653	+	BZW2	0x0
15545	chr7	16823176	16824393	+	TSPAN13	0x0
15546	chr7	17829926	17831042	-	SNX13	0x0
15547	chr7	17832409	17833547	-	SNX13	0x0
15548	chr7	19736140	19737881	-	TWISTNB	0x0
15549	chr7	19748007	19749143	-	TWISTNB	0x0
15550	chr7	22158049	22159170	-	RAPGEF5	0x0
15551	chr7	22235332	22236503	-	RAPGEF5	0x0
15552	chr7	22395384	22396539	-	RAPGEF5	0x0
15553	chr7	22549671	22552022	-	STEAP1B	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15554	chr7	22980597	22983076	-	FAM126A	0x0
15555	chr7	22983298	22984539	-	FAM126A	0x0
15556	chr7	22984556	22985790	-	FAM126A	0x0
15557	chr7	23016439	23017543	-	FAM126A	0x0
15558	chr7	23338600	23339838	+	MALSU1	0x0
15559	chr7	23339888	23341142	+	MALSU1	0x0
15560	chr7	23349417	23352063	-	IGF2BP3	0x0
15561	chr7	23356726	23357909	-	IGF2BP3	0x0
15562	chr7	23382762	23384021	-	IGF2BP3	0x0
15563	chr7	23569246	23572157	-	TRA2A	0x0
15564	chr7	24629234	24630421	+	MPP6	0x0
15565	chr7	24728296	24729547	+	MPP6	0x0
15566	chr7	24729653	24730794	+	MPP6	0x0
15567	chr7	25560684	25561814	+	NFE2L3	0x2
15568	chr7	26229428	26233447	-	HNRNPA2B1	0x2
15569	chr7	26236042	26237471	-	HNRNPA2B1	0x2
15570	chr7	26412029	26413276	+	SNX10	0x0
15571	chr7	26708335	26709559	-	SKAP2	0x0
15572	chr7	27235666	27236847	-	HOXA13	0x2
15573	chr7	27564941	27566155	-	HIBADH	0x0
15574	chr7	27570307	27571512	-	HIBADH	0x0
15575	chr7	27577367	27578573	-	HIBADH	0x0
15576	chr7	27668466	27669669	-	HIBADH	0x0
15577	chr7	27670967	27672093	-	HIBADH	0x0
15578	chr7	27688596	27689768	-	HIBADH	0x0
15579	chr7	27842172	27843272	+	TAX1BP1	0x0
15580	chr7	27868100	27869277	+	TAX1BP1	0x0
15581	chr7	27871939	27873136	+	TAX1BP1	0x0
15582	chr7	28114402	28115512	-	JAZF1	0x2
15583	chr7	28962576	28963756	-	TRIL	0x0
15584	chr7	29025919	29027066	+	LOC100506497	0x0
15585	chr7	29960518	29961712	-	SCRN1	0x0
15586	chr7	30120677	30121738	+	PLEKHA8	0x2
15587	chr7	30122209	30124387	+	PLEKHA8	0x2
15588	chr7	30199449	30200661	+	C7orf41	0x0
15589	chr7	30356027	30357304	+	ZNRF2	0x0
15590	chr7	30394763	30395934	+	ZNRF2	0x0
15591	chr7	30405183	30407922	+	ZNRF2	0x0
15592	chr7	30408610	30410313	+	DKFZP586I1420	0x0
15593	chr7	30637852	30639081	+	GARS	0x2
15594	chr7	30648647	30649858	+	GARS	0x2
15595	chr7	30655029	30656229	+	GARS	0x2
15596	chr7	30661446	30662565	+	GARS	0x2
15597	chr7	30670566	30671622	+	GARS	0x2
15598	chr7	30672885	30674043	+	GARS	0x2
15599	chr7	32624968	32627244	+	AVL9	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15600	chr7	32907523	32908959	-	KBTBD2	0x0
15601	chr7	32918817	32920008	-	KBTBD2	0x0
15602	chr7	33015489	33016641	+	FKBP9	0x0
15603	chr7	33019565	33020722	+	FKBP9	0x0
15604	chr7	33027576	33028690	+	FKBP9	0x0
15605	chr7	33044292	33046977	+	FKBP9	0x0
15606	chr7	33052630	33053787	+	FKBP9	0x0
15607	chr7	33053522	33054720	-	NT5C3	0x0
15608	chr7	33194735	33195941	+	BBS9	0x0
15609	chr7	33318874	33320016	+	BBS9	0x0
15610	chr7	33427077	33428244	+	BBS9	0x0
15611	chr7	34789313	34790456	-	AAA1	0x0
15612	chr7	34968037	34969995	-	DPY19L1	0x0
15613	chr7	34970111	34971455	-	DPY19L1	0x0
15614	chr7	35050337	35051557	-	DPY19L1	0x0
15615	chr7	35052681	35053880	-	DPY19L1	0x0
15616	chr7	35056963	35058192	-	DPY19L1	0x0
15617	chr7	35943723	35945278	+	SEPT7	0x0
15618	chr7	36435353	36436523	+	ANLN	0x0
15619	chr7	36438154	36439318	+	ANLN	0x0
15620	chr7	36454012	36455176	+	ANLN	0x0
15621	chr7	36491942	36493750	+	ANLN	0x0
15622	chr7	36637317	36638419	-	AOAH	0x0
15623	chr7	36982995	36984163	-	MIR1200	0x0
15624	chr7	37005187	37006313	-	ELMO1	0x2
15625	chr7	37051032	37052291	-	ELMO1	0x2
15626	chr7	37127298	37128402	-	ELMO1	0x2
15627	chr7	37258084	37259441	-	ELMO1	0x2
15628	chr7	37990641	37991740	+	EPDR1	0x0
15629	chr7	38268993	38270235	+	STARD3NL	0x0
15630	chr7	38422926	38424280	-	AMPH	0x2
15631	chr7	38764838	38766163	-	VPS41	0x0
15632	chr7	38813033	38814140	-	VPS41	0x0
15633	chr7	39614217	39615405	+	YAE1D1	0x0
15634	chr7	39746036	39747909	+	RALA	0x0
15635	chr7	40026808	40027921	+	CDK13	0x0
15636	chr7	40134357	40136146	+	CDK13	0x0
15637	chr7	42000091	42001305	-	GLI3	0x6
15638	chr7	42001463	42002970	-	GLI3	0x6
15639	chr7	42274456	42275553	-	GLI3	0x6
15640	chr7	42276022	42277199	-	GLI3	0x6
15641	chr7	43988039	43989200	+	UBE2D4	0x0
15642	chr7	43989587	43990731	+	UBE2D4	0x0
15643	chr7	44104271	44105485	-	PGAM2	0x0
15644	chr7	44115584	44116829	-	POLM	0x0
15645	chr7	44252042	44254203	+	YKT6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15646	chr7	44257364	44259372	-	CAMK2B	0x0
15647	chr7	44422966	44424159	-	NUDCD3	0x0
15648	chr7	44424348	44425497	-	NUDCD3	0x0
15649	chr7	44506954	44508403	+	OGDH	0x0
15650	chr7	44512568	44513764	-	NUDCD3	0x0
15651	chr7	44524261	44525365	-	NUDCD3	0x0
15652	chr7	44525635	44526800	-	NUDCD3	0x0
15653	chr7	44686690	44687919	+	OGDH	0x0
15654	chr7	44747273	44749063	+	OGDH	0x0
15655	chr7	44801970	44803063	+	ZMIZ2	0x0
15656	chr7	44807043	44808984	+	ZMIZ2	0x0
15657	chr7	44873370	44874662	-	H2AFV	0x0
15658	chr7	44915526	44918366	-	PURB	0x0
15659	chr7	44920430	44921532	-	MIR4657	0x0
15660	chr7	44920430	44921532	-	PURB	0x0
15661	chr7	44922170	44923269	-	PURB	0x0
15662	chr7	45103597	45104760	+	CCM2	0x0
15663	chr7	45138534	45139753	-	TBRG4	0x0
15664	chr7	45141062	45142111	-	TBRG4	0x0
15665	chr7	45687751	45689033	+	ADCY1	0x2
15666	chr7	45701138	45702321	+	ADCY1	0x2
15667	chr7	45755133	45756997	+	ADCY1	0x2
15668	chr7	47314634	47317186	-	TNS3	0x0
15669	chr7	47342234	47343446	-	TNS3	0x0
15670	chr7	47383717	47384950	-	TNS3	0x0
15671	chr7	47385249	47386452	-	TNS3	0x0
15672	chr7	47407492	47409609	-	TNS3	0x0
15673	chr7	47435852	47437090	-	TNS3	0x0
15674	chr7	47439441	47440594	-	TNS3	0x0
15675	chr7	47474371	47475543	-	TNS3	0x0
15676	chr7	47515846	47517099	-	TNS3	0x0
15677	chr7	47995042	47996269	-	HUS1	0x0
15678	chr7	48001480	48003228	-	HUS1	0x0
15679	chr7	48129273	48130544	+	UPP1	0x0
15680	chr7	48146058	48147157	+	UPP1	0x0
15681	chr7	48147287	48148584	+	UPP1	0x0
15682	chr7	50513253	50514632	-	FIGNL1	0x2
15683	chr7	50532237	50533347	-	DDC	0x4
15684	chr7	50657890	50660494	-	GRB10	0x6
15685	chr7	50851375	50852507	-	GRB10	0x6
15686	chr7	51084061	51085551	-	COBL	0x0
15687	chr7	51096129	51097266	-	COBL	0x0
15688	chr7	51258187	51259363	-	COBL	0x0
15689	chr7	51260640	51261848	-	COBL	0x0
15690	chr7	55499006	55500299	+	LANCL2	0x0
15691	chr7	56067089	56068283	+	GBAS	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15692	chr7	56125826	56126932	+	CCT6A	0x0
15693	chr7	56357219	56358318	+	DKFZp434L192	0x0
15694	chr7	64436815	64438031	-	ZNF117	0x0
15695	chr7	64438857	64442967	-	ZNF117	0x0
15696	chr7	65419358	65422474	+	VKORC1L1	0x0
15697	chr7	65534780	65535952	-	GUSB	0x0
15698	chr7	65586336	65588038	+	CRCP	0x0
15699	chr7	65705164	65706538	+	TPST1	0x0
15700	chr7	65824737	65825958	+	TPST1	0x0
15701	chr7	66273941	66275195	+	RABGEF1	0x0
15702	chr7	66420364	66421468	+	C7orf42	0x0
15703	chr7	66421853	66423280	+	C7orf42	0x0
15704	chr7	69099231	69100429	+	AUTS2	0x0
15705	chr7	69142885	69144102	+	AUTS2	0x0
15706	chr7	69159281	69160421	+	AUTS2	0x0
15707	chr7	69838024	69839184	+	AUTS2	0x0
15708	chr7	72417018	72418256	+	POM121	0x0
15709	chr7	72715428	72717716	+	FKBP6	0x0
15710	chr7	72855391	72856478	-	BAZ1B	0x0
15711	chr7	73245522	73246652	+	CLDN4	0x0
15712	chr7	73529664	73530890	+	LIMK1	0x0
15713	chr7	73603444	73604736	+	EIF4H	0x0
15714	chr7	73609639	73611907	+	EIF4H	0x0
15715	chr7	73943532	73944715	+	GTF2IRD1	0x0
15716	chr7	74173478	74174682	+	GTF2I	0x0
15717	chr7	75071378	75072541	-	POM121C	0x0
15718	chr7	75165224	75166427	-	HIP1	0x2
15719	chr7	75614717	75616475	+	POR	0x0
15720	chr7	75695180	75696432	+	MDH2	0x0
15721	chr7	75932896	75933994	+	HSPB1	0x0
15722	chr7	75956069	75959184	-	YWHAG	0x0
15723	chr7	76712675	76713809	-	FGL2	0x0
15724	chr7	76742166	76743328	-	FGL2	0x0
15725	chr7	77239645	77240866	+	PTPN12	0x1
15726	chr7	77408202	77410638	+	RSBN1L	0x0
15727	chr7	77411267	77412478	+	RSBN1L	0x0
15728	chr7	77549098	77550323	+	PHTF2	0x0
15729	chr7	77566476	77567652	+	PHTF2	0x0
15730	chr7	77584056	77586981	+	PHTF2	0x0
15731	chr7	86798958	86800159	+	DMTF1	0x1
15732	chr7	86808341	86809518	+	DMTF1	0x1
15733	chr7	86825305	86826453	-	C7orf23	0x0
15734	chr7	87160113	87161318	-	ABCB1	0x0
15735	chr7	87178787	87179988	-	ABCB1	0x0
15736	chr7	87460772	87461889	+	RUNDC3B	0x0
15737	chr7	87513816	87515014	+	DBF4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15738	chr7	87536621	87538039	+	DBF4	0x0
15739	chr7	87791787	87792968	+	ADAM22	0x2
15740	chr7	87827230	87828427	+	ADAM22	0x2
15741	chr7	87829343	87830916	+	ADAM22	0x2
15742	chr7	90006412	90012886	+	GTPBP10	0x0
15743	chr7	90043241	90045559	+	CLDN12	0x0
15744	chr7	90297960	90299204	+	CDK14	0x0
15745	chr7	91631734	91632954	+	AKAP9	0x2
15746	chr7	91674626	91676166	+	AKAP9	0x2
15747	chr7	91721982	91723128	+	AKAP9	0x2
15748	chr7	91741938	91743453	-	CYP51A1	0x0
15749	chr7	91936239	91937373	+	ANKIB1	0x0
15750	chr7	92028069	92030263	+	ANKIB1	0x0
15751	chr7	92028337	92029434	-	PEX1	0x0
15752	chr7	92118351	92119473	+	GATAD1	0x0
15753	chr7	92190232	92191390	-	FAM133B	0x0
15754	chr7	92190232	92191390	-	LOC728066	0x0
15755	chr7	92205943	92207056	-	FAM133B	0x0
15756	chr7	92205943	92207056	-	LOC728066	0x0
15757	chr7	92901375	92902561	+	CCDC132	0x0
15758	chr7	93622536	93624033	-	BET1	0x0
15759	chr7	94184894	94186070	+	CASD1	0x0
15760	chr7	94295195	94298778	+	PEG10	0x4
15761	chr7	94566425	94567571	+	PPP1R9A	0x6
15762	chr7	94632126	94633579	+	PPP1R9A	0x6
15763	chr7	94849603	94850789	+	PPP1R9A	0x6
15764	chr7	94854764	94855930	+	PPP1R9A	0x6
15765	chr7	94921639	94923315	+	PPP1R9A	0x6
15766	chr7	94923965	94925952	+	PPP1R9A	0x6
15767	chr7	95749035	95751797	-	SLC25A13	0x0
15768	chr7	95775377	95776548	-	SLC25A13	0x0
15769	chr7	95813075	95814912	-	SLC25A13	0x0
15770	chr7	95819861	95821072	-	SLC25A13	0x0
15771	chr7	95821875	95823075	-	SLC25A13	0x0
15772	chr7	95863598	95864795	-	SLC25A13	0x0
15773	chr7	96323599	96324745	-	SHFM1	0x0
15774	chr7	97480961	97482307	-	ASNS	0x0
15775	chr7	97484201	97485294	-	ASNS	0x0
15776	chr7	97488060	97489191	-	ASNS	0x0
15777	chr7	97493090	97494235	-	ASNS	0x0
15778	chr7	97497828	97499077	-	ASNS	0x0
15779	chr7	97500474	97502309	-	ASNS	0x0
15780	chr7	97822244	97823612	+	LMTK2	0x0
15781	chr7	97835028	97839197	+	LMTK2	0x0
15782	chr7	97913609	97914747	+	BRI3	0x0
15783	chr7	98248358	98249552	+	NPTX2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15784	chr7	98478794	98480021	+	MIR3609	0x0
15785	chr7	98478794	98480021	+	TRRAP	0x2
15786	chr7	98527172	98528314	+	TRRAP	0x2
15787	chr7	98609617	98610937	+	TRRAP	0x2
15788	chr7	98941390	98942597	+	ARPC1A	0x2
15789	chr7	98951048	98952186	+	ARPC1A	0x2
15790	chr7	98956651	98957801	+	ARPC1A	0x2
15791	chr7	98986753	98988046	-	PDAP1	0x0
15792	chr7	98989889	98991112	+	ARPC1B	0x0
15793	chr7	98993661	98994892	-	PDAP1	0x0
15794	chr7	99001460	99002628	-	PDAP1	0x0
15795	chr7	99008194	99009325	+	BUD31	0x0
15796	chr7	99053972	99055178	+	CPSF4	0x0
15797	chr7	99055187	99056462	-	ATP5J2	0x0
15798	chr7	99171860	99173122	+	ZNF655	0x0
15799	chr7	99633553	99635369	+	ZKSCAN1	0x0
15800	chr7	99667412	99668644	-	ZNF3	0x0
15801	chr7	99688781	99690002	+	COPS6	0x0
15802	chr7	99690128	99697917	-	MCM7	0x0
15803	chr7	99690128	99697917	-	MIR106B	0x0
15804	chr7	99690128	99697917	-	MIR25	0x0
15805	chr7	99690128	99697917	-	MIR93	0x0
15806	chr7	99699832	99700992	+	AP4M1	0x0
15807	chr7	100030884	100032030	+	MEPCE	0x0
15808	chr7	100032324	100033553	-	PPP1R35	0x0
15809	chr7	100212205	100213400	+	MOSPD3	0x0
15810	chr7	100275869	100277178	+	GNB2	0x0
15811	chr7	100279734	100280908	-	GIGYF1	0x0
15812	chr7	100288942	100290159	-	GIGYF1	0x0
15813	chr7	100481576	100482795	+	SRRT	0x0
15814	chr7	100483925	100485115	+	SRRT	0x0
15815	chr7	100733827	100734994	+	TRIM56	0x0
15816	chr7	100909022	100910140	-	FIS1	0x0
15817	chr7	101468680	101469842	+	CUX1	0x2
15818	chr7	101773537	101775035	+	CUX1	0x2
15819	chr7	101926200	101927493	+	CUX1	0x2
15820	chr7	102715212	102716367	+	ARMC10	0x1
15821	chr7	102739554	102740723	+	ARMC10	0x1
15822	chr7	102781634	102782853	-	RPL19P12	0x0
15823	chr7	102938512	102939680	+	PMPCB	0x0
15824	chr7	102952003	102953102	+	PMPCB	0x0
15825	chr7	103766378	103767575	-	ORC5	0x0
15826	chr7	104655814	104656967	+	MLL5	0x0
15827	chr7	104752964	104754568	+	MLL5	0x0
15828	chr7	105097133	105098423	-	PUS7	0x0
15829	chr7	105728375	105729478	-	SYPL1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15830	chr7	105730950	105732180	-	SYPL1	0x0
15831	chr7	105890204	105891473	-	NAMPT	0x0
15832	chr7	106840207	106841766	-	COG5	0x0
15833	chr7	106841384	106843395	+	HBP1	0x1
15834	chr7	106841953	106843084	-	COG5	0x0
15835	chr7	107258818	107260033	+	BCAP29	0x0
15836	chr7	107399965	107401095	+	CBLL1	0x0
15837	chr7	107559417	107560693	+	DLD	0x0
15838	chr7	107626160	107627295	-	LAMB1	0x0
15839	chr7	107694710	107695860	+	DLD	0x0
15840	chr7	108111626	108112854	-	PNPLA8	0x0
15841	chr7	108154440	108155638	-	PNPLA8	0x0
15842	chr7	110689393	110690513	-	IMMP2L	0x0
15843	chr7	111018000	111019160	-	IMMP2L	0x0
15844	chr7	112098385	112099551	+	IFRD1	0x0
15845	chr7	112405634	112407620	-	TMEM168	0x0
15846	chr7	112461390	112462495	-	C7orf60	0x0
15847	chr7	114656519	114658292	+	MDFIC	0x0
15848	chr7	115328358	115329507	+	TES	0x1
15849	chr7	115888592	115889742	+	TES	0x1
15850	chr7	115898035	115899246	+	TES	0x1
15851	chr7	116557489	116559682	+	CAPZA2	0x0
15852	chr7	117831764	117832913	+	NAA38	0x0
15853	chr7	120604254	120605473	+	ING3	0x1
15854	chr7	120988596	120990722	-	FAM3C	0x0
15855	chr7	121010821	121011999	-	FAM3C	0x0
15856	chr7	123321947	123324471	-	WASL	0x0
15857	chr7	127014309	127015495	-	ZNF800	0x0
15858	chr7	127220583	127221817	-	GCC1	0x0
15859	chr7	127342742	127343902	+	SND1	0x0
15860	chr7	127360765	127361959	+	SND1	0x0
15861	chr7	127370763	127371925	+	SND1	0x0
15862	chr7	127382886	127384050	+	SND1	0x0
15863	chr7	127461714	127462840	+	SND1	0x0
15864	chr7	127480228	127481361	+	SND1	0x0
15865	chr7	127578062	127579237	+	SND1	0x0
15866	chr7	127651825	127653089	+	SND1-IT1	0x0
15867	chr7	127655275	127656836	+	SND1-IT1	0x0
15868	chr7	127666104	127667347	+	SND1-IT1	0x0
15869	chr7	127674766	127675956	+	SND1-IT1	0x0
15870	chr7	127716632	127717875	+	SND1	0x0
15871	chr7	127720865	127722123	+	MIR593	0x0
15872	chr7	127720865	127722123	+	SND1	0x0
15873	chr7	127729139	127730274	+	SND1	0x0
15874	chr7	127948213	127950393	-	RBM28	0x0
15875	chr7	128040195	128041336	-	IMPDH1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15876	chr7	128398391	128399584	+	CALU	0x0
15877	chr7	128408881	128411908	+	CALU	0x0
15878	chr7	128457629	128458830	+	CCDC136	0x1
15879	chr7	128587174	128588382	-	TNPO3	0x0
15880	chr7	128594098	128595818	-	TNPO3	0x0
15881	chr7	128597537	128598645	-	TNPO3	0x0
15882	chr7	128606664	128607836	-	TNPO3	0x0
15883	chr7	128609741	128612788	-	TNPO3	0x0
15884	chr7	128619346	128620639	-	TNPO3	0x0
15885	chr7	128640541	128641755	-	TNPO3	0x0
15886	chr7	128644490	128645724	-	TNPO3	0x0
15887	chr7	128844557	128845748	+	SMO	0x1
15888	chr7	128852493	128853669	+	SMO	0x1
15889	chr7	129066522	129067685	+	AHCYL2	0x0
15890	chr7	129068153	129070215	+	AHCYL2	0x0
15891	chr7	129257426	129258595	+	NRF1	0x0
15892	chr7	129329963	129331162	+	NRF1	0x0
15893	chr7	129349720	129350881	+	NRF1	0x0
15894	chr7	129470620	129473319	-	UBE2H	0x0
15895	chr7	129473435	129474560	-	UBE2H	0x0
15896	chr7	129657807	129659045	-	ZC3HC1	0x0
15897	chr7	129770895	129772076	+	KLHDC10	0x0
15898	chr7	129772258	129774930	+	KLHDC10	0x0
15899	chr7	129805070	129806801	-	TMEM209	0x0
15900	chr7	130037090	130038385	-	CEP41	0x0
15901	chr7	130038804	130040322	-	CEP41	0x0
15902	chr7	130136427	130137533	+	MEST	0x4
15903	chr7	130145135	130146496	+	MEST	0x4
15904	chr7	131012403	131013649	+	MKLN1	0x0
15905	chr7	131155101	131156298	+	MKLN1	0x0
15906	chr7	131172258	131173538	+	MKLN1	0x0
15907	chr7	131177402	131178662	+	MKLN1	0x0
15908	chr7	131184710	131188394	-	PODXL	0x0
15909	chr7	131999282	132000465	+	FLJ40288	0x0
15910	chr7	132469226	132470704	-	CHCHD3	0x0
15911	chr7	132564108	132565636	-	CHCHD3	0x0
15912	chr7	132657276	132658546	-	CHCHD3	0x0
15913	chr7	132718943	132720649	-	CHCHD3	0x0
15914	chr7	133040550	133041809	+	EXOC4	0x2
15915	chr7	133159548	133160707	+	EXOC4	0x2
15916	chr7	133185974	133187131	+	EXOC4	0x2
15917	chr7	133237675	133238754	+	EXOC4	0x2
15918	chr7	133282634	133283767	+	EXOC4	0x2
15919	chr7	133354280	133355479	+	EXOC4	0x2
15920	chr7	133380053	133381180	+	EXOC4	0x2
15921	chr7	133403223	133404720	+	EXOC4	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15922	chr7	133501414	133502674	+	EXOC4	0x2
15923	chr7	133712573	133713731	+	EXOC4	0x2
15924	chr7	133749208	133750251	+	EXOC4	0x2
15925	chr7	133900631	133901823	+	LRGUK	0x0
15926	chr7	134131741	134132883	-	AKR1B1	0x1
15927	chr7	134652803	134653979	+	CALD1	0x0
15928	chr7	134654580	134655772	+	CALD1	0x0
15929	chr7	135046464	135047816	-	CNOT4	0x0
15930	chr7	135050700	135051801	-	CNOT4	0x0
15931	chr7	135056559	135057755	-	CNOT4	0x0
15932	chr7	135097731	135098852	-	CNOT4	0x0
15933	chr7	135262993	135264167	+	NUP205	0x0
15934	chr7	135290378	135291477	+	NUP205	0x0
15935	chr7	135303836	135305017	+	NUP205	0x0
15936	chr7	135307064	135308103	+	NUP205	0x0
15937	chr7	135309414	135310631	+	NUP205	0x0
15938	chr7	135319763	135320943	+	NUP205	0x0
15939	chr7	135327519	135328641	+	NUP205	0x0
15940	chr7	135332725	135334102	+	NUP205	0x0
15941	chr7	135358651	135359825	+	C7orf73	0x0
15942	chr7	135612869	135614510	-	LUZP6	0x0
15943	chr7	135612869	135614510	-	MTPN	0x0
15944	chr7	137342697	137343879	-	DGKI	0x0
15945	chr7	137459112	137460330	-	DGKI	0x0
15946	chr7	137559828	137561134	-	CREB3L2	0x2
15947	chr7	137563100	137564251	-	CREB3L2	0x2
15948	chr7	138264764	138265904	+	TRIM24	0x1
15949	chr7	138269406	138270613	+	TRIM24	0x1
15950	chr7	138390620	138391764	-	ATP6V0A4	0x0
15951	chr7	138515927	138517193	-	KIAA1549	0x0
15952	chr7	138521029	138522724	-	KIAA1549	0x0
15953	chr7	138596570	138597763	-	KIAA1549	0x0
15954	chr7	138705761	138706852	-	ZC3HAV1L	0x0
15955	chr7	138709820	138710982	-	ZC3HAV1L	0x0
15956	chr7	138728038	138730263	-	ZC3HAV1	0x0
15957	chr7	138763762	138764905	-	ZC3HAV1	0x0
15958	chr7	138793424	138794588	-	ZC3HAV1	0x0
15959	chr7	138875764	138876884	+	TTC26	0x0
15960	chr7	138945798	138946964	+	UBN2	0x0
15961	chr7	138967519	138968795	+	UBN2	0x0
15962	chr7	138985680	138986782	+	UBN2	0x0
15963	chr7	138990224	138992663	+	UBN2	0x0
15964	chr7	139025666	139026795	+	C7orf55	0x0
15965	chr7	139025666	139026795	+	LUC7L2	0x0
15966	chr7	139058866	139059957	+	LUC7L2	0x0
15967	chr7	139082905	139092608	+	LUC7L2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
15968	chr7	139246349	139247485	-	HIPK2	0x1
15969	chr7	139248634	139249845	-	HIPK2	0x1
15970	chr7	139251174	139253018	-	HIPK2	0x1
15971	chr7	139256984	139258112	+	CLEC2L	0x0
15972	chr7	139553340	139554597	-	HIPK2	0x1
15973	chr7	139723839	139724945	-	PARP12	0x0
15974	chr7	139784388	139786619	-	JHDM1D	0x0
15975	chr7	139787497	139790072	-	JHDM1D	0x0
15976	chr7	140015554	140016737	-	SLC37A3	0x0
15977	chr7	140030052	140031160	-	SLC37A3	0x0
15978	chr7	140033337	140035368	-	SLC37A3	0x0
15979	chr7	140152375	140154931	-	MKRN1	0x0
15980	chr7	140155657	140157193	-	MKRN1	0x0
15981	chr7	140158327	140160206	-	MKRN1	0x0
15982	chr7	140226538	140227788	-	DENND2A	0x0
15983	chr7	140246026	140247130	-	DENND2A	0x0
15984	chr7	140276558	140277662	-	DENND2A	0x0
15985	chr7	140301083	140302520	-	DENND2A	0x0
15986	chr7	140386297	140387533	+	ADCK2	0x0
15987	chr7	140404140	140405272	+	NDUFB2	0x0
15988	chr7	140420030	140421218	-	BRAF	0x2
15989	chr7	140421739	140423327	-	BRAF	0x2
15990	chr7	141295935	141297196	+	AGK	0x0
15991	chr7	141299613	141300731	+	AGK	0x0
15992	chr7	141356518	141357883	-	KIAA1147	0x0
15993	chr7	141360724	141361994	-	KIAA1147	0x0
15994	chr7	143021671	143022874	+	CLCN1	0x0
15995	chr7	143053404	143054519	+	CLCN1	0x0
15996	chr7	144149406	144150775	-	TPK1	0x0
15997	chr7	148112952	148114129	+	CNTNAP2	0x1
15998	chr7	148426595	148427810	+	CUL1	0x1
15999	chr7	148450604	148451726	+	CUL1	0x1
16000	chr7	148514493	148515657	+	CUL1	0x1
16001	chr7	148543727	148544886	-	EZH2	0x2
16002	chr7	148702485	148703660	-	PDIA4	0x2
16003	chr7	148711488	148712665	-	PDIA4	0x2
16004	chr7	148767925	148769124	-	ZNF786	0x2
16005	chr7	149119749	149120879	-	ZNF777	0x0
16006	chr7	149152156	149153326	-	ZNF777	0x0
16007	chr7	149169843	149171002	-	ZNF746	0x0
16008	chr7	149187033	149188231	+	LOC155060	0x0
16009	chr7	149426678	149427848	+	KRBA1	0x0
16010	chr7	149430410	149431610	+	KRBA1	0x0
16011	chr7	149529337	149530468	+	SSPO	0x0
16012	chr7	149546601	149547842	+	ZNF862	0x0
16013	chr7	149576198	149578094	+	ATP6V0E2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16014	chr7	150641525	150642735	-	KCNH2	0x0
16015	chr7	150643464	150644586	-	KCNH2	0x0
16016	chr7	150771839	150773042	+	SLC4A2	0x4
16017	chr7	150773482	150774602	-	FASTK	0x4
16018	chr7	150775392	150776555	-	FASTK	0x4
16019	chr7	150820070	150821284	+	AGAP3	0x0
16020	chr7	150830930	150832141	+	AGAP3	0x0
16021	chr7	150838895	150840146	+	AGAP3	0x0
16022	chr7	150919066	150921648	-	ABCF2	0x0
16023	chr7	151253724	151254940	-	PRKAG2	0x0
16024	chr7	151832100	151833679	-	MLL3	0x2
16025	chr7	151845226	151846360	-	MLL3	0x2
16026	chr7	151847893	151849127	-	MLL3	0x2
16027	chr7	151852763	151853862	-	MLL3	0x2
16028	chr7	151867935	151869179	-	MLL3	0x2
16029	chr7	151918563	151919742	-	MLL3	0x2
16030	chr7	151920608	151921742	-	MLL3	0x2
16031	chr7	152160038	152161247	-	MLL3	0x2
16032	chr7	152551356	152552545	+	ACTR3B	0x0
16033	chr7	153934527	153935667	+	DPP6	0x2
16034	chr7	154766933	154768628	-	PAXIP1	0x0
16035	chr7	154784590	154785811	-	PAXIP1	0x0
16036	chr7	155092813	155093872	+	INSIG1	0x0
16037	chr7	155099549	155102392	+	INSIG1	0x0
16038	chr7	155255237	155256528	+	EN2	0x0
16039	chr7	155499067	155500230	+	RBM33	0x0
16040	chr7	155530255	155531427	+	RBM33	0x0
16041	chr7	155558596	155559809	+	RBM33	0x0
16042	chr7	155568148	155570748	+	RBM33	0x0
16043	chr7	156480049	156481334	-	LMBR1	0x0
16044	chr7	156555224	156556429	-	LMBR1	0x0
16045	chr7	156754199	156755366	+	NOM1	0x0
16046	chr7	156761260	156762409	+	NOM1	0x0
16047	chr7	157060136	157061764	+	UBE3C	0x0
16048	chr7	157178054	157179246	+	DNAJB6	0x0
16049	chr7	157332454	157333670	-	PTPRN2	0x0
16050	chr7	158448358	158449512	-	NCAPG2	0x0
16051	chr7	158523828	158525952	-	ESYT2	0x0
16052	chr7	158526098	158527252	-	ESYT2	0x0
16053	chr7	158551337	158552638	-	ESYT2	0x0
16054	chr7	158580249	158581654	-	ESYT2	0x0
16055	chr8	1950935	1952103	+	KBTBD11	0x0
16056	chr8	4644856	4646507	+	MCPH1	0x1
16057	chr8	6301899	6303006	+	MCPH1	0x1
16058	chr8	6410060	6411247	+	MCPH1	0x1
16059	chr8	6500599	6501772	+	MCPH1	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16060	chr8	6565725	6566993	+	AGPAT5	0x0
16061	chr8	6615061	6616831	+	AGPAT5	0x0
16062	chr8	6669884	6670990	-	XKR5	0x0
16063	chr8	6679748	6680963	-	XKR5	0x0
16064	chr8	8175245	8176458	-	SGK223	0x0
16065	chr8	8641656	8642821	-	MFHAS1	0x1
16066	chr8	8889344	8890456	+	ERI1	0x0
16067	chr8	8994616	8996474	-	PPP1R3B	0x0
16068	chr8	9563744	9564926	+	TNKS	0x0
16069	chr8	9635981	9637090	+	TNKS	0x0
16070	chr8	9637379	9639102	+	TNKS	0x0
16071	chr8	10748331	10749587	-	XKR6	0x0
16072	chr8	11181252	11182485	+	MTMR9	0x0
16073	chr8	11221782	11223744	+	TDH	0x0
16074	chr8	11224032	11225087	+	TDH	0x0
16075	chr8	11688587	11696454	+	FDFT1	0x0
16076	chr8	11701330	11702493	-	CTSB	0x0
16077	chr8	12579075	12580641	-	LONRF1	0x0
16078	chr8	12940428	12941574	-	DLC1	0x1
16079	chr8	12942241	12943479	-	DLC1	0x1
16080	chr8	12951757	12953012	-	DLC1	0x1
16081	chr8	12956872	12957971	-	DLC1	0x1
16082	chr8	15621557	15622685	+	TUSC3	0x1
16083	chr8	16921627	16922810	+	EFHA2	0x0
16084	chr8	16971117	16972228	+	EFHA2	0x0
16085	chr8	17077994	17080188	+	ZDHHC2	0x1
16086	chr8	17086291	17088238	-	CNOT7	0x0
16087	chr8	17137055	17138237	+	VPS37A	0x0
16088	chr8	17155676	17157289	-	MTMR7	0x0
16089	chr8	17186370	17187540	-	MTMR7	0x0
16090	chr8	17198231	17199410	-	MTMR7	0x0
16091	chr8	17228040	17229246	-	MTMR7	0x0
16092	chr8	17245687	17246883	-	MTMR7	0x0
16093	chr8	17611529	17612629	-	MTUS1	0x1
16094	chr8	17794232	17795425	+	PCM1	0x2
16095	chr8	17804255	17805430	+	PCM1	0x2
16096	chr8	17810121	17811262	+	PCM1	0x2
16097	chr8	17812481	17813580	+	PCM1	0x2
16098	chr8	17814294	17815495	+	PCM1	0x2
16099	chr8	17885108	17886207	+	PCM1	0x2
16100	chr8	17913894	17915186	-	ASAH1	0x0
16101	chr8	19689023	19690158	+	INTS10	0x0
16102	chr8	19690224	19691403	+	INTS10	0x0
16103	chr8	19699800	19700968	+	INTS10	0x0
16104	chr8	20069796	20070849	+	ATP6V1B2	0x0
16105	chr8	20077783	20079616	+	ATP6V1B2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16106	chr8	20350484	20351680	+	ATP6V1B2	0x0
16107	chr8	21766799	21768298	-	DOK2	0x1
16108	chr8	21842576	21843676	+	XPO7	0x2
16109	chr8	21862522	21864083	+	XPO7	0x2
16110	chr8	21905459	21906663	+	FGF17	0x0
16111	chr8	21939128	21940392	+	EPB49	0x0
16112	chr8	22213195	22215510	+	PIWIL2	0x0
16113	chr8	22278906	22280160	+	SLC39A14	0x0
16114	chr8	22476864	22478076	+	KIAA1967	0x0
16115	chr8	22876569	22877708	+	RHOBTB2	0x1
16116	chr8	23117649	23119849	+	CHMP7	0x0
16117	chr8	23305772	23306922	-	ENTPD4	0x0
16118	chr8	23428952	23430370	+	SLC25A37	0x0
16119	chr8	23432320	23433518	+	SLC25A37	0x0
16120	chr8	24812542	24813725	-	NEFL	0x0
16121	chr8	25269925	25271068	+	DOCK5	0x0
16122	chr8	26227372	26229183	+	PPP2R2A	0x0
16123	chr8	26268400	26270973	+	BNIP3L	0x1
16124	chr8	26362254	26364047	-	PNMA2	0x0
16125	chr8	26513311	26514416	+	DPYSL2	0x0
16126	chr8	27142023	27143606	-	TRIM35	0x1
16127	chr8	27529660	27530862	+	SCARA3	0x0
16128	chr8	27661297	27662596	+	ESCO2	0x0
16129	chr8	27727583	27728698	-	SCARA5	0x0
16130	chr8	28012335	28013542	+	ELP3	0x0
16131	chr8	28013996	28015173	+	ELP3	0x0
16132	chr8	28025896	28027115	+	ELP3	0x0
16133	chr8	28046912	28048534	+	ELP3	0x0
16134	chr8	28202805	28203947	-	ZNF395	0x0
16135	chr8	28205072	28206171	-	ZNF395	0x0
16136	chr8	28420649	28421843	+	FZD3	0x2
16137	chr8	28425570	28426625	+	FZD3	0x2
16138	chr8	28572780	28574982	+	EXTL3	0x1
16139	chr8	28575048	28576147	+	EXTL3	0x1
16140	chr8	28608916	28610634	+	EXTL3	0x1
16141	chr8	28705232	28706397	-	INTS9	0x0
16142	chr8	28910204	28911350	+	HMBOX1	0x0
16143	chr8	28914805	28915924	+	HMBOX1	0x0
16144	chr8	28920128	28921845	+	HMBOX1	0x0
16145	chr8	28924438	28925666	-	KIF13B	0x0
16146	chr8	28926625	28927737	-	KIF13B	0x0
16147	chr8	29053136	29054255	-	KIF13B	0x0
16148	chr8	29193276	29194602	-	DUSP4	0x0
16149	chr8	29920102	29921704	-	MIR548O2	0x0
16150	chr8	29920102	29921704	-	TMEM66	0x0
16151	chr8	29964824	29966012	+	LEPROTL1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16152	chr8	29974456	29975654	-	MBOAT4	0x0
16153	chr8	29988796	29990717	-	MBOAT4	0x0
16154	chr8	30403339	30404639	+	RBPMS	0x0
16155	chr8	30427795	30430218	+	RBPMS	0x0
16156	chr8	30435764	30436877	-	GTF2E2	0x0
16157	chr8	30510450	30511621	-	GTF2E2	0x0
16158	chr8	30536568	30537679	-	GSR	0x0
16159	chr8	30561891	30563046	-	GSR	0x0
16160	chr8	30642599	30644244	-	PPP2CB	0x1
16161	chr8	30650984	30652096	-	PPP2CB	0x1
16162	chr8	30867931	30869105	-	PURG	0x4
16163	chr8	33355614	33357417	+	MAK16	0x0
16164	chr8	33364127	33365204	+	MAK16	0x0
16165	chr8	37611383	37615398	+	ERLIN2	0x0
16166	chr8	37635570	37637277	+	PROSC	0x0
16167	chr8	37730923	37732180	-	RAB11FIP1	0x0
16168	chr8	37914072	37915262	+	EIF4EBP1	0x0
16169	chr8	37916916	37918407	+	EIF4EBP1	0x0
16170	chr8	37964027	37965168	+	ASH2L	0x0
16171	chr8	37985280	37986476	+	ASH2L	0x0
16172	chr8	37995962	37997689	+	ASH2L	0x0
16173	chr8	37998719	37999895	-	STAR	0x0
16174	chr8	38069595	38070824	+	BAG4	0x2
16175	chr8	38119543	38120747	+	DDHD2	0x0
16176	chr8	38129489	38130681	-	WHSC1L1	0x1
16177	chr8	38145612	38146795	-	WHSC1L1	0x1
16178	chr8	38269408	38270632	-	FGFR1	0x2
16179	chr8	38278911	38280094	-	FGFR1	0x2
16180	chr8	38704937	38707379	+	TACC1	0x0
16181	chr8	38708492	38710191	+	TACC1	0x0
16182	chr8	38827991	38829339	+	PLEKHA2	0x0
16183	chr8	38961513	38962824	+	ADAM9	0x0
16184	chr8	41119094	41122584	-	SFRP1	0x1
16185	chr8	41366646	41368877	+	GOLGA7	0x0
16186	chr8	41399779	41400980	+	GINS4	0x0
16187	chr8	41455541	41457184	+	AGPAT6	0x0
16188	chr8	41478093	41479715	+	AGPAT6	0x0
16189	chr8	41786684	41789293	-	KAT6A	0x2
16190	chr8	41826850	41827979	-	KAT6A	0x2
16191	chr8	42273570	42275546	-	SLC20A2	0x0
16192	chr8	42316907	42318070	-	SLC20A2	0x0
16193	chr8	42329203	42330445	-	SLC20A2	0x0
16194	chr8	42387159	42388299	-	SLC20A2	0x0
16195	chr8	42389638	42390743	-	SLC20A2	0x0
16196	chr8	42407208	42408477	+	C8orf40	0x0
16197	chr8	42873272	42874378	+	HOOK3	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16198	chr8	42880927	42882076	+	HOOK3	0x2
16199	chr8	42884360	42885723	+	HOOK3	0x2
16200	chr8	42925404	42926623	+	FNTA	0x0
16201	chr8	42939312	42941456	+	FNTA	0x0
16202	chr8	43047161	43048481	+	HGSNAT	0x0
16203	chr8	43051382	43052548	+	HGSNAT	0x0
16204	chr8	48104558	48105684	-	CEBPD	0x1
16205	chr8	48809215	48810427	-	PRKDC	0x0
16206	chr8	48884540	48886063	+	MCM4	0x0
16207	chr8	48974989	48976289	+	UBE2V2	0x0
16208	chr8	52731228	52733197	-	PCMTD1	0x2
16209	chr8	54958446	54959942	-	LYPLA1	0x0
16210	chr8	55059572	55060726	+	MRPL15	0x0
16211	chr8	56698644	56699772	+	TGS1	0x0
16212	chr8	56985091	56987616	-	RPS20	0x0
16213	chr8	56985091	56987616	-	SNORD54	0x0
16214	chr8	57013418	57015379	-	MOS	0x2
16215	chr8	57073552	57074709	-	PLAG1	0x2
16216	chr8	57870166	57871418	-	IMPAD1	0x0
16217	chr8	57873978	57876555	-	IMPAD1	0x0
16218	chr8	59351583	59352797	+	UBXN2B	0x0
16219	chr8	59521636	59522832	-	NSMAF	0x0
16220	chr8	61532871	61534751	+	RAB2A	0x0
16221	chr8	61762554	61763733	+	CHD7	0x2
16222	chr8	62558809	62559880	-	ASPH	0x0
16223	chr8	62596026	62597275	-	ASPH	0x0
16224	chr8	63970435	63971714	-	TTPA	0x0
16225	chr8	64099471	64100626	+	YTHDF3	0x0
16226	chr8	64122047	64123145	+	YTHDF3	0x0
16227	chr8	64123492	64125171	+	YTHDF3	0x0
16228	chr8	66514210	66516514	-	ARMC1	0x0
16229	chr8	66620801	66623122	+	MTFR1	0x0
16230	chr8	66628194	66629330	-	PDE7A	0x0
16231	chr8	66629443	66630534	-	PDE7A	0x0
16232	chr8	67478326	67479469	-	MYBL1	0x0
16233	chr8	67544704	67546101	-	VCPIP1	0x0
16234	chr8	67578014	67579287	-	VCPIP1	0x0
16235	chr8	67771440	67772541	+	C8orf44-SGK3	0x0
16236	chr8	67771440	67772541	+	SGK3	0x0
16237	chr8	68107530	68108789	+	CSPP1	0x0
16238	chr8	68109463	68111215	-	ARFGEF1	0x0
16239	chr8	68114800	68115979	-	ARFGEF1	0x0
16240	chr8	68151885	68153061	-	ARFGEF1	0x0
16241	chr8	68210955	68212064	-	ARFGEF1	0x0
16242	chr8	70570293	70571785	+	SULF1	0x0
16243	chr8	70970485	70971585	-	PRDM14	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16244	chr8	70979940	70981123	-	PRDM14	0x0
16245	chr8	70982923	70984168	-	PRDM14	0x0
16246	chr8	71023309	71026071	-	NCOA2	0x2
16247	chr8	71485153	71487574	-	TRAM1	0x0
16248	chr8	73943688	73945479	+	TERF1	0x0
16249	chr8	73956099	73957244	+	TERF1	0x0
16250	chr8	74203399	74205079	-	RPL7	0x0
16251	chr8	74705022	74706210	-	UBE2W	0x0
16252	chr8	74858308	74859502	-	TCEB1	0x0
16253	chr8	75515724	75516974	-	JPH1	0x0
16254	chr8	76289156	76290374	+	HNF4G	0x0
16255	chr8	79631263	79632436	+	ZC2HC1A	0x0
16256	chr8	80576979	80578753	+	STMN2	0x0
16257	chr8	80947393	80949919	-	TPD52	0x0
16258	chr8	81432022	81433132	+	ZBTB10	0x0
16259	chr8	81433289	81434453	+	ZBTB10	0x0
16260	chr8	81435679	81436752	+	ZBTB10	0x0
16261	chr8	81540352	81543758	-	ZNF704	0x0
16262	chr8	81544754	81545967	-	ZNF704	0x0
16263	chr8	81548665	81550814	-	ZNF704	0x0
16264	chr8	81639368	81640608	-	ZNF704	0x0
16265	chr8	81656534	81657663	-	ZNF704	0x0
16266	chr8	81733123	81734301	-	ZNF704	0x0
16267	chr8	82569835	82571659	-	IMPA1	0x0
16268	chr8	86120881	86122081	+	E2F5	0x0
16269	chr8	86193646	86195979	+	CA13	0x0
16270	chr8	86388874	86390017	+	CA2	0x0
16271	chr8	87472922	87474074	+	WWP1	0x2
16272	chr8	87479004	87480112	+	WWP1	0x2
16273	chr8	87481070	87482219	+	WWP1	0x2
16274	chr8	87570465	87571892	+	CPNE3	0x0
16275	chr8	89747341	89748758	-	MMP16	0x0
16276	chr8	91636562	91637953	-	TMEM64	0x0
16277	chr8	91643282	91644460	-	TMEM64	0x0
16278	chr8	91657413	91658580	-	TMEM64	0x0
16279	chr8	92006275	92008264	-	TMEM55A	0x0
16280	chr8	92052016	92053230	-	TMEM55A	0x0
16281	chr8	92082713	92083901	+	OTUD6B	0x0
16282	chr8	92092281	92093447	+	OTUD6B	0x0
16283	chr8	92097944	92099245	+	OTUD6B	0x0
16284	chr8	92968874	92970007	-	RUNX1T1	0x2
16285	chr8	94924996	94926316	+	PDP1	0x0
16286	chr8	94969074	94970235	-	MIR378D2	0x0
16287	chr8	95469956	95471128	-	RAD54B	0x0
16288	chr8	95522070	95523294	-	KIAA1429	0x0
16289	chr8	95803198	95804348	+	DPY19L4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16290	chr8	95892316	95894067	-	CCNE2	0x0
16291	chr8	95937946	95939476	-	TP53INP1	0x1
16292	chr8	95940019	95942024	-	TP53INP1	0x1
16293	chr8	96166535	96169183	+	PLEKHF2	0x0
16294	chr8	96258767	96259959	-	C8orf37	0x0
16295	chr8	97345454	97347142	+	PTDSS1	0x0
16296	chr8	97621542	97623971	+	SDC2	0x0
16297	chr8	98285691	98286918	-	TSPYL5	0x0
16298	chr8	98656271	98657467	+	MTDH	0x0
16299	chr8	98702694	98703952	+	MTDH	0x0
16300	chr8	98718319	98719471	+	MTDH	0x0
16301	chr8	98734643	98735808	+	MTDH	0x0
16302	chr8	98736664	98739311	+	MTDH	0x0
16303	chr8	98863759	98865335	+	LAPTM4B	0x0
16304	chr8	100154673	100155877	+	VPS13B	0x0
16305	chr8	100395838	100396992	+	VPS13B	0x0
16306	chr8	100889804	100890982	-	COX6C	0x0
16307	chr8	101270265	101271402	-	RNF19A	0x0
16308	chr8	101714629	101718358	-	PABPC1	0x2
16309	chr8	101718660	101719759	-	PABPC1	0x2
16310	chr8	101721175	101722356	-	PABPC1	0x2
16311	chr8	101724100	101725851	-	PABPC1	0x2
16312	chr8	101727232	101728365	-	PABPC1	0x2
16313	chr8	101729479	101730989	-	PABPC1	0x2
16314	chr8	101733110	101734231	-	PABPC1	0x2
16315	chr8	101930404	101932980	-	YWHAZ	0x2
16316	chr8	102209520	102211909	-	ZNF706	0x0
16317	chr8	103265590	103267179	-	UBR5	0x2
16318	chr8	103276917	103278070	-	UBR5	0x2
16319	chr8	103282849	103284022	-	UBR5	0x2
16320	chr8	103287437	103288550	-	UBR5	0x2
16321	chr8	103290550	103291982	-	UBR5	0x2
16322	chr8	103292969	103294117	-	UBR5	0x2
16323	chr8	103296970	103298378	-	UBR5	0x2
16324	chr8	103305268	103306572	-	UBR5	0x2
16325	chr8	103307310	103308501	-	UBR5	0x2
16326	chr8	103308569	103309672	-	UBR5	0x2
16327	chr8	103316869	103318061	-	UBR5	0x2
16328	chr8	103323476	103325226	-	UBR5	0x2
16329	chr8	103335029	103336164	-	UBR5	0x2
16330	chr8	103339534	103340593	-	UBR5	0x2
16331	chr8	103357124	103359126	-	UBR5	0x2
16332	chr8	103385550	103386816	-	UBR5	0x2
16333	chr8	103661026	103662539	-	KLF10	0x1
16334	chr8	103838041	103839377	-	AZIN1	0x0
16335	chr8	104324003	104325193	+	FZD6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16336	chr8	104336888	104338035	+	FZD6	0x0
16337	chr8	104410635	104411854	-	SLC25A32	0x0
16338	chr8	104780546	104781723	+	RIMS2	0x2
16339	chr8	105160459	105161591	+	RIMS2	0x2
16340	chr8	105509277	105510388	-	LRP12	0x0
16341	chr8	107695934	107697100	+	OXR1	0x0
16342	chr8	107718349	107719798	+	OXR1	0x0
16343	chr8	107763601	107764804	+	OXR1	0x0
16344	chr8	109228995	109230175	-	EIF3E	0x0
16345	chr8	110253577	110254711	-	NUDCD1	0x0
16346	chr8	110576533	110577858	+	EBAG9	0x0
16347	chr8	110601506	110602695	+	EBAG9	0x0
16348	chr8	116420495	116421634	-	TRPS1	0x0
16349	chr8	116512798	116513985	-	TRPS1	0x0
16350	chr8	116526874	116528063	-	TRPS1	0x0
16351	chr8	116533760	116534867	-	TRPS1	0x0
16352	chr8	116596617	116597920	-	TRPS1	0x0
16353	chr8	116630925	116632097	-	TRPS1	0x0
16354	chr8	116679152	116680309	-	TRPS1	0x0
16355	chr8	116741096	116742287	+	UTP23	0x0
16356	chr8	117656565	117668607	-	EIF3H	0x2
16357	chr8	117670526	117671695	-	EIF3H	0x2
16358	chr8	117720497	117721719	-	EIF3H	0x2
16359	chr8	117737775	117738920	-	EIF3H	0x2
16360	chr8	117857768	117859938	-	RAD21	0x0
16361	chr8	118540431	118541570	+	MED30	0x0
16362	chr8	119046261	119047447	-	EXT1	0x1
16363	chr8	119088884	119090085	-	EXT1	0x1
16364	chr8	120743112	120744339	-	TAF2	0x2
16365	chr8	120885744	120886907	+	DEPTOR	0x0
16366	chr8	121062828	121063992	+	DEPTOR	0x0
16367	chr8	121467112	121468291	+	MTBP	0x0
16368	chr8	124024840	124026868	-	DERL1	0x0
16369	chr8	124031102	124032206	-	DERL1	0x0
16370	chr8	124261227	124262977	-	ZHX1	0x0
16371	chr8	124361040	124362264	-	ATAD2	0x0
16372	chr8	124825089	124828085	+	FAM91A1	0x0
16373	chr8	125323131	125325699	-	TMEM65	0x0
16374	chr8	125360802	125362024	-	TMEM65	0x0
16375	chr8	125498562	125499755	+	RNF139	0x0
16376	chr8	125550840	125552016	+	NDUFB9	0x0
16377	chr8	125563041	125564436	-	MTSS1	0x1
16378	chr8	126015028	126016177	+	SQLE	0x0
16379	chr8	126035989	126037209	-	KIAA0196	0x0
16380	chr8	126237000	126238205	+	NSMCE2	0x0
16381	chr8	126442172	126443423	+	TRIB1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16382	chr8	126963581	126964881	-	LOC100130231	0x0
16383	chr8	128750497	128751610	+	MYC	0x2
16384	chr8	128807968	128809145	+	MIR1204	0x0
16385	chr8	130853221	130854453	-	FAM49B	0x0
16386	chr8	130981707	130982912	-	FAM49B	0x0
16387	chr8	131065518	131067134	-	ASAP1	0x0
16388	chr8	131128387	131129569	-	ASAP1	0x0
16389	chr8	131346028	131347914	-	ASAP1	0x0
16390	chr8	132932686	132933963	+	EFR3A	0x0
16391	chr8	132967515	132968854	+	EFR3A	0x0
16392	chr8	132987747	132988884	+	EFR3A	0x0
16393	chr8	132996573	132997696	+	EFR3A	0x0
16394	chr8	133023037	133026111	+	EFR3A	0x0
16395	chr8	133391940	133393145	-	KCNQ3	0x2
16396	chr8	134249125	134251513	-	NDRG1	0x1
16397	chr8	136659575	136660792	+	KHDRBS3	0x0
16398	chr8	140906472	140907996	-	TRAPPC9	0x0
16399	chr8	141530136	141531194	-	EIF2C2	0x0
16400	chr8	141531353	141533826	-	EIF2C2	0x0
16401	chr8	141536706	141537804	-	EIF2C2	0x0
16402	chr8	141550778	141551924	+	CHRAC1	0x0
16403	chr8	141557005	141558270	-	EIF2C2	0x0
16404	chr8	141558761	141559862	-	EIF2C2	0x0
16405	chr8	141560921	141562014	+	CHRAC1	0x0
16406	chr8	141560929	141566776	-	EIF2C2	0x0
16407	chr8	141565537	141570101	+	CHRAC1	0x0
16408	chr8	141569947	141571047	-	EIF2C2	0x0
16409	chr8	141594754	141595943	-	EIF2C2	0x0
16410	chr8	141668285	141669656	-	PTK2	0x0
16411	chr8	142220787	142222611	-	SLC45A4	0x0
16412	chr8	142228241	142229339	-	SLC45A4	0x0
16413	chr8	142263720	142264927	-	SLC45A4	0x0
16414	chr8	142267008	142268210	-	SLC45A4	0x0
16415	chr8	142288782	142290142	-	SLC45A4	0x0
16416	chr8	142431393	142432523	+	PTP4A3	0x0
16417	chr8	142910012	142911127	+	MIR4472-1	0x0
16418	chr8	143562785	143564292	+	BAI1	0x0
16419	chr8	143605050	143606145	+	BAI1	0x0
16420	chr8	144077969	144079113	+	LY6E	0x0
16421	chr8	144661748	144663377	-	EEF1D	0x0
16422	chr8	144668299	144669551	-	EEF1D	0x0
16423	chr8	144670650	144671798	-	EEF1D	0x0
16424	chr8	144872588	144873830	-	SCRIB	0x1
16425	chr8	144886166	144887403	-	SCRIB	0x1
16426	chr8	144898042	144899230	-	PUF60	0x0
16427	chr8	144899422	144900601	-	PUF60	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16428	chr8	144988878	144990722	-	PLEC	0x0
16429	chr8	144994335	144995520	-	PLEC	0x0
16430	chr8	144997821	144998960	-	PLEC	0x0
16431	chr8	145006128	145007726	-	PLEC	0x0
16432	chr8	145008824	145010016	-	PLEC	0x0
16433	chr8	145139953	145141061	+	GPAA1	0x0
16434	chr8	145149458	145152775	+	CYC1	0x0
16435	chr8	145161707	145162880	+	KIAA1875	0x0
16436	chr8	145161707	145162880	+	MAF1	0x0
16437	chr8	145170478	145171680	+	KIAA1875	0x0
16438	chr8	145192839	145194008	+	FAM203A	0x0
16439	chr8	145529355	145530415	+	HSF1	0x0
16440	chr8	145676588	145677806	-	CYHR1	0x0
16441	chr8	145678077	145679276	-	CYHR1	0x0
16442	chr8	145687093	145688375	-	CYHR1	0x0
16443	chr8	145698611	145700011	-	FOXH1	0x0
16444	chr8	145742580	145743701	-	RECQL4	0x2
16445	chr8	145745064	145746305	+	LRRC14	0x0
16446	chr8	146014613	146017966	-	RPL8	0x0
16447	chr9	711834	713928	+	KANK1	0x1
16448	chr9	2653390	2654490	+	VLDLR	0x0
16449	chr9	2802652	2803889	-	KIAA0020	0x0
16450	chr9	3218458	3219647	-	RFX3	0x0
16451	chr9	3219817	3221528	-	RFX3	0x0
16452	chr9	3223171	3224462	-	RFX3	0x0
16453	chr9	3992206	3993396	-	GLIS3	0x4
16454	chr9	4117271	4119043	-	GLIS3	0x4
16455	chr9	4166598	4167807	-	GLIS3	0x4
16456	chr9	4706196	4707598	+	CDC37L1	0x0
16457	chr9	4711408	4713980	-	AK3	0x0
16458	chr9	4859695	4861066	+	RCL1	0x0
16459	chr9	5050088	5051297	+	JAK2	0x2
16460	chr9	5719680	5720803	+	KIAA1432	0x0
16461	chr9	5768527	5769735	+	KIAA1432	0x0
16462	chr9	5774167	5776056	+	KIAA1432	0x0
16463	chr9	5785356	5786700	-	ERMP1	0x0
16464	chr9	5832450	5833632	-	ERMP1	0x0
16465	chr9	5987867	5989011	-	KIAA2026	0x0
16466	chr9	6531931	6533388	-	GLDC	0x0
16467	chr9	6588112	6589239	-	GLDC	0x0
16468	chr9	6849008	6850249	+	KDM4C	0x0
16469	chr9	6887313	6888574	+	KDM4C	0x0
16470	chr9	7048597	7049736	+	KDM4C	0x0
16471	chr9	7172214	7173401	+	KDM4C	0x0
16472	chr9	7174425	7175974	+	KDM4C	0x0
16473	chr9	7799015	7800191	-	C9orf123	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16474	chr9	13986457	13987600	+	C9orf146	0x0
16475	chr9	14081442	14082662	-	NFIB	0x2
16476	chr9	14083168	14084382	-	NFIB	0x2
16477	chr9	14086981	14088136	-	NFIB	0x2
16478	chr9	14112733	14113835	-	NFIB	0x2
16479	chr9	14610966	14612003	-	ZDHHC21	0x0
16480	chr9	14612819	14614650	-	ZDHHC21	0x0
16481	chr9	14616005	14617166	-	ZDHHC21	0x0
16482	chr9	14617454	14618603	-	ZDHHC21	0x0
16483	chr9	14639371	14640505	-	ZDHHC21	0x0
16484	chr9	14921195	14922812	-	FREM1	0x0
16485	chr9	15164251	15165385	-	TTC39B	0x0
16486	chr9	15166917	15172127	-	TTC39B	0x0
16487	chr9	15181721	15182919	-	TTC39B	0x0
16488	chr9	15209554	15211929	-	TTC39B	0x0
16489	chr9	15298897	15300041	-	TTC39B	0x0
16490	chr9	15461843	15464154	-	PSIP1	0x2
16491	chr9	15509482	15510649	-	PSIP1	0x2
16492	chr9	16412233	16413426	-	BNC2	0x0
16493	chr9	16435217	16437944	-	BNC2	0x0
16494	chr9	16548411	16549592	-	BNC2	0x0
16495	chr9	16727239	16728496	-	BNC2	0x0
16496	chr9	17795880	17797063	+	SH3GL2	0x0
16497	chr9	18741724	18742819	+	ADAMTSL1	0x0
16498	chr9	19345566	19347298	+	DENND4C	0x0
16499	chr9	19378147	19379380	-	RPS6	0x0
16500	chr9	20345824	20347021	-	MLLT3	0x2
16501	chr9	20719883	20721020	+	KIAA1797	0x0
16502	chr9	20881263	20882462	+	KIAA1797	0x0
16503	chr9	20944198	20945343	+	KIAA1797	0x0
16504	chr9	20995176	20996350	+	KIAA1797	0x0
16505	chr9	21007351	21008516	+	KIAA1797	0x0
16506	chr9	21546183	21547373	-	MIR31HG	0x0
16507	chr9	21863210	21864750	+	MTAP	0x1
16508	chr9	21995386	21996484	+	CDKN2B-AS1	0x0
16509	chr9	22210470	22211693	+	CDKN2B-AS1	0x0
16510	chr9	23689927	23691154	-	ELAVL2	0x2
16511	chr9	26903264	26904648	-	PLAA	0x0
16512	chr9	26904742	26906358	-	PLAA	0x0
16513	chr9	26934601	26935728	-	PLAA	0x0
16514	chr9	27454754	27456182	-	MOB3B	0x0
16515	chr9	30831467	30832666	-	LOC401497	0x0
16516	chr9	32434092	32435247	+	ACO1	0x0
16517	chr9	32456676	32457878	-	DDX58	0x0
16518	chr9	32540240	32541408	-	TOPORS	0x1
16519	chr9	32542571	32543680	-	TOPORS	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16520	chr9	32973118	32974462	-	APTX	0x0
16521	chr9	33110225	33113672	-	B4GALT1	0x0
16522	chr9	33119903	33121119	-	B4GALT1	0x0
16523	chr9	33166431	33167625	-	B4GALT1	0x0
16524	chr9	33254540	33255697	-	BAG1	0x0
16525	chr9	33280557	33281945	+	CHMP5	0x0
16526	chr9	33370088	33371479	+	NFX1	0x0
16527	chr9	33440800	33442544	-	AQP3	0x0
16528	chr9	33461148	33463311	-	NOL6	0x0
16529	chr9	33468641	33469836	-	NOL6	0x0
16530	chr9	33916593	33918528	+	UBE2R2	0x0
16531	chr9	33921544	33922796	-	UBAP2	0x0
16532	chr9	34016569	34017713	-	UBAP2	0x0
16533	chr9	34085892	34088574	-	DCAF12	0x0
16534	chr9	34241207	34242306	+	UBAP1	0x0
16535	chr9	34251059	34252274	+	UBAP1	0x0
16536	chr9	34398868	34400205	-	C9orf25	0x0
16537	chr9	34572435	34573567	-	CNTFR	0x0
16538	chr9	34606759	34607998	-	C9orf23	0x0
16539	chr9	34613023	34614210	-	DCTN3	0x0
16540	chr9	34634197	34636272	-	SIGMAR1	0x0
16541	chr9	34647269	34648445	+	GALT	0x0
16542	chr9	35059077	35060311	-	VCP	0x0
16543	chr9	35060563	35062150	-	VCP	0x0
16544	chr9	35063667	35065857	-	VCP	0x0
16545	chr9	35657242	35658568	-	RMRP	0x0
16546	chr9	35705463	35706638	-	TLN1	0x2
16547	chr9	35753450	35754562	+	RGP1	0x0
16548	chr9	35754801	35755931	+	RGP1	0x0
16549	chr9	36122419	36123631	+	RECK	0x1
16550	chr9	36162315	36164408	+	GLIPR2	0x0
16551	chr9	36190656	36191884	+	CLTA	0x0
16552	chr9	36211321	36212553	+	CLTA	0x0
16553	chr9	36337749	36340152	-	RNF38	0x0
16554	chr9	36597327	36598483	+	MELK	0x0
16555	chr9	36656733	36657846	+	MELK	0x0
16556	chr9	37588058	37589379	-	TOMM5	0x0
16557	chr9	37781482	37782642	-	EXOSC3	0x0
16558	chr9	37861800	37862933	+	DCAF10	0x0
16559	chr9	37864651	37865769	+	DCAF10	0x0
16560	chr9	37866456	37867897	+	DCAF10	0x0
16561	chr9	37881725	37882987	-	MCART1	0x0
16562	chr9	37883241	37885488	-	MCART1	0x0
16563	chr9	37974148	37975350	-	SHB	0x0
16564	chr9	38061771	38062992	-	SHB	0x0
16565	chr9	71745361	71746466	+	TJP2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16566	chr9	72324249	72325516	-	PTAR1	0x0
16567	chr9	72325628	72326808	-	PTAR1	0x0
16568	chr9	72329163	72330363	-	PTAR1	0x0
16569	chr9	72332961	72334062	-	PTAR1	0x0
16570	chr9	72878719	72879853	+	SMC5	0x0
16571	chr9	73000056	73003164	-	KLF9	0x0
16572	chr9	73028446	73029627	-	KLF9	0x0
16573	chr9	73066192	73067389	+	SMC5	0x0
16574	chr9	73192366	73193611	+	SMC5	0x0
16575	chr9	74298353	74300445	-	TMEM2	0x0
16576	chr9	74479907	74482342	-	FAM108B1	0x0
16577	chr9	74488959	74490144	-	FAM108B1	0x0
16578	chr9	74525303	74526578	-	FAM108B1	0x0
16579	chr9	74969241	74970460	-	ZFAND5	0x0
16580	chr9	75777159	75778757	+	ANXA1	0x1
16581	chr9	77561885	77563359	-	C9orf40	0x0
16582	chr9	77566989	77568268	-	C9orf40	0x0
16583	chr9	77691645	77692859	-	C9orf95	0x0
16584	chr9	77747694	77749873	+	OSTF1	0x0
16585	chr9	78999933	79001170	-	RFK	0x0
16586	chr9	79226343	79227513	-	PRUNE2	0x2
16587	chr9	79890363	79891621	+	VPS13A	0x0
16588	chr9	80332523	80335191	-	GNAQ	0x2
16589	chr9	80880862	80882023	+	CEP78	0x0
16590	chr9	80919160	80920335	+	PSAT1	0x0
16591	chr9	80920727	80921948	+	PSAT1	0x0
16592	chr9	80922801	80923997	+	PSAT1	0x0
16593	chr9	80943632	80945098	+	PSAT1	0x0
16594	chr9	82186608	82187760	+	TLE4	0x2
16595	chr9	82286607	82287776	+	TLE4	0x2
16596	chr9	82321139	82322357	+	TLE4	0x2
16597	chr9	82339748	82342087	+	TLE4	0x2
16598	chr9	84203560	84204759	-	TLE1	0x0
16599	chr9	84248119	84249289	-	TLE1	0x0
16600	chr9	86274611	86277058	-	UBQLN1	0x0
16601	chr9	86283558	86284741	-	UBQLN1	0x0
16602	chr9	86292138	86294050	-	UBQLN1	0x0
16603	chr9	86294333	86295488	-	UBQLN1	0x0
16604	chr9	86582599	86584438	-	HNRNPK	0x0
16605	chr9	88283704	88284942	-	AGTPBP1	0x0
16606	chr9	88307091	88308229	-	AGTPBP1	0x0
16607	chr9	88633161	88634256	+	NAA35	0x0
16608	chr9	88636977	88638189	-	GOLM1	0x0
16609	chr9	88879405	88880557	-	ISCA1	0x0
16610	chr9	88902514	88903903	-	ZCCHC6	0x0
16611	chr9	88957466	88958649	-	ZCCHC6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16612	chr9	89560350	89561505	-	GAS1	0x1
16613	chr9	90193126	90194276	+	DAPK1	0x1
16614	chr9	90322264	90323446	+	DAPK1	0x1
16615	chr9	91090693	91093831	+	SPIN1	0x0
16616	chr9	91617334	91618533	+	S1PR3	0x0
16617	chr9	91973501	91974651	+	SECISBP2	0x0
16618	chr9	91992803	91994215	-	SEMA4D	0x0
16619	chr9	91995553	91996741	-	SEMA4D	0x0
16620	chr9	93659222	93660463	+	SYK	0x1
16621	chr9	94793592	94794970	-	SPTLC1	0x0
16622	chr9	94972094	94973505	-	IARS	0x0
16623	chr9	94990822	94991890	-	IARS	0x0
16624	chr9	95004998	95007808	-	IARS	0x0
16625	chr9	95011903	95013622	-	IARS	0x0
16626	chr9	95020704	95025806	-	IARS	0x0
16627	chr9	95033313	95034457	-	IARS	0x0
16628	chr9	95048348	95049462	-	IARS	0x0
16629	chr9	95049839	95051000	-	IARS	0x0
16630	chr9	95054190	95055287	-	MIR3651	0x0
16631	chr9	95054190	95055287	-	SNORA84	0x0
16632	chr9	95425946	95427284	-	IPPK	0x0
16633	chr9	95473213	95474411	-	BICD2	0x0
16634	chr9	95958507	95959754	+	WNK2	0x1
16635	chr9	96022845	96024062	+	WNK2	0x1
16636	chr9	96232950	96234161	+	FAM120A	0x1
16637	chr9	96294176	96295287	+	FAM120A	0x1
16638	chr9	96312370	96313477	+	FAM120A	0x1
16639	chr9	96317841	96319379	+	FAM120A	0x1
16640	chr9	96323951	96325083	+	FAM120A	0x1
16641	chr9	96326942	96328887	+	FAM120A	0x1
16642	chr9	96435494	96436685	+	PHF2	0x0
16643	chr9	96655640	96656816	-	BARX1	0x0
16644	chr9	96870466	96871631	+	PTPDC1	0x0
16645	chr9	97221539	97223580	+	HIATL1	0x0
16646	chr9	98002393	98003603	-	FANCC	0x2
16647	chr9	98205195	98208274	-	PTCH1	0x1
16648	chr9	98223585	98224802	-	PTCH1	0x1
16649	chr9	98684046	98685181	+	C9orf102	0x0
16650	chr9	98909449	98910551	+	LOC158435	0x0
16651	chr9	99149215	99150422	-	ZNF367	0x0
16652	chr9	99262226	99263397	-	CDC14B	0x0
16653	chr9	99284969	99286154	-	CDC14B	0x0
16654	chr9	99403562	99404661	-	C9orf21	0x0
16655	chr9	99797334	99798398	-	CTSL2	0x0
16656	chr9	99799064	99800163	-	CTSL2	0x0
16657	chr9	100362392	100363580	-	TSTD2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16658	chr9	100432905	100434435	+	NCBP1	0x0
16659	chr9	100746585	100747994	-	HEMGN	0x0
16660	chr9	100760285	100761532	+	ANP32B	0x0
16661	chr9	100766760	100767897	+	ANP32B	0x0
16662	chr9	100777374	100778787	+	ANP32B	0x0
16663	chr9	100822591	100823674	+	NANS	0x0
16664	chr9	101544514	101546111	-	ANKS6	0x0
16665	chr9	101876343	101877560	+	TGFBR1	0x0
16666	chr9	101913618	101915722	+	TGFBR1	0x0
16667	chr9	101979227	101981417	-	ALG2	0x0
16668	chr9	101992144	101993240	+	SEC61B	0x0
16669	chr9	102744280	102745506	-	ERP44	0x0
16670	chr9	102860559	102861765	-	ERP44	0x0
16671	chr9	103063265	103064574	-	TEX10	0x0
16672	chr9	103108766	103109887	-	TEX10	0x0
16673	chr9	103323222	103324384	+	C9orf30-TMEFF1	0x0
16674	chr9	103323222	103324384	+	TMEFF1	0x1
16675	chr9	103338444	103340275	+	C9orf30-TMEFF1	0x0
16676	chr9	103338444	103340275	+	TMEFF1	0x1
16677	chr9	104302056	104303233	+	RNF20	0x0
16678	chr9	104312433	104313623	+	RNF20	0x0
16679	chr9	106764247	106765434	+	SMC2	0x2
16680	chr9	106876476	106877597	+	SMC2	0x2
16681	chr9	106901576	106903494	+	SMC2	0x2
16682	chr9	107543439	107544605	-	ABCA1	0x2
16683	chr9	107544762	107546905	-	ABCA1	0x2
16684	chr9	108151068	108154073	+	SLC44A1	0x2
16685	chr9	108310879	108312090	+	FSD1L	0x0
16686	chr9	108366017	108367178	+	FKTN	0x0
16687	chr9	108402551	108403767	+	FKTN	0x0
16688	chr9	109685267	109686380	+	ZNF462	0x0
16689	chr9	109687142	109688935	+	ZNF462	0x0
16690	chr9	109705428	109706552	+	ZNF462	0x0
16691	chr9	109773361	109776320	+	ZNF462	0x0
16692	chr9	110068282	110069450	+	RAD23B	0x0
16693	chr9	110091798	110093965	+	RAD23B	0x0
16694	chr9	110245555	110246752	-	KLF4	0x1
16695	chr9	110246837	110248742	-	KLF4	0x1
16696	chr9	111777920	111779077	-	C9orf5	0x0
16697	chr9	111780195	111781328	-	C9orf5	0x0
16698	chr9	111797961	111799158	-	C9orf5	0x0
16699	chr9	111868263	111869415	-	C9orf5	0x0
16700	chr9	111881023	111882166	-	C9orf5	0x0
16701	chr9	112002494	112003687	-	EPB41L4B	0x0
16702	chr9	112017866	112019076	-	EPB41L4B	0x0
16703	chr9	112140534	112142272	-	PTPN3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16704	chr9	112898694	112899807	+	AKAP2	0x0
16705	chr9	112898694	112899807	+	PALM2-AKAP2	0x0
16706	chr9	112933506	112935020	+	AKAP2	0x0
16707	chr9	112933506	112935020	+	PALM2-AKAP2	0x0
16708	chr9	113005827	113007027	-	TXN	0x0
16709	chr9	113635041	113636663	-	LPAR1	0x0
16710	chr9	113636827	113637953	-	LPAR1	0x0
16711	chr9	113703265	113704403	-	LPAR1	0x0
16712	chr9	114153398	114154641	-	KIAA0368	0x0
16713	chr9	114173775	114174907	-	KIAA0368	0x0
16714	chr9	114695493	114697736	+	UGCG	0x0
16715	chr9	114980702	114983972	-	PTBP3	0x0
16716	chr9	114985491	114986510	-	PTBP3	0x0
16717	chr9	115388134	115389860	+	KIAA1958	0x0
16718	chr9	115425499	115426703	+	KIAA1958	0x0
16719	chr9	115633703	115635566	+	SNX30	0x0
16720	chr9	115925105	115926545	+	SLC31A2	0x0
16721	chr9	116024338	116025434	+	SLC31A1	0x0
16722	chr9	116026124	116027246	+	SLC31A1	0x0
16723	chr9	116037117	116038260	-	CDC26	0x0
16724	chr9	116054181	116055374	+	PRPF4	0x0
16725	chr9	116083693	116084882	-	WDR31	0x0
16726	chr9	116170149	116171260	-	POLE3	0x0
16727	chr9	116242297	116243641	+	RGS3	0x0
16728	chr9	116977432	116978590	+	COL27A1	0x0
16729	chr9	117168906	117170257	-	DFNB31	0x0
16730	chr9	117180797	117182232	-	DFNB31	0x0
16731	chr9	117262796	117264012	-	DFNB31	0x0
16732	chr9	117405880	117408048	+	C9orf91	0x0
16733	chr9	117792006	117793194	-	TNC	0x0
16734	chr9	117793345	117794472	-	TNC	0x0
16735	chr9	117846135	117847339	-	TNC	0x0
16736	chr9	118218630	118219836	-	TNC	0x0
16737	chr9	123159989	123161092	-	CDK5RAP2	0x0
16738	chr9	123201244	123202596	-	CDK5RAP2	0x0
16739	chr9	123280173	123281383	-	CDK5RAP2	0x0
16740	chr9	123484215	123485517	+	LOC100288842	0x0
16741	chr9	123554947	123556164	-	FBXW2	0x0
16742	chr9	123586300	123587497	-	PSMD5	0x0
16743	chr9	123681949	123683116	+	LOC253039	0x0
16744	chr9	123885688	123886882	+	CNTRL	0x0
16745	chr9	123902587	123903862	+	CNTRL	0x0
16746	chr9	123931367	123932562	+	CNTRL	0x0
16747	chr9	123941069	123943946	-	RAB14	0x0
16748	chr9	124062259	124063452	+	GSN	0x2
16749	chr9	124915211	124916453	-	NDUFA8	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16750	chr9	125002362	125004540	-	RBM18	0x0
16751	chr9	125606833	125607979	-	RC3H2	0x0
16752	chr9	125608897	125612439	-	RC3H2	0x0
16753	chr9	125627041	125628433	-	RC3H2	0x0
16754	chr9	125642390	125643490	-	RC3H2	0x0
16755	chr9	125642390	125643490	-	SNORD90	0x0
16756	chr9	125659215	125660417	-	RC3H2	0x0
16757	chr9	125677831	125678941	-	ZBTB26	0x0
16758	chr9	125718859	125719998	+	RABGAP1	0x0
16759	chr9	125771185	125772350	+	RABGAP1	0x0
16760	chr9	125871459	125872637	-	MIR600HG	0x0
16761	chr9	125888201	125889408	-	STRBP	0x0
16762	chr9	125922749	125923854	-	STRBP	0x0
16763	chr9	126143286	126144424	-	DENND1A	0x0
16764	chr9	126234862	126236123	-	DENND1A	0x0
16765	chr9	127279112	127283234	-	NR6A1	0x0
16766	chr9	127283366	127285190	-	NR6A1	0x0
16767	chr9	127639008	127640313	+	ARPC5L	0x0
16768	chr9	127640577	127641758	-	GOLGA1	0x0
16769	chr9	127730156	127731463	-	SCAI	0x0
16770	chr9	127908568	127911234	-	PPP6C	0x0
16771	chr9	127912858	127914034	+	RABEPK	0x0
16772	chr9	127914090	127915677	+	RABEPK	0x0
16773	chr9	127998017	127999923	-	HSPA5	0x0
16774	chr9	128000794	128002071	-	HSPA5	0x0
16775	chr9	128112514	128113710	+	GAPVD1	0x0
16776	chr9	128125100	128126359	+	GAPVD1	0x0
16777	chr9	128199311	128200444	-	MAPKAP1	0x0
16778	chr9	128659793	128661051	+	PBX3	0x0
16779	chr9	128718841	128720019	+	PBX3	0x0
16780	chr9	129196430	129197569	+	FAM125B	0x0
16781	chr9	129265397	129267238	+	FAM125B	0x0
16782	chr9	129267298	129268555	+	FAM125B	0x0
16783	chr9	129454624	129455842	+	LMX1B	0x4
16784	chr9	129596588	129597792	+	ZBTB43	0x0
16785	chr9	129599144	129600429	+	ZBTB43	0x0
16786	chr9	129644071	129648237	+	ZBTB34	0x0
16787	chr9	130092396	130093629	+	GARNL3	0x0
16788	chr9	130209701	130211237	-	RPL12	0x0
16789	chr9	130209701	130211237	-	SNORA65	0x0
16790	chr9	130265146	130266370	+	LRSAM1	0x0
16791	chr9	130267103	130268985	-	FAM129B	0x0
16792	chr9	130453343	130455111	+	STXBP1	0x0
16793	chr9	130549709	130550881	+	CDK9	0x0
16794	chr9	130551470	130552678	+	CDK9	0x0
16795	chr9	130628436	130629690	-	AK1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16796	chr9	130647114	130649184	-	ST6GALNAC6	0x0
16797	chr9	130697546	130698717	-	DPM2	0x0
16798	chr9	130703319	130704566	-	FAM102A	0x0
16799	chr9	130987580	130988765	+	DNM1	0x0
16800	chr9	131114366	131115472	+	SLC27A4	0x0
16801	chr9	131122453	131123999	+	SLC27A4	0x0
16802	chr9	131151957	131153133	+	URM1	0x0
16803	chr9	131261950	131263099	+	ODF2	0x0
16804	chr9	131303421	131305036	+	GLE1	0x0
16805	chr9	131339142	131340382	+	SPTAN1	0x2
16806	chr9	131342681	131343809	+	SPTAN1	0x2
16807	chr9	131344234	131345409	+	SPTAN1	0x2
16808	chr9	131354908	131355981	+	SPTAN1	0x2
16809	chr9	131366802	131367949	+	SPTAN1	0x2
16810	chr9	131369643	131372062	+	SPTAN1	0x2
16811	chr9	131380627	131381787	+	SPTAN1	0x2
16812	chr9	131386090	131387239	+	SPTAN1	0x2
16813	chr9	131388220	131389312	+	SPTAN1	0x2
16814	chr9	131394340	131395546	+	SPTAN1	0x2
16815	chr9	131457013	131459186	+	SET	0x2
16816	chr9	131555973	131557161	+	TBC1D13	0x0
16817	chr9	131570435	131571782	+	TBC1D13	0x0
16818	chr9	131571832	131573159	+	TBC1D13	0x0
16819	chr9	131585020	131586141	-	C9orf114	0x0
16820	chr9	131679522	131680785	+	LRRC8A	0x0
16821	chr9	131718104	131719267	+	NUP188	0x0
16822	chr9	131719703	131720898	+	NUP188	0x0
16823	chr9	131756112	131757311	+	NUP188	0x0
16824	chr9	131761054	131762400	+	NUP188	0x0
16825	chr9	131764626	131765788	+	NUP188	0x0
16826	chr9	131832416	131835021	+	FAM73B	0x0
16827	chr9	131851053	131852226	+	DOLPP1	0x0
16828	chr9	131903474	131904682	+	PPP2R4	0x1
16829	chr9	131909338	131911573	+	PPP2R4	0x1
16830	chr9	131938627	131939861	-	IER5L	0x0
16831	chr9	132388175	132389403	+	METTL11A	0x0
16832	chr9	132390131	132391354	+	METTL11A	0x0
16833	chr9	132572139	132573802	+	TOR1B	0x0
16834	chr9	132630652	132631855	+	USP20	0x0
16835	chr9	132649296	132650433	-	FNBP1	0x2
16836	chr9	132899608	132900816	+	GPR107	0x0
16837	chr9	132901049	132902259	+	GPR107	0x0
16838	chr9	132995377	132996544	+	NCS1	0x0
16839	chr9	132996981	132998872	+	NCS1	0x0
16840	chr9	133328105	133329343	+	ASS1	0x0
16841	chr9	133491230	133492383	+	FUBP3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16842	chr9	133512348	133514100	+	FUBP3	0x0
16843	chr9	133748723	133749891	+	ABL1	0x2
16844	chr9	133761697	133762818	+	ABL1	0x2
16845	chr9	134099261	134100508	+	NUP214	0x2
16846	chr9	134304977	134306168	+	PRRC2B	0x0
16847	chr9	134321972	134323119	+	PRRC2B	0x0
16848	chr9	134348355	134349688	+	PRRC2B	0x0
16849	chr9	134350713	134351912	+	PRRC2B	0x0
16850	chr9	134352636	134353747	+	PRRC2B	0x0
16851	chr9	134354189	134355293	+	PRRC2B	0x0
16852	chr9	134362756	134363903	+	PRRC2B	0x0
16853	chr9	134370911	134371974	+	PRRC2B	0x0
16854	chr9	134373222	134376105	+	PRRC2B	0x0
16855	chr9	134452510	134454472	-	RAPGEF1	0x0
16856	chr9	134479891	134481039	-	RAPGEF1	0x0
16857	chr9	134547038	134548435	-	RAPGEF1	0x0
16858	chr9	134549063	134550366	-	RAPGEF1	0x0
16859	chr9	135136452	135137512	-	SETX	0x0
16860	chr9	135138293	135139328	-	SETX	0x0
16861	chr9	135171773	135172919	-	SETX	0x0
16862	chr9	135201267	135203510	-	SETX	0x0
16863	chr9	135228690	135229833	-	SETX	0x0
16864	chr9	135357072	135358238	+	C9orf171	0x0
16865	chr9	135564735	135566613	+	GTF3C4	0x0
16866	chr9	135772067	135773188	-	TSC1	0x1
16867	chr9	135894507	135896918	+	GTF3C5	0x0
16868	chr9	135973177	135974384	-	RALGDS	0x2
16869	chr9	136208974	136210335	-	MED22	0x0
16870	chr9	136228612	136231039	-	SURF4	0x0
16871	chr9	136276971	136278070	-	REXO4	0x0
16872	chr9	136674006	136676362	-	VAV2	0x0
16873	chr9	136895988	136898864	-	BRD3	0x0
16874	chr9	137006567	137007832	+	WDR5	0x0
16875	chr9	137023374	137024520	+	WDR5	0x0
16876	chr9	137029063	137030160	-	RNU6ATAC	0x0
16877	chr9	137208041	137209132	+	RXRA	0x0
16878	chr9	137676713	137677935	+	COL5A1	0x2
16879	chr9	137734605	137736258	+	COL5A1	0x2
16880	chr9	138012017	138013473	+	OLFM1	0x0
16881	chr9	138682230	138683451	+	KCNT1	0x2
16882	chr9	138701113	138703317	-	CAMSAP1	0x0
16883	chr9	138714679	138715848	-	CAMSAP1	0x0
16884	chr9	138756651	138757890	-	CAMSAP1	0x0
16885	chr9	138774186	138775418	-	CAMSAP1	0x0
16886	chr9	138824408	138825688	-	UBAC1	0x0
16887	chr9	138837263	138838418	-	UBAC1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16888	chr9	138850664	138852177	-	UBAC1	0x0
16889	chr9	139115315	139116497	-	QSOX2	0x0
16890	chr9	139308444	139309685	+	PMPCA	0x0
16891	chr9	139334751	139336633	-	SEC16A	0x0
16892	chr9	139340720	139341901	-	SEC16A	0x0
16893	chr9	139388684	139390248	-	NOTCH1	0x1
16894	chr9	139391094	139392224	-	NOTCH1	0x1
16895	chr9	139406903	139408556	-	NOTCH1	0x1
16896	chr9	139409157	139410274	-	NOTCH1	0x1
16897	chr9	139417655	139418887	-	NOTCH1	0x1
16898	chr9	139620023	139621219	-	SNHG7	0x0
16899	chr9	139620023	139621219	-	SNORA17	0x0
16900	chr9	139620023	139621219	-	SNORA43	0x0
16901	chr9	139733651	139734820	+	C9orf86	0x0
16902	chr9	139756018	139757228	-	EDF1	0x0
16903	chr9	139834336	139835543	-	FBXW5	0x0
16904	chr9	139886314	139887545	+	C9orf142	0x0
16905	chr9	139904869	139906073	-	ABCA2	0x0
16906	chr9	139959516	139960614	-	SAPCD2	0x0
16907	chr9	139972063	139973247	+	UAP1L1	0x0
16908	chr9	140003059	140004555	+	MAN1B1	0x0
16909	chr9	140135709	140138605	+	TUBB4B	0x0
16910	chr9	140474529	140476691	-	ZMYND19	0x0
16911	chr9	140507215	140508387	+	ARRDC1	0x0
16912	chr9	140622256	140623583	+	EHMT1	0x0
16913	chr9	140637805	140639008	+	EHMT1	0x0
16914	chr9	140684738	140685914	+	EHMT1	0x0
16915	chrX	299699	300915	-	PPP2R3B	0x0
16916	chrX	9684303	9686727	+	TBL1X	0x0
16917	chrX	9686778	9688098	+	TBL1X	0x0
16918	chrX	9844994	9846199	+	SHROOM2	0x0
16919	chrX	9862229	9863426	+	SHROOM2	0x0
16920	chrX	9914799	9916032	+	SHROOM2	0x0
16921	chrX	9916549	9917973	+	SHROOM2	0x0
16922	chrX	10437277	10438425	-	MID1	0x0
16923	chrX	11140073	11141326	+	HCCS	0x0
16924	chrX	12816818	12818102	+	PRPS2	0x0
16925	chrX	12840419	12842646	+	PRPS2	0x0
16926	chrX	12994400	12995781	+	TMSB4X	0x0
16927	chrX	13681565	13683126	+	TCEANC	0x0
16928	chrX	13768858	13770004	+	OFD1	0x0
16929	chrX	14938060	14940431	+	MOSPD2	0x0
16930	chrX	15337098	15339257	-	PIGA	0x0
16931	chrX	15847925	15850626	-	AP1S2	0x0
16932	chrX	16688178	16689300	-	CTPS2	0x0
16933	chrX	16707129	16708237	-	CTPS2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16934	chrX	16860661	16862703	+	TXLNG	0x0
16935	chrX	16862408	16863653	-	RBBP7	0x1
16936	chrX	17623173	17624379	+	NHS	0x0
16937	chrX	18258059	18259215	-	SCML2	0x0
16938	chrX	18648614	18649667	+	CDKL5	0x0
16939	chrX	18650105	18651262	+	CDKL5	0x0
16940	chrX	19367521	19368750	+	PDHA1	0x0
16941	chrX	19377945	19379313	-	MAP3K15	0x0
16942	chrX	19377974	19379326	+	PDHA1	0x0
16943	chrX	19703021	19704211	-	SH3KBP1	0x0
16944	chrX	19934133	19935459	-	CXorf23	0x0
16945	chrX	19955053	19956540	-	CXorf23	0x0
16946	chrX	20025028	20026765	-	MAP7D2	0x0
16947	chrX	20074182	20075409	-	MAP7D2	0x0
16948	chrX	20144593	20146109	-	EIF1AX	0x0
16949	chrX	20168112	20170396	-	RPS6KA3	0x2
16950	chrX	20221587	20222781	-	RPS6KA3	0x2
16951	chrX	20282963	20284131	-	RPS6KA3	0x2
16952	chrX	21862730	21863978	+	MBTPS2	0x0
16953	chrX	21896115	21897309	+	MBTPS2	0x0
16954	chrX	21900192	21901848	+	MBTPS2	0x0
16955	chrX	21902191	21903475	+	MBTPS2	0x0
16956	chrX	22012861	22014015	+	SMS	0x0
16957	chrX	22014539	22015721	+	SMS	0x0
16958	chrX	23854244	23855772	-	APOO	0x0
16959	chrX	24095086	24096320	+	EIF2S3	0x0
16960	chrX	24196820	24198371	+	ZFX	0x0
16961	chrX	24225328	24226924	+	ZFX	0x0
16962	chrX	24230291	24231452	+	ZFX	0x0
16963	chrX	24231863	24233964	+	ZFX	0x0
16964	chrX	24335622	24337377	-	FAM48B2	0x0
16965	chrX	24338615	24339704	-	FAM48B2	0x0
16966	chrX	24557061	24558463	+	PDK3	0x0
16967	chrX	24560587	24561651	+	PDK3	0x0
16968	chrX	24566622	24567786	+	PDK3	0x0
16969	chrX	24576271	24579837	-	PCYT1B	0x0
16970	chrX	24734873	24736070	+	POLA1	0x0
16971	chrX	24751263	24752433	+	POLA1	0x0
16972	chrX	24759533	24760737	+	POLA1	0x0
16973	chrX	24830344	24831470	+	POLA1	0x0
16974	chrX	24859230	24860446	+	POLA1	0x0
16975	chrX	24861101	24862344	+	POLA1	0x0
16976	chrX	25014403	25015621	+	POLA1	0x0
16977	chrX	30321856	30323431	-	NR0B1	0x0
16978	chrX	30747831	30749053	+	GK	0x0
16979	chrX	30845566	30846776	-	TAB3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
16980	chrX	31137394	31139926	-	DMD	0x2
16981	chrX	34644908	34646051	-	TMEM47	0x0
16982	chrX	34646765	34648624	-	TMEM47	0x0
16983	chrX	37588925	37590066	+	XK	0x0
16984	chrX	37590653	37591861	+	XK	0x0
16985	chrX	37698152	37700063	-	DYNLT3	0x0
16986	chrX	38547308	38548577	+	TSPAN7	0x0
16987	chrX	38661980	38663172	+	MID1IP1	0x0
16988	chrX	39646121	39647262	-	BCOR	0x2
16989	chrX	39910171	39911478	-	BCOR	0x2
16990	chrX	39932540	39933761	-	BCOR	0x2
16991	chrX	40439801	40440990	+	ATP6AP2	0x0
16992	chrX	40464749	40466391	+	ATP6AP2	0x0
16993	chrX	40505730	40506826	-	CXorf38	0x0
16994	chrX	40509029	40510686	-	MED14	0x0
16995	chrX	40693660	40694768	+	LOC347411	0x0
16996	chrX	40793797	40795080	-	LOC100132831	0x0
16997	chrX	40944194	40945296	+	USP9X	0x0
16998	chrX	40947349	40948491	+	USP9X	0x0
16999	chrX	40982205	40983373	+	USP9X	0x0
17000	chrX	40987709	40988868	+	USP9X	0x0
17001	chrX	40995530	40996803	+	USP9X	0x0
17002	chrX	40999400	41000552	+	USP9X	0x0
17003	chrX	41001973	41003142	+	USP9X	0x0
17004	chrX	41007133	41008349	+	USP9X	0x0
17005	chrX	41009635	41010827	+	USP9X	0x0
17006	chrX	41024686	41025932	+	USP9X	0x0
17007	chrX	41042466	41043642	+	USP9X	0x0
17008	chrX	41045191	41046391	+	USP9X	0x0
17009	chrX	41055011	41056163	+	USP9X	0x0
17010	chrX	41057313	41058508	+	USP9X	0x0
17011	chrX	41059913	41061057	+	USP9X	0x0
17012	chrX	41064026	41065174	+	USP9X	0x0
17013	chrX	41074982	41076160	+	USP9X	0x0
17014	chrX	41083511	41084929	+	USP9X	0x0
17015	chrX	41087974	41089220	+	USP9X	0x0
17016	chrX	41206566	41207863	+	DDX3X	0x1
17017	chrX	41208083	41209949	+	DDX3X	0x1
17018	chrX	41374478	41377267	-	CASK	0x0
17019	chrX	41378549	41379615	-	CASK	0x0
17020	chrX	41781451	41782565	-	CASK	0x0
17021	chrX	43603495	43605018	+	MAOA	0x0
17022	chrX	44382393	44383579	-	FUNDC1	0x0
17023	chrX	44733221	44734369	+	KDM6A	0x2
17024	chrX	44922236	44923433	+	KDM6A	0x2
17025	chrX	44970427	44971698	+	KDM6A	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17026	chrX	46712425	46713627	+	RP2	0x0
17027	chrX	46739807	46741034	+	RP2	0x0
17028	chrX	46918153	46921148	+	PHF16	0x0
17029	chrX	47001212	47002666	-	NDUFB11	0x0
17030	chrX	47003281	47004526	-	NDUFB11	0x0
17031	chrX	47034444	47035590	+	RBM10	0x0
17032	chrX	47041416	47042566	+	RBM10	0x0
17033	chrX	47044497	47046762	+	RBM10	0x0
17034	chrX	47058421	47059521	+	UBA1	0x0
17035	chrX	47061049	47062476	+	UBA1	0x0
17036	chrX	47062527	47063626	+	UBA1	0x0
17037	chrX	47068899	47070077	+	UBA1	0x0
17038	chrX	47071687	47073122	+	UBA1	0x0
17039	chrX	47073228	47074816	+	UBA1	0x0
17040	chrX	47088326	47089950	+	CDK16	0x0
17041	chrX	47106546	47107765	+	USP11	0x0
17042	chrX	47421779	47422898	+	ARAF	0x0
17043	chrX	47428848	47429989	+	ARAF	0x0
17044	chrX	47430239	47431831	+	ARAF	0x0
17045	chrX	47431439	47432625	-	SYN1	0x0
17046	chrX	47445511	47446673	+	TIMP1	0x0
17047	chrX	47494463	47496298	-	ELK1	0x0
17048	chrX	47832563	47833746	-	ZNF182	0x0
17049	chrX	47834332	47835582	-	ZNF182	0x0
17050	chrX	48343687	48344925	+	FTSJ1	0x0
17051	chrX	48378483	48379664	+	PORCN	0x0
17052	chrX	48464593	48465743	+	WDR13	0x0
17053	chrX	48674069	48675168	+	HDAC6	0x0
17054	chrX	48676177	48677426	+	HDAC6	0x0
17055	chrX	48681524	48683887	+	HDAC6	0x0
17056	chrX	48687681	48688734	+	ERAS	0x0
17057	chrX	48688979	48690191	-	PCSK1N	0x0
17058	chrX	48760961	48762050	-	SLC35A2	0x0
17059	chrX	48779077	48780755	-	OTUD5	0x0
17060	chrX	48813656	48814858	-	OTUD5	0x0
17061	chrX	48818155	48819648	-	KCND1	0x0
17062	chrX	48885716	48888457	-	TFE3	0x1
17063	chrX	48928916	48932099	-	PRAF2	0x0
17064	chrX	48928916	48932099	-	WDR45	0x0
17065	chrX	49027910	49031604	+	PLP2	0x0
17066	chrX	49105066	49106267	+	CCDC22	0x0
17067	chrX	49854300	49855386	+	CLCN5	0x2
17068	chrX	49857472	49858559	+	CLCN5	0x2
17069	chrX	49861850	49864181	+	CLCN5	0x2
17070	chrX	50337961	50339179	-	SHROOM4	0x0
17071	chrX	50542886	50544097	-	SHROOM4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17072	chrX	51232690	51234940	-	NUDT11	0x0
17073	chrX	51638205	51639252	+	MAGED1	0x2
17074	chrX	51639459	51640636	+	MAGED1	0x2
17075	chrX	53123916	53125103	+	TSPYL2	0x0
17076	chrX	53215300	53216541	-	KDM5C	0x2
17077	chrX	53220563	53222545	-	KDM5C	0x2
17078	chrX	53222782	53224056	-	KDM5C	0x2
17079	chrX	53227467	53228603	-	KDM5C	0x2
17080	chrX	53239374	53241675	-	KDM5C	0x2
17081	chrX	53243369	53244522	-	KDM5C	0x2
17082	chrX	53432213	53433382	-	SMC1A	0x0
17083	chrX	53559217	53560827	-	HUWE1	0x0
17084	chrX	53560957	53562110	-	HUWE1	0x0
17085	chrX	53562905	53563976	-	HUWE1	0x0
17086	chrX	53564006	53565144	-	HUWE1	0x0
17087	chrX	53565206	53566445	-	HUWE1	0x0
17088	chrX	53574508	53575672	-	HUWE1	0x0
17089	chrX	53575702	53576916	-	HUWE1	0x0
17090	chrX	53577422	53578581	-	HUWE1	0x0
17091	chrX	53579186	53580239	-	HUWE1	0x0
17092	chrX	53581070	53582211	-	HUWE1	0x0
17093	chrX	53585898	53587813	-	HUWE1	0x0
17094	chrX	53588264	53589655	-	HUWE1	0x0
17095	chrX	53590161	53592645	-	HUWE1	0x0
17096	chrX	53600213	53601436	-	HUWE1	0x0
17097	chrX	53607390	53608496	-	HUWE1	0x0
17098	chrX	53610179	53611838	-	HUWE1	0x0
17099	chrX	53618902	53620929	-	HUWE1	0x0
17100	chrX	53629832	53631013	-	HUWE1	0x0
17101	chrX	53633925	53635090	-	HUWE1	0x0
17102	chrX	53651053	53652118	-	HUWE1	0x0
17103	chrX	53652217	53653316	-	HUWE1	0x0
17104	chrX	53654894	53656329	-	HUWE1	0x0
17105	chrX	53660586	53661751	-	HUWE1	0x0
17106	chrX	53671681	53672942	-	HUWE1	0x0
17107	chrX	53680442	53681578	-	HUWE1	0x0
17108	chrX	53962739	53965454	-	PHF8	0x0
17109	chrX	54095929	54097552	-	FAM120C	0x0
17110	chrX	54097988	54099133	-	FAM120C	0x0
17111	chrX	54219260	54221202	-	WNK3	0x0
17112	chrX	54263047	54265380	-	WNK3	0x0
17113	chrX	54333890	54335041	-	WNK3	0x0
17114	chrX	54359267	54360499	-	WNK3	0x0
17115	chrX	54470757	54471928	+	TSR2	0x0
17116	chrX	54471407	54472691	-	FGD1	0x2
17117	chrX	54473174	54474387	-	FGD1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17118	chrX	54473679	54474897	+	TSR2	0x0
17119	chrX	54579086	54580178	+	GNL3L	0x0
17120	chrX	54589994	54591308	+	GNL3L	0x0
17121	chrX	55033231	55034403	+	APEX2	0x0
17122	chrX	55206892	55208049	+	PAGE5	0x0
17123	chrX	55743879	55745058	+	RRAGB	0x0
17124	chrX	56311693	56314359	+	KLF8	0x0
17125	chrX	56592134	56593713	+	UBQLN2	0x0
17126	chrX	57621540	57622762	+	ZXDB	0x0
17127	chrX	57931506	57932773	-	ZXDA	0x0
17128	chrX	57933509	57934701	-	ZXDA	0x0
17129	chrX	63404602	63405731	-	FAM123B	0x1
17130	chrX	63406329	63409305	-	FAM123B	0x1
17131	chrX	63412365	63413546	-	FAM123B	0x1
17132	chrX	64136535	64137965	-	ZC4H2	0x0
17133	chrX	64950441	64951592	+	MSN	0x2
17134	chrX	64956190	64957323	+	MSN	0x2
17135	chrX	64960183	64962246	+	MSN	0x2
17136	chrX	65814807	65817549	-	EDA2R	0x1
17137	chrX	65817620	65818860	-	EDA2R	0x1
17138	chrX	67751519	67752778	+	YIPF6	0x0
17139	chrX	67754035	67755188	+	YIPF6	0x0
17140	chrX	67755560	67756706	+	YIPF6	0x0
17141	chrX	67943913	67945262	+	STARD8	0x2
17142	chrX	67991638	67992820	+	STARD8	0x2
17143	chrX	68060537	68061807	+	EFNB1	0x0
17144	chrX	68750824	68751972	+	FAM155B	0x0
17145	chrX	69178955	69180098	+	EDA	0x0
17146	chrX	69255471	69256592	+	EDA	0x0
17147	chrX	69257493	69258770	+	EDA	0x0
17148	chrX	69365983	69367147	+	IGBP1	0x0
17149	chrX	69722382	69724461	+	DLG3	0x2
17150	chrX	70149199	70150367	-	SLC7A3	0x0
17151	chrX	70278878	70280095	-	SNX12	0x0
17152	chrX	70286591	70287747	-	SNX12	0x0
17153	chrX	70320039	70321532	+	FOXO4	0x1
17154	chrX	70321728	70323673	+	FOXO4	0x1
17155	chrX	70340997	70342096	+	MED12	0x2
17156	chrX	70459335	70461320	-	ZMYM3	0x0
17157	chrX	70472489	70473621	-	ZMYM3	0x0
17158	chrX	70513629	70514864	+	NONO	0x2
17159	chrX	70516262	70517379	+	NONO	0x2
17160	chrX	70519353	70521009	+	NONO	0x2
17161	chrX	70601103	70602288	+	TAF1	0x2
17162	chrX	70606583	70607775	+	TAF1	0x2
17163	chrX	70612533	70613818	+	TAF1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17164	chrX	70684462	70685732	+	TAF1	0x2
17165	chrX	70752553	70753694	+	OGT	0x0
17166	chrX	70775322	70776410	+	OGT	0x0
17167	chrX	70793749	70796351	+	OGT	0x0
17168	chrX	71358537	71359713	+	NHSL2	0x0
17169	chrX	71361605	71362707	+	NHSL2	0x0
17170	chrX	71366061	71367241	+	FLJ44635	0x0
17171	chrX	71369698	71370927	+	FLJ44635	0x0
17172	chrX	71423975	71425586	-	ERCC6L	0x0
17173	chrX	71494891	71496069	-	RPS4X	0x0
17174	chrX	71792180	71793344	-	HDAC8	0x0
17175	chrX	71798275	71801129	-	PHKA1	0x0
17176	chrX	71885470	71886616	-	PHKA1	0x0
17177	chrX	72433929	72435090	-	NAP1L2	0x0
17178	chrX	72442535	72444352	+	PABPC1L2B	0x0
17179	chrX	72902328	72903440	+	CHIC1	0x0
17180	chrX	72904466	72906093	+	CHIC1	0x0
17181	chrX	72906190	72907366	+	CHIC1	0x0
17182	chrX	73807230	73809455	-	RLIM	0x0
17183	chrX	73953370	73954483	-	KIAA2022	0x0
17184	chrX	74269191	74271571	-	ABCB7	0x0
17185	chrX	74290840	74292011	-	ABCB7	0x0
17186	chrX	74523549	74524622	+	UPRT	0x0
17187	chrX	75403085	75404949	+	CXorf26	0x0
17188	chrX	75627515	75628670	-	MIR384	0x0
17189	chrX	76760791	76763896	-	ATRX	0x2
17190	chrX	76829134	76830350	-	ATRX	0x2
17191	chrX	76888161	76889309	-	ATRX	0x2
17192	chrX	76907404	76908846	-	ATRX	0x2
17193	chrX	76929949	76931209	-	ATRX	0x2
17194	chrX	76938668	76940263	-	ATRX	0x2
17195	chrX	77039752	77040931	-	ATRX	0x2
17196	chrX	77081612	77083231	-	MAGT1	0x0
17197	chrX	77083608	77084739	-	MAGT1	0x0
17198	chrX	77359696	77360883	+	PGK1	0x0
17199	chrX	77380989	77382245	+	PGK1	0x0
17200	chrX	78615417	78616688	-	ITM2A	0x0
17201	chrX	79589744	79590924	-	BRWD3	0x0
17202	chrX	79923909	79925078	-	BRWD3	0x0
17203	chrX	79928642	79930823	-	BRWD3	0x0
17204	chrX	79947923	79949126	-	BRWD3	0x0
17205	chrX	80369223	80370512	-	HMGN5	0x0
17206	chrX	80553034	80555415	+	SH3BGRL	0x0
17207	chrX	83317143	83319289	-	RPS6KA6	0x1
17208	chrX	83356486	83357635	-	RPS6KA6	0x1
17209	chrX	84342389	84343788	+	APOOL	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17210	chrX	85118066	85119312	-	CHM	0x0
17211	chrX	95991472	95992717	+	DIAPH2	0x0
17212	chrX	96014949	96016060	+	DIAPH2	0x0
17213	chrX	96016174	96017299	+	DIAPH2	0x0
17214	chrX	96021048	96022241	+	DIAPH2	0x0
17215	chrX	96308295	96309477	+	DIAPH2	0x0
17216	chrX	96751450	96752624	+	DIAPH2	0x0
17217	chrX	96854783	96856293	+	DIAPH2	0x0
17218	chrX	96856428	96857596	+	DIAPH2	0x0
17219	chrX	96858687	96860432	+	DIAPH2	0x0
17220	chrX	99547531	99549647	-	PCDH19	0x0
17221	chrX	99883591	99885213	-	TSPAN6	0x0
17222	chrX	100095758	100096933	+	CSTF2	0x0
17223	chrX	100097224	100099039	+	CSTF2	0x0
17224	chrX	100109376	100110562	-	NOX1	0x0
17225	chrX	100667478	100668647	+	HNRNPH2	0x0
17226	chrX	100667478	100668647	+	RPL36A-HNRNPH2	0x0
17227	chrX	100739807	100740995	+	ARMCX4	0x0
17228	chrX	100878982	100880462	+	ARMCX3	0x0
17229	chrX	100909819	100911027	-	ARMCX2	0x0
17230	chrX	101911270	101912378	+	GPRASP1	0x0
17231	chrX	102470854	102472121	+	BEX4	0x0
17232	chrX	102507867	102509084	-	TCEAL8	0x0
17233	chrX	102563780	102565430	-	BEX2	0x1
17234	chrX	102612439	102613645	+	WBP5	0x0
17235	chrX	102632177	102633422	+	NGFRAP1	0x0
17236	chrX	102767669	102768826	-	RAB40A	0x0
17237	chrX	102930045	102931667	-	MORF4L2	0x0
17238	chrX	102933150	102934412	-	MORF4L2	0x0
17239	chrX	102964352	102965488	+	TMEM31	0x0
17240	chrX	103035277	103036381	+	PLP1	0x0
17241	chrX	103438647	103439811	+	FAM199X	0x0
17242	chrX	106183605	106184813	-	MORC4	0x0
17243	chrX	106305237	106306444	-	RBM41	0x0
17244	chrX	106307345	106308499	-	RBM41	0x0
17245	chrX	106309381	106310511	-	RBM41	0x0
17246	chrX	106892841	106894825	+	PRPS1	0x2
17247	chrX	107113066	107114226	+	MID2	0x0
17248	chrX	107327583	107328763	-	PSMD10	0x0
17249	chrX	108785836	108787159	+	NXT2	0x0
17250	chrX	108884161	108886862	-	ACSL4	0x0
17251	chrX	109257031	109258299	+	TMEM164	0x0
17252	chrX	109416515	109418514	+	TMEM164	0x0
17253	chrX	109419080	109421275	+	TMEM164	0x0
17254	chrX	109438419	109439931	-	AMMECR1	0x0
17255	chrX	109764007	109765258	+	TDGF1P3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17256	chrX	110860943	110862169	-	TRPC5	0x0
17257	chrX	110863407	110864908	-	TRPC5	0x0
17258	chrX	110999459	111000577	+	ALG13	0x0
17259	chrX	111003133	111004334	+	ALG13	0x0
17260	chrX	111019209	111020366	+	ALG13	0x0
17261	chrX	114344867	114346062	-	LRCH2	0x0
17262	chrX	114346336	114347613	-	LRCH2	0x0
17263	chrX	114356519	114357700	-	LRCH2	0x0
17264	chrX	114883665	114885501	+	PLS3	0x0
17265	chrX	117031281	117033160	-	KLHL13	0x0
17266	chrX	117035257	117036496	-	KLHL13	0x0
17267	chrX	117042717	117044600	-	KLHL13	0x0
17268	chrX	117052917	117054914	-	KLHL13	0x0
17269	chrX	117576922	117578086	-	KLHL13	0x0
17270	chrX	117721554	117722704	+	DOCK11	0x0
17271	chrX	118152851	118153948	+	LONRF3	0x0
17272	chrX	118155198	118157103	+	LONRF3	0x0
17273	chrX	118376896	118378611	+	PGRMC1	0x0
17274	chrX	118381626	118383210	-	KIAA1210	0x0
17275	chrX	118383257	118384486	-	KIAA1210	0x0
17276	chrX	118558601	118559703	-	SLC25A5-AS1	0x0
17277	chrX	118603253	118605799	+	SLC25A5	0x0
17278	chrX	118670967	118672223	-	CXorf56	0x0
17279	chrX	118722222	118723532	-	NKRF	0x0
17280	chrX	118751145	118752352	-	SEPT6	0x0
17281	chrX	118967773	118969240	-	UPF3B	0x0
17282	chrX	119054211	119056835	-	NKAP	0x0
17283	chrX	119560768	119561914	-	LAMP2	0x0
17284	chrX	119570186	119573258	-	LAMP2	0x0
17285	chrX	119657998	119660540	-	CUL4B	0x0
17286	chrX	119678009	119679132	-	CUL4B	0x0
17287	chrX	119691255	119692391	-	CUL4B	0x0
17288	chrX	119745657	119746778	+	MCTS1	0x1
17289	chrX	120182391	120183631	+	GLUD2	0x0
17290	chrX	120336476	120337758	-	CT47A1	0x0
17291	chrX	120336476	120337758	-	CT47A6	0x0
17292	chrX	122250516	122251707	-	THOC2	0x0
17293	chrX	122734823	122736575	-	THOC2	0x0
17294	chrX	122736649	122737806	-	THOC2	0x0
17295	chrX	122801473	122802622	-	THOC2	0x0
17296	chrX	123019238	123020917	+	XIAP	0x0
17297	chrX	123040922	123044861	+	XIAP	0x0
17298	chrX	123047117	123048278	+	XIAP	0x0
17299	chrX	123194546	123195741	+	STAG2	0x0
17300	chrX	123214762	123215884	+	STAG2	0x0
17301	chrX	123234202	123236878	+	STAG2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17302	chrX	125683254	125684611	-	DCAF12L1	0x0
17303	chrX	128580600	128581745	-	SMARCA1	0x2
17304	chrX	128724408	128727027	+	OCRL	0x0
17305	chrX	128779358	128780581	-	APLN	0x0
17306	chrX	128901764	128903678	+	XPNPEP2	0x2
17307	chrX	128939164	128940397	-	ZDHHC9	0x0
17308	chrX	128957118	128958252	-	ZDHHC9	0x0
17309	chrX	129058344	129059531	+	UTP14A	0x0
17310	chrX	129148334	129149567	+	BCORL1	0x0
17311	chrX	129189947	129191988	+	BCORL1	0x0
17312	chrX	129199421	129200531	-	ELF4	0x2
17313	chrX	129216903	129218095	-	ELF4	0x2
17314	chrX	129262852	129264106	-	AIFM1	0x0
17315	chrX	129266749	129267948	-	AIFM1	0x0
17316	chrX	129296913	129298058	-	AIFM1	0x0
17317	chrX	129299020	129300169	-	AIFM1	0x0
17318	chrX	129693201	129694388	+	FAM45B	0x0
17319	chrX	129960899	129962065	-	ENOX2	0x0
17320	chrX	129967668	129968811	-	ENOX2	0x0
17321	chrX	129990286	129991440	-	ENOX2	0x0
17322	chrX	130917177	130918288	-	LOC286467	0x0
17323	chrX	131208556	131210202	+	MST4	0x0
17324	chrX	131263718	131264889	-	FRMD7	0x0
17325	chrX	131336647	131339615	-	RAP2C	0x0
17326	chrX	131512733	131513829	-	MBNL3	0x0
17327	chrX	131967625	131968820	-	HS6ST2	0x0
17328	chrX	132157075	132158578	-	USP26	0x2
17329	chrX	132434256	132436820	-	GPC4	0x0
17330	chrX	132457596	132458792	-	GPC4	0x0
17331	chrX	132475386	132476897	-	GPC4	0x0
17332	chrX	132669256	132670412	-	GPC3	0x1
17333	chrX	132804827	132805980	+	CCDC160	0x0
17334	chrX	132887060	132888306	-	GPC3	0x1
17335	chrX	133051210	133052369	-	GPC3	0x1
17336	chrX	133118788	133119941	-	GPC3	0x1
17337	chrX	133559720	133563134	+	PHF6	0x1
17338	chrX	133633726	133635154	+	HPRT1	0x0
17339	chrX	133682111	133683242	-	MIR424	0x0
17340	chrX	133903681	133907150	-	FAM122B	0x0
17341	chrX	134561543	134562831	+	LINC00086	0x0
17342	chrX	135044069	135045768	-	MMGT1	0x0
17343	chrX	135126462	135128057	+	SLC9A6	0x0
17344	chrX	135128568	135129765	+	SLC9A6	0x0
17345	chrX	135291534	135293585	+	FHL1	0x0
17346	chrX	136040445	136041614	+	CD40LG	0x0
17347	chrX	136076576	136077675	+	CD40LG	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17348	chrX	136652226	136653367	+	ZIC3	0x2
17349	chrX	137713616	137714750	-	FGF13	0x0
17350	chrX	138663427	138664860	-	MCF2	0x0
17351	chrX	138689299	138690430	-	MCF2	0x0
17352	chrX	138808815	138811034	-	ATP11C	0x0
17353	chrX	138815298	138816478	-	ATP11C	0x0
17354	chrX	139260323	139261434	+	RP1-177G6.2	0x0
17355	chrX	140969116	140970293	+	MAGEC3	0x0
17356	chrX	147030185	147032653	+	FMR1	0x0
17357	chrX	148560415	148561566	-	IDS	0x0
17358	chrX	148562201	148563815	-	IDS	0x0
17359	chrX	148564210	148565251	-	IDS	0x0
17360	chrX	148571300	148572511	-	IDS	0x0
17361	chrX	148577401	148578638	-	IDS	0x0
17362	chrX	148677687	148679590	-	TMEM185A	0x0
17363	chrX	149839623	149840794	+	MTM1	0x0
17364	chrX	149932455	149933560	+	MTMR1	0x0
17365	chrX	150156347	150157736	+	HMGB3	0x0
17366	chrX	150161904	150163090	+	HMGB3	0x0
17367	chrX	150870844	150874707	+	PRRG3	0x0
17368	chrX	152140175	152142375	+	ZNF185	0x0
17369	chrX	152156912	152160638	-	PNMA5	0x0
17370	chrX	152616516	152617630	+	ZNF275	0x0
17371	chrX	152660871	152662254	-	TREX2	0x0
17372	chrX	152662568	152663763	-	TREX2	0x0
17373	chrX	152770885	152772035	+	BGN	0x0
17374	chrX	152953558	152954763	+	SLC6A8	0x0
17375	chrX	152960481	152962489	+	SLC6A8	0x0
17376	chrX	152965508	152966880	-	BCAP31	0x0
17377	chrX	152966964	152968105	-	BCAP31	0x0
17378	chrX	152971437	152972631	-	BCAP31	0x0
17379	chrX	153050725	153053296	-	IDH3G	0x0
17380	chrX	153059862	153061050	+	SSR4	0x0
17381	chrX	153067123	153069852	-	PDZD4	0x0
17382	chrX	153194948	153196169	-	NAA10	0x0
17383	chrX	153209177	153210401	-	RENBP	0x0
17384	chrX	153212569	153214333	-	HCFC1	0x0
17385	chrX	153217925	153219078	-	HCFC1	0x0
17386	chrX	153220081	153221228	-	HCFC1	0x0
17387	chrX	153221561	153222755	-	HCFC1	0x0
17388	chrX	153235684	153237267	-	HCFC1	0x0
17389	chrX	153275699	153276921	-	IRAK1	0x0
17390	chrX	153279111	153280249	-	IRAK1	0x0
17391	chrX	153281475	153282620	-	IRAK1	0x0
17392	chrX	153288246	153289870	-	MECP2	0x0
17393	chrX	153295155	153296286	-	MECP2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17394	chrX	153577273	153578377	-	FLNA	0x2
17395	chrX	153579084	153580214	-	FLNA	0x2
17396	chrX	153582749	153583932	-	FLNA	0x2
17397	chrX	153587924	153589425	-	FLNA	0x2
17398	chrX	153594293	153595666	-	FLNA	0x2
17399	chrX	153595877	153596968	-	FLNA	0x2
17400	chrX	153598927	153600124	-	FLNA	0x2
17401	chrX	153607802	153609235	+	EMD	0x0
17402	chrX	153647784	153648890	+	TAZ	0x0
17403	chrX	153662107	153663330	+	ATP6AP1	0x0
17404	chrX	153670924	153672265	+	GDI1	0x0
17405	chrX	153699433	153700547	+	PLXNA3	0x0
17406	chrX	153701398	153702597	+	PLXNA3	0x0
17407	chrX	153706643	153707793	-	LAGE3	0x0
17408	chrX	153712345	153713463	-	UBL4A	0x0
17409	chrX	153773760	153774948	-	G6PD	0x0
17410	chrX	153993945	153995161	+	DKC1	0x0
17411	chrX	154005389	154006462	+	DKC1	0x0
17412	chrX	154006500	154007739	-	MPP1	0x0
17413	chrX	154156934	154158033	-	F8	0x2
17414	chrX	154352272	154353450	+	BRCC3	0x0
17415	chrX	154466797	154468564	+	VBP1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17416	chr1	3044472	3045634	+	Lypla1	0x0
17417	chr1	3974529	3975799	-	Rp1	0x2
17418	chr1	3976999	3978179	-	Rp1	0x2
17419	chr1	4761870	4763044	+	Lypla1	0x0
17420	chr1	4766097	4767251	-	Mrpl15	0x0
17421	chr1	4769728	4770899	-	Mrpl15	0x0
17422	chr1	4834916	4837302	+	Lypla1	0x0
17423	chr1	6256817	6257966	+	Rb1cc1	0x1
17424	chr1	6286832	6288008	-	Npbwr1	0x0
17425	chr1	7159666	7161569	+	Pcmtd1	0x2
17426	chr1	7610244	7611492	+	Pcmtd1	0x2
17427	chr1	7729792	7730963	-	Sntg1	0x0
17428	chr1	7939379	7940478	+	Pcmtd1	0x2
17429	chr1	8805423	8806774	+	Rrs1	0x0
17430	chr1	9386025	9387141	-	Sntg1	0x0
17431	chr1	9536607	9538239	+	Adhfe1	0x0
17432	chr1	9536607	9538239	+	Rrs1	0x0
17433	chr1	9661700	9662843	-	Mybl1	0x0
17434	chr1	9712622	9714001	-	Vcpip1	0x0
17435	chr1	9737061	9738334	-	Vcpip1	0x0
17436	chr1	9888595	9889696	+	Sgk3	0x0
17437	chr1	9911322	9912522	+	Mcmdc2	0x0
17438	chr1	10062173	10070500	+	Cspp1	0x0
17439	chr1	10125914	10127167	+	Cspp1	0x0
17440	chr1	10127225	10128966	-	Arfgef1	0x0
17441	chr1	10132139	10133318	-	Arfgef1	0x0
17442	chr1	10137487	10138723	-	Arfgef1	0x0
17443	chr1	10163636	10164795	-	Arfgef1	0x0
17444	chr1	10203717	10204826	-	Arfgef1	0x0
17445	chr1	10858513	10859964	+	Prex2	0x2
17446	chr1	11272777	11273884	+	Prex2	0x2
17447	chr1	11374310	11375485	-	Cpa6	0x0
17448	chr1	11610018	11611305	-	Cpa6	0x0
17449	chr1	12709442	12710556	+	Sulf1	0x0
17450	chr1	12775961	12777153	+	Sulf1	0x0
17451	chr1	12786682	12787797	+	Sulf1	0x0
17452	chr1	12848110	12849938	+	Sulf1	0x0
17453	chr1	13064818	13065953	+	Sulf1	0x0
17454	chr1	13103657	13104891	-	Prdm14	0x0
17455	chr1	13108452	13109645	-	Prdm14	0x0
17456	chr1	13113918	13115102	-	Prdm14	0x0
17457	chr1	13115517	13116616	-	Prdm14	0x0
17458	chr1	13116712	13117933	-	Prdm14	0x0
17459	chr1	13130401	13133045	-	Ncoa2	0x2
17460	chr1	13554334	13556813	-	Tram1	0x0
17461	chr1	13615956	13617192	-	Lactb2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17462	chr1	15822905	15824255	+	Terf1	0x0
17463	chr1	15830112	15831245	+	Terf1	0x0
17464	chr1	16092183	16093854	-	Rpl7	0x0
17465	chr1	16555805	16556908	-	Ube2w	0x0
17466	chr1	16560041	16561227	-	Ube2w	0x0
17467	chr1	16583096	16584291	-	Ube2w	0x0
17468	chr1	16632812	16634006	-	Tceb1	0x0
17469	chr1	16667147	16668320	+	Tmem70	0x0
17470	chr1	19320675	19322945	+	Tfap2b	0x0
17471	chr1	20190528	20191715	-	Pkhd1	0x2
17472	chr1	20264984	20266099	-	Pkhd1	0x2
17473	chr1	20792595	20794932	-	Mcm3	0x0
17474	chr1	20799655	20800754	-	Mcm3	0x0
17475	chr1	20986500	20991446	-	Tram2	0x0
17476	chr1	21059328	21060523	-	Tram2	0x0
17477	chr1	21219477	21220606	+	Tmem14a	0x0
17478	chr1	21252382	21253558	+	Gsta3	0x0
17479	chr1	21501588	21503556	-	Kcnq5	0x2
17480	chr1	22331972	22333143	-	Rims1	0x0
17481	chr1	22369025	22370173	-	Rims1	0x0
17482	chr1	23852146	23853781	-	Smap1	0x0
17483	chr1	24618236	24622690	-	Col19a1	0x2
17484	chr1	24819627	24821137	+	Lmbrd1	0x0
17485	chr1	25284694	25285870	-	Bai3	0x1
17486	chr1	29541196	29542682	-	Gm597	0x0
17487	chr1	30826217	30827323	+	Lgsn	0x0
17488	chr1	30887608	30888757	-	Phf3	0x2
17489	chr1	30919356	30920584	-	Phf3	0x2
17490	chr1	30999279	31000419	-	Gm13363	0x0
17491	chr1	30999279	31000419	-	Ptp4a1	0x0
17492	chr1	31005389	31006557	-	Gm13363	0x0
17493	chr1	31005389	31006557	-	Ptp4a1	0x0
17494	chr1	33157316	33158535	+	Khdrbs2	0x2
17495	chr1	33833187	33834319	-	Zfp451	0x0
17496	chr1	33856180	33857373	-	Zfp451	0x0
17497	chr1	33940191	33941378	+	Dst	0x2
17498	chr1	33978526	33979664	+	Dst	0x2
17499	chr1	34054646	34055837	+	Dst	0x2
17500	chr1	34088664	34089859	+	Dst	0x2
17501	chr1	34163109	34165151	+	Dst	0x2
17502	chr1	34191443	34192597	+	Dst	0x2
17503	chr1	34225548	34227203	+	Dst	0x2
17504	chr1	34227539	34229734	+	Dst	0x2
17505	chr1	34246785	34248686	+	Dst	0x2
17506	chr1	34252206	34253488	+	Dst	0x2
17507	chr1	34255665	34256841	+	Dst	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17508	chr1	34267478	34268641	+	Dst	0x2
17509	chr1	34268704	34269863	+	Dst	0x2
17510	chr1	34274723	34275837	+	Dst	0x2
17511	chr1	34282105	34283337	+	Dst	0x2
17512	chr1	34284074	34286064	+	Dst	0x2
17513	chr1	34304039	34305221	+	Dst	0x2
17514	chr1	34308141	34310347	+	Dst	0x2
17515	chr1	34318378	34319650	+	Dst	0x2
17516	chr1	34319743	34321986	+	Dst	0x2
17517	chr1	34327693	34328836	+	Dst	0x2
17518	chr1	34331965	34333231	+	Dst	0x2
17519	chr1	34338777	34339951	+	Dst	0x2
17520	chr1	34340622	34341802	+	Dst	0x2
17521	chr1	34342952	34344053	+	Dst	0x2
17522	chr1	34346734	34347863	+	Dst	0x2
17523	chr1	34363940	34365951	+	Dst	0x2
17524	chr1	34493424	34494692	-	Ccdc115	0x0
17525	chr1	34502357	34504368	+	Imp4	0x2
17526	chr1	34505428	34506631	+	Imp4	0x2
17527	chr1	34868510	34869609	+	Arhgef4	0x0
17528	chr1	34869890	34872769	-	Fam168b	0x0
17529	chr1	34935412	34936595	+	Plekhb2	0x0
17530	chr1	35089774	35090949	-	Fam168b	0x0
17531	chr1	35247591	35248728	-	Fam168b	0x0
17532	chr1	36138062	36139182	+	Hs6st1	0x0
17533	chr1	36159951	36163489	+	Hs6st1	0x0
17534	chr1	36197604	36201602	-	Uggt1	0x2
17535	chr1	36219633	36220749	-	Uggt1	0x2
17536	chr1	36233807	36235017	-	Uggt1	0x2
17537	chr1	36392522	36394255	-	Kansl3	0x0
17538	chr1	36414380	36415557	-	Kansl3	0x0
17539	chr1	36475166	36476329	-	Lman2l	0x0
17540	chr1	36479828	36481146	-	Lman2l	0x0
17541	chr1	36564943	36566042	+	Cnnm4	0x2
17542	chr1	36582486	36585039	+	Cnnm3	0x0
17543	chr1	36605544	36606713	-	Sema4c	0x0
17544	chr1	36656313	36657466	-	Fam178b	0x0
17545	chr1	36754741	36757160	-	Actr1b	0x0
17546	chr1	36852470	36853691	-	Tmem131	0x0
17547	chr1	36861217	36862358	-	Tmem131	0x0
17548	chr1	36864276	36865417	-	Tmem131	0x0
17549	chr1	36867775	36868971	-	Tmem131	0x0
17550	chr1	36963863	36965010	-	Tmem131	0x0
17551	chr1	37014340	37015508	-	Tmem131	0x0
17552	chr1	37061775	37062971	+	Cnga3	0x0
17553	chr1	37318677	37319842	+	Cnga3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17554	chr1	37424347	37425492	+	Inpp4a	0x0
17555	chr1	37461613	37462715	+	Inpp4a	0x0
17556	chr1	37464979	37466171	+	Inpp4a	0x0
17557	chr1	37473674	37477787	-	Coa5	0x0
17558	chr1	37497201	37500844	-	Mgat4a	0x0
17559	chr1	38043750	38045053	-	Txndc9	0x0
17560	chr1	38096959	38098140	+	Eif5b	0x0
17561	chr1	38102010	38103076	+	Eif5b	0x0
17562	chr1	38108079	38109220	+	Eif5b	0x0
17563	chr1	38111737	38112883	-	Rev1	0x0
17564	chr1	38115497	38116657	-	Rev1	0x0
17565	chr1	38119437	38120670	-	Rev1	0x0
17566	chr1	38127690	38128898	-	Rev1	0x0
17567	chr1	38144431	38146040	-	Rev1	0x0
17568	chr1	38180651	38181858	-	Rev1	0x0
17569	chr1	38538784	38539980	-	Aff3	0x2
17570	chr1	38656511	38657686	-	Aff3	0x2
17571	chr1	38852545	38853755	-	Lonrf2	0x0
17572	chr1	38921182	38922341	-	Chst10	0x0
17573	chr1	39427625	39428852	+	Rpl31	0x0
17574	chr1	39431714	39432877	+	Rpl31	0x0
17575	chr1	39481209	39482443	-	Tbc1d8	0x0
17576	chr1	39510699	39511897	-	Tbc1d8	0x0
17577	chr1	39516313	39517507	-	Tbc1d8	0x0
17578	chr1	39575846	39577179	+	Cnot11	0x0
17579	chr1	39596323	39597469	+	Cnot11	0x0
17580	chr1	39601796	39603058	+	Cnot11	0x0
17581	chr1	39608151	39609578	-	Rnf149	0x0
17582	chr1	39619271	39620468	-	Rnf149	0x0
17583	chr1	39625904	39627050	-	Rnf149	0x0
17584	chr1	40066018	40067226	+	Map4k4	0x2
17585	chr1	40080656	40083619	+	Map4k4	0x2
17586	chr1	40308499	40309611	+	Il1r1	0x0
17587	chr1	43153080	43154296	-	Tgfbrap1	0x0
17588	chr1	43164661	43165839	+	AI597479	0x0
17589	chr1	43170153	43171486	+	AI597479	0x0
17590	chr1	43171491	43173058	+	AI597479	0x0
17591	chr1	43466714	43467859	+	Nck2	0x0
17592	chr1	43514273	43515380	+	Nck2	0x0
17593	chr1	43599101	43600282	+	Nck2	0x0
17594	chr1	43610630	43611796	+	Nck2	0x0
17595	chr1	43617131	43618410	+	Nck2	0x0
17596	chr1	43804737	43807111	-	Uxs1	0x0
17597	chr1	43997819	43998923	+	Tpp2	0x0
17598	chr1	44004593	44005747	+	Tpp2	0x0
17599	chr1	44157003	44158178	-	Tex30	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17600	chr1	44192527	44193710	+	Bivm	0x0
17601	chr1	44200015	44201855	+	Bivm	0x0
17602	chr1	44223261	44224432	+	Ercc5	0x2
17603	chr1	44602927	44604070	-	4930521E06Rik	0x0
17604	chr1	44877824	44878987	-	4930521E06Rik	0x0
17605	chr1	45091647	45093138	+	Gulp1	0x0
17606	chr1	45243088	45244322	-	Col5a2	0x0
17607	chr1	45914103	45915208	+	Wdr75	0x0
17608	chr1	46423084	46424259	-	Gm4776	0x0
17609	chr1	46429525	46430712	-	Gm4776	0x0
17610	chr1	46430498	46431748	+	Dnahc7b	0x0
17611	chr1	46471000	46472099	+	Dnahc7b	0x0
17612	chr1	46864710	46867366	-	Slc39a10	0x2
17613	chr1	47714524	47715724	+	Dnahc7b	0x0
17614	chr1	47920371	47921472	+	Dnahc7b	0x0
17615	chr1	48871350	48872558	-	Slc39a10	0x2
17616	chr1	49099870	49101090	-	9330175M20Rik	0x0
17617	chr1	51526157	51527847	-	Nabp1	0x0
17618	chr1	51806399	51808395	-	Myo1b	0x0
17619	chr1	51971636	51972773	+	Stat4	0x2
17620	chr1	52200793	52202013	-	Gls	0x0
17621	chr1	52209799	52210898	+	Stat1	0x0
17622	chr1	52216529	52217805	+	Stat1	0x0
17623	chr1	52220885	52222073	-	Gls	0x0
17624	chr1	52241935	52243069	-	Gls	0x0
17625	chr1	52244930	52246148	-	Gls	0x0
17626	chr1	52279254	52280435	-	Gls	0x0
17627	chr1	52376541	52377720	+	Stat1	0x0
17628	chr1	52712950	52714601	-	Mfsd6	0x0
17629	chr1	52978835	52980670	-	1700019D03Rik	0x0
17630	chr1	52981068	52982241	-	1700019D03Rik	0x0
17631	chr1	53007920	53009097	-	1700019D03Rik	0x0
17632	chr1	53241493	53242702	-	1700019A02Rik	0x0
17633	chr1	53259145	53260332	-	Pms1	0x1
17634	chr1	53331461	53332656	-	Pms1	0x1
17635	chr1	53365984	53367538	+	Ormdl1	0x0
17636	chr1	53401151	53402372	-	Asnsd1	0x0
17637	chr1	53403314	53405948	-	Asnsd1	0x0
17638	chr1	53812971	53814387	-	Stk17b	0x0
17639	chr1	53838938	53840127	-	Stk17b	0x0
17640	chr1	54529477	54530649	-	Pgap1	0x0
17641	chr1	54531129	54532228	-	Pgap1	0x0
17642	chr1	54532837	54534056	-	Pgap1	0x0
17643	chr1	54535773	54536970	-	Pgap1	0x0
17644	chr1	54701797	54702993	-	Ankrd44	0x0
17645	chr1	54877962	54879174	-	Ankrd44	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17646	chr1	55042356	55043566	-	Sf3b1	0x2
17647	chr1	55043675	55045532	-	Sf3b1	0x2
17648	chr1	55046717	55047880	-	Sf3b1	0x2
17649	chr1	55056614	55057808	-	Sf3b1	0x2
17650	chr1	55062168	55063321	-	Sf3b1	0x2
17651	chr1	55075514	55076718	-	Sf3b1	0x2
17652	chr1	55083656	55084862	-	Sf3b1	0x2
17653	chr1	55122907	55124153	+	Coq10b	0x0
17654	chr1	55134167	55136055	-	Hspd1	0x0
17655	chr1	55138011	55139108	-	Hspd1	0x0
17656	chr1	55143033	55144341	-	Hspd1	0x0
17657	chr1	55147419	55148598	+	Hspe1	0x0
17658	chr1	55184897	55186056	+	Mob4	0x0
17659	chr1	55210561	55212236	+	Mob4	0x0
17660	chr1	55392064	55393266	+	Plcl1	0x0
17661	chr1	55596011	55597192	-	Boll	0x0
17662	chr1	56850806	56853710	-	Satb2	0x2
17663	chr1	56927924	56929086	-	Satb2	0x2
17664	chr1	57410093	57411307	-	4930558J18Rik	0x0
17665	chr1	57471992	57473205	+	9430016H08Rik	0x0
17666	chr1	58072304	58074079	+	Sgol2	0x0
17667	chr1	58081830	58083208	+	Sgol2	0x0
17668	chr1	58461566	58464509	+	Bzw1	0x0
17669	chr1	58476573	58477768	-	Clk1	0x0
17670	chr1	58516216	58517611	-	Orc2	0x0
17671	chr1	58518158	58519285	-	Orc2	0x0
17672	chr1	58519948	58521393	-	Orc2	0x0
17673	chr1	58528112	58529332	-	Orc2	0x0
17674	chr1	58579359	58580579	-	Fam126b	0x0
17675	chr1	58584975	58586120	-	Fam126b	0x0
17676	chr1	58611417	58612619	-	Fam126b	0x0
17677	chr1	58706225	58707617	+	Gm20257	0x0
17678	chr1	58957539	58959204	-	Trak2	0x0
17679	chr1	59049296	59050422	+	Stradb	0x0
17680	chr1	59542441	59544826	+	Fzd7	0x0
17681	chr1	59695988	59697376	-	Sumo1	0x0
17682	chr1	59751278	59752457	+	Nop58	0x0
17683	chr1	59759128	59760337	+	Nop58	0x0
17684	chr1	59763006	59764165	+	Nop58	0x0
17685	chr1	59767700	59769323	+	Nop58	0x0
17686	chr1	59774326	59775511	+	Nop58	0x0
17687	chr1	59857485	59858677	+	Bmpr2	0x0
17688	chr1	59871580	59872817	+	Bmpr2	0x0
17689	chr1	59924244	59925346	+	Bmpr2	0x0
17690	chr1	59928133	59929648	+	Bmpr2	0x0
17691	chr1	59931008	59932252	+	Bmpr2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17692	chr1	59933539	59934713	+	Bmpr2	0x0
17693	chr1	59984554	59985698	+	Fam117b	0x0
17694	chr1	60038891	60042721	+	Fam117b	0x0
17695	chr1	60209778	60210956	+	Carf	0x0
17696	chr1	60316665	60317861	+	Nbeal1	0x0
17697	chr1	60334212	60335384	+	Nbeal1	0x0
17698	chr1	60385695	60386870	+	Nbeal1	0x0
17699	chr1	60388870	60394556	+	Nbeal1	0x0
17700	chr1	60433000	60434150	+	Cyp20a1	0x0
17701	chr1	60444042	60445232	+	Cyp20a1	0x0
17702	chr1	60501811	60502926	+	Abi2	0x1
17703	chr1	60504351	60505513	+	Abi2	0x1
17704	chr1	60533744	60538453	+	Abi2	0x1
17705	chr1	60540176	60541886	-	Raph1	0x2
17706	chr1	60541976	60543124	-	Raph1	0x2
17707	chr1	60543612	60544743	-	Raph1	0x2
17708	chr1	60601090	60602264	-	Raph1	0x2
17709	chr1	60760952	60762482	+	Cd28	0x0
17710	chr1	60957364	60958712	+	Ctla4	0x0
17711	chr1	61626010	61627173	+	Pard3b	0x0
17712	chr1	62707520	62708746	+	Pard3b	0x0
17713	chr1	62772603	62773784	-	4930487H11Rik	0x0
17714	chr1	62808696	62809894	+	Nrp2	0x0
17715	chr1	62843339	62845291	+	Nrp2	0x0
17716	chr1	62863270	62865754	+	Nrp2	0x0
17717	chr1	63095032	63096109	-	Ino80d	0x0
17718	chr1	63096432	63098281	-	Ino80d	0x0
17719	chr1	63098839	63100888	-	Ino80d	0x0
17720	chr1	63101048	63103606	-	Ino80d	0x0
17721	chr1	63132061	63133401	-	Ino80d	0x0
17722	chr1	63140050	63141185	-	Ino80d	0x0
17723	chr1	63165140	63166304	+	Gm11602	0x0
17724	chr1	63203203	63204388	-	Ndufs1	0x0
17725	chr1	63206935	63208153	+	Gm11602	0x0
17726	chr1	63224478	63226756	+	Eef1b2	0x0
17727	chr1	63224478	63226756	+	Snora41	0x0
17728	chr1	63256371	63257561	+	Eef1b2	0x0
17729	chr1	63275717	63276838	+	Zdbf2	0x4
17730	chr1	63302040	63303149	+	Zdbf2	0x4
17731	chr1	63348782	63349948	+	Zdbf2	0x4
17732	chr1	63350986	63352262	+	Zdbf2	0x4
17733	chr1	63356857	63358172	+	Zdbf2	0x4
17734	chr1	63358232	63359697	+	Zdbf2	0x4
17735	chr1	63359988	63361599	+	Zdbf2	0x4
17736	chr1	63539077	63540230	+	Adam23	0x0
17737	chr1	63559103	63560264	+	Adam23	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17738	chr1	63601841	63603025	+	Adam23	0x0
17739	chr1	63616360	63617490	+	Adam23	0x0
17740	chr1	63624032	63625219	+	Adam23	0x0
17741	chr1	63626238	63628446	+	Adam23	0x0
17742	chr1	63629470	63630611	+	Adam23	0x0
17743	chr1	63631714	63632879	+	Adam23	0x0
17744	chr1	63635211	63636484	+	Adam23	0x0
17745	chr1	63638407	63639828	+	Adam23	0x0
17746	chr1	63640901	63642492	+	Adam23	0x0
17747	chr1	63802096	63803284	+	Fastkd2	0x0
17748	chr1	64125076	64126303	-	Klf7	0x0
17749	chr1	64644661	64649614	+	Creb1	0x2
17750	chr1	64747555	64748774	+	Ccnyl1	0x0
17751	chr1	64770574	64772631	+	Ccnyl1	0x0
17752	chr1	64776876	64781790	-	Fzd5	0x0
17753	chr1	64782735	64783960	-	Fzd5	0x0
17754	chr1	64835337	64836492	-	Plekhm3	0x0
17755	chr1	64837550	64840229	-	Plekhm3	0x0
17756	chr1	64902987	64904167	-	Plekhm3	0x0
17757	chr1	64930052	64931229	-	Plekhm3	0x0
17758	chr1	65040038	65041695	-	Akr1cl	0x0
17759	chr1	65204730	65206366	-	Idh1	0x1
17760	chr1	65236391	65237538	+	Pikfyve	0x0
17761	chr1	65251700	65252885	+	Pikfyve	0x0
17762	chr1	65320030	65323363	+	Pikfyve	0x0
17763	chr1	65326604	65327779	+	Pikfyve	0x0
17764	chr1	65598797	65599988	+	Pth2r	0x0
17765	chr1	66459531	66460679	+	Map2	0x2
17766	chr1	66486796	66488134	+	Map2	0x2
17767	chr1	66761153	66763160	+	Rpe	0x0
17768	chr1	66764603	66766058	+	Rpe	0x0
17769	chr1	66803279	66804390	+	Rpe	0x0
17770	chr1	67048492	67049734	-	Lancl1	0x0
17771	chr1	71073742	71076913	-	Bard1	0x1
17772	chr1	71092726	71093919	-	Bard1	0x1
17773	chr1	71121040	71122437	-	Bard1	0x1
17774	chr1	71610697	71611928	+	Atic	0x2
17775	chr1	71613688	71615024	+	Atic	0x2
17776	chr1	71624689	71626366	+	Atic	0x2
17777	chr1	71631581	71633993	-	Fn1	0x2
17778	chr1	71636818	71638027	-	Fn1	0x2
17779	chr1	71643321	71644701	-	Fn1	0x2
17780	chr1	71646465	71650500	-	Fn1	0x2
17781	chr1	71653926	71655151	-	Fn1	0x2
17782	chr1	71655609	71656795	-	Fn1	0x2
17783	chr1	71658540	71659722	-	Fn1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17784	chr1	71659907	71661105	-	Fn1	0x2
17785	chr1	71661446	71662675	-	Fn1	0x2
17786	chr1	71665491	71666707	-	Fn1	0x2
17787	chr1	71671671	71674411	-	Fn1	0x2
17788	chr1	71684514	71685681	-	Fn1	0x2
17789	chr1	71686347	71688402	-	Fn1	0x2
17790	chr1	71689057	71690253	-	Fn1	0x2
17791	chr1	71694040	71696430	-	Fn1	0x2
17792	chr1	72205296	72207872	-	Mreg	0x0
17793	chr1	72242718	72243915	-	Mreg	0x0
17794	chr1	72244030	72245238	-	Mreg	0x0
17795	chr1	72250976	72252210	-	Mreg	0x0
17796	chr1	72283032	72284296	+	Tmem169	0x0
17797	chr1	72290274	72291573	+	Tmem169	0x0
17798	chr1	72301049	72302337	+	Tmem169	0x0
17799	chr1	72309861	72311012	-	Pecr	0x0
17800	chr1	72319201	72320365	-	Pecr	0x0
17801	chr1	72361981	72363170	+	Xrcc5	0x0
17802	chr1	72372277	72373463	+	Xrcc5	0x0
17803	chr1	72405722	72406908	+	Xrcc5	0x0
17804	chr1	72426820	72429081	+	Xrcc5	0x0
17805	chr1	72430071	72431218	+	Xrcc5	0x0
17806	chr1	72440688	72441885	+	Xrcc5	0x0
17807	chr1	72668726	72669878	+	Smarcal1	0x0
17808	chr1	72758149	72759371	+	Rpl37a	0x0
17809	chr1	72870591	72871801	+	Igfbp2	0x0
17810	chr1	72898237	72899535	+	Igfbp2	0x0
17811	chr1	72904438	72905667	-	Igfbp5	0x1
17812	chr1	73957087	73961226	-	Tns1	0x0
17813	chr1	73999571	74000784	-	Tns1	0x0
17814	chr1	74014179	74015396	-	Tns1	0x0
17815	chr1	74141798	74143013	-	Tns1	0x0
17816	chr1	74289133	74290366	+	Arpc2	0x0
17817	chr1	74326009	74327114	-	Aamp	0x0
17818	chr1	74330034	74331133	-	Aamp	0x0
17819	chr1	74334626	74335807	-	Tmbim1	0x0
17820	chr1	74396602	74397786	+	Pnkd	0x0
17821	chr1	74398810	74400460	+	Pnkd	0x0
17822	chr1	74443032	74444314	+	Ctdsp1	0x0
17823	chr1	74481686	74484499	-	Usp37	0x0
17824	chr1	74484538	74485823	-	Usp37	0x0
17825	chr1	74551438	74552641	-	Usp37	0x0
17826	chr1	74552728	74553929	+	Rqcd1	0x0
17827	chr1	74575357	74577642	+	Rqcd1	0x0
17828	chr1	74618332	74619546	-	Zfp142	0x0
17829	chr1	74723331	74724572	+	Ttll4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17830	chr1	74733764	74734968	+	Ttll4	0x0
17831	chr1	74742820	74743914	+	Ttll4	0x0
17832	chr1	74745436	74748388	+	Ttll4	0x0
17833	chr1	74862778	74863958	-	Fev	0x2
17834	chr1	75126384	75127509	+	Fam134a	0x0
17835	chr1	75143858	75145015	+	Fam134a	0x0
17836	chr1	75167441	75168617	+	Zfand2b	0x0
17837	chr1	75177339	75178522	-	Atg9a	0x0
17838	chr1	75210320	75211479	+	Stk16	0x0
17839	chr1	75211233	75214548	-	Tuba4a	0x0
17840	chr1	75470647	75472890	-	Chpf	0x0
17841	chr1	75492445	75493632	-	Obsl1	0x0
17842	chr1	75524722	75525833	+	Stk11ip	0x0
17843	chr1	75531269	75532414	+	Stk11ip	0x0
17844	chr1	76157149	76158297	+	Gm17751	0x0
17845	chr1	77363459	77365929	-	Epha4	0x2
17846	chr1	77368966	77370428	-	Epha4	0x2
17847	chr1	77390980	77392204	-	Epha4	0x2
17848	chr1	77403603	77404823	-	Epha4	0x2
17849	chr1	77503077	77504291	-	Epha4	0x2
17850	chr1	78429722	78430919	-	Farsb	0x0
17851	chr1	78439662	78440844	-	Farsb	0x0
17852	chr1	78442171	78443395	-	Farsb	0x0
17853	chr1	78456979	78458154	-	Farsb	0x0
17854	chr1	78469849	78470963	-	Farsb	0x0
17855	chr1	78654922	78656024	+	Utp14b	0x0
17856	chr1	78658402	78659579	+	Acsl3	0x2
17857	chr1	78658402	78659579	+	Utp14b	0x0
17858	chr1	78660486	78661631	+	Utp14b	0x0
17859	chr1	78664226	78665472	+	Utp14b	0x0
17860	chr1	78693020	78694151	+	Acsl3	0x2
17861	chr1	78699528	78700673	+	Acsl3	0x2
17862	chr1	78702513	78704653	+	Acsl3	0x2
17863	chr1	79603847	79605027	-	Ap1s3	0x0
17864	chr1	79698896	79701980	-	Wdfy1	0x0
17865	chr1	79790792	79791984	-	Serpine2	0x0
17866	chr1	79919061	79920260	-	Serpine2	0x0
17867	chr1	80261262	80263139	-	Cul3	0x1
17868	chr1	80277398	80279668	-	Cul3	0x1
17869	chr1	80306586	80307830	-	Cul3	0x1
17870	chr1	81909633	81910777	+	Rhbdd1	0x0
17871	chr1	82440017	82441133	+	Rhbdd1	0x0
17872	chr1	82747638	82749371	+	Mff	0x0
17873	chr1	82836412	82837532	+	Agfg1	0x2
17874	chr1	82875984	82877184	+	Agfg1	0x2
17875	chr1	82892825	82894395	+	Agfg1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17876	chr1	82895246	82896351	+	Agfg1	0x2
17877	chr1	82896451	82897580	+	Agfg1	0x2
17878	chr1	82899724	82900908	+	Agfg1	0x2
17879	chr1	83310989	83312180	+	Wdr69	0x0
17880	chr1	83887416	83888569	-	Pid1	0x0
17881	chr1	83897954	83899152	-	Pid1	0x0
17882	chr1	84144732	84145877	-	Pid1	0x0
17883	chr1	84219563	84220763	-	Pid1	0x0
17884	chr1	84328276	84329499	-	Dner	0x2
17885	chr1	84717240	84722892	-	Trip12	0x0
17886	chr1	84724232	84725317	-	Trip12	0x0
17887	chr1	84742490	84744388	-	Trip12	0x0
17888	chr1	84745204	84747555	-	Trip12	0x0
17889	chr1	84759328	84760506	-	Trip12	0x0
17890	chr1	84772373	84773573	-	Trip12	0x0
17891	chr1	84789625	84791110	-	Trip12	0x0
17892	chr1	84791757	84792952	-	Trip12	0x0
17893	chr1	84800934	84802123	-	Trip12	0x0
17894	chr1	84810126	84811361	-	Trip12	0x0
17895	chr1	84834195	84835327	-	Trip12	0x0
17896	chr1	84902681	84903882	-	Slc16a14	0x0
17897	chr1	85305069	85306249	+	Gm7609	0x0
17898	chr1	87746258	87748346	+	Cab39	0x0
17899	chr1	87803719	87805552	+	Itm2c	0x0
17900	chr1	87973444	87974624	+	Psmd1	0x0
17901	chr1	87982654	87984538	+	Psmd1	0x0
17902	chr1	87986060	87987295	+	Psmd1	0x0
17903	chr1	88012625	88013791	+	Psmd1	0x0
17904	chr1	88035166	88036363	+	Psmd1	0x0
17905	chr1	88059213	88060346	+	Armc9	0x0
17906	chr1	88201289	88204203	+	B3gnt7	0x0
17907	chr1	88238576	88239770	-	Ncl	0x0
17908	chr1	88243084	88245650	-	Ncl	0x0
17909	chr1	88245895	88247711	-	Ncl	0x0
17910	chr1	88248073	88250324	-	Ncl	0x0
17911	chr1	88251097	88252259	-	Ncl	0x0
17912	chr1	88253091	88254307	-	Ncl	0x0
17913	chr1	88425770	88427828	+	Ptma	0x0
17914	chr1	88451636	88452843	-	Pde6d	0x0
17915	chr1	88466837	88467951	-	Pde6d	0x0
17916	chr1	88501554	88503310	+	Cops7b	0x0
17917	chr1	88917798	88918960	+	Dis3l2	0x0
17918	chr1	89123856	89125075	+	Eif4e2	0x0
17919	chr1	89126252	89127603	+	Eif4e2	0x0
17920	chr1	89134071	89135947	+	Eif4e2	0x0
17921	chr1	89137141	89138338	+	Eif4e2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17922	chr1	89232931	89234091	+	Gigyf2	0x0
17923	chr1	89261198	89262374	+	Gigyf2	0x0
17924	chr1	89345747	89347586	+	Gigyf2	0x0
17925	chr1	89572246	89573474	+	Inpp5d	0x0
17926	chr1	89615756	89616958	+	Inpp5d	0x0
17927	chr1	89673087	89674348	+	Atg16l1	0x0
17928	chr1	89680623	89681886	+	Scarna6	0x0
17929	chr1	89687556	89688856	+	Atg16l1	0x0
17930	chr1	89823735	89824943	+	Dgkd	0x0
17931	chr1	89827983	89829203	+	Dgkd	0x0
17932	chr1	89838723	89841114	+	Dgkd	0x0
17933	chr1	90159867	90161697	-	6430706D22Rik	0x0
17934	chr1	90159867	90161697	-	A730008H23Rik	0x0
17935	chr1	90159867	90161697	-	Hjurp	0x0
17936	chr1	90172822	90174673	-	A730008H23Rik	0x0
17937	chr1	90172822	90174673	-	Hjurp	0x0
17938	chr1	90360620	90361742	+	Spp2	0x0
17939	chr1	90596361	90597597	-	Arl4c	0x0
17940	chr1	90993892	90995129	-	C030007H22Rik	0x0
17941	chr1	90995564	90996822	-	C030007H22Rik	0x0
17942	chr1	91362895	91364102	+	Agap1	0x0
17943	chr1	91422510	91423659	+	Agap1	0x0
17944	chr1	91425647	91426767	+	Agap1	0x0
17945	chr1	91436018	91437140	+	Agap1	0x0
17946	chr1	91477241	91478447	+	Agap1	0x0
17947	chr1	91579204	91580438	+	Agap1	0x0
17948	chr1	91741012	91742205	+	Agap1	0x0
17949	chr1	91765441	91766558	+	Agap1	0x0
17950	chr1	91785739	91787970	+	Agap1	0x0
17951	chr1	91789459	91791051	+	Agap1	0x0
17952	chr1	91791213	91792319	+	Agap1	0x0
17953	chr1	91824084	91825283	-	Gbx2	0x0
17954	chr1	93161802	93162951	+	Ube2f	0x0
17955	chr1	93187704	93188867	+	Ube2f	0x0
17956	chr1	93271902	93273143	-	Ilkap	0x0
17957	chr1	93282896	93284612	-	Ilkap	0x0
17958	chr1	93285391	93286518	-	Ilkap	0x0
17959	chr1	93307822	93309020	-	Hes6	0x0
17960	chr1	93453914	93456000	+	Asb1	0x0
17961	chr1	93809180	93810359	-	Hdac4	0x2
17962	chr1	93827450	93828646	-	Hdac4	0x2
17963	chr1	93838188	93839376	-	Hdac4	0x2
17964	chr1	93860825	93861928	-	Hdac4	0x2
17965	chr1	93864353	93865571	-	Hdac4	0x2
17966	chr1	93871536	93872728	-	Hdac4	0x2
17967	chr1	93878857	93880041	-	Hdac4	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
17968	chr1	93937328	93938508	-	Hdac4	0x2
17969	chr1	94043640	94045542	-	Hdac4	0x2
17970	chr1	94335459	94337711	-	Ndufa10	0x0
17971	chr1	94533336	94534497	-	Myeov2	0x4
17972	chr1	94751993	94753153	+	Gpc1	0x0
17973	chr1	94754663	94757286	+	Gpc1	0x0
17974	chr1	94816486	94817657	+	Rnpepl1	0x0
17975	chr1	95136970	95138152	+	Sned1	0x2
17976	chr1	95175984	95177093	+	Sned1	0x2
17977	chr1	95257033	95258178	+	Ppp1r7	0x0
17978	chr1	95261705	95264588	+	Ppp1r7	0x0
17979	chr1	95266491	95267676	+	Ppp1r7	0x0
17980	chr1	95268482	95270472	+	Ano7	0x0
17981	chr1	95302430	95305887	-	Hdlbp	0x2
17982	chr1	95309529	95310717	-	Hdlbp	0x2
17983	chr1	95317145	95318244	-	Hdlbp	0x2
17984	chr1	95326959	95328184	-	Hdlbp	0x2
17985	chr1	95404144	95406655	+	Sept2	0x0
17986	chr1	95472463	95473582	+	Farp2	0x0
17987	chr1	95478630	95479761	+	Farp2	0x0
17988	chr1	95482121	95483283	+	Farp2	0x0
17989	chr1	95485155	95486279	+	Farp2	0x0
17990	chr1	95486717	95488060	+	Farp2	0x0
17991	chr1	95488225	95489325	+	Farp2	0x0
17992	chr1	95518312	95519453	-	Stk25	0x0
17993	chr1	95608510	95609705	-	Thap4	0x0
17994	chr1	95671413	95672566	+	Atg4b	0x0
17995	chr1	95685285	95686435	+	Atg4b	0x0
17996	chr1	95688785	95690027	-	Dtymk	0x0
17997	chr1	95690813	95692933	-	Dtymk	0x0
17998	chr1	95696642	95698073	-	Dtymk	0x0
17999	chr1	95714908	95719036	+	Ing5	0x1
18000	chr1	95724029	95725250	+	D2hgdh	0x0
18001	chr1	96364823	96366228	-	Pdcd1	0x0
18002	chr1	97230238	97231520	+	Fam174a	0x0
18003	chr1	97394691	97396323	+	Fam174a	0x0
18004	chr1	97452475	97453578	+	Fam174a	0x0
18005	chr1	97727968	97729178	-	4930598F16Rik	0x0
18006	chr1	98712966	98714240	-	Slco4c1	0x0
18007	chr1	98724884	98726059	-	Slco4c1	0x0
18008	chr1	98756007	98757183	-	Slco4c1	0x0
18009	chr1	98777200	98778361	+	Gin1	0x0
18010	chr1	99440236	99441374	-	D1Ertd622e	0x0
18011	chr1	99540653	99542717	-	D1Ertd622e	0x0
18012	chr1	99602853	99604576	-	Ppip5k2	0x0
18013	chr1	99682676	99683864	+	Gin1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18014	chr1	99730454	99731604	-	Pam	0x0
18015	chr1	99844938	99846500	-	Pam	0x0
18016	chr1	100100937	100102036	-	Pam	0x0
18017	chr1	101085895	101087125	+	Cntnap5b	0x0
18018	chr1	102178332	102179501	-	Pam	0x0
18019	chr1	104524267	104525383	-	Rnf152	0x0
18020	chr1	104643914	104645095	+	Gm20268	0x0
18021	chr1	107353553	107355623	+	2310035C23Rik	0x0
18022	chr1	107415248	107416815	-	Pign	0x0
18023	chr1	107417193	107418515	-	Pign	0x0
18024	chr1	107631952	107633069	+	2310035C23Rik	0x0
18025	chr1	107650542	107652224	+	2310035C23Rik	0x0
18026	chr1	107741705	107742926	+	Tnfrsf11a	0x0
18027	chr1	107887068	107888290	+	Zcchc2	0x0
18028	chr1	107912667	107913772	+	Zcchc2	0x0
18029	chr1	107929487	107930699	+	Zcchc2	0x0
18030	chr1	107957904	107959047	+	Zcchc2	0x0
18031	chr1	108095217	108096363	+	Phlpp1	0x1
18032	chr1	108617230	108619466	-	Kdsr	0x0
18033	chr1	108620671	108622044	-	Kdsr	0x0
18034	chr1	108643519	108644710	-	Kdsr	0x0
18035	chr1	108660160	108661336	-	Kdsr	0x0
18036	chr1	108667622	108668841	-	Vps4b	0x0
18037	chr1	108670097	108671240	-	Vps4b	0x0
18038	chr1	108689408	108690556	-	Vps4b	0x0
18039	chr1	108934098	108935841	+	Serpinb13	0x0
18040	chr1	110232641	110233841	+	Serpinb8	0x0
18041	chr1	110284279	110285461	-	Serpinb3c	0x0
18042	chr1	111729167	111730772	+	Cdh7	0x0
18043	chr1	113748305	113749539	-	Dsel	0x0
18044	chr1	113758551	113759728	-	Dsel	0x0
18045	chr1	114120363	114121967	-	Dsel	0x0
18046	chr1	114121652	114122985	+	Cdh7	0x0
18047	chr1	115650836	115652029	+	Cntnap5a	0x0
18048	chr1	116530401	116531585	+	Cntnap5a	0x0
18049	chr1	120187917	120189066	-	Tsn	0x0
18050	chr1	120194737	120197652	-	Tsn	0x0
18051	chr1	120355161	120356403	-	2900060B14Rik	0x0
18052	chr1	120406270	120407469	+	Clasp1	0x0
18053	chr1	120438715	120440489	+	Clasp1	0x0
18054	chr1	120503410	120506010	+	Clasp1	0x0
18055	chr1	120548332	120549541	+	Tfcp2l1	0x0
18056	chr1	120574126	120575271	+	Tfcp2l1	0x0
18057	chr1	120575313	120582253	+	Tfcp2l1	0x0
18058	chr1	120730353	120732068	-	Gli2	0x0
18059	chr1	120740474	120741670	-	Gli2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18060	chr1	120795478	120796704	-	Gli2	0x0
18061	chr1	120845027	120846237	-	Gli2	0x0
18062	chr1	120909124	120910353	-	Gli2	0x0
18063	chr1	121366548	121368945	-	Ralb	0x0
18064	chr1	121441375	121442785	-	Epb4.1l5	0x0
18065	chr1	121443623	121444722	-	Epb4.1l5	0x0
18066	chr1	121451062	121452286	-	Epb4.1l5	0x0
18067	chr1	121491038	121492223	-	Epb4.1l5	0x0
18068	chr1	121548772	121551574	-	Ptpn4	0x0
18069	chr1	121552956	121554944	-	Ptpn4	0x0
18070	chr1	121555699	121556844	-	Ptpn4	0x0
18071	chr1	121581167	121582305	-	Ptpn4	0x0
18072	chr1	121603835	121604984	-	Ptpn4	0x0
18073	chr1	122122633	122124355	-	Steap3	0x1
18074	chr1	123200638	123202408	-	Insig2	0x0
18075	chr1	123352098	123353286	+	Ccdc93	0x0
18076	chr1	123398929	123400154	+	Ccdc93	0x0
18077	chr1	123400158	123402371	+	Ccdc93	0x0
18078	chr1	124089863	124091041	-	Ddx18	0x0
18079	chr1	124253164	124254404	-	Ddx18	0x0
18080	chr1	126983033	126984219	+	Slc35f5	0x0
18081	chr1	127289104	127291048	-	Actr3	0x0
18082	chr1	127300695	127301918	-	Actr3	0x0
18083	chr1	127303294	127304501	-	Actr3	0x0
18084	chr1	127458528	127459676	+	Slc35f5	0x0
18085	chr1	127599310	127600537	+	Gpr39	0x0
18086	chr1	129230388	129232523	+	Mgat5	0x0
18087	chr1	129256632	129257857	+	Mgat5	0x0
18088	chr1	129286796	129287933	+	Mgat5	0x0
18089	chr1	129380128	129381603	+	Mgat5	0x0
18090	chr1	129382256	129383847	+	Mgat5	0x0
18091	chr1	129681560	129682662	+	Ccnt2	0x0
18092	chr1	129694045	129695309	+	Ccnt2	0x0
18093	chr1	129700024	129702678	+	Ccnt2	0x0
18094	chr1	129702758	129704410	+	Ccnt2	0x0
18095	chr1	129827965	129829114	+	Rab3gap1	0x0
18096	chr1	129839152	129840445	+	Rab3gap1	0x0
18097	chr1	129850352	129851576	-	Zranb3	0x0
18098	chr1	129913628	129914824	-	Zranb3	0x0
18099	chr1	129936830	129938057	-	Zranb3	0x0
18100	chr1	129954461	129955665	-	Zranb3	0x0
18101	chr1	129973212	129974436	-	Zranb3	0x0
18102	chr1	129999385	130000603	+	R3hdm1	0x0
18103	chr1	130070939	130072148	+	R3hdm1	0x0
18104	chr1	130089680	130090884	+	R3hdm1	0x0
18105	chr1	130132575	130134818	+	R3hdm1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18106	chr1	130147135	130148316	+	Ubxn4	0x0
18107	chr1	130173752	130175565	+	Ubxn4	0x0
18108	chr1	130227645	130229133	-	Mcm6	0x0
18109	chr1	130230826	130231925	-	Mcm6	0x0
18110	chr1	130234118	130235240	-	Mcm6	0x0
18111	chr1	130235439	130236538	-	Mcm6	0x0
18112	chr1	130244373	130245616	-	Mcm6	0x0
18113	chr1	130259738	130261184	-	Dars	0x0
18114	chr1	130276927	130278101	-	Dars	0x0
18115	chr1	130416162	130418203	-	Cxcr4	0x0
18116	chr1	132335976	132337306	-	Cd55	0x0
18117	chr1	132590514	132591814	-	Pfkfb2	0x0
18118	chr1	132949963	132952052	-	Mapkapk2	0x0
18119	chr1	132952905	132954066	-	Mapkapk2	0x0
18120	chr1	133023971	133025159	-	Dyrk3	0x0
18121	chr1	133050265	133051500	+	Eif2d	0x0
18122	chr1	133072763	133074059	-	Rassf5	0x1
18123	chr1	133076630	133077795	-	Rassf5	0x1
18124	chr1	133183565	133185767	-	Srgap2	0x0
18125	chr1	133251761	133252947	-	Srgap2	0x0
18126	chr1	133379699	133380907	-	Srgap2	0x0
18127	chr1	133399534	133400744	-	Srgap2	0x0
18128	chr1	133405297	133406490	-	Srgap2	0x0
18129	chr1	133421129	133422312	-	Srgap2	0x0
18130	chr1	133742900	133745848	+	Slc41a1	0x0
18131	chr1	133827277	133833305	+	Nucks1	0x0
18132	chr1	133877368	133878734	+	Slc45a3	0x0
18133	chr1	133921738	133922928	+	Elk4	0x2
18134	chr1	133924838	133926401	+	Elk4	0x2
18135	chr1	133933300	133934510	-	Mfsd4	0x0
18136	chr1	134010106	134011703	-	Cdk18	0x0
18137	chr1	134252465	134253783	-	Tmcc2	0x0
18138	chr1	134352404	134353522	+	Dstyk	0x0
18139	chr1	134355812	134356959	+	Dstyk	0x0
18140	chr1	134361347	134362503	+	Dstyk	0x0
18141	chr1	134400912	134402129	+	Rbbp5	0x0
18142	chr1	134407784	134408995	-	Cntn2	0x2
18143	chr1	134787918	134789107	+	Lrrn2	0x0
18144	chr1	134882641	134886815	-	Mdm4	0x2
18145	chr1	134890577	134891676	-	Mdm4	0x2
18146	chr1	134892582	134893820	-	Mdm4	0x2
18147	chr1	134897330	134898585	-	Mdm4	0x2
18148	chr1	134906437	134907676	-	Mdm4	0x2
18149	chr1	134979950	134981173	+	Pik3c2b	0x0
18150	chr1	134984298	134985535	+	Pik3c2b	0x0
18151	chr1	135004504	135005693	+	Pik3c2b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18152	chr1	135028296	135030548	+	Ppp1r15b	0x0
18153	chr1	135033139	135036739	+	Ppp1r15b	0x0
18154	chr1	135278464	135281269	-	Sox13	0x0
18155	chr1	135312712	135313846	-	Sox13	0x0
18156	chr1	135499993	135501736	-	Snrpe	0x0
18157	chr1	135516120	135518901	-	Zc3h11a	0x0
18158	chr1	135521836	135524169	-	Zc3h11a	0x0
18159	chr1	135550803	135553738	-	Zbed6	0x0
18160	chr1	135565658	135566769	+	Etnk2	0x0
18161	chr1	135572789	135573937	+	Etnk2	0x0
18162	chr1	135599145	135600458	-	Atp2b4	0x0
18163	chr1	135601944	135603218	-	Atp2b4	0x0
18164	chr1	135607150	135608320	-	Atp2b4	0x0
18165	chr1	135831313	135832473	+	Fmod	0x0
18166	chr1	135878280	135879490	+	Fmod	0x0
18167	chr1	135951484	135952664	-	Btg2	0x1
18168	chr1	135971988	135974005	-	Btg2	0x1
18169	chr1	136193356	136194532	-	Ppfia4	0x0
18170	chr1	136207054	136208214	-	Ppfia4	0x0
18171	chr1	136210487	136211648	-	Ppfia4	0x0
18172	chr1	136242181	136244918	-	Tmem183a	0x0
18173	chr1	136250793	136251917	-	Tmem183a	0x0
18174	chr1	136302277	136303475	+	Cyb5r1	0x0
18175	chr1	136307119	136308762	+	Cyb5r1	0x0
18176	chr1	136320925	136323158	+	Adipor1	0x0
18177	chr1	136327623	136330390	+	Adipor1	0x0
18178	chr1	136368236	136369619	+	Klhl12	0x0
18179	chr1	136386590	136387844	+	Klhl12	0x0
18180	chr1	136403089	136404802	+	Rabif	0x0
18181	chr1	136456228	136457437	+	Kdm5b	0x2
18182	chr1	136457758	136458910	+	Kdm5b	0x2
18183	chr1	136495146	136496306	+	Kdm5b	0x2
18184	chr1	136496583	136497962	+	Kdm5b	0x2
18185	chr1	136498521	136499720	+	Kdm5b	0x2
18186	chr1	136504957	136506211	+	Kdm5b	0x2
18187	chr1	136508441	136509634	+	Kdm5b	0x2
18188	chr1	136515698	136516852	+	Kdm5b	0x2
18189	chr1	136516893	136518019	+	Kdm5b	0x2
18190	chr1	136520933	136522995	+	Kdm5b	0x2
18191	chr1	136523350	136524503	+	Kdm5b	0x2
18192	chr1	136526731	136531693	+	Kdm5b	0x2
18193	chr1	136649027	136650221	-	Ppp1r12b	0x0
18194	chr1	136651472	136652679	-	Ppp1r12b	0x0
18195	chr1	136652726	136654148	-	Ppp1r12b	0x0
18196	chr1	136655091	136656228	-	Ppp1r12b	0x0
18197	chr1	136745434	136746687	-	Ppp1r12b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18198	chr1	136792378	136793601	-	Ppp1r12b	0x0
18199	chr1	136912868	136914086	-	Lgr6	0x2
18200	chr1	137044016	137045257	+	Arl8a	0x0
18201	chr1	137047554	137048728	+	Arl8a	0x0
18202	chr1	137051438	137052672	+	Arl8a	0x0
18203	chr1	137128173	137130389	+	Arl8a	0x0
18204	chr1	137149926	137151362	-	Elf3	0x0
18205	chr1	137196252	137197424	-	Timm17a	0x0
18206	chr1	137201924	137203120	-	Timm17a	0x0
18207	chr1	137279090	137281201	-	Ipo9	0x0
18208	chr1	137322048	137323287	-	Ipo9	0x0
18209	chr1	137330892	137332043	-	Nav1	0x0
18210	chr1	137333896	137335072	-	Nav1	0x0
18211	chr1	137335327	137337131	-	Nav1	0x0
18212	chr1	137337426	137338584	-	Nav1	0x0
18213	chr1	137350742	137351962	-	Nav1	0x0
18214	chr1	137366563	137367806	-	Nav1	0x0
18215	chr1	137480932	137482100	-	Nav1	0x0
18216	chr1	137647222	137649354	+	Csrp1	0x0
18217	chr1	137664707	137665965	+	Phlda3	0x1
18218	chr1	137765938	137767037	+	Tnnt2	0x0
18219	chr1	137930329	137931596	+	Tmem9	0x0
18220	chr1	138043846	138045045	+	Kif21b	0x0
18221	chr1	138071789	138074104	+	Kif21b	0x0
18222	chr1	138164360	138165576	-	Camsap2	0x0
18223	chr1	138260903	138262209	+	Ddx59	0x0
18224	chr1	138356462	138357663	-	9230116N13Rik	0x0
18225	chr1	138375459	138376659	+	Kif14	0x2
18226	chr1	138398808	138399990	+	Kif14	0x2
18227	chr1	138420583	138421843	+	Kif14	0x2
18228	chr1	138425526	138426691	+	Kif14	0x2
18229	chr1	138525308	138526423	+	Zfp281	0x0
18230	chr1	138527010	138529858	+	Zfp281	0x0
18231	chr1	138543086	138544267	+	Zfp281	0x0
18232	chr1	138564207	138565383	+	Gm19705	0x0
18233	chr1	138608307	138609501	+	Gm16880	0x0
18234	chr1	138612977	138614082	+	Gm16880	0x0
18235	chr1	138619436	138620633	+	Gm16880	0x0
18236	chr1	138629495	138630678	+	Gm16880	0x0
18237	chr1	138738681	138742357	-	Nr5a2	0x0
18238	chr1	138840988	138842180	-	Nr5a2	0x0
18239	chr1	138849499	138850733	-	Nr5a2	0x0
18240	chr1	140381359	140383789	-	Nek7	0x0
18241	chr1	140486089	140487246	-	Nek7	0x0
18242	chr1	140938472	140939571	+	Dennd1b	0x0
18243	chr1	140956311	140957474	+	Dennd1b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18244	chr1	140958876	140960086	+	Dennd1b	0x0
18245	chr1	140964823	140966029	+	Dennd1b	0x0
18246	chr1	141011242	141012397	+	Dennd1b	0x0
18247	chr1	141063693	141064863	+	Dennd1b	0x0
18248	chr1	141067199	141072985	+	Dennd1b	0x0
18249	chr1	141320770	141321968	+	Zbtb41	0x2
18250	chr1	141374786	141375942	+	Aspm	0x0
18251	chr1	144989575	144991328	-	Cdc73	0x1
18252	chr1	145448559	145449717	-	Cdc73	0x1
18253	chr1	145450588	145454043	-	Cdc73	0x1
18254	chr1	145454577	145455734	-	Cdc73	0x1
18255	chr1	145597406	145599739	-	Trove2	0x0
18256	chr1	145601686	145604810	-	Trove2	0x0
18257	chr1	145625527	145626701	+	Uchl5	0x0
18258	chr1	145640877	145642035	+	Uchl5	0x0
18259	chr1	145648653	145649831	+	Uchl5	0x0
18260	chr1	146158831	146160154	-	Rgs1	0x0
18261	chr1	150825273	150826482	+	Ptgs2	0x0
18262	chr1	150872550	150873690	-	Pla2g4a	0x0
18263	chr1	151947154	151948329	+	Ptgs2	0x0
18264	chr1	152208411	152210231	-	BC003331	0x0
18265	chr1	152271249	152272402	+	Tpr	0x2
18266	chr1	152278973	152280255	+	Tpr	0x2
18267	chr1	152296386	152297544	+	Tpr	0x2
18268	chr1	153197406	153198587	+	Ivns1abp	0x0
18269	chr1	153210570	153211860	+	Ivns1abp	0x0
18270	chr1	153214546	153215799	-	Swt1	0x0
18271	chr1	153316443	153318788	-	Rnf2	0x0
18272	chr1	153565266	153566640	+	Fam129a	0x0
18273	chr1	153610282	153611510	+	Edem3	0x0
18274	chr1	153665982	153668803	+	Edem3	0x0
18275	chr1	153733292	153734469	-	1700025G04Rik	0x0
18276	chr1	153738907	153740033	-	1700025G04Rik	0x0
18277	chr1	153904925	153906103	-	1700025G04Rik	0x0
18278	chr1	153911262	153912411	-	1700025G04Rik	0x0
18279	chr1	154229873	154231076	-	Tsen15	0x0
18280	chr1	154621930	154623143	+	Arpc5	0x0
18281	chr1	154683570	154686508	-	Smg7	0x0
18282	chr1	154700859	154702051	-	Smg7	0x0
18283	chr1	154705505	154706673	-	Smg7	0x0
18284	chr1	154963477	154966785	+	Nmnat2	0x0
18285	chr1	155065672	155068793	-	Lamc1	0x0
18286	chr1	155074158	155075348	-	Lamc1	0x0
18287	chr1	155075395	155076566	-	Lamc1	0x0
18288	chr1	155078313	155079472	-	Lamc1	0x0
18289	chr1	155086934	155088153	-	Lamc1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18290	chr1	155093560	155094900	-	Lamc1	0x0
18291	chr1	155178925	155180121	-	Lamc1	0x0
18292	chr1	155286751	155287952	+	Shcbp1l	0x0
18293	chr1	155306152	155307319	-	Dhx9	0x0
18294	chr1	155307610	155308734	-	Dhx9	0x0
18295	chr1	155311503	155312776	-	Dhx9	0x0
18296	chr1	155317053	155318177	-	Dhx9	0x0
18297	chr1	155334126	155335310	-	Dhx9	0x0
18298	chr1	155591713	155592920	+	Rgs16	0x0
18299	chr1	155755347	155757334	+	Glul	0x0
18300	chr1	157020603	157021835	+	Stx6	0x0
18301	chr1	157038061	157039234	+	Stx6	0x0
18302	chr1	157039860	157041011	+	Stx6	0x0
18303	chr1	157049241	157050794	+	Stx6	0x0
18304	chr1	157122509	157127141	-	Xpr1	0x0
18305	chr1	157128666	157129813	-	Xpr1	0x0
18306	chr1	157160922	157162164	-	Xpr1	0x0
18307	chr1	157414210	157415331	+	Acbd6	0x0
18308	chr1	157511943	157513091	+	Acbd6	0x0
18309	chr1	157692110	157696235	-	Cep350	0x0
18310	chr1	157709089	157710272	-	Cep350	0x0
18311	chr1	157806334	157807513	-	Cep350	0x0
18312	chr1	157813325	157814536	-	Cep350	0x0
18313	chr1	157851632	157852869	-	Tor1aip1	0x0
18314	chr1	157898484	157899607	+	Tor1aip2	0x0
18315	chr1	157899699	157901064	+	Tor1aip2	0x0
18316	chr1	157912917	157916220	+	Tor1aip2	0x0
18317	chr1	158295699	158297153	+	Nphs2	0x0
18318	chr1	158357520	158358679	-	Soat1	0x0
18319	chr1	158359309	158360842	-	Soat1	0x0
18320	chr1	158454117	158455357	+	Abl2	0x2
18321	chr1	158573730	158579902	+	Abl2	0x2
18322	chr1	158583679	158584881	-	Tor3a	0x0
18323	chr1	158600991	158602142	-	Tor3a	0x0
18324	chr1	158608132	158611736	-	Fam20b	0x0
18325	chr1	158735426	158736525	-	Ralgps2	0x0
18326	chr1	158737124	158738268	-	Ralgps2	0x0
18327	chr1	158757706	158758926	-	Ralgps2	0x0
18328	chr1	158822652	158823838	-	Ralgps2	0x0
18329	chr1	158831410	158832549	-	Ralgps2	0x0
18330	chr1	159029751	159030928	-	Tex35	0x0
18331	chr1	159065614	159067298	-	Rasal2	0x2
18332	chr1	159068596	159070844	-	Rasal2	0x2
18333	chr1	159312553	159313725	-	Rasal2	0x2
18334	chr1	159461081	159462273	+	Sec16b	0x0
18335	chr1	161274764	161276046	+	Rfwd2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18336	chr1	161276727	161277939	+	Rfwd2	0x0
18337	chr1	162132599	162134344	-	Cacybp	0x0
18338	chr1	162142215	162143416	-	Cacybp	0x0
18339	chr1	162152367	162153481	-	Rabgap1l	0x0
18340	chr1	162481269	162482509	-	Gpr52	0x0
18341	chr1	162622886	162624101	-	Rabgap1l	0x0
18342	chr1	162670414	162671622	-	Rabgap1l	0x0
18343	chr1	162867867	162869069	+	Rc3h1	0x0
18344	chr1	162869749	162870944	+	Rc3h1	0x0
18345	chr1	162897265	162898459	+	Rc3h1	0x0
18346	chr1	162898910	162904170	+	Rc3h1	0x0
18347	chr1	162904185	162905358	+	Rc3h1	0x0
18348	chr1	162941329	162942459	-	Zbtb37	0x0
18349	chr1	162949858	162951061	-	Zbtb37	0x0
18350	chr1	163000123	163001341	-	Dars2	0x0
18351	chr1	163001366	163002470	+	Cenpl	0x0
18352	chr1	163019145	163020354	-	Klhl20	0x0
18353	chr1	163170651	163172356	-	Prdx6	0x0
18354	chr1	163747367	163748612	-	Suco	0x0
18355	chr1	163757760	163758991	-	Suco	0x0
18356	chr1	164524438	164525612	+	Vamp4	0x0
18357	chr1	164525793	164526894	+	Vamp4	0x0
18358	chr1	164601445	164604112	-	Prrc2c	0x0
18359	chr1	164627061	164629641	-	Prrc2c	0x0
18360	chr1	164634042	164635175	-	Prrc2c	0x0
18361	chr1	164635714	164637246	-	Prrc2c	0x0
18362	chr1	164637419	164638588	-	Prrc2c	0x0
18363	chr1	164639916	164641279	-	Prrc2c	0x0
18364	chr1	164677285	164678517	-	Prrc2c	0x0
18365	chr1	164699774	164701305	+	Myoc	0x0
18366	chr1	165323562	165324677	-	Gorab	0x1
18367	chr1	165553573	165555305	+	Kifap3	0x0
18368	chr1	165726917	165728101	+	Kifap3	0x0
18369	chr1	165792421	165793520	+	Kifap3	0x0
18370	chr1	165845428	165847668	+	Kifap3	0x0
18371	chr1	165887115	165888298	-	BC055324	0x0
18372	chr1	165943688	165944928	-	BC055324	0x0
18373	chr1	166179737	166180836	+	Slc19a2	0x0
18374	chr1	166193099	166195551	+	Slc19a2	0x0
18375	chr1	166221715	166222891	-	Blzf1	0x0
18376	chr1	166366683	166368747	-	Atp1b1	0x0
18377	chr1	167105375	167108885	-	Sft2d2	0x0
18378	chr1	167166291	167167524	-	Tiprl	0x0
18379	chr1	167248452	167249598	+	Gpr161	0x0
18380	chr1	167255106	167256280	+	Gpr161	0x0
18381	chr1	167303697	167304841	-	Dcaf6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18382	chr1	167322787	167323974	-	Dcaf6	0x0
18383	chr1	167389599	167390920	-	Dcaf6	0x0
18384	chr1	167521871	167523973	-	Mpzl1	0x0
18385	chr1	167535179	167536473	-	Mpzl1	0x0
18386	chr1	167554182	167555413	-	Mpzl1	0x0
18387	chr1	167556543	167557720	-	Mpzl1	0x0
18388	chr1	167585342	167586522	-	Rcsd1	0x0
18389	chr1	167703878	167704977	+	Creg1	0x0
18390	chr1	167794829	167805795	-	Pou2f1	0x0
18391	chr1	168027927	168029354	-	Dusp27	0x0
18392	chr1	168054172	168055348	-	Dusp27	0x0
18393	chr1	168067991	168069142	+	Gpa33	0x0
18394	chr1	168082640	168083859	+	Gpa33	0x0
18395	chr1	168095472	168096979	+	Gpa33	0x0
18396	chr1	169152525	169156768	-	Uck2	0x0
18397	chr1	169201615	169202760	-	Uck2	0x0
18398	chr1	169203415	169204597	-	Uck2	0x0
18399	chr1	169213687	169214894	-	Uck2	0x0
18400	chr1	169260109	169261352	+	Tmco1	0x0
18401	chr1	169269795	169271105	-	Mgst3	0x0
18402	chr1	169297532	169298947	+	Aldh9a1	0x0
18403	chr1	170086049	170087271	-	Pbx1	0x2
18404	chr1	170266813	170268045	-	Pbx1	0x2
18405	chr1	171881365	171882604	-	Hsd17b7	0x1
18406	chr1	171903369	171904588	-	Ddr2	0x0
18407	chr1	171905452	171906647	-	Ddr2	0x0
18408	chr1	171951993	171953221	+	3110045C21Rik	0x0
18409	chr1	172099474	172100715	-	Uap1	0x0
18410	chr1	172124273	172130680	-	Uhmk1	0x0
18411	chr1	172244695	172245896	-	Nos1ap	0x0
18412	chr1	172267418	172268661	-	Nos1ap	0x0
18413	chr1	172423810	172424985	-	Nos1ap	0x0
18414	chr1	172636421	172640489	-	Atf6	0x0
18415	chr1	172911571	172912781	+	Fcgr4	0x0
18416	chr1	172957595	172958797	+	Fcgr4	0x0
18417	chr1	173032648	173033839	+	1700009P17Rik	0x0
18418	chr1	173058839	173060527	-	Sdhc	0x2
18419	chr1	173065603	173066811	-	Sdhc	0x2
18420	chr1	173164529	173165737	-	Ndufs2	0x0
18421	chr1	173167990	173169356	-	Ndufs2	0x0
18422	chr1	173180756	173181954	+	Adamts4	0x0
18423	chr1	173206102	173207404	+	B4galt3	0x0
18424	chr1	173212091	173213300	-	Usp21	0x2
18425	chr1	173214174	173215354	-	Usp21	0x2
18426	chr1	173218188	173219629	-	Ufc1	0x0
18427	chr1	173242181	173244004	+	Dedd	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18428	chr1	173270763	173272847	+	Dedd	0x0
18429	chr1	173271948	173273148	-	Nit1	0x0
18430	chr1	173283347	173284450	+	Pfdn2	0x0
18431	chr1	173317341	173318528	+	Pvrl4	0x0
18432	chr1	173339323	173340490	+	Arhgap30	0x0
18433	chr1	173347722	173348959	+	Usf1	0x0
18434	chr1	173393055	173394496	+	F11r	0x0
18435	chr1	173432594	173433861	-	Itln1	0x2
18436	chr1	173793833	173795057	-	Vangl2	0x0
18437	chr1	173930866	173934291	-	Vangl2	0x0
18438	chr1	173995781	173997355	-	Ncstn	0x0
18439	chr1	174001908	174003123	-	Ncstn	0x0
18440	chr1	174018648	174019825	+	Copa	0x0
18441	chr1	174046805	174047981	+	Copa	0x0
18442	chr1	174051487	174053026	+	Copa	0x0
18443	chr1	174064080	174065656	+	Pex19	0x0
18444	chr1	174102174	174103375	+	Dcaf8	0x0
18445	chr1	174109506	174110693	+	Dcaf8	0x0
18446	chr1	174124455	174126806	+	Dcaf8	0x0
18447	chr1	174203155	174204372	-	Atp1a2	0x0
18448	chr1	174306941	174314514	+	Pigm	0x0
18449	chr1	174316221	174317322	+	Pigm	0x0
18450	chr1	174436306	174438020	+	Tagln2	0x0
18451	chr1	174913699	174914902	+	Olfr16	0x0
18452	chr1	176537011	176538200	+	Fmn2	0x2
18453	chr1	176545713	176546875	+	Fmn2	0x2
18454	chr1	176674291	176675526	-	Grem2	0x0
18455	chr1	178766211	178767380	+	Sdccag8	0x0
18456	chr1	178949885	178954952	-	Akt3	0x2
18457	chr1	178979795	178980959	-	Akt3	0x2
18458	chr1	179135674	179136811	-	Akt3	0x2
18459	chr1	179379662	179381032	+	Zbtb18	0x0
18460	chr1	179693256	179694690	-	Adss	0x0
18461	chr1	179709243	179710420	-	Adss	0x0
18462	chr1	179716822	179718202	+	1700016C15Rik	0x0
18463	chr1	180179475	180182659	+	Desi2	0x0
18464	chr1	180251004	180252057	-	Hnrnpu	0x2
18465	chr1	180252399	180253540	-	Hnrnpu	0x2
18466	chr1	180258030	180260009	-	Hnrnpu	0x2
18467	chr1	180260167	180262916	-	Hnrnpu	0x2
18468	chr1	180266151	180267507	-	Hnrnpu	0x2
18469	chr1	180387007	180388180	+	Efcab2	0x0
18470	chr1	180566467	180567679	+	Kif26b	0x0
18471	chr1	180648403	180649570	+	Kif26b	0x0
18472	chr1	180862334	180863519	+	Kif26b	0x0
18473	chr1	180867741	180868883	+	Kif26b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18474	chr1	180882705	180884742	-	Smyd3	0x0
18475	chr1	181026507	181027723	-	Smyd3	0x0
18476	chr1	181068619	181069753	-	Smyd3	0x0
18477	chr1	181073588	181074830	-	Smyd3	0x0
18478	chr1	181120722	181121901	-	Smyd3	0x0
18479	chr1	181166571	181167703	-	Smyd3	0x0
18480	chr1	181174651	181175756	-	Smyd3	0x0
18481	chr1	181177450	181178605	-	Smyd3	0x0
18482	chr1	181203620	181204834	-	Smyd3	0x0
18483	chr1	181233475	181234679	-	Smyd3	0x0
18484	chr1	181244918	181246058	-	Smyd3	0x0
18485	chr1	181251338	181252514	-	Smyd3	0x0
18486	chr1	181262724	181263908	-	Smyd3	0x0
18487	chr1	181273193	181274332	-	Smyd3	0x0
18488	chr1	181284348	181285543	-	Smyd3	0x0
18489	chr1	181289605	181290796	-	Smyd3	0x0
18490	chr1	181310459	181311652	-	Smyd3	0x0
18491	chr1	181319668	181320845	-	Smyd3	0x0
18492	chr1	181329515	181330737	-	Smyd3	0x0
18493	chr1	181411877	181413113	-	Smyd3	0x0
18494	chr1	181429971	181431202	-	Smyd3	0x0
18495	chr1	181445407	181446613	-	Smyd3	0x0
18496	chr1	181446862	181448071	-	Smyd3	0x0
18497	chr1	181512587	181513755	+	Cnst	0x0
18498	chr1	181555939	181557137	+	Cnst	0x0
18499	chr1	181674689	181676807	-	Ahctf1	0x0
18500	chr1	181682284	181683512	-	Ahctf1	0x0
18501	chr1	181716558	181717770	-	Ahctf1	0x0
18502	chr1	181930328	181931521	+	Cdc42bpa	0x0
18503	chr1	182041350	182042551	+	Cdc42bpa	0x0
18504	chr1	182043692	182044807	+	Cdc42bpa	0x0
18505	chr1	182092332	182093914	+	Cdc42bpa	0x0
18506	chr1	182257690	182258929	-	Gm5069	0x0
18507	chr1	182498629	182499850	+	Parp1	0x0
18508	chr1	182508060	182510019	+	Parp1	0x0
18509	chr1	182516877	182518060	+	Parp1	0x0
18510	chr1	182520827	182522014	+	Parp1	0x0
18511	chr1	182523600	182524795	+	Parp1	0x0
18512	chr1	182530187	182531936	+	Parp1	0x0
18513	chr1	182619278	182620793	+	Lin9	0x1
18514	chr1	182681924	182683518	+	Acbd3	0x0
18515	chr1	182732007	182733202	-	H3f3a	0x0
18516	chr1	182795699	182798125	+	Sde2	0x0
18517	chr1	182807281	182808720	-	H3f3a	0x0
18518	chr1	182809642	182810783	-	H3f3a	0x0
18519	chr1	182810910	182812726	-	H3f3a	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18520	chr1	182822267	182823472	-	H3f3a	0x0
18521	chr1	182827421	182829753	+	Lefty2	0x0
18522	chr1	182836456	182837619	+	Pycr2	0x0
18523	chr1	182864747	182865846	+	Lefty1	0x0
18524	chr1	182867580	182869071	+	Lefty1	0x0
18525	chr1	182904273	182905498	+	Tmem63a	0x0
18526	chr1	183017413	183018843	-	Nvl	0x0
18527	chr1	183020758	183024390	-	Nvl	0x0
18528	chr1	183043675	183044956	-	Nvl	0x0
18529	chr1	183047018	183048228	-	Nvl	0x0
18530	chr1	183049961	183051140	-	Nvl	0x0
18531	chr1	183056043	183057264	-	Nvl	0x0
18532	chr1	183095825	183097099	+	Cnih4	0x0
18533	chr1	183097641	183099560	+	Cnih4	0x0
18534	chr1	183103128	183108226	-	Wdr26	0x0
18535	chr1	183109822	183110940	-	Wdr26	0x0
18536	chr1	183143962	183145157	+	Cnih4	0x0
18537	chr1	183744954	183747024	-	Lbr	0x0
18538	chr1	183750265	183751449	-	Lbr	0x0
18539	chr1	183826249	183830197	-	Enah	0x0
18540	chr1	183832553	183836417	-	Enah	0x0
18541	chr1	183847791	183850079	-	Enah	0x0
18542	chr1	183851385	183853001	-	Enah	0x0
18543	chr1	183876868	183878017	-	Enah	0x0
18544	chr1	183896258	183897510	-	Enah	0x0
18545	chr1	183902540	183903781	-	Enah	0x0
18546	chr1	183908523	183909664	-	Enah	0x0
18547	chr1	183938090	183939312	-	Enah	0x0
18548	chr1	184205555	184207452	-	Degs1	0x0
18549	chr1	184245354	184247588	-	Fbxo28	0x0
18550	chr1	184271090	184272301	-	Fbxo28	0x0
18551	chr1	184361086	184362249	+	Trp53bp2	0x1
18552	chr1	184391373	184392592	+	Trp53bp2	0x1
18553	chr1	184396960	184398193	-	Capn2	0x0
18554	chr1	184805562	184806698	+	Susd4	0x0
18555	chr1	184825113	184827224	+	Susd4	0x0
18556	chr1	186656719	186657918	-	Marc2	0x0
18557	chr1	186720381	186722355	-	Mark1	0x0
18558	chr1	187107919	187109601	+	Rab3gap2	0x0
18559	chr1	187141166	187143104	-	Iars2	0x0
18560	chr1	187160690	187161883	+	Bpnt1	0x0
18561	chr1	187176228	187177402	+	Bpnt1	0x0
18562	chr1	187180262	187181791	+	Bpnt1	0x0
18563	chr1	187190904	187192013	+	Eprs	0x0
18564	chr1	187192913	187194101	+	Eprs	0x0
18565	chr1	187202939	187204175	+	Eprs	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18566	chr1	187220468	187221643	+	Eprs	0x0
18567	chr1	187237718	187238920	+	Eprs	0x0
18568	chr1	187239123	187240247	+	Eprs	0x0
18569	chr1	187243529	187244719	+	Eprs	0x0
18570	chr1	187244783	187245931	+	Eprs	0x0
18571	chr1	187247058	187248210	+	Eprs	0x0
18572	chr1	187249227	187250381	+	Eprs	0x0
18573	chr1	187251191	187252587	+	Eprs	0x0
18574	chr1	187922096	187923296	-	Lyplal1	0x0
18575	chr1	188562858	188564066	-	Rrp15	0x0
18576	chr1	189056116	189057600	+	Gpatch2	0x0
18577	chr1	189060910	189062267	+	Gpatch2	0x0
18578	chr1	189161669	189162869	+	Gpatch2	0x0
18579	chr1	189174272	189175438	+	Gpatch2	0x0
18580	chr1	190792143	190793337	-	Kctd3	0x0
18581	chr1	190794694	190795972	-	Kctd3	0x0
18582	chr1	190819747	190820934	-	Kctd3	0x0
18583	chr1	190830755	190831990	-	Kctd3	0x0
18584	chr1	191100839	191102013	-	Kcnk2	0x0
18585	chr1	191464866	191466863	-	Cenpf	0x0
18586	chr1	191475840	191476982	-	Cenpf	0x0
18587	chr1	191477477	191479337	-	Cenpf	0x0
18588	chr1	191491829	191493010	-	Cenpf	0x0
18589	chr1	191695183	191697315	+	Ptpn14	0x4
18590	chr1	192619515	192620664	-	Rps6kc1	0x0
18591	chr1	192621086	192622414	-	Rps6kc1	0x0
18592	chr1	192711942	192713185	-	Rps6kc1	0x0
18593	chr1	192722756	192723950	-	Rps6kc1	0x0
18594	chr1	192768701	192770697	+	Angel2	0x0
18595	chr1	192776667	192777905	-	Vash2	0x0
18596	chr1	192829870	192831781	-	Mfsd7b	0x0
18597	chr1	193175384	193177212	-	Ppp2r5a	0x2
18598	chr1	193177885	193179079	-	Ppp2r5a	0x2
18599	chr1	193195846	193197080	-	Ppp2r5a	0x2
18600	chr1	193204828	193206093	-	Ppp2r5a	0x2
18601	chr1	193212474	193213755	+	Tmem206	0x0
18602	chr1	193219104	193220303	-	Ppp2r5a	0x2
18603	chr1	193232003	193233121	+	Tmem206	0x0
18604	chr1	193361011	193362393	-	Dtl	0x0
18605	chr1	193364316	193365576	-	Dtl	0x0
18606	chr1	193379804	193381261	-	Dtl	0x0
18607	chr1	193445245	193447073	+	Ints7	0x0
18608	chr1	193602939	193606764	+	Lpgat1	0x0
18609	chr1	193606989	193608137	+	Lpgat1	0x0
18610	chr1	193654847	193657170	+	Nek2	0x2
18611	chr1	193728637	193729777	-	1700034H15Rik	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18612	chr1	193734396	193735986	+	Slc30a1	0x0
18613	chr1	193736040	193737528	+	Slc30a1	0x0
18614	chr1	194281489	194282631	+	Kcnh1	0x0
18615	chr1	194336400	194337617	-	Hhat	0x0
18616	chr1	194551796	194553010	-	Hhat	0x0
18617	chr1	194717056	194720224	-	Syt14	0x0
18618	chr1	195458391	195459717	+	Lamb3	0x0
18619	chr1	196457856	196459030	+	Plxna2	0x0
18620	chr1	196640537	196641685	+	Plxna2	0x0
18621	chr1	196786593	196787791	+	Cd34	0x0
18622	chr1	197080516	197081772	-	Cr2	0x0
18623	chr10	3246875	3248006	-	Oprm1	0x0
18624	chr10	4544037	4545204	+	Fbxo5	0x0
18625	chr10	4546616	4547763	+	Fbxo5	0x0
18626	chr10	5891123	5892753	-	1700052N19Rik	0x0
18627	chr10	5986614	5989528	-	Akap12	0x1
18628	chr10	5990120	5991877	-	Akap12	0x1
18629	chr10	6189919	6191450	-	Mthfd1l	0x0
18630	chr10	6217368	6218548	-	Mthfd1l	0x0
18631	chr10	6255881	6257077	-	Mthfd1l	0x0
18632	chr10	6262094	6263295	-	Mthfd1l	0x0
18633	chr10	6297786	6299110	-	Mthfd1l	0x0
18634	chr10	6356053	6357197	-	Mthfd1l	0x0
18635	chr10	6449908	6451085	-	Plekhg1	0x0
18636	chr10	7330964	7332150	-	Pcmt1	0x0
18637	chr10	7339286	7340524	+	Lrp11	0x0
18638	chr10	7343363	7345596	+	Lrp11	0x0
18639	chr10	7387296	7388442	+	Nup43	0x0
18640	chr10	7540975	7542413	+	Ppil4	0x0
18641	chr10	7625207	7630500	-	Tab2	0x0
18642	chr10	8195049	8196186	-	Ust	0x0
18643	chr10	8442894	8444332	-	Sash1	0x1
18644	chr10	8444379	8445603	-	Sash1	0x1
18645	chr10	8509135	8510250	-	Sash1	0x1
18646	chr10	8514948	8516110	-	Sash1	0x1
18647	chr10	9478659	9479861	-	Stxbp5	0x0
18648	chr10	9506319	9507538	-	Stxbp5	0x0
18649	chr10	9571256	9572481	-	Stxbp5	0x0
18650	chr10	10885797	10886997	+	Shprh	0x1
18651	chr10	10934332	10935461	+	Shprh	0x1
18652	chr10	11016097	11017279	+	Fbxo30	0x0
18653	chr10	12101734	12103994	-	Utrn	0x0
18654	chr10	12115505	12116709	-	Utrn	0x0
18655	chr10	12125113	12126305	-	Utrn	0x0
18656	chr10	12174631	12175823	-	Utrn	0x0
18657	chr10	12208042	12209274	-	Utrn	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18658	chr10	12211859	12213070	-	Utrn	0x0
18659	chr10	12231307	12232468	-	Utrn	0x0
18660	chr10	12330729	12331931	-	Utrn	0x0
18661	chr10	12546951	12548050	-	Utrn	0x0
18662	chr10	12570055	12571258	-	Utrn	0x0
18663	chr10	12728146	12729374	+	Sf3b5	0x0
18664	chr10	13243659	13244914	-	Pex3	0x0
18665	chr10	13281899	13283059	+	Adat2	0x0
18666	chr10	13721621	13722755	+	Hivep2	0x0
18667	chr10	13799231	13800340	+	Hivep2	0x0
18668	chr10	14195663	14196857	-	Gpr126	0x0
18669	chr10	14374985	14376173	-	Vta1	0x0
18670	chr10	14402040	14403201	-	Vta1	0x0
18671	chr10	14464857	14466047	-	Gje1	0x0
18672	chr10	14865523	14866632	+	Nmbr	0x0
18673	chr10	16488422	16489635	+	Cited2	0x0
18674	chr10	17444369	17445621	+	Cited2	0x0
18675	chr10	17618495	17620440	-	Heca	0x1
18676	chr10	17620759	17622202	-	Heca	0x1
18677	chr10	17660429	17661600	-	Heca	0x1
18678	chr10	17779165	17780282	+	Reps1	0x0
18679	chr10	17806602	17807717	+	Reps1	0x0
18680	chr10	17813696	17815276	+	Reps1	0x0
18681	chr10	17816486	17817677	+	Reps1	0x0
18682	chr10	17826504	17827652	+	Reps1	0x0
18683	chr10	18302621	18303723	-	D10Bwg1379e	0x0
18684	chr10	18575441	18577327	+	Perp	0x0
18685	chr10	19329049	19330243	+	Ifngr1	0x0
18686	chr10	19667725	19668871	+	Map3k5	0x2
18687	chr10	19857523	19858743	+	Map3k5	0x2
18688	chr10	19927755	19928922	+	Gm6251	0x0
18689	chr10	19981210	19982447	+	Map7	0x2
18690	chr10	19999894	20001671	+	Map7	0x2
18691	chr10	20042253	20044006	+	Bclaf1	0x2
18692	chr10	20059109	20060244	+	Bclaf1	0x2
18693	chr10	20060626	20062628	+	Bclaf1	0x2
18694	chr10	21030565	21031712	+	Hbs1l	0x0
18695	chr10	21049264	21050363	+	Hbs1l	0x0
18696	chr10	21056261	21057366	+	Hbs1l	0x0
18697	chr10	21059381	21060551	+	Hbs1l	0x0
18698	chr10	21061700	21062849	+	Hbs1l	0x0
18699	chr10	21071847	21072946	+	Hbs1l	0x0
18700	chr10	21073923	21075096	+	Hbs1l	0x0
18701	chr10	21087711	21089116	+	Hbs1l	0x0
18702	chr10	21716330	21717430	+	Sgk1	0x2
18703	chr10	22266094	22267291	+	Slc2a12	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18704	chr10	22423899	22425050	-	Tbpl1	0x0
18705	chr10	22431162	22432346	-	Tbpl1	0x0
18706	chr10	23906910	23908905	+	Stx7	0x0
18707	chr10	24317362	24318530	+	Ctgf	0x1
18708	chr10	24497974	24499157	-	Enpp3	0x0
18709	chr10	24621286	24622467	+	Med23	0x0
18710	chr10	24795142	24796331	-	Akap7	0x0
18711	chr10	25008863	25010060	-	Akap7	0x0
18712	chr10	25209203	25210360	+	Epb4.1l2	0x0
18713	chr10	25219717	25220878	+	Epb4.1l2	0x0
18714	chr10	25242011	25243747	+	Epb4.1l2	0x0
18715	chr10	25827204	25828303	+	Gm9767	0x0
18716	chr10	26043279	26044455	-	L3mbtl3	0x0
18717	chr10	26077239	26078422	+	Samd3	0x0
18718	chr10	27531616	27532786	-	Lama2	0x2
18719	chr10	27537499	27538678	-	Lama2	0x2
18720	chr10	27801850	27803014	+	Ptprk	0x1
18721	chr10	27917787	27918986	+	Ptprk	0x1
18722	chr10	28015001	28016177	+	Ptprk	0x1
18723	chr10	28030208	28031407	+	Ptprk	0x1
18724	chr10	28153293	28154438	+	Ptprk	0x1
18725	chr10	28315222	28316543	+	Ptprk	0x1
18726	chr10	28750153	28751542	+	Soga3	0x0
18727	chr10	29063763	29064928	-	Rnf146	0x0
18728	chr10	29065838	29066937	-	Rnf146	0x0
18729	chr10	29418186	29419606	-	Rspo3	0x0
18730	chr10	30326072	30327292	-	Gm20300	0x0
18731	chr10	30372259	30373467	-	Ncoa7	0x0
18732	chr10	30375977	30377153	-	Ncoa7	0x0
18733	chr10	30410197	30411411	-	Ncoa7	0x0
18734	chr10	30517472	30518634	-	Ncoa7	0x0
18735	chr10	30530377	30531605	+	Hddc2	0x0
18736	chr10	30968623	30970012	+	Hddc2	0x0
18737	chr10	31036382	31037604	-	Tpd52l1	0x0
18738	chr10	33528035	33529179	-	Gm4794	0x0
18739	chr10	33613048	33614223	-	Zufsp	0x0
18740	chr10	33871190	33872529	-	Dse	0x2
18741	chr10	33873006	33874193	-	Dse	0x2
18742	chr10	34002729	34005003	+	Tspyl1	0x0
18743	chr10	35430257	35431408	-	Nt5dc1	0x0
18744	chr10	35492819	35493996	-	Nt5dc1	0x0
18745	chr10	36852906	36854079	-	Marcks	0x0
18746	chr10	36854226	36856103	-	Marcks	0x0
18747	chr10	38917842	38919142	+	Tube1	0x0
18748	chr10	39524241	39525995	+	Rev3l	0x0
18749	chr10	39540961	39542083	+	Rev3l	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18750	chr10	39547057	39548397	+	Rev3l	0x0
18751	chr10	39571723	39572956	+	Rev3l	0x0
18752	chr10	39583823	39585000	+	Rev3l	0x0
18753	chr10	39593606	39595301	+	Rev3l	0x0
18754	chr10	39832786	39833940	-	Slc16a10	0x0
18755	chr10	39836663	39837833	-	Slc16a10	0x0
18756	chr10	39972814	39973989	-	Gtf3c6	0x0
18757	chr10	39979768	39981541	+	Cdk19	0x0
18758	chr10	40007190	40008649	-	Amd1	0x0
18759	chr10	40007190	40008649	-	Amd2	0x0
18760	chr10	40129729	40130907	+	Cdk19	0x0
18761	chr10	40268445	40269567	+	Slc22a16	0x0
18762	chr10	40551465	40553267	-	Cdc40	0x0
18763	chr10	40655946	40657045	+	Wasf1	0x0
18764	chr10	40940640	40941860	-	Fig4	0x0
18765	chr10	40958156	40959331	-	Fig4	0x0
18766	chr10	40961866	40963039	-	Fig4	0x0
18767	chr10	41019567	41020759	-	Fig4	0x0
18768	chr10	41201431	41202663	+	Mical1	0x0
18769	chr10	41238745	41239937	+	Cd164	0x0
18770	chr10	41248296	41251331	+	Cd164	0x0
18771	chr10	41438538	41440013	-	Cep57l1	0x0
18772	chr10	41543433	41544624	+	Sesn1	0x0
18773	chr10	41771999	41773890	-	Armc2	0x0
18774	chr10	41901582	41903701	-	Foxo3	0x1
18775	chr10	41904033	41905137	-	Foxo3	0x1
18776	chr10	41916010	41918295	-	Foxo3	0x1
18777	chr10	41927946	41929120	-	Foxo3	0x1
18778	chr10	41950099	41951301	-	Foxo3	0x1
18779	chr10	42254249	42255542	+	Snx3	0x0
18780	chr10	42420254	42421458	+	Ostm1	0x0
18781	chr10	42486782	42487888	+	Sec63	0x0
18782	chr10	42534379	42535497	+	Sec63	0x0
18783	chr10	42548573	42551716	+	Sec63	0x0
18784	chr10	42678453	42679627	+	Scml4	0x0
18785	chr10	42736706	42737888	-	Sobp	0x0
18786	chr10	42738887	42740085	-	Sobp	0x0
18787	chr10	43175405	43176716	-	1700021F05Rik	0x0
18788	chr10	43232192	43233479	+	Bend3	0x0
18789	chr10	43233499	43234547	+	Bend3	0x0
18790	chr10	43234619	43235678	+	Bend3	0x0
18791	chr10	43254696	43255872	-	1700021F05Rik	0x0
18792	chr10	43302311	43304109	+	Cd24a	0x0
18793	chr10	43644719	43645900	+	Rtn4ip1	0x0
18794	chr10	43666801	43667900	+	Rtn4ip1	0x0
18795	chr10	43676141	43677294	+	Rtn4ip1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18796	chr10	44007058	44008255	+	Atg5	0x0
18797	chr10	44083101	44084478	+	Atg5	0x0
18798	chr10	44157493	44158595	-	Prdm1	0x1
18799	chr10	45035782	45036902	+	Popdc3	0x0
18800	chr10	45048987	45050089	+	Bves	0x0
18801	chr10	45095957	45097898	-	Lin28b	0x4
18802	chr10	45099411	45101106	-	Lin28b	0x4
18803	chr10	45139848	45141022	-	Lin28b	0x4
18804	chr10	45188314	45190504	-	Lin28b	0x4
18805	chr10	45595026	45596148	+	D030045P18Rik	0x0
18806	chr10	47822036	47823232	-	C130030K03Rik	0x0
18807	chr10	49957929	49959079	-	Grik2	0x0
18808	chr10	50365332	50366479	+	Ascc3	0x0
18809	chr10	51960527	51961725	+	Dcbld1	0x0
18810	chr10	52057005	52058184	-	Gopc	0x2
18811	chr10	52058321	52059452	-	Gopc	0x2
18812	chr10	52136979	52138091	+	Nus1	0x0
18813	chr10	52156575	52159286	+	Nus1	0x0
18814	chr10	52263756	52264919	-	Zfa-ps	0x0
18815	chr10	52702058	52703186	+	Slc35f1	0x0
18816	chr10	52993731	52994924	-	Cep85l	0x0
18817	chr10	53332055	53333280	-	Mcm9	0x0
18818	chr10	53348536	53349698	-	Mcm9	0x0
18819	chr10	55914045	55915220	-	D630037F22Rik	0x0
18820	chr10	56108685	56110415	+	Gja1	0x1
18821	chr10	56216592	56218239	+	Gja1	0x1
18822	chr10	57236158	57237256	-	Serinc1	0x0
18823	chr10	57759580	57761807	+	Gcc2	0x0
18824	chr10	57806712	57807846	+	Lims1	0x0
18825	chr10	57819444	57820578	+	Lims1	0x0
18826	chr10	57868151	57869250	+	Lims1	0x0
18827	chr10	57884823	57887883	+	Lims1	0x0
18828	chr10	57940765	57942865	+	Ranbp2	0x0
18829	chr10	57956565	57957842	+	Ranbp2	0x0
18830	chr10	58236199	58237356	+	Sh3rf3	0x0
18831	chr10	58626955	58628113	-	Sept10	0x0
18832	chr10	58639080	58640293	-	Sept10	0x0
18833	chr10	58687515	58688665	+	Sowahc	0x0
18834	chr10	58814260	58815499	+	P4ha1	0x0
18835	chr10	58833769	58834948	+	P4ha1	0x0
18836	chr10	58909680	58911539	-	Mcu	0x0
18837	chr10	59028360	59029560	-	Mcu	0x0
18838	chr10	59042382	59043582	-	Mcu	0x0
18839	chr10	59326163	59327324	+	Micu1	0x0
18840	chr10	59359684	59362516	+	Dnajb12	0x0
18841	chr10	59413643	59414775	-	Ddit4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18842	chr10	59478137	59479442	+	Ascc1	0x0
18843	chr10	59505137	59506239	+	Ascc1	0x0
18844	chr10	59555034	59556214	+	Ascc1	0x0
18845	chr10	59593821	59595736	+	Spock2	0x0
18846	chr10	59596029	59598199	+	Spock2	0x0
18847	chr10	59668604	59669768	-	Chst3	0x0
18848	chr10	59756904	59758355	+	Psap	0x0
18849	chr10	59764013	59765755	+	Psap	0x0
18850	chr10	59848450	59849603	+	Gm17455	0x0
18851	chr10	60175439	60176570	-	Slc29a3	0x0
18852	chr10	60177368	60179155	-	Slc29a3	0x0
18853	chr10	60197816	60198991	-	Slc29a3	0x0
18854	chr10	60224946	60227396	-	Unc5b	0x1
18855	chr10	60560925	60563475	-	Sgpl1	0x0
18856	chr10	60575682	60576781	-	Sgpl1	0x0
18857	chr10	60659392	60661125	-	Adamts14	0x0
18858	chr10	60701164	60702405	-	Adamts14	0x0
18859	chr10	60737596	60738803	+	Prf1	0x2
18860	chr10	60781985	60784080	-	Pald1	0x0
18861	chr10	60792886	60794056	-	Pald1	0x0
18862	chr10	60803508	60804676	-	Pald1	0x0
18863	chr10	60887112	60888510	+	Nodal	0x0
18864	chr10	60892203	60893349	-	Eif4ebp2	0x0
18865	chr10	60965746	60967043	+	Lrrc20	0x0
18866	chr10	60974676	60975784	+	Lrrc20	0x0
18867	chr10	61014762	61015869	+	Lrrc20	0x0
18868	chr10	61027457	61028641	+	Lrrc20	0x0
18869	chr10	61125905	61127097	+	Ppa1	0x0
18870	chr10	61127511	61128615	+	Ppa1	0x0
18871	chr10	61136039	61137313	+	Ppa1	0x0
18872	chr10	61154262	61156490	+	Sar1a	0x0
18873	chr10	61160641	61161805	+	Tysnd1	0x2
18874	chr10	61212956	61214141	-	H2afy2	0x0
18875	chr10	61297837	61299038	+	Mir5108	0x0
18876	chr10	61366778	61367957	-	Col13a1	0x0
18877	chr10	61533424	61534984	+	Gm5424	0x0
18878	chr10	61571161	61572351	-	2010107G23Rik	0x0
18879	chr10	61731684	61732994	-	Hk1	0x0
18880	chr10	61733798	61734995	-	Hk1	0x0
18881	chr10	61758919	61760036	-	Hk1	0x0
18882	chr10	61917719	61919611	-	Vps26a	0x0
18883	chr10	61936111	61937303	-	Vps26a	0x0
18884	chr10	62020904	62022074	-	2510003E04Rik	0x0
18885	chr10	62042678	62045292	-	Ddx21	0x0
18886	chr10	62052037	62053226	-	Ddx21	0x0
18887	chr10	62054049	62055245	-	Ddx21	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18888	chr10	62060441	62061627	-	Ddx21	0x0
18889	chr10	62108636	62109802	-	Ddx50	0x0
18890	chr10	62244382	62245603	-	Ccar1	0x0
18891	chr10	62266853	62280500	-	Tet1	0x0
18892	chr10	62281116	62282308	-	Tet1	0x0
18893	chr10	62284777	62286043	-	Tet1	0x0
18894	chr10	62295084	62296900	-	Tet1	0x0
18895	chr10	62300531	62303411	-	Tet1	0x0
18896	chr10	62307608	62308912	-	Tet1	0x0
18897	chr10	62310565	62311802	-	Tet1	0x0
18898	chr10	62314778	62315948	-	Tet1	0x0
18899	chr10	62340831	62343741	-	Tet1	0x0
18900	chr10	62349438	62350620	-	Tet1	0x0
18901	chr10	62354930	62356120	-	Tet1	0x0
18902	chr10	62356416	62357576	-	Tet1	0x0
18903	chr10	62360553	62361719	-	Tet1	0x0
18904	chr10	62406928	62408830	+	Slc25a16	0x0
18905	chr10	62435752	62437087	+	Dna2	0x0
18906	chr10	62470112	62471211	+	Rufy2	0x0
18907	chr10	62473922	62475024	+	Rufy2	0x0
18908	chr10	62593272	62594486	-	Mypn	0x0
18909	chr10	62644654	62645841	+	Herc4	0x0
18910	chr10	62742204	62743348	+	Herc4	0x0
18911	chr10	62778113	62779372	+	Herc4	0x0
18912	chr10	62779630	62780766	+	Herc4	0x0
18913	chr10	62781282	62783460	-	Sirt1	0x0
18914	chr10	63492257	63493356	+	Ctnna3	0x4
18915	chr10	66367345	66368549	-	Reep3	0x0
18916	chr10	66471737	66473003	-	Reep3	0x0
18917	chr10	66473888	66475015	-	Reep3	0x0
18918	chr10	66680448	66681633	+	Jmjd1c	0x0
18919	chr10	66685986	66687108	+	Jmjd1c	0x0
18920	chr10	66687638	66688771	+	Jmjd1c	0x0
18921	chr10	66707725	66708928	+	Jmjd1c	0x0
18922	chr10	66711885	66712984	+	Jmjd1c	0x0
18923	chr10	66718123	66719321	+	Jmjd1c	0x0
18924	chr10	67007123	67010666	-	Ado	0x0
18925	chr10	67071276	67072474	+	Egr2	0x1
18926	chr10	67483158	67484257	+	Rtkn2	0x0
18927	chr10	67506232	67507382	+	Rtkn2	0x0
18928	chr10	67555118	67558850	-	Arid5b	0x0
18929	chr10	68800570	68801855	-	Cdk1	0x0
18930	chr10	68802981	68804158	-	Cdk1	0x0
18931	chr10	68810343	68811586	-	Cdk1	0x0
18932	chr10	69389884	69391118	+	Ank3	0x2
18933	chr10	69478808	69479934	+	Ank3	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18934	chr10	69559780	69560902	+	Ccdc6	0x0
18935	chr10	69578154	69579299	+	Ccdc6	0x0
18936	chr10	69651591	69656358	+	Ccdc6	0x0
18937	chr10	70688363	70691775	-	Tfam	0x0
18938	chr10	70717370	70718931	-	Ube2d1	0x2
18939	chr10	70735547	70736669	-	Ube2d1	0x2
18940	chr10	70793110	70794432	-	Cisd1	0x0
18941	chr10	70820804	70821917	+	Ipmk	0x0
18942	chr10	70834910	70836055	+	Ipmk	0x0
18943	chr10	70845005	70848567	+	Ipmk	0x0
18944	chr10	71168836	71171152	+	Ipmk	0x0
18945	chr10	71616987	71618128	+	Zwint	0x0
18946	chr10	71771547	71772807	+	Zwint	0x0
18947	chr10	72131465	72132564	+	Zwint	0x0
18948	chr10	72136239	72137988	+	Zwint	0x0
18949	chr10	72312420	72313548	+	Zwint	0x0
18950	chr10	72664205	72666071	+	Zwint	0x0
18951	chr10	72763427	72764633	-	A330049N07Rik	0x0
18952	chr10	73152302	73153452	-	A330049N07Rik	0x0
18953	chr10	74177438	74182879	-	Rtdr1	0x0
18954	chr10	74769113	74770217	+	Specc1l	0x0
18955	chr10	74773203	74774823	+	Specc1l	0x0
18956	chr10	74777637	74778761	+	Adora2a	0x0
18957	chr10	74969510	74970910	-	Gucd1	0x0
18958	chr10	75096697	75097889	-	Susd2	0x0
18959	chr10	75099000	75100160	-	Susd2	0x0
18960	chr10	75119334	75120901	-	Cabin1	0x0
18961	chr10	75180862	75182096	-	Cabin1	0x0
18962	chr10	75204961	75206166	-	Cabin1	0x0
18963	chr10	75235504	75236652	-	Ddt	0x0
18964	chr10	75359008	75360305	-	Smarcb1	0x1
18965	chr10	75377827	75379614	-	Smarcb1	0x1
18966	chr10	75397809	75398924	+	Chchd10	0x0
18967	chr10	75399556	75401655	+	Chchd10	0x0
18968	chr10	75502753	75505989	+	Zfp280b	0x0
18969	chr10	75725318	75726931	-	Dip2a	0x0
18970	chr10	75753227	75754455	-	Dip2a	0x0
18971	chr10	75760895	75762123	-	Dip2a	0x0
18972	chr10	75847167	75848307	-	Pcnt	0x0
18973	chr10	75872342	75873514	-	Pcnt	0x0
18974	chr10	75879107	75880284	-	Pcnt	0x0
18975	chr10	75891588	75892791	-	Pcnt	0x0
18976	chr10	75922491	75923621	-	Ybey	0x0
18977	chr10	76015549	76017064	+	Lss	0x0
18978	chr10	76017083	76020500	+	Lss	0x0
18979	chr10	76224177	76225408	-	Pcbp3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
18980	chr10	76254708	76255884	-	Pcbp3	0x0
18981	chr10	76333473	76334713	-	Pcbp3	0x0
18982	chr10	76386801	76388035	-	Pcbp3	0x0
18983	chr10	76512033	76513522	+	Slc19a1	0x0
18984	chr10	76514388	76516729	-	Col18a1	0x1
18985	chr10	76516988	76518219	-	Col18a1	0x1
18986	chr10	76530441	76531632	-	Col18a1	0x1
18987	chr10	76558460	76559674	-	Col18a1	0x1
18988	chr10	76578624	76579816	-	Col18a1	0x1
18989	chr10	76615657	76616800	-	Col18a1	0x1
18990	chr10	76656548	76657714	-	Col18a1	0x1
18991	chr10	76730854	76732345	+	Pofut2	0x0
18992	chr10	76949494	76950669	-	Fam207a	0x0
18993	chr10	77059856	77061877	+	Pttg1ip	0x0
18994	chr10	77070325	77071510	+	Sumo3	0x0
18995	chr10	77078698	77080731	+	Sumo3	0x0
18996	chr10	77107257	77108873	+	Ube2g2	0x2
18997	chr10	77294288	77295454	+	Krtap10-10	0x0
18998	chr10	77450006	77452111	-	Pfkl	0x0
18999	chr10	77513986	77515194	+	Dnmt3l	0x0
19000	chr10	77521889	77523035	+	Dnmt3l	0x0
19001	chr10	77525662	77526890	+	Dnmt3l	0x0
19002	chr10	77531987	77533174	+	Icosl	0x0
19003	chr10	77539137	77540255	+	Icosl	0x0
19004	chr10	77633347	77635034	-	Pwp2	0x0
19005	chr10	77648832	77650003	-	Trappc10	0x2
19006	chr10	77654608	77656094	-	Trappc10	0x2
19007	chr10	77682482	77683624	-	Trappc10	0x2
19008	chr10	77684954	77686118	-	Trappc10	0x2
19009	chr10	77731577	77736373	-	Agpat3	0x0
19010	chr10	77779937	77781148	-	Agpat3	0x0
19011	chr10	77789042	77790183	-	Agpat3	0x0
19012	chr10	77838758	77839911	+	Cstb	0x0
19013	chr10	77866746	77868298	-	Rrp1	0x0
19014	chr10	77899187	77900911	-	Pdxk	0x0
19015	chr10	77901379	77903734	-	Pdxk	0x0
19016	chr10	78502740	78503928	-	2610008E11Rik	0x0
19017	chr10	78988728	78990224	-	Ppap2c	0x4
19018	chr10	79101319	79102541	+	Madcam1	0x0
19019	chr10	79147251	79148579	+	Cdc34	0x0
19020	chr10	79150083	79151604	+	Cdc34	0x0
19021	chr10	79171899	79175281	+	Bsg	0x0
19022	chr10	79220871	79223187	-	Rnf126	0x0
19023	chr10	79281510	79282691	+	Palm	0x0
19024	chr10	79282981	79284130	+	9130017N09Rik	0x0
19025	chr10	79282981	79284130	+	Palm	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19026	chr10	79322085	79323239	+	Ptbp1	0x0
19027	chr10	79324724	79327509	+	Ptbp1	0x0
19028	chr10	79350917	79352132	+	Elane	0x0
19029	chr10	79372390	79374263	-	R3hdm4	0x0
19030	chr10	79375569	79376846	-	R3hdm4	0x0
19031	chr10	79423217	79424367	+	Wdr18	0x0
19032	chr10	79431074	79432409	+	Wdr18	0x0
19033	chr10	79439465	79440855	-	Tmem259	0x0
19034	chr10	79441508	79442611	-	Tmem259	0x0
19035	chr10	79488445	79489646	+	Hmha1	0x0
19036	chr10	79498146	79499493	-	Polr2e	0x0
19037	chr10	79520999	79522173	-	Sbno2	0x0
19038	chr10	79559512	79560690	-	Sbno2	0x0
19039	chr10	79578813	79579943	+	Stk11	0x1
19040	chr10	79580272	79581376	+	Stk11	0x1
19041	chr10	79587061	79588660	+	Stk11	0x1
19042	chr10	79592124	79593324	+	Stk11	0x1
19043	chr10	79593456	79594629	-	Dos	0x0
19044	chr10	79607478	79609114	+	Atp5d	0x0
19045	chr10	79612421	79613538	+	Midn	0x0
19046	chr10	79619474	79621555	+	Midn	0x0
19047	chr10	79651859	79653071	+	Efna2	0x0
19048	chr10	79703701	79704847	+	Mum1	0x0
19049	chr10	79717098	79718306	+	Ndufs7	0x0
19050	chr10	79739807	79741895	+	Dazap1	0x0
19051	chr10	79754948	79757131	+	Rps15	0x0
19052	chr10	79854875	79856130	-	Mbd3	0x0
19053	chr10	79865247	79866452	-	Uqcr11	0x0
19054	chr10	79871982	79873661	-	Tcf3	0x2
19055	chr10	79874244	79876580	-	Tcf3	0x2
19056	chr10	79893142	79894316	-	Tcf3	0x2
19057	chr10	80004895	80007215	-	Rexo1	0x0
19058	chr10	80011794	80013603	-	Rexo1	0x0
19059	chr10	80029943	80031641	-	Klf16	0x0
19060	chr10	80046098	80047308	-	Fam108a	0x0
19061	chr10	80049162	80050299	-	Fam108a	0x0
19062	chr10	80050508	80051652	-	Fam108a	0x0
19063	chr10	80071874	80072973	+	Scamp4	0x0
19064	chr10	80077022	80078753	+	Scamp4	0x0
19065	chr10	80090018	80091210	+	Csnk1g2	0x0
19066	chr10	80096447	80097916	+	Csnk1g2	0x0
19067	chr10	80102735	80104024	+	Csnk1g2	0x0
19068	chr10	80105113	80106882	-	Btbd2	0x0
19069	chr10	80114853	80116039	-	Btbd2	0x0
19070	chr10	80127607	80129965	-	Mknk2	0x0
19071	chr10	80132091	80133259	-	Mknk2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19072	chr10	80133761	80134969	-	Mknk2	0x0
19073	chr10	80147617	80148792	-	Mob3a	0x0
19074	chr10	80169561	80171008	-	Ap3d1	0x0
19075	chr10	80171389	80172567	-	Ap3d1	0x0
19076	chr10	80233353	80234518	+	Dot1l	0x0
19077	chr10	80255760	80258692	+	Dot1l	0x0
19078	chr10	80362237	80363336	-	Timm13	0x0
19079	chr10	80363847	80365894	-	Lmnb2	0x0
19080	chr10	80445660	80446867	-	Gng7	0x0
19081	chr10	80491882	80493080	-	Slc39a3	0x0
19082	chr10	80506362	80507580	-	Sgta	0x0
19083	chr10	80511971	80514008	-	Sgta	0x0
19084	chr10	80540776	80542846	+	Thop1	0x0
19085	chr10	80543307	80544488	+	Thop1	0x0
19086	chr10	80578589	80579733	+	Map2k2	0x0
19087	chr10	80606278	80607498	+	Zbtb7a	0x0
19088	chr10	80615532	80616745	-	Pias4	0x0
19089	chr10	80620356	80621596	-	Pias4	0x0
19090	chr10	80638811	80645765	+	Dapk3	0x1
19091	chr10	80638811	80645765	+	Eef2	0x0
19092	chr10	80638811	80645765	+	Snord37	0x0
19093	chr10	80781014	80782819	+	Pip5k1c	0x0
19094	chr10	80826720	80829056	+	Mfsd12	0x0
19095	chr10	80829113	80830393	-	Fzr1	0x0
19096	chr10	80840018	80841191	-	Fzr1	0x0
19097	chr10	80848122	80849456	+	Dohh	0x0
19098	chr10	80850091	80851550	+	Dohh	0x0
19099	chr10	80859494	80861110	-	Nfic	0x0
19100	chr10	80882508	80883684	-	Nfic	0x0
19101	chr10	80932396	80933516	-	Celf5	0x0
19102	chr10	80948729	80950634	-	Ncln	0x0
19103	chr10	80955307	80956498	-	Ncln	0x0
19104	chr10	80991389	80993141	-	Gna11	0x2
19105	chr10	81027741	81029460	+	Aes	0x0
19106	chr10	81618286	81619426	+	AU041133	0x0
19107	chr10	81626348	81627507	+	AU041133	0x0
19108	chr10	81685196	81686397	-	Zfp938	0x0
19109	chr10	82101327	82102527	+	Gm9855	0x0
19110	chr10	82101327	82102527	+	Tdg	0x2
19111	chr10	82211395	82213409	-	Nfyb	0x0
19112	chr10	82214671	82215809	-	Nfyb	0x0
19113	chr10	82218621	82219812	-	Nfyb	0x0
19114	chr10	82358533	82360931	+	Txnrd1	0x0
19115	chr10	82417318	82418458	+	Chst11	0x0
19116	chr10	82470778	82471885	+	Chst11	0x0
19117	chr10	82655485	82656692	+	Chst11	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19118	chr10	82656693	82657863	+	Chst11	0x0
19119	chr10	82788102	82789286	-	Slc41a2	0x0
19120	chr10	82829000	82832095	+	D10Wsu102e	0x0
19121	chr10	82840758	82841907	+	D10Wsu102e	0x0
19122	chr10	82846344	82847519	+	D10Wsu102e	0x0
19123	chr10	82855270	82856450	+	D10Wsu102e	0x0
19124	chr10	82866855	82868026	+	D10Wsu102e	0x0
19125	chr10	82868641	82869747	+	D10Wsu102e	0x0
19126	chr10	82871395	82872535	+	D10Wsu102e	0x0
19127	chr10	82873682	82874849	+	D10Wsu102e	0x0
19128	chr10	82876823	82878366	+	D10Wsu102e	0x0
19129	chr10	82909309	82911197	+	D10Wsu102e	0x0
19130	chr10	82915656	82916834	+	D10Wsu102e	0x0
19131	chr10	82944722	82945866	+	A230046K03Rik	0x0
19132	chr10	82947391	82948504	+	A230046K03Rik	0x0
19133	chr10	82951053	82952670	-	Aldh1l2	0x0
19134	chr10	83058391	83059581	+	A230046K03Rik	0x0
19135	chr10	83062587	83063782	-	Appl2	0x0
19136	chr10	83089497	83090734	-	Appl2	0x0
19137	chr10	83771190	83772403	+	Tcp11l2	0x0
19138	chr10	83833900	83836463	-	Nuak1	0x0
19139	chr10	83988594	83990892	-	Ckap4	0x0
19140	chr10	84010049	84011268	-	C330046G13Rik	0x0
19141	chr10	84158144	84159333	+	Polr3b	0x0
19142	chr10	84173220	84174427	+	Polr3b	0x0
19143	chr10	84188865	84190316	+	Polr3b	0x0
19144	chr10	84409878	84411008	+	Ric8b	0x0
19145	chr10	84458494	84459827	+	Ric8b	0x0
19146	chr10	84481254	84482360	+	Ric8b	0x0
19147	chr10	84578068	84580902	+	AI597468	0x0
19148	chr10	84606949	84608172	-	Cry1	0x0
19149	chr10	84849693	84850893	+	Btbd11	0x0
19150	chr10	84870363	84871537	+	Btbd11	0x0
19151	chr10	84886724	84887876	+	Btbd11	0x0
19152	chr10	85085908	85087084	+	Btbd11	0x0
19153	chr10	85350565	85352372	+	Pwp1	0x0
19154	chr10	85354184	85356029	-	Prdm4	0x1
19155	chr10	85400964	85402246	-	D10Wsu52e	0x0
19156	chr10	85404709	85405858	-	D10Wsu52e	0x0
19157	chr10	85409509	85410609	-	D10Wsu52e	0x0
19158	chr10	85510303	85511466	+	Fbxo7	0x0
19159	chr10	85512420	85513648	+	Fbxo7	0x0
19160	chr10	85595562	85596716	-	Syn3	0x0
19161	chr10	85811124	85812323	+	Timp3	0x1
19162	chr10	86154424	86155597	-	Hsp90b1	0x0
19163	chr10	86156676	86157785	-	Hsp90b1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19164	chr10	86162855	86165300	-	Hsp90b1	0x0
19165	chr10	86165682	86166781	-	Hsp90b1	0x0
19166	chr10	86167479	86168809	-	Hsp90b1	0x0
19167	chr10	86397073	86398259	-	Stab2	0x0
19168	chr10	87292073	87293291	-	Parpbp	0x0
19169	chr10	87429045	87430223	+	Tyms-ps	0x0
19170	chr10	87539168	87540373	-	Parpbp	0x0
19171	chr10	87540375	87543011	-	Parpbp	0x0
19172	chr10	87547603	87548671	-	Parpbp	0x0
19173	chr10	87548733	87549830	-	Parpbp	0x0
19174	chr10	87551495	87552617	-	Parpbp	0x0
19175	chr10	87553546	87555038	-	Parpbp	0x0
19176	chr10	87609479	87610660	+	Nup37	0x0
19177	chr10	87636702	87637902	+	Nup37	0x0
19178	chr10	87891761	87892917	+	Gnptab	0x0
19179	chr10	87908615	87910459	+	Gnptab	0x0
19180	chr10	88205306	88207363	+	Arl1	0x0
19181	chr10	88208946	88210179	-	Utp20	0x2
19182	chr10	88234654	88235838	-	Utp20	0x2
19183	chr10	88257597	88258773	-	Utp20	0x2
19184	chr10	88260500	88261740	-	Utp20	0x2
19185	chr10	88518974	88520153	-	Ano4	0x0
19186	chr10	88872664	88874507	-	Gas2l3	0x0
19187	chr10	88875125	88876260	-	Gas2l3	0x0
19188	chr10	89101892	89103082	-	Scyl2	0x0
19189	chr10	89174235	89175411	-	Actr6	0x0
19190	chr10	89242507	89243701	+	Uhrf1bp1l	0x0
19191	chr10	89266914	89268826	+	Uhrf1bp1l	0x0
19192	chr10	89280339	89283115	+	Uhrf1bp1l	0x0
19193	chr10	90453002	90454186	-	Apaf1	0x1
19194	chr10	90473410	90474621	-	Apaf1	0x1
19195	chr10	90559784	90561484	+	Ikbip	0x0
19196	chr10	90579021	90580620	-	Slc25a3	0x0
19197	chr10	90581000	90582131	-	Slc25a3	0x0
19198	chr10	90609853	90612734	-	Tmpo	0x0
19199	chr10	90622645	90624766	-	Tmpo	0x0
19200	chr10	92005019	92006138	-	Nedd1	0x0
19201	chr10	92147382	92148631	-	Nedd1	0x0
19202	chr10	92690922	92692048	+	Cdk17	0x0
19203	chr10	92702371	92704459	+	Cdk17	0x0
19204	chr10	92710741	92711943	-	Elk3	0x0
19205	chr10	92926530	92927745	+	Lta4h	0x2
19206	chr10	92946893	92948091	+	Lta4h	0x2
19207	chr10	93298827	93299965	+	Usp44	0x0
19208	chr10	93321445	93324444	-	Metap2	0x2
19209	chr10	93331423	93332602	-	Metap2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19210	chr10	93341246	93342406	-	Metap2	0x2
19211	chr10	93606319	93607475	+	Fgd6	0x0
19212	chr10	93682945	93684249	+	Ndufa12	0x0
19213	chr10	94148009	94149228	-	4932415G12Rik	0x0
19214	chr10	94172305	94173508	+	Ccdc41	0x0
19215	chr10	94231048	94232260	+	Ccdc41	0x0
19216	chr10	94637089	94638725	-	Cradd	0x0
19217	chr10	94639028	94640175	-	Cradd	0x0
19218	chr10	94717454	94718697	-	Cradd	0x0
19219	chr10	94723409	94724622	-	Cradd	0x0
19220	chr10	94846826	94848057	-	Socs2	0x0
19221	chr10	94867636	94868819	-	Socs2	0x0
19222	chr10	94873680	94874911	-	Socs2	0x0
19223	chr10	94889520	94890680	-	Socs2	0x0
19224	chr10	94905467	94906675	-	Socs2	0x0
19225	chr10	94907433	94908585	-	Socs2	0x0
19226	chr10	95004584	95008572	+	Ube2n	0x0
19227	chr10	95009090	95012043	-	Nudt4	0x0
19228	chr10	95358929	95360110	+	Eea1	0x0
19229	chr10	95501673	95502886	+	Eea1	0x0
19230	chr10	95505062	95508444	+	Eea1	0x0
19231	chr10	96081333	96082573	+	Btg1	0x2
19232	chr10	98448337	98449537	+	Atp2b1	0x0
19233	chr10	98485260	98486371	+	Atp2b1	0x0
19234	chr10	98486433	98488920	+	Atp2b1	0x0
19235	chr10	98659217	98660538	+	Poc1b	0x0
19236	chr10	99219990	99222209	-	Csl	0x0
19237	chr10	99528323	99529515	+	Kitl	0x0
19238	chr10	99907765	99908966	-	Tmtc3	0x0
19239	chr10	99923103	99924264	-	Tmtc3	0x0
19240	chr10	99959993	99961237	+	Cep290	0x0
19241	chr10	100011404	100012599	+	Cep290	0x0
19242	chr10	102815855	102817033	-	Lrriq1	0x0
19243	chr10	102851285	102852384	+	Slc6a15	0x2
19244	chr10	102880425	102882258	+	Slc6a15	0x2
19245	chr10	105239087	105240264	-	Mettl25	0x0
19246	chr10	105280679	105281818	+	Ccdc59	0x0
19247	chr10	105620195	105621391	+	Ppfia2	0x0
19248	chr10	107442272	107443430	+	Ppp1r12a	0x0
19249	chr10	107674454	107675608	+	Ppp1r12a	0x0
19250	chr10	107714695	107717248	+	Ppp1r12a	0x0
19251	chr10	107769731	107770905	+	Pawr	0x1
19252	chr10	107780929	107782116	+	Pawr	0x1
19253	chr10	107792626	107793822	+	Pawr	0x1
19254	chr10	107800216	107801402	+	Pawr	0x1
19255	chr10	107801694	107802996	+	Pawr	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19256	chr10	109220718	109221945	-	Nav3	0x0
19257	chr10	110081237	110082385	-	1700020G17Rik	0x0
19258	chr10	110202626	110203753	+	E2f7	0x4
19259	chr10	110223607	110224842	+	E2f7	0x4
19260	chr10	110407810	110408987	-	Zdhhc17	0x1
19261	chr10	110413908	110415102	-	Zdhhc17	0x1
19262	chr10	110729877	110732116	+	Osbpl8	0x0
19263	chr10	110732464	110733670	+	Osbpl8	0x0
19264	chr10	110909777	110910958	+	Nap1l1	0x0
19265	chr10	110921317	110923411	+	Nap1l1	0x0
19266	chr10	110926643	110927771	+	Nap1l1	0x0
19267	chr10	110929884	110931895	+	Nap1l1	0x0
19268	chr10	110932611	110935665	+	Nap1l1	0x0
19269	chr10	111421787	111423376	+	Krr1	0x0
19270	chr10	111721501	111722707	+	Kcnc2	0x2
19271	chr10	112362273	112365219	-	Atxn7l3b	0x0
19272	chr10	112812853	112814049	-	Atxn7l3b	0x0
19273	chr10	114706894	114707999	+	Zfc3h1	0x0
19274	chr10	114724645	114727887	-	Rab21	0x0
19275	chr10	114746608	114747772	-	Rab21	0x0
19276	chr10	114777299	114778527	-	Tmem19	0x0
19277	chr10	114869123	114870283	+	Zfc3h1	0x0
19278	chr10	115921757	115923325	-	Cnot2	0x0
19279	chr10	115964372	115965595	-	Cnot2	0x0
19280	chr10	115974182	115975369	-	Cnot2	0x0
19281	chr10	115985513	115986751	-	Cnot2	0x0
19282	chr10	115991407	115992590	-	Cnot2	0x0
19283	chr10	116343313	116344523	-	Rab3ip	0x0
19284	chr10	116362667	116363818	-	Rab3ip	0x0
19285	chr10	116487592	116488921	-	Cct2	0x0
19286	chr10	116489596	116490765	-	Cct2	0x0
19287	chr10	116491400	116495490	-	Cct2	0x0
19288	chr10	116498593	116499689	-	Cct2	0x0
19289	chr10	116506558	116507781	-	Frs2	0x2
19290	chr10	116508257	116510846	-	Frs2	0x2
19291	chr10	116519834	116521012	-	Frs2	0x2
19292	chr10	116572344	116573521	-	Frs2	0x2
19293	chr10	116651806	116653167	-	Yeats4	0x2
19294	chr10	116781719	116785451	-	Cpsf6	0x0
19295	chr10	116785885	116786999	-	Cpsf6	0x0
19296	chr10	116791522	116793721	-	Cpsf6	0x0
19297	chr10	116795664	116796742	-	Cpsf6	0x0
19298	chr10	116796926	116798151	-	Cpsf6	0x0
19299	chr10	116798661	116799815	-	Cpsf6	0x0
19300	chr10	116802569	116803741	-	Cpsf6	0x0
19301	chr10	117125525	117127026	-	Mdm2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19302	chr10	117132838	117133986	-	Mdm2	0x2
19303	chr10	117170276	117172363	-	Slc35e3	0x0
19304	chr10	117226468	117227703	-	Nup107	0x0
19305	chr10	117250517	117253073	-	Rap1b	0x0
19306	chr10	117262085	117263313	-	Rap1b	0x0
19307	chr10	118637399	118640470	-	Cand1	0x0
19308	chr10	118644531	118645695	-	Cand1	0x0
19309	chr10	118647256	118649691	-	Cand1	0x0
19310	chr10	118651722	118652875	-	Cand1	0x0
19311	chr10	118653528	118654718	-	Cand1	0x0
19312	chr10	118919814	118920981	+	Grip1	0x0
19313	chr10	118944503	118945643	+	Grip1	0x0
19314	chr10	118959239	118960853	+	Grip1	0x0
19315	chr10	118965287	118966419	+	Grip1	0x0
19316	chr10	119072553	119073738	+	Grip1	0x0
19317	chr10	119076525	119077681	+	Grip1	0x0
19318	chr10	119198677	119199832	+	Grip1	0x0
19319	chr10	119210108	119211294	+	Grip1	0x0
19320	chr10	119488664	119489787	+	Grip1	0x0
19321	chr10	119520102	119521961	-	Helb	0x2
19322	chr10	119524700	119525894	-	Helb	0x2
19323	chr10	119542035	119543277	-	Helb	0x2
19324	chr10	119648662	119649848	+	Tmbim4	0x0
19325	chr10	119798581	119799763	-	Hmga2	0x2
19326	chr10	119853419	119854601	-	Mir763	0x0
19327	chr10	119908352	119909482	-	Hmga2	0x2
19328	chr10	120372099	120373321	-	Lemd3	0x0
19329	chr10	120831608	120834825	+	Gns	0x0
19330	chr10	120847438	120848629	-	Rassf3	0x0
19331	chr10	120849174	120850504	-	Rassf3	0x0
19332	chr10	121020805	121022011	-	Tbk1	0x0
19333	chr10	121023944	121027645	-	Xpot	0x0
19334	chr10	121040905	121042062	-	Xpot	0x0
19335	chr10	121188401	121189787	+	BC048403	0x0
19336	chr10	121462731	121463908	-	Srgap1	0x0
19337	chr10	121499087	121500317	-	Srgap1	0x0
19338	chr10	121502804	121503999	-	Gm9079	0x0
19339	chr10	121510246	121511441	-	Gm9079	0x0
19340	chr10	121518110	121519283	-	Tmem5	0x0
19341	chr10	122321950	122323123	+	Ppm1h	0x0
19342	chr10	122381878	122383200	+	Ppm1h	0x0
19343	chr10	122427321	122428466	-	Mon2	0x0
19344	chr10	122450295	122451520	-	Mon2	0x0
19345	chr10	122452877	122454111	-	Mon2	0x0
19346	chr10	122480024	122481252	-	Mon2	0x0
19347	chr10	122549435	122550731	-	Usp15	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19348	chr10	125402932	125404169	+	Lrig3	0x1
19349	chr10	126433808	126437501	+	Ctdsp2	0x0
19350	chr10	126433808	126437501	+	Mir546	0x0
19351	chr10	126459242	126460475	-	Tsfm	0x0
19352	chr10	126482308	126483458	+	Mettl1	0x0
19353	chr10	126492553	126494268	-	March9	0x0
19354	chr10	126500188	126503790	+	Cdk4	0x6
19355	chr10	126503960	126505618	-	Tspan31	0x0
19356	chr10	126532284	126533477	-	Os9	0x0
19357	chr10	126627205	126628409	-	Dtx3	0x0
19358	chr10	126629167	126630391	-	Dtx3	0x0
19359	chr10	126634221	126636901	-	Pip4k2c	0x0
19360	chr10	126679941	126681117	-	Kif5a	0x0
19361	chr10	126703963	126705099	+	Dctn2	0x0
19362	chr10	126718232	126719395	+	Dctn2	0x0
19363	chr10	126718932	126720343	-	Mbd6	0x0
19364	chr10	126721407	126725106	-	Mbd6	0x0
19365	chr10	126729618	126730805	+	Ddit3	0x2
19366	chr10	126737439	126738589	+	Ddit3	0x2
19367	chr10	126738017	126739307	-	Mars	0x0
19368	chr10	126743973	126745167	-	Mars	0x0
19369	chr10	126777517	126778671	+	Arhgap9	0x0
19370	chr10	126826792	126827984	+	R3hdm2	0x0
19371	chr10	126857358	126858498	+	R3hdm2	0x0
19372	chr10	126858655	126859820	+	R3hdm2	0x0
19373	chr10	126896020	126897193	+	R3hdm2	0x0
19374	chr10	126903312	126904441	+	R3hdm2	0x0
19375	chr10	126929136	126930272	+	R3hdm2	0x0
19376	chr10	126931744	126933577	+	R3hdm2	0x0
19377	chr10	126934915	126937022	+	R3hdm2	0x0
19378	chr10	126953694	126955289	-	Shmt2	0x0
19379	chr10	126975031	126976228	-	Lrp1	0x0
19380	chr10	126978762	126979861	-	Lrp1	0x0
19381	chr10	126982271	126983679	-	Lrp1	0x0
19382	chr10	126990826	126991979	-	Lrp1	0x0
19383	chr10	126992681	126994878	-	Lrp1	0x0
19384	chr10	126995088	126996791	-	Lrp1	0x0
19385	chr10	127010861	127012069	-	Lrp1	0x0
19386	chr10	127014546	127015758	-	Lrp1	0x0
19387	chr10	127049193	127050369	-	Lrp1	0x0
19388	chr10	127096486	127098510	+	Stat6	0x2
19389	chr10	127134907	127138314	+	Tmem194	0x0
19390	chr10	127156225	127157354	+	Myo1a	0x0
19391	chr10	127176662	127177825	+	Zbtb39	0x0
19392	chr10	127181425	127184534	+	Zbtb39	0x0
19393	chr10	127448594	127449803	+	Prim1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19394	chr10	127451800	127452963	+	Prim1	0x0
19395	chr10	127479747	127480943	+	Naca	0x2
19396	chr10	127484741	127485956	+	Naca	0x2
19397	chr10	127501971	127503159	+	Ptges3	0x0
19398	chr10	127505081	127506388	+	Ptges3	0x0
19399	chr10	127512887	127514806	+	Ptges3	0x0
19400	chr10	127521643	127523731	+	Atp5b	0x0
19401	chr10	127521643	127523731	+	Mir677	0x0
19402	chr10	127526683	127527782	+	Atp5b	0x0
19403	chr10	127539486	127540654	+	Baz2a	0x0
19404	chr10	127547579	127548716	+	Baz2a	0x0
19405	chr10	127550102	127552329	+	Baz2a	0x0
19406	chr10	127556311	127557461	+	Baz2a	0x0
19407	chr10	127558117	127559294	+	Baz2a	0x0
19408	chr10	127563622	127566529	+	Baz2a	0x0
19409	chr10	127566194	127569279	-	Rbms2	0x0
19410	chr10	127569774	127570959	-	Rbms2	0x0
19411	chr10	127574414	127575609	-	Rbms2	0x0
19412	chr10	127612985	127614181	-	Rbms2	0x0
19413	chr10	127646756	127648339	-	Spryd4	0x0
19414	chr10	127649984	127651163	+	Gls2	0x0
19415	chr10	127688733	127689923	+	Timeless	0x2
19416	chr10	127713891	127715076	+	Stat2	0x0
19417	chr10	127728584	127729732	+	Stat2	0x0
19418	chr10	127750420	127751555	+	Pan2	0x0
19419	chr10	127754856	127756034	+	Pan2	0x0
19420	chr10	127763588	127764792	+	Cnpy2	0x0
19421	chr10	127774307	127775539	+	Cs	0x0
19422	chr10	127797558	127799950	+	Cs	0x0
19423	chr10	127831176	127832383	+	Ankrd52	0x0
19424	chr10	127875413	127876516	+	Rnf41	0x0
19425	chr10	127878410	127879599	+	Rnf41	0x0
19426	chr10	127883894	127885009	+	Rnf41	0x0
19427	chr10	127897046	127898169	+	Smarcc2	0x0
19428	chr10	127926139	127927735	+	Smarcc2	0x0
19429	chr10	127928389	127929596	+	Smarcc2	0x0
19430	chr10	127948401	127949586	-	Esyt1	0x0
19431	chr10	127960779	127961959	-	Esyt1	0x0
19432	chr10	127984698	127986021	-	Rpl41	0x0
19433	chr10	127984698	127986021	-	Zc3h10	0x1
19434	chr10	127994353	127996351	-	Pa2g4	0x0
19435	chr10	127996654	127997834	-	Pa2g4	0x0
19436	chr10	128002289	128003454	-	Pa2g4	0x0
19437	chr10	128004780	128007063	-	Erbb3	0x2
19438	chr10	128061044	128062885	-	Rps26	0x0
19439	chr10	128062890	128063947	-	Rps26	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19440	chr10	128112716	128113913	-	Rab5b	0x0
19441	chr10	128114010	128116531	-	Rab5b	0x0
19442	chr10	128135227	128136412	-	Cdk2	0x0
19443	chr10	128236595	128237838	-	Tmem198b	0x0
19444	chr10	128244268	128245753	+	Dnajc14	0x0
19445	chr10	128246490	128247613	+	Dnajc14	0x0
19446	chr10	128254013	128255524	+	Dnajc14	0x0
19447	chr10	128280514	128281656	+	Sarnp	0x0
19448	chr10	128286717	128287925	+	Sarnp	0x0
19449	chr10	128288974	128290088	+	Sarnp	0x0
19450	chr10	128348120	128349225	+	Cd63	0x0
19451	chr10	128359929	128361121	-	Bloc1s1	0x0
19452	chr10	129498167	129499358	-	Olfr823	0x0
19453	chr10	129849110	129850693	+	Tespa1	0x0
19454	chr10	129968950	129970158	-	Vmn2r87	0x0
19455	chr11	3028638	3029688	+	Pisd-ps1	0x0
19456	chr11	3028638	3029688	+	Pisd-ps3	0x0
19457	chr11	3030779	3031936	+	Pisd-ps1	0x0
19458	chr11	3030779	3031936	+	Pisd-ps3	0x0
19459	chr11	3049574	3051306	-	Sfi1	0x0
19460	chr11	3056045	3057144	-	Sfi1	0x0
19461	chr11	3119922	3121117	+	Eif4enif1	0x0
19462	chr11	3129455	3130637	+	Eif4enif1	0x0
19463	chr11	3147391	3148586	-	Drg1	0x0
19464	chr11	3149510	3150682	-	Drg1	0x0
19465	chr11	3156022	3157198	-	Drg1	0x0
19466	chr11	3163030	3164197	-	Drg1	0x0
19467	chr11	3165029	3166134	-	Drg1	0x0
19468	chr11	3244084	3245952	-	Limk2	0x0
19469	chr11	3257037	3258230	-	Limk2	0x0
19470	chr11	3316325	3317919	-	Rnf185	0x0
19471	chr11	3417064	3418255	-	Smtn	0x2
19472	chr11	3433742	3434952	-	Smtn	0x2
19473	chr11	3542594	3543674	-	Tug1	0x0
19474	chr11	3546170	3547281	-	Tug1	0x0
19475	chr11	3588674	3590749	+	Morc2a	0x0
19476	chr11	3816762	3817966	-	Tcn2	0x0
19477	chr11	3863458	3864653	+	Pes1	0x0
19478	chr11	3872757	3873868	+	Pes1	0x0
19479	chr11	3878379	3879706	+	Pes1	0x0
19480	chr11	3991292	3992476	-	Mtfp1	0x0
19481	chr11	3996707	3997806	-	Sec14l2	0x1
19482	chr11	4016441	4017620	-	Sec14l2	0x1
19483	chr11	4079848	4081059	+	Sf3a1	0x0
19484	chr11	4121568	4122727	+	Gatsl3	0x0
19485	chr11	4169740	4170871	+	Lif	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19486	chr11	4254982	4256084	-	Hormad2	0x0
19487	chr11	4267758	4268964	-	Hormad2	0x0
19488	chr11	4270715	4271943	-	Hormad2	0x0
19489	chr11	4281119	4282302	-	Hormad2	0x0
19490	chr11	4299473	4300608	-	Hormad2	0x0
19491	chr11	4308114	4309697	-	Hormad2	0x0
19492	chr11	4316087	4317460	-	Hormad2	0x0
19493	chr11	4334432	4335629	-	Hormad2	0x0
19494	chr11	4380303	4383023	-	Mtmr3	0x0
19495	chr11	4391369	4392513	-	Mtmr3	0x0
19496	chr11	4423922	4425089	-	Mtmr3	0x0
19497	chr11	4603202	4604396	-	Uqcr10	0x0
19498	chr11	4636621	4637757	-	Cabp7	0x0
19499	chr11	4665381	4668453	-	Nf2	0x1
19500	chr11	4670756	4671905	-	Nf2	0x1
19501	chr11	4673628	4674771	-	Nf2	0x1
19502	chr11	4705733	4706922	-	Nf2	0x1
19503	chr11	4717971	4719093	-	Nf2	0x1
19504	chr11	4748542	4749747	-	Nf2	0x1
19505	chr11	4787172	4788298	+	Nipsnap1	0x0
19506	chr11	4792742	4794461	+	Nipsnap1	0x0
19507	chr11	4805140	4806337	+	Thoc5	0x1
19508	chr11	4838576	4839743	-	Nefh	0x2
19509	chr11	4907989	4909138	+	Ap1b1	0x0
19510	chr11	4923862	4924980	+	Ap1b1	0x0
19511	chr11	4959952	4961148	-	Gas2l1	0x0
19512	chr11	4963973	4965121	-	Gas2l1	0x0
19513	chr11	4977978	4979076	-	Ewsr1	0x2
19514	chr11	4980563	4982194	-	Ewsr1	0x2
19515	chr11	4988058	4989241	-	Ewsr1	0x2
19516	chr11	5091534	5092666	-	Kremen1	0x2
19517	chr11	5093743	5094874	-	Kremen1	0x2
19518	chr11	5108771	5109928	-	Kremen1	0x2
19519	chr11	5151353	5152494	+	Rhbdd3	0x0
19520	chr11	5175814	5176909	-	Znrf3	0x0
19521	chr11	5178351	5180354	-	Znrf3	0x0
19522	chr11	5190750	5191935	-	Znrf3	0x0
19523	chr11	5238132	5239293	-	Znrf3	0x0
19524	chr11	5267302	5268452	-	Znrf3	0x0
19525	chr11	5339160	5340293	-	Znrf3	0x0
19526	chr11	5424278	5426192	+	Xbp1	0x0
19527	chr11	5428851	5431499	-	Ccdc117	0x0
19528	chr11	5627173	5628309	-	Urgcp	0x0
19529	chr11	5680003	5681139	+	2210015D19Rik	0x0
19530	chr11	5681574	5682722	+	2210015D19Rik	0x0
19531	chr11	5702834	5704048	-	Pgam2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19532	chr11	5727550	5728736	-	Polm	0x0
19533	chr11	5731139	5732339	-	Polm	0x0
19534	chr11	5866131	5868118	+	Ykt6	0x0
19535	chr11	5869931	5872085	-	Camk2b	0x0
19536	chr11	5913753	5914902	-	Camk2b	0x0
19537	chr11	5922661	5923888	-	Camk2b	0x0
19538	chr11	5934306	5935512	-	Camk2b	0x0
19539	chr11	6005765	6008142	-	Nudcd3	0x0
19540	chr11	6072057	6073486	-	Rps15a-ps6	0x0
19541	chr11	6084250	6085433	-	Nudcd3	0x0
19542	chr11	6092860	6093961	-	Nudcd3	0x0
19543	chr11	6095047	6096191	-	Nudcd3	0x0
19544	chr11	6216415	6217643	+	Ogdh	0x0
19545	chr11	6255334	6257034	+	Ogdh	0x0
19546	chr11	6258089	6259189	+	Ogdh	0x0
19547	chr11	6300263	6301356	+	Zmiz2	0x0
19548	chr11	6304902	6306689	+	Zmiz2	0x0
19549	chr11	6327680	6328936	-	H2afv	0x0
19550	chr11	6367235	6369660	-	Purb	0x0
19551	chr11	6371313	6372412	-	Purb	0x0
19552	chr11	6373053	6374152	-	Purb	0x0
19553	chr11	6484572	6485737	+	Ccm2	0x0
19554	chr11	6515367	6516545	-	Tbrg4	0x0
19555	chr11	6517604	6518653	-	Tbrg4	0x0
19556	chr11	7029761	7030944	+	Adcy1	0x2
19557	chr11	7038521	7039700	+	Adcy1	0x2
19558	chr11	7042821	7044018	-	Gm11985	0x0
19559	chr11	7069947	7071033	+	Adcy1	0x2
19560	chr11	7071085	7072914	+	Adcy1	0x2
19561	chr11	7073362	7074456	+	Adcy1	0x2
19562	chr11	7076504	7077709	+	Adcy1	0x2
19563	chr11	8331540	8334271	-	Tns3	0x0
19564	chr11	8350544	8351759	-	Tns3	0x0
19565	chr11	8377629	8378822	-	Tns3	0x0
19566	chr11	8378986	8380175	-	Tns3	0x0
19567	chr11	8391626	8393731	-	Tns3	0x0
19568	chr11	8417664	8419725	-	Tns3	0x0
19569	chr11	8444723	8445896	-	Tns3	0x0
19570	chr11	8474165	8475406	-	Tns3	0x0
19571	chr11	8512214	8513352	-	Tns3	0x0
19572	chr11	8530303	8531473	-	Tns3	0x0
19573	chr11	8532390	8533581	-	Tns3	0x0
19574	chr11	8550517	8551649	-	Tns3	0x0
19575	chr11	8680781	8681930	+	Gm11992	0x0
19576	chr11	8893132	8895528	-	Hus1	0x0
19577	chr11	9018827	9020028	+	Upp1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19578	chr11	9034313	9035412	+	Upp1	0x0
19579	chr11	9035435	9036722	+	Upp1	0x0
19580	chr11	9074475	9075624	-	Sun3	0x0
19581	chr11	9871506	9872700	-	Sun3	0x0
19582	chr11	10623110	10624286	-	Zpbp	0x0
19583	chr11	10941519	10942659	-	Zpbp	0x0
19584	chr11	11701297	11702676	-	Fignl1	0x2
19585	chr11	11717121	11718317	-	Ddc	0x4
19586	chr11	11830677	11833365	-	Grb10	0x6
19587	chr11	11927875	11928996	-	Grb10	0x6
19588	chr11	12136877	12138361	-	Cobl	0x0
19589	chr11	12153815	12154952	-	Cobl	0x0
19590	chr11	12186944	12188081	-	Cobl	0x0
19591	chr11	12206821	12208021	-	Cobl	0x0
19592	chr11	12275453	12276631	-	Cobl	0x0
19593	chr11	12277716	12278924	-	Cobl	0x0
19594	chr11	12836069	12837257	-	Cobl	0x0
19595	chr11	13568019	13569118	+	Pom121l12	0x0
19596	chr11	14948669	14949954	+	Pom121l12	0x0
19597	chr11	16812476	16813656	+	Egfr	0x2
19598	chr11	17098336	17100793	+	Ppp3r1	0x0
19599	chr11	17132438	17134233	+	Wdr92	0x0
19600	chr11	17166381	17167629	+	C1d	0x0
19601	chr11	17823752	17824971	-	Etaa1	0x0
19602	chr11	17846631	17847810	-	Etaa1	0x0
19603	chr11	18226441	18227658	-	Etaa1	0x0
19604	chr11	19308912	19310124	+	4933406G16Rik	0x0
19605	chr11	19824260	19825463	+	Spred2	0x0
19606	chr11	19835775	19836949	+	Spred2	0x0
19607	chr11	19844548	19845635	+	Spred2	0x0
19608	chr11	19850197	19851350	+	Spred2	0x0
19609	chr11	19897705	19898888	+	Spred2	0x0
19610	chr11	19905295	19906436	+	Spred2	0x0
19611	chr11	19922163	19923899	+	Spred2	0x0
19612	chr11	19961959	19964645	-	Actr2	0x0
19613	chr11	19980205	19981392	-	Actr2	0x0
19614	chr11	19993484	19994724	-	Actr2	0x0
19615	chr11	20100938	20102055	+	Rab1	0x0
19616	chr11	20124419	20127158	+	Rab1	0x0
19617	chr11	20127131	20129156	-	Cep68	0x0
19618	chr11	20137943	20140644	-	Cep68	0x0
19619	chr11	20140778	20141973	-	Cep68	0x0
19620	chr11	20202048	20204277	-	Slc1a4	0x0
19621	chr11	20374210	20375403	+	Sertad2	0x0
19622	chr11	20549628	20552298	+	Sertad2	0x0
19623	chr11	20584840	20586085	-	Aftph	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19624	chr11	20625349	20627360	-	Aftph	0x0
19625	chr11	21048684	21049777	+	Peli1	0x0
19626	chr11	21205893	21207560	+	Vps54	0x0
19627	chr11	21210586	21211685	+	Vps54	0x0
19628	chr11	21219351	21221091	+	Vps54	0x0
19629	chr11	21221496	21222684	-	Ugp2	0x0
19630	chr11	21391098	21392228	+	Wdpcp	0x0
19631	chr11	21465282	21466508	-	Mdh1	0x0
19632	chr11	21942897	21944130	-	Ehbp1	0x0
19633	chr11	22295000	22296195	-	Ehbp1	0x0
19634	chr11	22461541	22462695	-	B3gnt2	0x0
19635	chr11	22734714	22736197	-	B3gnt2	0x0
19636	chr11	22736754	22737892	-	B3gnt2	0x0
19637	chr11	22799296	22800490	-	Commd1	0x4
19638	chr11	22896495	22898224	+	Cct4	0x0
19639	chr11	22900361	22902165	+	Cct4	0x0
19640	chr11	22902326	22903811	+	Cct4	0x0
19641	chr11	22933714	22934938	-	Commd1	0x4
19642	chr11	22950570	22951776	-	Commd1	0x4
19643	chr11	23004180	23005279	+	Fam161a	0x0
19644	chr11	23167123	23168324	+	Xpo1	0x2
19645	chr11	23180848	23181947	+	Xpo1	0x2
19646	chr11	23191701	23192847	+	Xpo1	0x2
19647	chr11	23196002	23197458	+	Xpo1	0x2
19648	chr11	23197559	23198713	+	Xpo1	0x2
19649	chr11	23248569	23249863	+	Usp34	0x0
19650	chr11	23254488	23255650	+	Usp34	0x0
19651	chr11	23263661	23264821	+	Usp34	0x0
19652	chr11	23280736	23281844	+	Usp34	0x0
19653	chr11	23283866	23285697	+	Usp34	0x0
19654	chr11	23311753	23312932	+	Usp34	0x0
19655	chr11	23314248	23315349	+	Usp34	0x0
19656	chr11	23316938	23318323	+	Usp34	0x0
19657	chr11	23318510	23319660	+	Usp34	0x0
19658	chr11	23320731	23321915	+	Usp34	0x0
19659	chr11	23325643	23326744	+	Usp34	0x0
19660	chr11	23338345	23339541	+	Usp34	0x0
19661	chr11	23344149	23345252	+	Usp34	0x0
19662	chr11	23346273	23347465	+	Usp34	0x0
19663	chr11	23351518	23353525	+	Usp34	0x0
19664	chr11	23353997	23355146	+	Usp34	0x0
19665	chr11	23360055	23361159	+	Usp34	0x0
19666	chr11	23363849	23365407	+	Usp34	0x0
19667	chr11	23369756	23370907	+	Usp34	0x0
19668	chr11	23388799	23390210	+	Usp34	0x0
19669	chr11	23473436	23475582	-	0610010F05Rik	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19670	chr11	23521936	23523035	-	0610010F05Rik	0x0
19671	chr11	23548398	23549567	-	Pex13	0x0
19672	chr11	23632095	23633266	+	Pus10	0x0
19673	chr11	23637300	23639051	-	Rel	0x2
19674	chr11	23656363	23657549	-	Rel	0x2
19675	chr11	25673579	25674724	-	5730522E02Rik	0x0
19676	chr11	25714852	25715990	-	5730522E02Rik	0x0
19677	chr11	25792930	25794149	-	5730522E02Rik	0x0
19678	chr11	25814304	25815476	-	5730522E02Rik	0x0
19679	chr11	25842662	25843875	-	5730522E02Rik	0x0
19680	chr11	25861327	25862543	-	5730522E02Rik	0x0
19681	chr11	26269654	26270833	-	Vrk2	0x0
19682	chr11	26333880	26335050	+	Fancl	0x0
19683	chr11	26368718	26370285	+	Fancl	0x0
19684	chr11	26984579	26985749	+	Gm12070	0x0
19685	chr11	27213105	27215688	-	Vrk2	0x0
19686	chr11	28040169	28042008	-	Ccdc85a	0x4
19687	chr11	28856758	28857968	+	Efemp1	0x0
19688	chr11	29073062	29074201	+	Smek2	0x0
19689	chr11	29110638	29111737	+	Smek2	0x0
19690	chr11	29119824	29121011	+	Smek2	0x0
19691	chr11	29129673	29130834	+	Smek2	0x0
19692	chr11	29393416	29394572	+	Ccdc88a	0x0
19693	chr11	29409240	29410441	+	Ccdc88a	0x0
19694	chr11	29442723	29443860	-	Rps27a	0x0
19695	chr11	29447184	29448417	-	Rps27a	0x0
19696	chr11	29451510	29452680	-	Rps27a	0x0
19697	chr11	29501278	29502463	-	Rps27a	0x0
19698	chr11	29592740	29593841	+	Rtn4	0x0
19699	chr11	29605958	29608009	+	Rtn4	0x0
19700	chr11	29627799	29628928	+	Rtn4	0x0
19701	chr11	29633225	29634406	+	Rtn4	0x0
19702	chr11	29635827	29637008	+	Rtn4	0x0
19703	chr11	29641633	29643462	+	Rtn4	0x0
19704	chr11	29998871	30000785	-	Sptbn1	0x1
19705	chr11	30007009	30008270	-	Sptbn1	0x1
19706	chr11	30037942	30039970	-	Sptbn1	0x1
19707	chr11	30041798	30042923	-	Sptbn1	0x1
19708	chr11	30053655	30054872	-	Sptbn1	0x1
19709	chr11	30077506	30078652	-	Sptbn1	0x1
19710	chr11	30447728	30448925	-	Acyp2	0x0
19711	chr11	30718078	30719588	+	Psme4	0x0
19712	chr11	30720360	30721519	+	Psme4	0x0
19713	chr11	30752740	30753908	+	Psme4	0x0
19714	chr11	30776185	30777298	+	Psme4	0x0
19715	chr11	30777872	30779003	+	Psme4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19716	chr11	30779169	30780858	+	Psme4	0x0
19717	chr11	30826543	30827714	-	Erlec1	0x0
19718	chr11	30958328	30959515	+	Asb3	0x0
19719	chr11	30960934	30962124	+	Asb3	0x0
19720	chr11	31000304	31001489	+	Asb3	0x0
19721	chr11	31336424	31337611	-	Stc2	0x0
19722	chr11	31564789	31567658	-	Bod1	0x0
19723	chr11	31957276	31958378	+	Nsg2	0x0
19724	chr11	32084594	32085954	+	Snrnp25	0x0
19725	chr11	32131371	32132527	+	Mpg	0x0
19726	chr11	32324720	32326369	+	Sh3pxd2b	0x0
19727	chr11	32326627	32327799	+	Sh3pxd2b	0x0
19728	chr11	32416454	32419015	+	Ubtd2	0x0
19729	chr11	32447643	32448830	+	Stk10	0x0
19730	chr11	32522093	32525036	+	Stk10	0x0
19731	chr11	32645878	32647180	+	Fbxw11	0x0
19732	chr11	32808995	32810190	-	1700008A04Rik	0x0
19733	chr11	32809951	32811137	+	Fbxw11	0x0
19734	chr11	32938384	32940228	-	Fgf18	0x0
19735	chr11	32969233	32970375	+	Fbxw11	0x0
19736	chr11	33051967	33053355	-	Npm1	0x2
19737	chr11	33059369	33061743	-	Npm1	0x2
19738	chr11	33062348	33063634	-	Npm1	0x2
19739	chr11	33109814	33110979	-	Ranbp17	0x2
19740	chr11	33248646	33249829	-	Ranbp17	0x2
19741	chr11	33305930	33307103	-	Ranbp17	0x2
19742	chr11	33351960	33353101	-	Ranbp17	0x2
19743	chr11	33371745	33372921	-	Ranbp17	0x2
19744	chr11	33374406	33375539	-	Ranbp17	0x2
19745	chr11	33377678	33378862	-	Ranbp17	0x2
19746	chr11	33404202	33405346	-	Ranbp17	0x2
19747	chr11	33456794	33457922	+	Kcnmb1	0x0
19748	chr11	33462471	33463602	+	Kcnmb1	0x0
19749	chr11	34711981	34713143	+	Slit3	0x0
19750	chr11	35048780	35049945	+	Slit3	0x0
19751	chr11	35065633	35066842	+	Slit3	0x0
19752	chr11	35168344	35169481	+	Slit3	0x0
19753	chr11	35393279	35394427	+	Slit3	0x0
19754	chr11	35598990	35600463	+	Pank3	0x0
19755	chr11	35601638	35602784	+	Pank3	0x0
19756	chr11	35603037	35604349	+	Pank3	0x0
19757	chr11	35651485	35653198	-	Wwc1	0x0
19758	chr11	35696209	35697415	-	Wwc1	0x0
19759	chr11	35709746	35710935	-	Wwc1	0x0
19760	chr11	35723297	35724420	-	Wwc1	0x0
19761	chr11	40492569	40493906	-	Mat2b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19762	chr11	40514479	40516760	-	Hmmr	0x0
19763	chr11	40552556	40554059	+	Nudcd2	0x0
19764	chr11	40561672	40564951	-	Ccng1	0x0
19765	chr11	41029232	41030446	+	Nudcd2	0x0
19766	chr11	41034630	41036830	+	Nudcd2	0x0
19767	chr11	41311825	41313797	+	Nudcd2	0x0
19768	chr11	43496502	43497649	+	Pwwp2a	0x0
19769	chr11	43517679	43519524	+	Pwwp2a	0x0
19770	chr11	43534034	43535907	+	Pwwp2a	0x0
19771	chr11	44345741	44346946	+	Rnf145	0x0
19772	chr11	44347916	44349083	+	Rnf145	0x0
19773	chr11	44361750	44362933	+	Rnf145	0x0
19774	chr11	44374717	44375898	+	Rnf145	0x0
19775	chr11	44377648	44379322	+	Rnf145	0x0
19776	chr11	45642347	45643710	+	F630206G17Rik	0x0
19777	chr11	45670071	45671239	+	Clint1	0x0
19778	chr11	45703608	45704812	+	Clint1	0x0
19779	chr11	45722508	45724259	+	Clint1	0x0
19780	chr11	45746865	45748010	-	Lsm11	0x0
19781	chr11	45884119	45885271	+	Adam19	0x2
19782	chr11	45940345	45941447	+	Adam19	0x2
19783	chr11	45957942	45961266	+	Adam19	0x2
19784	chr11	46007518	46008657	-	Cyfip2	0x0
19785	chr11	46051474	46052635	-	Cyfip2	0x0
19786	chr11	46541096	46542298	+	Havcr1	0x0
19787	chr11	47355085	47356343	+	Timd4	0x0
19788	chr11	48565542	48566980	-	Trim41	0x0
19789	chr11	48613519	48614579	+	Gnb2l1	0x0
19790	chr11	48614688	48618322	+	Gnb2l1	0x0
19791	chr11	48614688	48618322	+	Snord95	0x0
19792	chr11	48614688	48618322	+	Snord96a	0x0
19793	chr11	48618578	48619654	+	Gnb2l1	0x0
19794	chr11	48619505	48620702	-	Trim41	0x0
19795	chr11	48638309	48639551	-	Trim41	0x0
19796	chr11	48662501	48663658	+	Trim7	0x0
19797	chr11	48810338	48811668	-	Tgtp2	0x0
19798	chr11	49075355	49076505	+	Mgat1	0x0
19799	chr11	49263868	49265625	+	Olfr1388	0x0
19800	chr11	49450738	49451910	+	Flt4	0x0
19801	chr11	49486073	49488657	-	Cnot6	0x0
19802	chr11	49492913	49494064	-	Cnot6	0x0
19803	chr11	49645873	49647025	-	Cnot6	0x0
19804	chr11	49650783	49652616	+	Gfpt2	0x0
19805	chr11	49696292	49699653	+	Mapk9	0x0
19806	chr11	49853616	49854762	+	Rnf130	0x0
19807	chr11	50012743	50013861	+	3010026O09Rik	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19808	chr11	50013136	50014783	-	Sqstm1	0x0
19809	chr11	50046286	50047458	+	Mgat4b	0x0
19810	chr11	50047732	50048880	+	Mgat4b	0x0
19811	chr11	50050409	50051623	+	Mgat4b	0x0
19812	chr11	50062055	50063162	+	Mgat4b	0x0
19813	chr11	50068865	50070728	-	Maml1	0x0
19814	chr11	50107530	50110167	-	Canx	0x0
19815	chr11	50110237	50111382	-	Canx	0x0
19816	chr11	50112094	50113318	-	Canx	0x0
19817	chr11	50124606	50125807	-	Canx	0x0
19818	chr11	50138187	50139649	-	Canx	0x0
19819	chr11	50191249	50192441	+	Hnrnph1	0x0
19820	chr11	50199021	50200312	+	Hnrnph1	0x0
19821	chr11	50219335	50220528	-	Rufy1	0x2
19822	chr11	50624967	50626161	-	Zfp354c	0x0
19823	chr11	50711947	50713107	-	Zfp2	0x0
19824	chr11	51031000	51032158	-	BC049762	0x0
19825	chr11	51094596	51095832	+	Clk4	0x0
19826	chr11	51410546	51411630	-	Hnrnpab	0x0
19827	chr11	51413128	51415209	-	Hnrnpab	0x0
19828	chr11	51415197	51416301	+	Agxt2l2	0x0
19829	chr11	51419574	51420798	-	Hnrnpab	0x0
19830	chr11	51438901	51440002	-	Rmnd5b	0x0
19831	chr11	51468989	51470166	+	D930048N14Rik	0x0
19832	chr11	51507801	51509082	-	Sec24a	0x0
19833	chr11	51525256	51526446	-	Sec24a	0x0
19834	chr11	51551353	51552452	-	Sec24a	0x0
19835	chr11	51592673	51593834	+	Sar1b	0x0
19836	chr11	51604727	51605926	+	Sar1b	0x0
19837	chr11	51626586	51628612	-	Phf15	0x0
19838	chr11	51789096	51791353	+	Cdkn2aipnl	0x0
19839	chr11	51799004	51800177	-	Ube2b	0x0
19840	chr11	51800717	51801848	-	Ube2b	0x0
19841	chr11	51866826	51867959	+	Cdkl3	0x0
19842	chr11	51911929	51913074	+	Ppp2ca	0x0
19843	chr11	51917679	51918842	+	Ppp2ca	0x0
19844	chr11	51931063	51932211	+	Ppp2ca	0x0
19845	chr11	51934849	51937230	+	Ppp2ca	0x0
19846	chr11	51939328	51940476	+	Mir3061	0x0
19847	chr11	52057991	52060672	+	Skp1a	0x0
19848	chr11	52065288	52066882	-	Tcf7	0x0
19849	chr11	52086482	52087709	-	Tcf7	0x0
19850	chr11	52189188	52190331	+	Vdac1	0x0
19851	chr11	52201600	52203349	+	Vdac1	0x0
19852	chr11	52220942	52222678	+	9530068E07Rik	0x0
19853	chr11	52536075	52537223	+	Fstl4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19854	chr11	52692880	52694050	+	Fstl4	0x0
19855	chr11	53072925	53075396	-	Hspa4	0x0
19856	chr11	53079917	53081122	-	Hspa4	0x0
19857	chr11	53084014	53085147	-	Hspa4	0x0
19858	chr11	53093401	53094685	-	Hspa4	0x0
19859	chr11	53099811	53101003	-	Hspa4	0x0
19860	chr11	53184515	53187040	+	Aff4	0x2
19861	chr11	53195608	53196723	+	Aff4	0x2
19862	chr11	53196969	53198073	+	Aff4	0x2
19863	chr11	53228863	53231660	+	Aff4	0x2
19864	chr11	53232199	53234370	+	Aff4	0x2
19865	chr11	53241969	53243143	-	Uqcrq	0x0
19866	chr11	53243652	53244801	-	Uqcrq	0x0
19867	chr11	53354393	53357930	+	Sept8	0x0
19868	chr11	53414315	53416670	+	Kif3a	0x0
19869	chr11	53458777	53460187	+	Kif3a	0x0
19870	chr11	53589875	53591080	+	Irf1	0x1
19871	chr11	53774313	53775465	-	Slc22a21	0x0
19872	chr11	53913155	53914286	+	P4ha2	0x0
19873	chr11	54316445	54317658	+	Fnip1	0x0
19874	chr11	54328575	54331437	+	Fnip1	0x0
19875	chr11	54383148	54384344	+	Rapgef6	0x0
19876	chr11	54468340	54469550	+	Rapgef6	0x0
19877	chr11	54510846	54512059	+	Rapgef6	0x0
19878	chr11	54530462	54532652	-	Cdc42se2	0x0
19879	chr11	54553195	54554414	-	Cdc42se2	0x0
19880	chr11	54555240	54556345	-	Cdc42se2	0x0
19881	chr11	54566627	54567803	-	Cdc42se2	0x0
19882	chr11	54723002	54724155	+	Gpx3	0x1
19883	chr11	54747987	54749159	-	Tnip1	0x0
19884	chr11	54756843	54758016	-	Tnip1	0x0
19885	chr11	54792113	54793314	-	Anxa6	0x0
19886	chr11	54922921	54925090	+	Gm2a	0x0
19887	chr11	54971605	54972705	-	Slc36a2	0x0
19888	chr11	55046996	55050331	+	Slc36a1	0x0
19889	chr11	55207724	55209642	-	Sparc	0x0
19890	chr11	55271587	55272776	-	Atox1	0x0
19891	chr11	55290596	55291692	+	Gm12238	0x0
19892	chr11	55303267	55304378	+	G3bp1	0x2
19893	chr11	55307817	55308928	+	G3bp1	0x2
19894	chr11	55312582	55314804	+	G3bp1	0x2
19895	chr11	55315194	55317626	+	G3bp1	0x2
19896	chr11	57296226	57297702	-	Fam114a2	0x0
19897	chr11	57342889	57344087	+	Mfap3	0x0
19898	chr11	57344211	57345357	+	Mfap3	0x0
19899	chr11	57368200	57373041	-	Fam114a2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19900	chr11	57484254	57485356	+	Galnt10	0x0
19901	chr11	57597976	57599169	+	Galnt10	0x0
19902	chr11	57608638	57609814	-	Hand1	0x0
19903	chr11	57625859	57627004	+	Sap30l	0x0
19904	chr11	57822490	57823855	+	Larp1	0x0
19905	chr11	57833937	57835036	+	Larp1	0x0
19906	chr11	57853823	57858286	+	Larp1	0x0
19907	chr11	57861486	57862747	+	Larp1	0x0
19908	chr11	57863752	57865780	+	Larp1	0x0
19909	chr11	57872082	57875644	+	Larp1	0x0
19910	chr11	57930458	57932551	+	Cnot8	0x0
19911	chr11	57933072	57934205	-	Gemin5	0x0
19912	chr11	57954622	57955780	-	Gemin5	0x0
19913	chr11	57962975	57964202	-	Gemin5	0x0
19914	chr11	58124047	58125210	+	Zfp692	0x0
19915	chr11	58159148	58161753	+	Sh3bp5l	0x0
19916	chr11	58745238	58747216	-	Rnf187	0x0
19917	chr11	58802512	58803614	+	Trim11	0x0
19918	chr11	58996874	58998175	-	Guk1	0x2
19919	chr11	59021429	59022664	+	2310033P09Rik	0x0
19920	chr11	59024681	59026349	-	Arf1	0x1
19921	chr11	59261269	59262427	-	Snap47	0x0
19922	chr11	59264265	59265425	+	Jmjd4	0x0
19923	chr11	59273334	59274520	+	Jmjd4	0x0
19924	chr11	59287767	59288975	-	Zfp867	0x0
19925	chr11	59298594	59300315	-	Zkscan17	0x0
19926	chr11	59317457	59318657	-	Zkscan17	0x0
19927	chr11	59588597	59590672	+	Mprip	0x0
19928	chr11	59613738	59614916	-	Flcn	0x1
19929	chr11	59704061	59705234	+	Nt5m	0x0
19930	chr11	59936261	59937460	+	Rai1	0x0
19931	chr11	59963327	59964440	+	Rai1	0x0
19932	chr11	59987346	59988445	+	Rai1	0x0
19933	chr11	59989220	59990456	+	Rai1	0x0
19934	chr11	60000602	60001725	+	Rai1	0x0
19935	chr11	60003568	60004671	+	Rai1	0x0
19936	chr11	60012596	60013835	-	Srebf1	0x0
19937	chr11	60018780	60019976	-	Srebf1	0x0
19938	chr11	60020930	60022127	-	Srebf1	0x0
19939	chr11	60030694	60032667	-	Srebf1	0x0
19940	chr11	60123364	60124561	-	Tom1l2	0x0
19941	chr11	60164998	60166175	-	Tom1l2	0x0
19942	chr11	60245325	60246566	+	Gid4	0x0
19943	chr11	60249273	60250512	+	Gid4	0x0
19944	chr11	60255162	60258903	+	Gid4	0x0
19945	chr11	60351709	60353283	+	Alkbh5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19946	chr11	60367556	60372449	+	Alkbh5	0x0
19947	chr11	60526506	60528129	+	Llgl1	0x2
19948	chr11	60532525	60534156	-	Flii	0x0
19949	chr11	60545555	60546762	+	Smcr7	0x0
19950	chr11	60565565	60566735	-	Top3a	0x0
19951	chr11	60598730	60602253	+	Smcr8	0x0
19952	chr11	60601881	60604274	-	Shmt1	0x0
19953	chr11	60624046	60625216	-	Shmt1	0x0
19954	chr11	60630155	60631732	+	Dhrs7b	0x0
19955	chr11	60674590	60675701	-	Tmem11	0x0
19956	chr11	60677460	60678641	-	Tmem11	0x0
19957	chr11	60716697	60718561	-	Gm16515	0x0
19958	chr11	60883034	60884223	+	Kcnj12	0x2
19959	chr11	60965346	60967683	-	Usp22	0x0
19960	chr11	61058007	61059472	-	Aldh3a2	0x0
19961	chr11	61156972	61158151	-	Slc47a1	0x0
19962	chr11	61303587	61304810	-	Mapk7	0x0
19963	chr11	61331685	61332784	-	Epn2	0x0
19964	chr11	61345588	61346766	-	Epn2	0x0
19965	chr11	61500886	61502043	+	Fam83g	0x0
19966	chr11	61505611	61506800	+	Fam83g	0x0
19967	chr11	61681297	61682507	-	Akap10	0x0
19968	chr11	61684261	61685402	-	Akap10	0x0
19969	chr11	61706388	61707522	-	Akap10	0x0
19970	chr11	61728169	61729383	-	Akap10	0x0
19971	chr11	61993723	61994858	+	Specc1	0x0
19972	chr11	62128798	62131809	-	Ncor1	0x2
19973	chr11	62140119	62141261	-	Ncor1	0x2
19974	chr11	62156000	62157190	-	Ncor1	0x2
19975	chr11	62186058	62187282	-	Ncor1	0x2
19976	chr11	62205456	62206639	-	Ncor1	0x2
19977	chr11	62215053	62216278	-	Ncor1	0x2
19978	chr11	62229384	62230593	-	Ncor1	0x2
19979	chr11	62236063	62237300	-	Ncor1	0x2
19980	chr11	62246533	62247684	-	Ncor1	0x2
19981	chr11	62327500	62328830	+	Pigl	0x0
19982	chr11	62337871	62339092	-	Cenpv	0x0
19983	chr11	62630230	62631411	+	Trim16	0x0
19984	chr11	62695977	62697212	+	Tvp23b	0x0
19985	chr11	62707129	62708851	+	Tvp23b	0x0
19986	chr11	62727723	62728932	+	Tvp23b	0x0
19987	chr11	62805748	62806913	+	Cdrt4	0x0
19988	chr11	63232285	63233516	+	Pmp22	0x0
19989	chr11	63699684	63700991	-	Hs3st3b1	0x0
19990	chr11	63857409	63858594	-	Cox10	0x0
19991	chr11	63889161	63890349	-	Cox10	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
19992	chr11	64322937	64324058	+	Hs3st3a1	0x0
19993	chr11	64811292	64812438	+	Elac2	0x0
19994	chr11	64815085	64816340	-	Arhgap44	0x0
19995	chr11	64918118	64919282	-	Arhgap44	0x0
19996	chr11	64970400	64971542	-	Arhgap44	0x0
19997	chr11	65501498	65504475	-	Map2k4	0x1
19998	chr11	65532434	65533591	-	Map2k4	0x1
19999	chr11	66879503	66880652	+	Sco1	0x0
20000	chr11	67288835	67290002	+	Gas7	0x2
20001	chr11	67326372	67327550	+	Gas7	0x2
20002	chr11	67497758	67498919	+	Gas7	0x2
20003	chr11	67500892	67502303	+	Gas7	0x2
20004	chr11	67959045	67960199	+	Stx8	0x0
20005	chr11	68022903	68026603	-	Ntn1	0x0
20006	chr11	68191421	68192620	-	Ntn1	0x0
20007	chr11	68628294	68630499	+	Myh10	0x0
20008	chr11	68634992	68636181	-	Ndel1	0x0
20009	chr11	68717393	68718672	+	Gm15772	0x0
20010	chr11	68717393	68718672	+	Rpl26	0x0
20011	chr11	68760021	68761336	-	Arhgef15	0x0
20012	chr11	68798921	68802183	-	Pfas	0x0
20013	chr11	68803852	68805030	-	Mir3062	0x0
20014	chr11	68803852	68805030	-	Pfas	0x0
20015	chr11	68814660	68815867	-	Pfas	0x0
20016	chr11	68839491	68840659	+	Ctc1	0x0
20017	chr11	68844414	68845617	+	Ctc1	0x0
20018	chr11	68858785	68859968	+	Aurkb	0x0
20019	chr11	68902692	68903925	+	Vamp2	0x0
20020	chr11	68904922	68906117	+	Vamp2	0x0
20021	chr11	68936413	68937668	-	Alox8	0x2
20022	chr11	69148763	69149889	+	Kcnab3	0x0
20023	chr11	69156410	69157522	-	Chd3	0x2
20024	chr11	69162186	69163285	-	Chd3	0x2
20025	chr11	69166239	69167919	-	Chd3	0x2
20026	chr11	69173536	69174721	-	Chd3	0x2
20027	chr11	69192493	69193667	-	Chd3	0x2
20028	chr11	69204510	69205575	-	Cyb5d1	0x0
20029	chr11	69211018	69215745	-	Kdm6b	0x0
20030	chr11	69211018	69215745	-	Tmem88	0x4
20031	chr11	69219665	69220799	-	Kdm6b	0x0
20032	chr11	69221028	69222474	-	Kdm6b	0x0
20033	chr11	69227040	69228222	-	Kdm6b	0x0
20034	chr11	69288403	69289577	-	Dnahc2	0x0
20035	chr11	69402588	69403738	+	Trp53	0x1
20036	chr11	69404373	69405783	+	Trp53	0x1
20037	chr11	69413141	69414972	-	Atp1b2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20038	chr11	69416335	69417547	-	Atp1b2	0x0
20039	chr11	69464969	69467291	+	Fxr2	0x0
20040	chr11	69469654	69471053	-	Mpdu1	0x0
20041	chr11	69479288	69480495	-	Cd68	0x0
20042	chr11	69479288	69480495	-	Eif4a1	0x0
20043	chr11	69481789	69483008	-	Eif4a1	0x0
20044	chr11	69547107	69548317	-	Polr2a	0x0
20045	chr11	69550184	69551287	-	Polr2a	0x0
20046	chr11	69555674	69556774	-	Polr2a	0x0
20047	chr11	69584450	69585599	+	Zbtb4	0x0
20048	chr11	69593719	69594869	+	Zbtb4	0x0
20049	chr11	69618464	69619644	-	Tmem102	0x0
20050	chr11	69636192	69639430	-	Nlgn2	0x0
20051	chr11	69641031	69642516	-	Nlgn2	0x0
20052	chr11	69649009	69650222	-	Nlgn2	0x0
20053	chr11	69726439	69727672	+	Neurl4	0x2
20054	chr11	69729782	69731337	-	Eif5a	0x2
20055	chr11	69732252	69733363	-	Eif5a	0x2
20056	chr11	69752221	69753389	+	Ybx2	0x0
20057	chr11	69803364	69805382	+	Ctdnep1	0x2
20058	chr11	69803364	69805382	+	Gabarap	0x1
20059	chr11	69807461	69808600	+	Gabarap	0x1
20060	chr11	69812192	69813364	+	Phf23	0x0
20061	chr11	70051110	70052321	-	0610010K14Rik	0x0
20062	chr11	70051110	70052321	-	Rnasek	0x0
20063	chr11	70207584	70209482	-	Pelp1	0x0
20064	chr11	70209856	70210974	-	Pelp1	0x0
20065	chr11	70211043	70212240	-	Pelp1	0x0
20066	chr11	70253204	70254324	+	Arrb2	0x0
20067	chr11	70266229	70267400	+	Med11	0x0
20068	chr11	70421231	70422388	+	Mink1	0x0
20069	chr11	70464926	70467035	-	Pfn1	0x1
20070	chr11	70467352	70468457	-	Pfn1	0x1
20071	chr11	70494243	70495448	-	Camta2	0x0
20072	chr11	70495940	70497077	-	Camta2	0x0
20073	chr11	70537827	70538987	+	Kif1c	0x2
20074	chr11	70706558	70707721	+	Rabep1	0x2
20075	chr11	70732602	70733830	+	Rabep1	0x2
20076	chr11	70753525	70754699	+	Rabep1	0x2
20077	chr11	70755179	70756906	+	Rabep1	0x2
20078	chr11	70790820	70792285	-	C1qbp	0x0
20079	chr11	70795828	70797017	-	C1qbp	0x0
20080	chr11	70798287	70799392	-	Dhx33	0x0
20081	chr11	70799901	70801135	-	Dhx33	0x0
20082	chr11	70821569	70822736	-	Derl2	0x0
20083	chr11	71602484	71603682	+	Wscd1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20084	chr11	71858085	71859471	+	Fam64a	0x0
20085	chr11	71859839	71861149	+	Fam64a	0x0
20086	chr11	72019033	72020184	-	4933427D14Rik	0x0
20087	chr11	72022397	72023693	+	Txndc17	0x0
20088	chr11	72055568	72056786	-	Slc13a5	0x0
20089	chr11	72126407	72127705	+	Xaf1	0x1
20090	chr11	72200509	72201619	-	Smtnl2	0x0
20091	chr11	72202604	72204687	-	Smtnl2	0x0
20092	chr11	72212838	72214052	-	Smtnl2	0x0
20093	chr11	72216860	72218309	-	Smtnl2	0x0
20094	chr11	72255747	72257946	+	Mybbp1a	0x1
20095	chr11	72260511	72263349	+	Mybbp1a	0x1
20096	chr11	72265704	72266917	-	Spns2	0x0
20097	chr11	72423763	72424933	+	Ube2g1	0x0
20098	chr11	72429081	72430193	+	Ube2g1	0x0
20099	chr11	72432770	72433933	+	Ube2g1	0x0
20100	chr11	72497165	72499699	+	Ube2g1	0x0
20101	chr11	72580755	72584994	+	Ankfy1	0x0
20102	chr11	72647518	72649257	+	Zzef1	0x2
20103	chr11	72668469	72669588	+	Zzef1	0x2
20104	chr11	72805808	72806954	+	Atp2a3	0x0
20105	chr11	72867748	72868944	+	1200014J11Rik	0x0
20106	chr11	72877551	72878713	+	1200014J11Rik	0x0
20107	chr11	72892526	72893868	+	1200014J11Rik	0x0
20108	chr11	72894379	72895570	+	1200014J11Rik	0x0
20109	chr11	72947715	72948910	-	Gsg2	0x0
20110	chr11	72950471	72951650	-	Gsg2	0x0
20111	chr11	74198283	74199942	-	Rap1gap2	0x0
20112	chr11	74479174	74480296	+	Cluh	0x0
20113	chr11	74482874	74484520	+	Cluh	0x0
20114	chr11	74487200	74491368	-	Pafah1b1	0x1
20115	chr11	74492469	74493590	-	Pafah1b1	0x1
20116	chr11	74496514	74497613	-	Pafah1b1	0x1
20117	chr11	74630620	74631776	+	Mettl16	0x0
20118	chr11	74636010	74637175	+	Mettl16	0x0
20119	chr11	74655550	74659584	+	Mnt	0x0
20120	chr11	74662861	74664631	-	Sgsm2	0x0
20121	chr11	74721834	74723364	+	Tsr1	0x0
20122	chr11	74741633	74745803	+	Smg6	0x0
20123	chr11	74759060	74760257	+	Smg6	0x0
20124	chr11	74795385	74796552	+	Smg6	0x0
20125	chr11	74803116	74804267	+	Smg6	0x0
20126	chr11	74843613	74844823	+	Smg6	0x0
20127	chr11	74866807	74868009	+	Smg6	0x0
20128	chr11	74884952	74886102	+	Smg6	0x0
20129	chr11	74959129	74960363	+	Smg6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20130	chr11	74977262	74978441	+	Smg6	0x0
20131	chr11	75023438	75024618	+	Rtn4rl1	0x0
20132	chr11	75083200	75084349	+	Rtn4rl1	0x0
20133	chr11	75113569	75115440	-	Rpa1	0x0
20134	chr11	75118325	75119380	-	Rpa1	0x0
20135	chr11	75125923	75127076	-	Rpa1	0x0
20136	chr11	75203265	75204438	+	Smyd4	0x1
20137	chr11	75305522	75306641	+	Prpf8	0x2
20138	chr11	75306860	75309860	+	Prpf8	0x2
20139	chr11	75309943	75311022	+	Prpf8	0x2
20140	chr11	75313179	75314374	+	Prpf8	0x2
20141	chr11	75314392	75315922	+	Prpf8	0x2
20142	chr11	75317485	75319265	+	Prpf8	0x2
20143	chr11	75321267	75323473	+	Prpf8	0x2
20144	chr11	75355782	75356996	+	Slc43a2	0x0
20145	chr11	75387823	75389040	+	Slc43a2	0x0
20146	chr11	75389396	75390815	+	Slc43a2	0x0
20147	chr11	75412807	75414015	-	Wdr81	0x0
20148	chr11	75439137	75442145	+	Pitpna	0x0
20149	chr11	75481335	75482459	+	Myo1c	0x0
20150	chr11	75485959	75487533	+	Myo1c	0x0
20151	chr11	75508088	75509211	+	Crk	0x0
20152	chr11	75516930	75519942	+	Crk	0x0
20153	chr11	75564913	75566121	+	Ywhae	0x2
20154	chr11	75568548	75569716	+	Ywhae	0x2
20155	chr11	75569922	75570977	+	Ywhae	0x2
20156	chr11	75577651	75579608	+	Ywhae	0x2
20157	chr11	75580229	75581416	+	Ywhae	0x2
20158	chr11	75834457	75835629	-	Fam101b	0x0
20159	chr11	76021576	76022675	-	Gemin4	0x0
20160	chr11	76024420	76025631	-	Gemin4	0x0
20161	chr11	76033905	76035812	-	Glod4	0x0
20162	chr11	76052362	76053480	-	Glod4	0x0
20163	chr11	76064646	76065822	+	Rnmtl1	0x0
20164	chr11	76140831	76142034	-	Nxn	0x0
20165	chr11	76206900	76208120	-	Nxn	0x0
20166	chr11	76230466	76232297	-	Abr	0x0
20167	chr11	76371630	76372829	-	Abr	0x0
20168	chr11	76423101	76424329	-	Abr	0x0
20169	chr11	76540181	76541801	-	Gosr1	0x0
20170	chr11	76541878	76543084	-	Gosr1	0x0
20171	chr11	76592067	76595879	-	Cpd	0x2
20172	chr11	76742868	76744081	-	Cpd	0x2
20173	chr11	76799559	76801427	+	Blmh	0x0
20174	chr11	77070775	77071947	+	Ssh2	0x0
20175	chr11	77106951	77110252	+	Ssh2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20176	chr11	77271324	77273175	+	Ssh2	0x0
20177	chr11	77306825	77307998	+	Git1	0x0
20178	chr11	77316291	77317503	+	Git1	0x0
20179	chr11	77319433	77321732	+	Git1	0x0
20180	chr11	77324817	77326003	-	Trp53i13	0x0
20181	chr11	77332286	77333495	+	Abhd15	0x0
20182	chr11	77344686	77349076	-	Taok1	0x0
20183	chr11	77349567	77351687	-	Taok1	0x0
20184	chr11	77352993	77354157	-	Taok1	0x0
20185	chr11	77378107	77379323	-	Taok1	0x0
20186	chr11	77396926	77398101	-	Taok1	0x0
20187	chr11	77505376	77506924	+	Nufip2	0x0
20188	chr11	77508208	77509309	+	Nufip2	0x0
20189	chr11	77514619	77515772	+	Nufip2	0x0
20190	chr11	77523574	77529712	+	Nufip2	0x0
20191	chr11	77530081	77531278	+	Nufip2	0x0
20192	chr11	77532976	77534128	+	Nufip2	0x0
20193	chr11	77662394	77663564	+	Myo18a	0x0
20194	chr11	77665143	77666390	+	Myo18a	0x0
20195	chr11	77676875	77678071	+	Myo18a	0x0
20196	chr11	77822737	77823887	+	Phf12	0x0
20197	chr11	77828493	77829722	+	Phf12	0x0
20198	chr11	77840771	77841944	+	Phf12	0x0
20199	chr11	77868716	77869894	+	Flot2	0x0
20200	chr11	77872475	77874355	+	Flot2	0x0
20201	chr11	77929450	77930653	+	Fam222b	0x0
20202	chr11	77966153	77967331	+	Fam222b	0x0
20203	chr11	77974033	77975270	-	Traf4	0x0
20204	chr11	77995964	77997568	-	Rpl23a	0x0
20205	chr11	77995964	77997568	-	Snord42b	0x0
20206	chr11	78005020	78006167	+	Rab34	0x0
20207	chr11	78020072	78021512	-	Supt6	0x0
20208	chr11	78078533	78079696	+	2610507B11Rik	0x0
20209	chr11	78081285	78082903	+	2610507B11Rik	0x0
20210	chr11	78084538	78087952	+	2610507B11Rik	0x0
20211	chr11	78090062	78091197	+	2610507B11Rik	0x0
20212	chr11	78092081	78093180	+	2610507B11Rik	0x0
20213	chr11	78097806	78098901	+	2610507B11Rik	0x0
20214	chr11	78099578	78100734	+	2610507B11Rik	0x0
20215	chr11	78100959	78102135	+	2610507B11Rik	0x0
20216	chr11	78102891	78104567	+	2610507B11Rik	0x0
20217	chr11	78116241	78117427	+	Spag5	0x0
20218	chr11	78118057	78119805	+	Spag5	0x0
20219	chr11	78135053	78136255	+	Spag5	0x0
20220	chr11	78148476	78149689	+	Pigs	0x0
20221	chr11	78155207	78156762	+	Pigs	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20222	chr11	78161931	78163161	+	Unc119	0x0
20223	chr11	78287251	78288426	-	Sarm1	0x0
20224	chr11	78320006	78321246	-	Tmem199	0x0
20225	chr11	78328062	78329275	+	Poldip2	0x0
20226	chr11	78334899	78336824	+	Poldip2	0x0
20227	chr11	78336046	78338011	-	Tnfaip1	0x0
20228	chr11	78354561	78356144	-	Tmem97	0x0
20229	chr11	78363572	78364704	-	Tmem97	0x0
20230	chr11	78380292	78382914	-	Nlk	0x0
20231	chr11	78472213	78473439	-	Nlk	0x0
20232	chr11	78509345	78510542	-	Nlk	0x0
20233	chr11	78653497	78654602	+	Lyrm9	0x0
20234	chr11	78827132	78828359	-	Ksr1	0x2
20235	chr11	79052725	79054227	-	Wsb1	0x0
20236	chr11	79261189	79262367	+	Nf1	0x1
20237	chr11	79360742	79361874	+	Nf1	0x1
20238	chr11	79391832	79394951	+	Nf1	0x1
20239	chr11	79419164	79420337	+	Rab11fip4	0x0
20240	chr11	79433415	79434580	+	Rab11fip4	0x0
20241	chr11	79506351	79511787	+	Rab11fip4	0x0
20242	chr11	79525361	79526501	+	Mir193	0x0
20243	chr11	79702231	79703395	-	Utp6	0x0
20244	chr11	79721316	79722513	-	Utp6	0x0
20245	chr11	79747295	79750134	-	Utp6	0x0
20246	chr11	79754804	79756029	-	Utp6	0x0
20247	chr11	79763076	79764261	-	Utp6	0x0
20248	chr11	79773145	79774352	-	Utp6	0x0
20249	chr11	79775180	79776331	-	Utp6	0x0
20250	chr11	79806888	79808036	+	Suz12	0x2
20251	chr11	79819780	79820907	+	Suz12	0x2
20252	chr11	79826445	79827882	+	Suz12	0x2
20253	chr11	79844643	79847858	+	Suz12	0x2
20254	chr11	79869015	79870247	-	Crlf3	0x0
20255	chr11	79870865	79872019	-	Crlf3	0x0
20256	chr11	79947901	79949025	+	Atad5	0x0
20257	chr11	79991007	79994031	+	Adap2	0x0
20258	chr11	80056329	80057556	+	Rhot1	0x0
20259	chr11	80078954	80080560	+	Rhot1	0x0
20260	chr11	80176014	80177220	-	5730455P16Rik	0x0
20261	chr11	80198948	80200150	+	Zfp207	0x0
20262	chr11	80208622	80212039	+	Zfp207	0x0
20263	chr11	80212426	80213651	+	Zfp207	0x0
20264	chr11	80264572	80265769	+	Psmd11	0x0
20265	chr11	80269237	80270448	+	Psmd11	0x0
20266	chr11	80284615	80287138	+	Psmd11	0x0
20267	chr11	80579451	80580646	-	Myo1d	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20268	chr11	80634196	80635380	+	Tmem98	0x0
20269	chr11	80888171	80889385	-	Asic2	0x0
20270	chr11	80961450	80962583	-	Asic2	0x0
20271	chr11	82615652	82617795	+	Lig3	0x0
20272	chr11	82617796	82618965	-	Rffl	0x0
20273	chr11	82788197	82789432	-	Slfn9	0x0
20274	chr11	82793320	82794555	-	Slfn9	0x0
20275	chr11	83084434	83085760	+	AA465934	0x0
20276	chr11	83137433	83138698	+	Ap2b1	0x0
20277	chr11	83149778	83150876	+	Ap2b1	0x0
20278	chr11	83154225	83155484	+	Ap2b1	0x0
20279	chr11	83178674	83179837	+	Ap2b1	0x0
20280	chr11	83182634	83183874	+	Ap2b1	0x0
20281	chr11	83215632	83219018	+	Ap2b1	0x0
20282	chr11	83310330	83311490	+	Taf15	0x0
20283	chr11	83479874	83481088	-	Ccl3	0x0
20284	chr11	83688387	83689564	-	Dusp14	0x0
20285	chr11	83730812	83732037	+	Hnf1b	0x2
20286	chr11	83775004	83777008	+	Ddx52	0x0
20287	chr11	83856262	83857440	+	Synrg	0x0
20288	chr11	83892030	83893656	-	Tada2a	0x2
20289	chr11	83895687	83896907	-	Tada2a	0x2
20290	chr11	83902730	83903930	-	Tada2a	0x2
20291	chr11	84008425	84009745	+	Acaca	0x0
20292	chr11	84084174	84085309	+	Acaca	0x0
20293	chr11	84213805	84215062	+	Acaca	0x0
20294	chr11	84632301	84633425	-	Mrm1	0x0
20295	chr11	84645533	84646969	-	Ggnbp2	0x1
20296	chr11	84668186	84669399	-	Ggnbp2	0x1
20297	chr11	84724326	84725514	-	Znhit3	0x0
20298	chr11	84798407	84799968	-	Usp32	0x2
20299	chr11	84832763	84833929	-	Usp32	0x2
20300	chr11	84839758	84840899	-	Usp32	0x2
20301	chr11	84867820	84869004	-	Usp32	0x2
20302	chr11	84924698	84925853	+	1700125H20Rik	0x0
20303	chr11	84940172	84941377	+	1700125H20Rik	0x0
20304	chr11	85000772	85003130	-	Appbp2	0x0
20305	chr11	85003149	85005019	-	Appbp2	0x0
20306	chr11	85009386	85010546	-	Appbp2	0x0
20307	chr11	85137521	85138708	+	Ppm1d	0x2
20308	chr11	85178403	85179553	+	Bcas3	0x0
20309	chr11	85196337	85197506	+	Bcas3	0x0
20310	chr11	85315244	85316402	+	Bcas3	0x0
20311	chr11	85459089	85461281	+	Bcas3	0x0
20312	chr11	85464481	85465646	+	Bcas3	0x0
20313	chr11	85491726	85492849	+	Bcas3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20314	chr11	85517868	85518994	+	Bcas3	0x0
20315	chr11	85538258	85539438	+	Bcas3	0x0
20316	chr11	85545445	85546600	+	Bcas3	0x0
20317	chr11	85638701	85639995	+	Bcas3	0x0
20318	chr11	85872205	85873316	-	Brip1	0x2
20319	chr11	85931182	85932387	-	Brip1	0x2
20320	chr11	86019603	86020704	+	Rnft1	0x0
20321	chr11	86022092	86023317	+	Rnft1	0x0
20322	chr11	86023906	86026638	-	Ints2	0x0
20323	chr11	86080239	86084879	-	Med13	0x0
20324	chr11	86085389	86086579	-	Med13	0x0
20325	chr11	86091764	86092945	-	Med13	0x0
20326	chr11	86101164	86102339	-	Med13	0x0
20327	chr11	86132924	86134119	-	Med13	0x0
20328	chr11	86143970	86145175	-	Med13	0x0
20329	chr11	86312716	86313868	-	Rps6kb1	0x2
20330	chr11	86314640	86316207	-	Rps6kb1	0x2
20331	chr11	86330338	86331507	-	Rps6kb1	0x2
20332	chr11	86397460	86398608	-	Mir21	0x0
20333	chr11	86397460	86398608	-	Vmp1	0x0
20334	chr11	86443376	86444954	-	Vmp1	0x0
20335	chr11	86507373	86509435	-	Cltc	0x2
20336	chr11	86518123	86519320	-	Cltc	0x2
20337	chr11	86524305	86525512	-	Cltc	0x2
20338	chr11	86529935	86531111	-	Cltc	0x2
20339	chr11	86539275	86540488	-	Cltc	0x2
20340	chr11	86753457	86754649	-	Ypel2	0x0
20341	chr11	86755190	86756314	-	Ypel2	0x0
20342	chr11	86846965	86848262	-	Gdpd1	0x0
20343	chr11	86897975	86899137	-	Smg8	0x0
20344	chr11	86903070	86904581	-	Prr11	0x0
20345	chr11	86935018	86936519	+	Ska2	0x0
20346	chr11	86937216	86938315	+	Ska2	0x0
20347	chr11	86953453	86954606	+	Trim37	0x0
20348	chr11	86959876	86961106	+	Trim37	0x0
20349	chr11	86977497	86978713	+	Trim37	0x0
20350	chr11	86984408	86985562	+	Trim37	0x0
20351	chr11	87018868	87020111	+	Trim37	0x0
20352	chr11	87024381	87025581	+	Trim37	0x0
20353	chr11	87032086	87033502	+	Trim37	0x0
20354	chr11	87033538	87034693	+	Trim37	0x0
20355	chr11	87104896	87106072	-	Ppm1e	0x2
20356	chr11	87191307	87193235	-	Rad51c	0x1
20357	chr11	87235887	87237098	+	Tex14	0x0
20358	chr11	87249300	87250442	+	Tex14	0x0
20359	chr11	87256262	87257551	+	Tex14	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20360	chr11	87261719	87262932	+	Tex14	0x0
20361	chr11	87267278	87268389	+	Tex14	0x0
20362	chr11	87427641	87429621	+	Mtmr4	0x0
20363	chr11	87598560	87599783	+	Bzrap1	0x0
20364	chr11	87671566	87672798	+	Mks1	0x0
20365	chr11	87792520	87794330	-	Dynll2	0x0
20366	chr11	87862746	87865873	+	Srsf1	0x2
20367	chr11	87866049	87867567	+	Srsf1	0x2
20368	chr11	87894362	87897195	+	Vezf1	0x0
20369	chr11	87999540	88000737	+	Cuedc1	0x0
20370	chr11	88018142	88019320	+	Mrps23	0x0
20371	chr11	88023968	88025285	+	Mrps23	0x0
20372	chr11	88152896	88154074	-	Msi2	0x0
20373	chr11	88154307	88158188	-	Msi2	0x0
20374	chr11	88167349	88168448	-	Msi2	0x0
20375	chr11	88170978	88172203	-	Msi2	0x0
20376	chr11	88178297	88179471	-	Msi2	0x0
20377	chr11	88190176	88191382	-	Msi2	0x0
20378	chr11	88207571	88208725	-	Msi2	0x0
20379	chr11	88222361	88223520	-	Msi2	0x0
20380	chr11	88243959	88245137	-	Msi2	0x0
20381	chr11	88253116	88254271	-	Msi2	0x0
20382	chr11	88292156	88293372	-	Msi2	0x0
20383	chr11	88312322	88313527	-	Msi2	0x0
20384	chr11	88346000	88347194	-	Msi2	0x0
20385	chr11	88352479	88353688	-	Msi2	0x0
20386	chr11	88476464	88477652	-	Msi2	0x0
20387	chr11	88528727	88529929	-	Msi2	0x0
20388	chr11	88584578	88586039	+	C030037D09Rik	0x0
20389	chr11	88691876	88693514	-	Akap1	0x0
20390	chr11	88697814	88698979	-	Akap1	0x0
20391	chr11	88699678	88702356	-	Akap1	0x0
20392	chr11	88705072	88706171	-	Akap1	0x0
20393	chr11	88706199	88707296	-	Akap1	0x0
20394	chr11	88709402	88710556	-	Akap1	0x0
20395	chr11	88784815	88786394	-	Scpep1	0x0
20396	chr11	88842826	88844033	+	Coil	0x0
20397	chr11	88851455	88853357	+	Coil	0x0
20398	chr11	88877936	88882142	+	Trim25	0x0
20399	chr11	88898371	88899514	-	Dgke	0x0
20400	chr11	88899806	88900916	-	Dgke	0x0
20401	chr11	88911414	88912632	-	Dgke	0x0
20402	chr11	89844341	89845717	-	Pctp	0x0
20403	chr11	90138275	90139833	+	Mmd	0x0
20404	chr11	90338549	90339684	-	Stxbp4	0x0
20405	chr11	90339718	90340966	-	Stxbp4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20406	chr11	90395452	90396633	-	Stxbp4	0x0
20407	chr11	90455438	90456631	-	Stxbp4	0x0
20408	chr11	90494117	90495289	-	Stxbp4	0x0
20409	chr11	90505610	90506761	+	Cox11	0x0
20410	chr11	93750416	93751563	+	Mbtd1	0x0
20411	chr11	93765927	93767275	+	Mbtd1	0x0
20412	chr11	93783960	93785150	+	Mbtd1	0x0
20413	chr11	93785191	93786480	+	Mbtd1	0x0
20414	chr11	93805481	93808668	+	Mbtd1	0x0
20415	chr11	93820041	93821335	-	Nme1	0x1
20416	chr11	93984140	93986765	+	Spag9	0x0
20417	chr11	94144893	94146071	-	Luc7l3	0x0
20418	chr11	94151881	94153782	-	Luc7l3	0x0
20419	chr11	94156715	94157825	-	Luc7l3	0x0
20420	chr11	94199141	94200336	+	Ankrd40	0x0
20421	chr11	94201294	94203378	+	Ankrd40	0x0
20422	chr11	94502081	94503108	+	Lrrc59	0x0
20423	chr11	94504400	94506811	+	Lrrc59	0x0
20424	chr11	94521341	94522585	-	Xylt2	0x0
20425	chr11	94523433	94524617	-	Xylt2	0x0
20426	chr11	94531105	94532330	-	Xylt2	0x0
20427	chr11	94638864	94639971	-	Tmem92	0x0
20428	chr11	94799268	94800423	+	Col1a1	0x2
20429	chr11	94808018	94809211	+	Col1a1	0x2
20430	chr11	94812909	94814098	+	Col1a1	0x2
20431	chr11	94866502	94868734	+	Ppp1r9b	0x0
20432	chr11	94905448	94907128	-	Itga3	0x0
20433	chr11	94907768	94908937	-	Itga3	0x0
20434	chr11	95135317	95137471	-	Kat7	0x0
20435	chr11	95144823	95146017	-	Kat7	0x0
20436	chr11	95157966	95159127	-	Kat7	0x0
20437	chr11	95169809	95170986	-	Kat7	0x0
20438	chr11	95342745	95343914	+	Spop	0x2
20439	chr11	95347601	95348806	+	Spop	0x2
20440	chr11	95352942	95354878	+	Spop	0x2
20441	chr11	95430033	95432517	-	Ngfr	0x1
20442	chr11	95536587	95538496	+	Phb	0x1
20443	chr11	95540577	95542561	+	Phb	0x1
20444	chr11	95610615	95612163	+	Zfp652	0x0
20445	chr11	95625880	95634118	+	Zfp652	0x0
20446	chr11	95724562	95725765	+	4833417C18Rik	0x0
20447	chr11	95818002	95824671	-	Igf2bp1	0x0
20448	chr11	95818002	95824671	-	Mir3063	0x0
20449	chr11	95830524	95831744	-	Igf2bp1	0x0
20450	chr11	95833651	95834890	-	Igf2bp1	0x0
20451	chr11	95866025	95867209	-	Igf2bp1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20452	chr11	95893473	95894668	+	Gip	0x0
20453	chr11	95905805	95906952	+	Snf8	0x0
20454	chr11	95906726	95907840	-	Ube2z	0x0
20455	chr11	95909276	95911781	-	Ube2z	0x0
20456	chr11	95944459	95945694	-	Atp5g1	0x0
20457	chr11	95957619	95959054	-	Calcoco2	0x0
20458	chr11	95959991	95961384	-	Calcoco2	0x0
20459	chr11	96103364	96104526	-	Calcoco2	0x0
20460	chr11	96111990	96113178	+	Gm53	0x0
20461	chr11	96181948	96183100	+	Hoxb4	0x0
20462	chr11	96667666	96669951	+	Cbx1	0x0
20463	chr11	96678199	96680749	-	Nfe2l1	0x0
20464	chr11	96682940	96684124	-	Nfe2l1	0x0
20465	chr11	96720181	96721386	+	Copz2	0x0
20466	chr11	96799104	96800382	-	Pnpo	0x0
20467	chr11	96814326	96815726	-	Sp2	0x0
20468	chr11	96909190	96911003	+	Mrpl10	0x0
20469	chr11	96997093	96999585	-	Tbkbp1	0x0
20470	chr11	97020713	97025230	-	Kpnb1	0x0
20471	chr11	97029936	97031136	-	Kpnb1	0x0
20472	chr11	97032404	97033503	-	Kpnb1	0x0
20473	chr11	97033868	97035154	-	Kpnb1	0x0
20474	chr11	97044723	97046920	-	Kpnb1	0x0
20475	chr11	97066617	97068736	-	Npepps	0x0
20476	chr11	97083802	97084986	-	Npepps	0x0
20477	chr11	97089903	97091075	-	Npepps	0x0
20478	chr11	97092677	97093856	-	Npepps	0x0
20479	chr11	97095810	97097912	-	Npepps	0x0
20480	chr11	97098955	97100157	-	Npepps	0x0
20481	chr11	97162270	97163404	-	Npepps	0x0
20482	chr11	97182267	97183457	+	Mrpl45	0x0
20483	chr11	97255852	97259719	+	Socs7	0x0
20484	chr11	97297030	97298241	+	Arhgap23	0x0
20485	chr11	97310163	97311310	+	Arhgap23	0x0
20486	chr11	97312170	97314073	+	Arhgap23	0x0
20487	chr11	97362509	97363838	+	Arhgap23	0x0
20488	chr11	97370258	97371415	-	Srcin1	0x0
20489	chr11	97395843	97397038	-	Srcin1	0x0
20490	chr11	97488159	97491497	-	E130012A19Rik	0x0
20491	chr11	97515454	97516579	-	E130012A19Rik	0x0
20492	chr11	97526839	97528018	+	Mllt6	0x2
20493	chr11	97533312	97534461	+	Mllt6	0x2
20494	chr11	97535313	97536469	+	Mllt6	0x2
20495	chr11	97542892	97546239	+	Mllt6	0x2
20496	chr11	97550221	97551416	-	Pcgf2	0x1
20497	chr11	97553505	97554674	-	Pcgf2	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20498	chr11	97559149	97560309	-	Pcgf2	0x1
20499	chr11	97573191	97575331	+	Psmb3	0x0
20500	chr11	97576095	97578260	-	Pip4k2b	0x0
20501	chr11	97578364	97579998	-	Pip4k2b	0x0
20502	chr11	97583108	97584286	-	Pip4k2b	0x0
20503	chr11	97586974	97588154	-	Pip4k2b	0x0
20504	chr11	97607098	97608314	-	Cwc25	0x0
20505	chr11	97622084	97623229	+	Lasp1	0x2
20506	chr11	97638489	97639910	-	Rpl23	0x0
20507	chr11	97640962	97642150	-	Rpl23	0x0
20508	chr11	97697252	97700307	+	Lasp1	0x2
20509	chr11	97711448	97712547	-	Fbxo47	0x0
20510	chr11	97830045	97831263	+	Rpl19	0x0
20511	chr11	97848249	97849463	-	Plxdc1	0x0
20512	chr11	97897436	97899405	-	Stac2	0x0
20513	chr11	97944506	97949172	-	Fbxl20	0x0
20514	chr11	98013889	98015728	-	Med1	0x2
20515	chr11	98018710	98019887	-	Med1	0x2
20516	chr11	98022499	98023677	-	Med1	0x2
20517	chr11	98026970	98028168	-	Med1	0x2
20518	chr11	98064371	98065608	+	Cdk12	0x2
20519	chr11	98076223	98077422	+	Cdk12	0x2
20520	chr11	98111486	98115131	+	Cdk12	0x2
20521	chr11	98298564	98299759	-	Mien1	0x0
20522	chr11	98442968	98444586	-	Ormdl3	0x0
20523	chr11	98556398	98557822	+	Psmd3	0x0
20524	chr11	98567157	98568334	-	Med24	0x0
20525	chr11	98640070	98641231	-	Nr1d1	0x0
20526	chr11	98665070	98666224	+	Msl1	0x0
20527	chr11	98666330	98667778	+	Msl1	0x0
20528	chr11	98693211	98695647	+	Casc3	0x0
20529	chr11	98762140	98765077	+	Wipf2	0x0
20530	chr11	98765220	98766404	+	Wipf2	0x0
20531	chr11	98853730	98855309	-	Top2a	0x0
20532	chr11	98856656	98857822	-	Top2a	0x0
20533	chr11	98864273	98866182	-	Top2a	0x0
20534	chr11	98875470	98876695	-	Top2a	0x0
20535	chr11	98879591	98880798	-	Top2a	0x0
20536	chr11	98880833	98882027	-	Top2a	0x0
20537	chr11	99070035	99071381	-	Smarce1	0x0
20538	chr11	99793232	99795837	+	Krtap31-2	0x0
20539	chr11	100182129	100183879	+	Eif1	0x1
20540	chr11	100208147	100210401	-	Hap1	0x0
20541	chr11	100232181	100233294	-	Jup	0x1
20542	chr11	100244287	100245494	-	Jup	0x1
20543	chr11	100318687	100324711	-	Klhl11	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20544	chr11	100337163	100338929	-	Acly	0x0
20545	chr11	100342119	100343601	-	Acly	0x0
20546	chr11	100366042	100367243	-	Acly	0x0
20547	chr11	100380426	100381594	-	Acly	0x0
20548	chr11	100442019	100443562	+	Cnp	0x0
20549	chr11	100444939	100446559	-	Dnajc7	0x0
20550	chr11	100452150	100453346	-	Dnajc7	0x0
20551	chr11	100458284	100459487	-	Dnajc7	0x0
20552	chr11	100487248	100488606	+	Nkiras2	0x0
20553	chr11	100504371	100505571	+	Nkiras2	0x0
20554	chr11	100565692	100566924	-	Kat2a	0x0
20555	chr11	100572103	100573299	-	Kat2a	0x0
20556	chr11	100576081	100577819	-	Rab5c	0x0
20557	chr11	100580398	100581581	-	Rab5c	0x0
20558	chr11	100642056	100643260	-	Stat5b	0x0
20559	chr11	100748237	100749909	-	Stat3	0x2
20560	chr11	100924000	100925489	+	Atp6v0a1	0x0
20561	chr11	100943420	100944568	+	Coasy	0x0
20562	chr11	100957506	100959426	-	Fam134c	0x0
20563	chr11	101052527	101054003	-	Ezh1	0x0
20564	chr11	101149018	101150261	-	Becn1	0x1
20565	chr11	101179146	101180264	+	Psme3	0x0
20566	chr11	101182868	101185332	+	Psme3	0x0
20567	chr11	101319587	101321506	-	Vat1	0x0
20568	chr11	101331810	101333004	+	Rnd2	0x0
20569	chr11	101349675	101351462	-	Brca1	0x1
20570	chr11	101385988	101387158	-	Brca1	0x1
20571	chr11	101430306	101431537	+	Nbr1	0x0
20572	chr11	101441659	101443708	+	Nbr1	0x0
20573	chr11	101441659	101443708	+	Tmem106a	0x0
20574	chr11	101487950	101489413	+	Rdm1	0x0
20575	chr11	101496529	101497881	+	Rdm1	0x0
20576	chr11	101506506	101507783	-	Brca1	0x1
20577	chr11	101616558	101617749	+	Dhx8	0x0
20578	chr11	101630710	101632147	-	Etv4	0x2
20579	chr11	101834313	101835642	-	Dusp3	0x0
20580	chr11	101882586	101883753	-	Mpp3	0x1
20581	chr11	102013503	102014875	-	Tmem101	0x0
20582	chr11	102023415	102025575	-	Lsm12	0x0
20583	chr11	102043531	102044666	-	Lsm12	0x0
20584	chr11	102054590	102055793	+	G6pc3	0x0
20585	chr11	102058097	102059313	-	Hdac5	0x0
20586	chr11	102060121	102061326	-	Hdac5	0x0
20587	chr11	102065566	102066804	-	Hdac5	0x0
20588	chr11	102116635	102117805	+	BC030867	0x0
20589	chr11	102125674	102126965	+	BC030867	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20590	chr11	102137961	102139148	+	Asb16	0x0
20591	chr11	102139437	102140663	+	Asb16	0x0
20592	chr11	102150256	102152426	-	Atxn7l3	0x0
20593	chr11	102165467	102168505	-	Ubtf	0x0
20594	chr11	102173602	102174801	-	Ubtf	0x0
20595	chr11	102175634	102176808	-	Ubtf	0x0
20596	chr11	102178202	102179388	+	Tmub2	0x2
20597	chr11	102258829	102260071	+	Rundc3a	0x0
20598	chr11	102263996	102266707	-	Slc25a39	0x0
20599	chr11	102267311	102268504	-	Slc25a39	0x0
20600	chr11	102293691	102294889	+	Grn	0x0
20601	chr11	102295509	102298660	+	Grn	0x0
20602	chr11	102336852	102338047	-	Gpatch8	0x0
20603	chr11	102338061	102339363	-	Gpatch8	0x0
20604	chr11	102346761	102347952	-	Gpatch8	0x0
20605	chr11	102354958	102356167	-	Gpatch8	0x0
20606	chr11	102380401	102381591	-	Gpatch8	0x0
20607	chr11	102545658	102547889	-	Ccdc43	0x0
20608	chr11	102549083	102550374	-	Ccdc43	0x0
20609	chr11	102658463	102660047	-	Gjc1	0x0
20610	chr11	102660561	102662179	-	Gjc1	0x0
20611	chr11	102669135	102670328	-	Gjc1	0x0
20612	chr11	102675097	102676250	-	Gjc1	0x0
20613	chr11	102728190	102729359	-	Eftud2	0x0
20614	chr11	102729724	102730923	-	Eftud2	0x0
20615	chr11	102776689	102777909	-	Kif18b	0x0
20616	chr11	102854879	102856524	-	Dcakd	0x0
20617	chr11	102863954	102865120	-	Dcakd	0x0
20618	chr11	102926817	102930658	+	Nmt1	0x0
20619	chr11	102932654	102933821	+	Nmt1	0x0
20620	chr11	102977209	102979816	+	Hexim1	0x0
20621	chr11	103088326	103089566	-	Map3k14	0x0
20622	chr11	103127475	103128679	-	Map3k14	0x0
20623	chr11	103192541	103194289	-	Arhgap27	0x0
20624	chr11	103226485	103227705	-	Plekhm1	0x0
20625	chr11	103258942	103260124	-	Plekhm1	0x0
20626	chr11	103537217	103539739	-	Gosr2	0x0
20627	chr11	103682724	103685105	-	Nsf	0x0
20628	chr11	103723988	103725210	-	Nsf	0x0
20629	chr11	103733016	103734164	-	Nsf	0x0
20630	chr11	103933725	103934952	-	Nsf	0x0
20631	chr11	104115281	104116478	+	Mapt	0x0
20632	chr11	104147429	104148648	-	Kansl1	0x0
20633	chr11	104148697	104149900	+	Mapt	0x0
20634	chr11	104180096	104181374	+	Mapt	0x0
20635	chr11	104189418	104193735	+	Mapt	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20636	chr11	104195114	104196640	-	Kansl1	0x0
20637	chr11	104211260	104212540	-	Kansl1	0x0
20638	chr11	104217423	104218693	-	Kansl1	0x0
20639	chr11	104239516	104240735	-	Kansl1	0x0
20640	chr11	104259024	104260253	-	Kansl1	0x0
20641	chr11	104283555	104284666	-	Kansl1	0x0
20642	chr11	104284715	104287124	-	Kansl1	0x0
20643	chr11	104303521	104304661	-	Kansl1	0x0
20644	chr11	104323173	104324350	-	Kansl1	0x0
20645	chr11	104364010	104365122	-	Cdc27	0x2
20646	chr11	104365315	104367415	-	Cdc27	0x2
20647	chr11	104381446	104382632	-	Cdc27	0x2
20648	chr11	104392472	104393693	-	Cdc27	0x2
20649	chr11	104472436	104473612	+	Itgb3	0x1
20650	chr11	104529584	104532014	+	Itgb3	0x1
20651	chr11	104546145	104547322	-	Cdc27	0x2
20652	chr11	105001442	105002648	+	Mettl2	0x0
20653	chr11	105142286	105144158	+	Tlk2	0x0
20654	chr11	105636339	105637518	+	Tanc2	0x0
20655	chr11	105794491	105797026	-	Cyb561	0x0
20656	chr11	105799479	105800654	-	Cyb561	0x0
20657	chr11	105850183	105851334	+	Ace	0x2
20658	chr11	105916313	105921105	+	Dcaf7	0x0
20659	chr11	105978292	105979457	+	Map3k3	0x0
20660	chr11	106015677	106018446	+	Map3k3	0x0
20661	chr11	106018838	106020012	-	Limd2	0x0
20662	chr11	106047343	106048510	-	Strada	0x0
20663	chr11	106060403	106062549	-	Ccdc47	0x0
20664	chr11	106076974	106078218	-	Ccdc47	0x0
20665	chr11	106106125	106107300	+	Ddx42	0x0
20666	chr11	106109061	106110902	+	Ddx42	0x0
20667	chr11	106115533	106116728	-	Ftsj3	0x0
20668	chr11	106123990	106125203	-	Smarcd2	0x0
20669	chr11	106126476	106127806	-	Smarcd2	0x0
20670	chr11	106256779	106257990	-	Ern1	0x0
20671	chr11	106363264	106364775	-	Tex2	0x0
20672	chr11	106428380	106430106	-	Tex2	0x0
20673	chr11	106515449	106516745	-	Pecam1	0x0
20674	chr11	106551794	106552992	-	Pecam1	0x0
20675	chr11	106641242	106643842	-	Ddx5	0x2
20676	chr11	106644264	106645408	-	Ddx5	0x2
20677	chr11	106646529	106647648	-	Ddx5	0x2
20678	chr11	106681497	106683287	-	Smurf2	0x2
20679	chr11	106689301	106690400	-	Smurf2	0x2
20680	chr11	106713281	106714504	-	Smurf2	0x2
20681	chr11	106757916	106759100	-	Smurf2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20682	chr11	106852424	106853615	-	Kpna2	0x0
20683	chr11	106871228	106872405	-	Kpna2	0x0
20684	chr11	106893868	106896627	-	Bptf	0x2
20685	chr11	106929054	106930226	-	Bptf	0x2
20686	chr11	106934897	106936220	-	Bptf	0x2
20687	chr11	106971618	106973317	-	Bptf	0x2
20688	chr11	106993238	106994474	-	Bptf	0x2
20689	chr11	107027499	107029403	-	Nol11	0x0
20690	chr11	107039574	107040737	-	Nol11	0x0
20691	chr11	107270888	107272057	-	Pitpnc1	0x0
20692	chr11	107287506	107288719	-	Pitpnc1	0x0
20693	chr11	107293967	107295167	-	Pitpnc1	0x0
20694	chr11	107298199	107299399	-	Pitpnc1	0x0
20695	chr11	107416060	107417256	+	Helz	0x0
20696	chr11	107458367	107459563	+	Helz	0x0
20697	chr11	107506782	107507976	+	Helz	0x0
20698	chr11	107509999	107511169	+	Helz	0x0
20699	chr11	107523648	107524796	+	Helz	0x0
20700	chr11	107527414	107528611	+	Helz	0x0
20701	chr11	107547206	107548351	+	Helz	0x0
20702	chr11	107548635	107550366	+	Helz	0x0
20703	chr11	107550966	107552313	+	Helz	0x0
20704	chr11	107552490	107554632	+	Helz	0x0
20705	chr11	107595429	107596563	-	Cacng4	0x0
20706	chr11	107768518	107769757	-	Cacng5	0x0
20707	chr11	108030518	108031732	-	Prkca	0x0
20708	chr11	108165129	108166353	-	Prkca	0x0
20709	chr11	108297998	108299296	+	Cep112	0x0
20710	chr11	108301243	108302450	+	Cep112	0x0
20711	chr11	108365904	108367080	+	Cep112	0x0
20712	chr11	108367315	108368466	+	Cep112	0x0
20713	chr11	108525484	108526637	+	Cep112	0x0
20714	chr11	108872397	108873970	-	E030025P04Rik	0x0
20715	chr11	109236840	109238040	+	Gna13	0x2
20716	chr11	109257437	109262715	+	Gna13	0x2
20717	chr11	109312373	109313779	-	Slc16a6	0x0
20718	chr11	109526635	109527821	+	Prkar1a	0x1
20719	chr11	109528400	109529887	+	Prkar1a	0x1
20720	chr11	110379445	110381341	+	Map2k6	0x0
20721	chr11	110382164	110383381	+	Map2k6	0x0
20722	chr11	113018100	113019287	-	2610035D17Rik	0x0
20723	chr11	113105690	113108241	-	Slc39a11	0x0
20724	chr11	113143037	113144194	-	Slc39a11	0x0
20725	chr11	113154778	113155973	-	Slc39a11	0x0
20726	chr11	113157400	113158616	-	Slc39a11	0x0
20727	chr11	113311628	113312775	-	Slc39a11	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20728	chr11	113323966	113325180	-	Slc39a11	0x0
20729	chr11	113378097	113379275	-	Slc39a11	0x0
20730	chr11	113466925	113468097	-	Slc39a11	0x0
20731	chr11	113523920	113525143	-	Fam104a	0x0
20732	chr11	113548827	113550011	+	D11Wsu47e	0x0
20733	chr11	113550734	113551880	+	D11Wsu47e	0x0
20734	chr11	113587990	113590184	-	Cdc42ep4	0x0
20735	chr11	113640371	113641605	-	Sdk2	0x0
20736	chr11	113646723	113647935	-	Sdk2	0x0
20737	chr11	114382348	114383535	-	4932435O22Rik	0x0
20738	chr11	114531089	114532393	+	Rpl38	0x0
20739	chr11	114557655	114558896	+	Ttyh2	0x0
20740	chr11	115141321	115143546	-	Fads6	0x0
20741	chr11	115246206	115247428	+	Cdr2l	0x0
20742	chr11	115248442	115249582	+	Cdr2l	0x0
20743	chr11	115256000	115257945	+	Cdr2l	0x0
20744	chr11	115358354	115360260	-	Hn1	0x0
20745	chr11	115438984	115440134	+	Nup85	0x0
20746	chr11	115444133	115445309	+	Nup85	0x0
20747	chr11	115445320	115447405	-	Gga3	0x0
20748	chr11	115452008	115453177	-	Gga3	0x0
20749	chr11	115504913	115506872	-	Grb2	0x2
20750	chr11	115509620	115510781	-	Grb2	0x2
20751	chr11	115534952	115536166	-	Grb2	0x2
20752	chr11	115659315	115660693	+	2310067B10Rik	0x0
20753	chr11	115714530	115715731	+	Llgl2	0x0
20754	chr11	115776603	115777761	-	Recql5	0x0
20755	chr11	115822456	115823692	+	Sap30bp	0x0
20756	chr11	115883166	115885324	-	H3f3b	0x0
20757	chr11	115921701	115922873	+	Unk	0x0
20758	chr11	115939509	115941356	-	Wbp2	0x0
20759	chr11	116019272	116020468	-	Fbf1	0x0
20760	chr11	116071337	116072443	+	Ten1	0x0
20761	chr11	116123621	116124812	-	Srp68	0x0
20762	chr11	116162779	116163939	-	Exoc7	0x0
20763	chr11	116199217	116200385	-	Rnf157	0x0
20764	chr11	116205675	116206848	-	Rnf157	0x0
20765	chr11	116223095	116224287	-	Rnf157	0x0
20766	chr11	116243745	116245012	+	Ubald2	0x0
20767	chr11	116299601	116300841	+	Gm7367	0x0
20768	chr11	116299601	116300841	+	Ubald2	0x0
20769	chr11	116398553	116400555	-	Ube2o	0x2
20770	chr11	116469036	116470236	-	Rhbdf2	0x0
20771	chr11	116528185	116529391	-	St6galnac2	0x0
20772	chr11	116533705	116534908	+	1810032O08Rik	0x0
20773	chr11	116533705	116534908	+	Snord1c	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20774	chr11	116535668	116537293	+	1810032O08Rik	0x0
20775	chr11	116535668	116537293	+	Snord1a	0x0
20776	chr11	116542170	116543299	+	1810032O08Rik	0x0
20777	chr11	116559523	116560673	+	1810032O08Rik	0x0
20778	chr11	116698183	116699391	-	Jmjd6	0x0
20779	chr11	116710704	116712837	-	Srsf2	0x2
20780	chr11	116784157	116785269	+	Mgat5b	0x0
20781	chr11	116809769	116810974	+	Mgat5b	0x0
20782	chr11	116820911	116822037	+	Mgat5b	0x0
20783	chr11	116829185	116830375	+	Mgat5b	0x0
20784	chr11	116837076	116838224	+	Mgat5b	0x0
20785	chr11	116846900	116848232	+	Mgat5b	0x0
20786	chr11	116938142	116939340	+	2810008D09Rik	0x0
20787	chr11	116939607	116940770	+	2810008D09Rik	0x0
20788	chr11	117018800	117021006	+	Sec14l1	0x0
20789	chr11	117221584	117224032	+	Sept9	0x2
20790	chr11	117459605	117460713	+	2900041M22Rik	0x0
20791	chr11	117487776	117488958	+	2900041M22Rik	0x0
20792	chr11	117519982	117521081	+	Tnrc6c	0x0
20793	chr11	117522226	117523365	+	Tnrc6c	0x0
20794	chr11	117560932	117562112	+	Tnrc6c	0x0
20795	chr11	117563832	117564980	+	Tnrc6c	0x0
20796	chr11	117580391	117581634	+	Tnrc6c	0x0
20797	chr11	117582521	117583733	+	Tnrc6c	0x0
20798	chr11	117585103	117586722	+	Tnrc6c	0x0
20799	chr11	117588013	117589395	+	Tnrc6c	0x0
20800	chr11	117591023	117592247	+	Tnrc6c	0x0
20801	chr11	117622602	117624298	+	Tnrc6c	0x0
20802	chr11	117635919	117637141	-	Tmc6	0x0
20803	chr11	117644612	117645730	+	Tmc8	0x0
20804	chr11	117671573	117673582	+	Syngr2	0x0
20805	chr11	117674197	117676627	+	Syngr2	0x0
20806	chr11	117713420	117714614	+	Birc5	0x0
20807	chr11	117716264	117717820	+	Birc5	0x0
20808	chr11	117826953	117829857	-	Socs3	0x1
20809	chr11	117857089	117858275	+	Pgs1	0x0
20810	chr11	117864758	117867045	+	Pgs1	0x0
20811	chr11	117870097	117871587	+	Pgs1	0x0
20812	chr11	117874423	117875574	+	Pgs1	0x0
20813	chr11	117884285	117885442	+	Pgs1	0x0
20814	chr11	117992273	117993456	+	Pgs1	0x0
20815	chr11	118037875	118039042	-	Cyth1	0x0
20816	chr11	118120759	118122657	-	Usp36	0x0
20817	chr11	118137785	118139006	-	Usp36	0x0
20818	chr11	118254738	118255972	-	Lgals3bp	0x0
20819	chr11	118267079	118268501	-	Cant1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20820	chr11	118268722	118269888	-	Cant1	0x2
20821	chr11	118274286	118275500	-	Cant1	0x2
20822	chr11	118309769	118310919	+	C1qtnf1	0x0
20823	chr11	118318284	118319466	+	C1qtnf1	0x0
20824	chr11	118348126	118349592	+	Engase	0x0
20825	chr11	118445240	118446457	-	Rbfox3	0x0
20826	chr11	118890317	118892539	+	Cbx2	0x0
20827	chr11	119004170	119007282	-	Tbc1d16	0x0
20828	chr11	119018525	119019762	-	Tbc1d16	0x0
20829	chr11	119062824	119064032	-	Tbc1d16	0x0
20830	chr11	119125385	119126626	+	Ccdc40	0x0
20831	chr11	119126812	119127958	+	Ccdc40	0x0
20832	chr11	119135887	119137041	+	Gaa	0x0
20833	chr11	119145222	119146422	+	Gaa	0x0
20834	chr11	119201213	119202413	-	Sgsh	0x0
20835	chr11	119285005	119286153	+	Mir1932	0x0
20836	chr11	119295727	119296880	+	Mir1932	0x0
20837	chr11	119297215	119298412	+	Mir1932	0x0
20838	chr11	119302071	119303291	+	Endov	0x0
20839	chr11	119303749	119304894	+	Endov	0x0
20840	chr11	119344129	119345283	-	Nptx1	0x0
20841	chr11	119347191	119349222	+	Endov	0x0
20842	chr11	119355292	119356422	+	Endov	0x0
20843	chr11	119399883	119401395	-	Nptx1	0x0
20844	chr11	119401454	119403770	-	Nptx1	0x0
20845	chr11	119483585	119484729	+	Rptor	0x0
20846	chr11	119755006	119756101	+	Rptor	0x0
20847	chr11	119758332	119761271	+	Rptor	0x0
20848	chr11	119777458	119778607	+	Chmp6	0x0
20849	chr11	119779578	119780772	+	Chmp6	0x0
20850	chr11	119868499	119869666	-	Aatk	0x0
20851	chr11	119951522	119952833	-	Enthd2	0x0
20852	chr11	119965431	119967686	-	Slc38a10	0x0
20853	chr11	119974806	119976003	-	Slc38a10	0x0
20854	chr11	119994619	119995850	-	Slc38a10	0x0
20855	chr11	120001381	120002522	-	Slc38a10	0x0
20856	chr11	120206692	120208027	-	Actg1	0x0
20857	chr11	120230719	120231818	-	2310003H01Rik	0x0
20858	chr11	120235694	120236921	-	2310003H01Rik	0x0
20859	chr11	120241846	120244190	-	Nploc4	0x0
20860	chr11	120287474	120288701	-	Nploc4	0x0
20861	chr11	120323622	120325783	+	Ccdc137	0x0
20862	chr11	120344468	120345654	+	Hgs	0x0
20863	chr11	120359169	120360792	+	Slc25a10	0x0
20864	chr11	120404006	120405185	-	Fam195b	0x0
20865	chr11	120421072	120423128	-	P4hb	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20866	chr11	120433532	120434691	-	P4hb	0x0
20867	chr11	120438940	120441136	-	Arhgdia	0x0
20868	chr11	120452077	120453945	-	Alyref	0x0
20869	chr11	120455062	120456714	-	Alyref	0x0
20870	chr11	120458993	120460221	-	Alyref	0x0
20871	chr11	120460101	120461281	+	Anapc11	0x0
20872	chr11	120486221	120489206	-	Sirt7	0x0
20873	chr11	120497595	120498807	-	Pycr1	0x0
20874	chr11	120500222	120501858	-	Pycr1	0x0
20875	chr11	120541461	120542569	+	Aspscr1	0x0
20876	chr11	120545414	120546519	+	Aspscr1	0x0
20877	chr11	120569691	120570847	+	Aspscr1	0x0
20878	chr11	120572042	120573224	+	Aspscr1	0x0
20879	chr11	120624258	120625508	+	Gps1	0x0
20880	chr11	120641556	120642862	-	Rfng	0x0
20881	chr11	120648257	120649434	-	Dus1l	0x0
20882	chr11	120648477	120649675	+	Gps1	0x0
20883	chr11	120667850	120671407	-	Fasn	0x0
20884	chr11	120671618	120672791	-	Fasn	0x0
20885	chr11	120673160	120674945	-	Fasn	0x0
20886	chr11	120675505	120676651	-	Fasn	0x0
20887	chr11	120681052	120682238	-	Fasn	0x0
20888	chr11	120726402	120727561	-	Ccdc57	0x0
20889	chr11	120819066	120821080	+	Slc16a3	0x0
20890	chr11	120822718	120826579	-	Csnk1d	0x0
20891	chr11	120829848	120831045	-	Csnk1d	0x0
20892	chr11	120832300	120833531	-	Csnk1d	0x0
20893	chr11	121008804	121010175	+	Tex19.1	0x0
20894	chr11	121084265	121085455	-	BC017643	0x0
20895	chr11	121089836	121091016	-	BC017643	0x0
20896	chr11	121113965	121115159	+	Narf	0x0
20897	chr11	121115522	121116639	+	Narf	0x0
20898	chr11	121157807	121159026	+	Foxk2	0x0
20899	chr11	121167923	121171571	+	Foxk2	0x0
20900	chr11	121188067	121190238	-	Wdr45b	0x0
20901	chr11	121195613	121196845	-	Wdr45b	0x0
20902	chr11	121215047	121216240	-	Wdr45b	0x0
20903	chr11	121291196	121292560	+	Fn3krp	0x0
20904	chr11	121322018	121323204	+	Tbcd	0x0
20905	chr11	121357729	121358940	+	Tbcd	0x0
20906	chr11	121478057	121479203	-	B3gntl1	0x0
20907	chr11	121765999	121767218	-	B3gntl1	0x0
20908	chr12	3238230	3239378	+	1700012B15Rik	0x0
20909	chr12	3241574	3242782	+	1700012B15Rik	0x0
20910	chr12	3247161	3249780	-	Rab10	0x0
20911	chr12	3272328	3273474	-	Rab10	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20912	chr12	3304963	3306139	-	Rab10	0x0
20913	chr12	3308776	3309960	-	Rab10	0x0
20914	chr12	3393599	3394796	+	Kif3c	0x0
20915	chr12	3402739	3403970	+	Kif3c	0x0
20916	chr12	3405401	3406511	-	1110002L01Rik	0x0
20917	chr12	3410377	3411618	-	1110002L01Rik	0x0
20918	chr12	3421814	3423012	-	1110002L01Rik	0x0
20919	chr12	3435321	3436473	+	Asxl2	0x0
20920	chr12	3451159	3452351	+	Asxl2	0x0
20921	chr12	3456580	3457730	+	Asxl2	0x0
20922	chr12	3468977	3470107	+	Asxl2	0x0
20923	chr12	3475402	3476558	+	Asxl2	0x0
20924	chr12	3502437	3504083	+	Asxl2	0x0
20925	chr12	3909020	3913637	+	Dnmt3a	0x2
20926	chr12	3974930	3976100	-	Efr3b	0x0
20927	chr12	4031382	4032579	-	Efr3b	0x0
20928	chr12	4103190	4104361	+	Dnajc27	0x0
20929	chr12	4108446	4111075	+	Dnajc27	0x0
20930	chr12	4202484	4203592	+	Adcy3	0x2
20931	chr12	4247446	4249133	-	Ncoa1	0x2
20932	chr12	4305827	4307018	-	Ncoa1	0x2
20933	chr12	4646004	4647155	+	Itsn2	0x0
20934	chr12	4664293	4665501	+	Itsn2	0x0
20935	chr12	4668163	4669276	+	Itsn2	0x0
20936	chr12	4684187	4685286	+	Itsn2	0x0
20937	chr12	4716778	4717891	+	Itsn2	0x0
20938	chr12	4719754	4721076	+	Itsn2	0x0
20939	chr12	4833079	4834249	+	0610009D07Rik	0x0
20940	chr12	4883971	4887413	-	Ubxn2a	0x0
20941	chr12	4930283	4931460	+	Atad2b	0x0
20942	chr12	4967517	4968680	+	Atad2b	0x0
20943	chr12	6341563	6342714	+	2810032G03Rik	0x0
20944	chr12	8298875	8300071	-	Gdf7	0x0
20945	chr12	8303336	8304526	-	Gdf7	0x0
20946	chr12	8349112	8351043	+	Hs1bp3	0x0
20947	chr12	8716439	8717658	+	Pum2	0x0
20948	chr12	8725351	8726462	+	Pum2	0x0
20949	chr12	8735218	8736338	+	Pum2	0x0
20950	chr12	8756931	8759735	+	Pum2	0x0
20951	chr12	8798336	8800066	+	Sdc1	0x0
20952	chr12	8944472	8946066	+	Laptm4a	0x0
20953	chr12	9505132	9506312	-	1700022H16Rik	0x0
20954	chr12	9743247	9744443	-	1700022H16Rik	0x0
20955	chr12	10165864	10167084	+	Nt5c1b	0x0
20956	chr12	10730504	10731763	-	Kcns3	0x0
20957	chr12	11297822	11298983	+	Smc6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
20958	chr12	11325185	11326472	+	Smc6	0x0
20959	chr12	11766993	11768225	-	Tubb2a-ps2	0x0
20960	chr12	12379665	12380804	+	Fam49a	0x0
20961	chr12	12942484	12943915	-	Mycn	0x2
20962	chr12	13225625	13226714	-	Ddx1	0x0
20963	chr12	13235526	13236751	-	Ddx1	0x0
20964	chr12	13243468	13244660	-	Ddx1	0x0
20965	chr12	13247111	13248255	-	Ddx1	0x0
20966	chr12	13380957	13382143	+	Nbas	0x0
20967	chr12	13464563	13465710	+	Nbas	0x0
20968	chr12	14501099	14502427	+	Gm16497	0x0
20969	chr12	14742289	14743389	-	4930448C13Rik	0x0
20970	chr12	15057251	15058422	+	Gm16497	0x0
20971	chr12	16543129	16544283	-	Lpin1	0x0
20972	chr12	16544653	16545773	-	Lpin1	0x0
20973	chr12	16578908	16580096	-	Lpin1	0x0
20974	chr12	16946260	16947494	+	Rock2	0x0
20975	chr12	16991863	16993048	+	Rock2	0x0
20976	chr12	16995027	16996238	-	Pqlc3	0x0
20977	chr12	17272817	17274015	+	Pdia6	0x0
20978	chr12	17281079	17282228	+	Pdia6	0x0
20979	chr12	17284936	17287966	+	Pdia6	0x0
20980	chr12	17290240	17291669	+	Pdia6	0x0
20981	chr12	17386800	17387950	+	Nol10	0x0
20982	chr12	17400638	17401804	+	Nol10	0x0
20983	chr12	17436238	17437347	+	Nol10	0x0
20984	chr12	17551907	17552983	+	Odc1	0x0
20985	chr12	17556176	17557340	+	Odc1	0x0
20986	chr12	17557579	17558755	+	Odc1	0x0
20987	chr12	17725603	17726757	+	Hpcal1	0x0
20988	chr12	17742954	17744144	+	Hpcal1	0x0
20989	chr12	17797950	17799135	+	Hpcal1	0x0
20990	chr12	18222869	18224026	+	5730507C01Rik	0x0
20991	chr12	19306896	19308042	+	5730507C01Rik	0x0
20992	chr12	19825307	19826456	-	1700030C10Rik	0x0
20993	chr12	20466106	20467385	+	Asap2	0x0
20994	chr12	20647367	20648567	+	Asap2	0x0
20995	chr12	20882100	20883238	-	1700030C10Rik	0x0
20996	chr12	21193073	21194229	+	Asap2	0x0
20997	chr12	21223871	21225066	+	Asap2	0x0
20998	chr12	21226102	21227254	+	Asap2	0x0
20999	chr12	21274621	21276290	+	Asap2	0x0
21000	chr12	21319953	21321053	+	Cpsf3	0x0
21001	chr12	21326446	21327545	+	Iah1	0x0
21002	chr12	21329308	21331149	-	Adam17	0x0
21003	chr12	21395647	21396990	-	Ywhaq	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21004	chr12	21400274	21401502	-	Ywhaq	0x2
21005	chr12	21948631	21949802	-	Ywhaq	0x2
21006	chr12	21969753	21970852	-	Ywhaq	0x2
21007	chr12	22010065	22011220	-	Ywhaq	0x2
21008	chr12	22768640	22769820	-	Ywhaq	0x2
21009	chr12	24450091	24451240	-	9030624G23Rik	0x0
21010	chr12	25288015	25289122	+	Grhl1	0x0
21011	chr12	25345605	25346995	+	Klf11	0x0
21012	chr12	25392605	25393731	+	Rrm2	0x0
21013	chr12	25398152	25399423	+	Rrm2	0x0
21014	chr12	25522021	25523167	+	Mboat2	0x0
21015	chr12	25530925	25532107	+	Mboat2	0x0
21016	chr12	25547281	25548382	+	Mboat2	0x0
21017	chr12	25562571	25563721	+	Mboat2	0x0
21018	chr12	25567095	25568208	+	Mboat2	0x0
21019	chr12	25643938	25646173	+	Mboat2	0x0
21020	chr12	25692854	25694065	+	Kidins220	0x0
21021	chr12	25735427	25736611	+	Kidins220	0x0
21022	chr12	25743368	25744577	+	Kidins220	0x0
21023	chr12	27069592	27070751	-	Rnf144a	0x0
21024	chr12	27170394	27171623	-	Rsad2	0x0
21025	chr12	29319884	29321072	-	Rps7	0x0
21026	chr12	29366422	29367555	+	Adi1	0x0
21027	chr12	29436214	29437379	+	Tssc1	0x0
21028	chr12	29551511	29552711	+	Tssc1	0x0
21029	chr12	29565715	29566836	+	Tssc1	0x0
21030	chr12	29767512	29768663	+	Tssc1	0x0
21031	chr12	30626441	30627624	+	Pxdn	0x2
21032	chr12	30701109	30702977	+	Pxdn	0x2
21033	chr12	31273268	31275383	+	Tmem18	0x0
21034	chr12	31578955	31580346	-	Acp1	0x0
21035	chr12	31596979	31598153	+	Sh3yl1	0x0
21036	chr12	31704412	31705574	+	Fam110c	0x0
21037	chr12	31895665	31896797	-	Dld	0x0
21038	chr12	31943067	31944260	-	Dld	0x0
21039	chr12	31962839	31963974	+	Lamb1	0x0
21040	chr12	32016080	32017351	-	Dld	0x0
21041	chr12	32170766	32171885	-	Cbll1	0x0
21042	chr12	32280019	32281489	-	Bcap29	0x0
21043	chr12	32313869	32315053	-	Bcap29	0x0
21044	chr12	32610888	32612847	-	Hbp1	0x1
21045	chr12	32611171	32613987	+	Cog5	0x0
21046	chr12	33365651	33366757	-	4933406C10Rik	0x0
21047	chr12	33534854	33538382	+	Nampt	0x0
21048	chr12	33660640	33661840	+	Sypl	0x0
21049	chr12	33662731	33663815	+	Sypl	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21050	chr12	34114015	34115151	+	Twistnb	0x0
21051	chr12	34122854	34124563	+	Twistnb	0x0
21052	chr12	35280961	35282175	-	Hdac9	0x2
21053	chr12	35828929	35830262	+	Snx13	0x0
21054	chr12	35831496	35832605	+	Snx13	0x0
21055	chr12	36740689	36742225	-	Tspan13	0x0
21056	chr12	36817916	36819201	-	Bzw2	0x0
21057	chr12	36835805	36836985	-	Bzw2	0x0
21058	chr12	36856030	36857212	-	Bzw2	0x0
21059	chr12	36922852	36924408	+	Ankmy2	0x0
21060	chr12	37103279	37105159	-	Lrrc72	0x0
21061	chr12	37158509	37159704	+	Ispd	0x0
21062	chr12	37205353	37206548	+	Ispd	0x0
21063	chr12	37542237	37543442	+	Ispd	0x0
21064	chr12	39514436	39515598	+	Etv1	0x2
21065	chr12	39593176	39594648	+	Etv1	0x2
21066	chr12	39594801	39595959	+	Etv1	0x2
21067	chr12	40940086	40941252	-	Ifrd1	0x0
21068	chr12	41049045	41050174	-	Zfp277	0x0
21069	chr12	41178233	41179380	+	Dock4	0x0
21070	chr12	41845664	41846777	+	Immp2l	0x0
21071	chr12	41872878	41873999	+	Immp2l	0x0
21072	chr12	41917883	41919059	+	Immp2l	0x0
21073	chr12	41961989	41963185	+	Immp2l	0x0
21074	chr12	41995383	41996565	-	Lrrn3	0x0
21075	chr12	42004162	42005303	+	Immp2l	0x0
21076	chr12	42181952	42183078	+	Immp2l	0x0
21077	chr12	42256671	42257770	+	Immp2l	0x0
21078	chr12	45307071	45308263	-	Dnajb9	0x0
21079	chr12	45383930	45385130	+	Pnpla8	0x0
21080	chr12	45412524	45413717	+	Pnpla8	0x0
21081	chr12	45416079	45417238	+	Pnpla8	0x0
21082	chr12	45813615	45814812	-	Stxbp6	0x0
21083	chr12	45815103	45816286	-	Stxbp6	0x0
21084	chr12	45987020	45988239	-	Stxbp6	0x0
21085	chr12	46118600	46119734	-	Stxbp6	0x0
21086	chr12	47798651	47800507	-	Nova1	0x2
21087	chr12	47845919	47847068	+	Nrcam	0x1
21088	chr12	48913448	48914647	+	Foxg1	0x4
21089	chr12	50173322	50174443	-	1810007C17Rik	0x0
21090	chr12	52234948	52236096	-	Strn3	0x0
21091	chr12	52457392	52458681	+	G2e3	0x0
21092	chr12	52472901	52475029	+	G2e3	0x0
21093	chr12	52475174	52477778	+	G2e3	0x0
21094	chr12	52709288	52711459	-	Strn3	0x0
21095	chr12	52728120	52729329	-	Strn3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21096	chr12	52740697	52741881	-	Strn3	0x0
21097	chr12	52753235	52754411	-	Strn3	0x0
21098	chr12	52778306	52779527	-	Strn3	0x0
21099	chr12	52788056	52789155	-	Strn3	0x0
21100	chr12	52864480	52865659	-	Hectd1	0x0
21101	chr12	52876977	52878167	-	Hectd1	0x0
21102	chr12	52903026	52904261	-	Hectd1	0x0
21103	chr12	52911020	52912213	-	Hectd1	0x0
21104	chr12	52976521	52977926	-	Heatr5a	0x0
21105	chr12	52994204	52995398	-	Heatr5a	0x0
21106	chr12	53207608	53208782	+	Nubpl	0x0
21107	chr12	53616792	53618896	+	Arhgap5	0x0
21108	chr12	53619024	53621419	+	Arhgap5	0x0
21109	chr12	53667560	53671126	+	Arhgap5	0x0
21110	chr12	54147110	54148340	-	1700031P21Rik	0x0
21111	chr12	54674839	54676040	+	Npas3	0x0
21112	chr12	55109150	55110367	-	Egln3	0x1
21113	chr12	55279985	55281429	-	Egln3	0x1
21114	chr12	55745977	55747564	-	Mir1892	0x0
21115	chr12	55745977	55747564	-	Sptssa	0x0
21116	chr12	55773562	55774734	-	Eapp	0x0
21117	chr12	55797222	55798499	+	Srp54a	0x0
21118	chr12	55835057	55836286	-	Snx6	0x0
21119	chr12	55846856	55848050	-	Snx6	0x0
21120	chr12	55960017	55961216	-	Cfl2	0x0
21121	chr12	55993127	55995427	-	Baz1a	0x0
21122	chr12	56017100	56018233	-	Baz1a	0x0
21123	chr12	56181083	56182192	+	Srp54a	0x0
21124	chr12	56496377	56497538	-	Ppp2r3c	0x0
21125	chr12	56518822	56519989	+	Psma6	0x0
21126	chr12	56590002	56592279	-	Nfkbia	0x2
21127	chr12	56595925	56597032	-	Nfkbia	0x2
21128	chr12	56703702	56704851	-	Ralgapa1	0x0
21129	chr12	56810502	56811648	-	Ralgapa1	0x0
21130	chr12	56831740	56832928	-	Ralgapa1	0x0
21131	chr12	56969926	56971699	+	Brms1l	0x0
21132	chr12	58339349	58342487	+	Prps1l3	0x2
21133	chr12	58385543	58386672	+	Mipol1	0x0
21134	chr12	58503443	58504546	+	Mipol1	0x0
21135	chr12	60059306	60060750	-	Sec23a	0x0
21136	chr12	60088785	60090013	-	Sec23a	0x0
21137	chr12	60140783	60142058	+	Gemin2	0x0
21138	chr12	60172596	60173745	+	Pnn	0x1
21139	chr12	60173895	60175410	+	Pnn	0x1
21140	chr12	60181582	60183210	+	Pnn	0x1
21141	chr12	60234547	60235779	+	Ctage5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21142	chr12	60236574	60237718	+	Ctage5	0x0
21143	chr12	60250461	60251581	+	Ctage5	0x0
21144	chr12	60773492	60774667	+	Ctage5	0x0
21145	chr12	62364510	62365609	+	Lrfn5	0x0
21146	chr12	63262537	63263646	+	Lrfn5	0x0
21147	chr12	66025202	66027020	+	Gm527	0x0
21148	chr12	66043150	66044352	-	Klhl28	0x0
21149	chr12	66066854	66068702	+	Fam179b	0x0
21150	chr12	66120248	66121416	+	Fam179b	0x0
21151	chr12	66157039	66158210	+	Prpf39	0x0
21152	chr12	66176088	66177243	+	Fancm	0x2
21153	chr12	66177586	66178751	+	Fancm	0x2
21154	chr12	66231883	66233934	+	Fancm	0x2
21155	chr12	66236438	66237667	-	Mis18bp1	0x0
21156	chr12	67382596	67383797	-	Rpl10l	0x0
21157	chr12	67383897	67385775	-	Rpl10l	0x0
21158	chr12	68540126	68541225	+	Lrr1	0x0
21159	chr12	68589508	68590740	-	Gm17821	0x0
21160	chr12	70005155	70006349	-	Rps29	0x0
21161	chr12	70259767	70261151	+	Lrr1	0x0
21162	chr12	70283478	70284709	-	Rpl36al	0x0
21163	chr12	70289800	70290953	-	Dnaaf2	0x0
21164	chr12	70313059	70314237	-	Pole2	0x0
21165	chr12	70411178	70412311	+	Klhdc2	0x0
21166	chr12	70461656	70462990	-	Nemf	0x0
21167	chr12	70472611	70474528	+	Arf6	0x0
21168	chr12	70474776	70477440	+	Arf6	0x0
21169	chr12	70791170	70792764	-	L2hgdh	0x0
21170	chr12	70836914	70838183	+	Atp5s	0x0
21171	chr12	70844304	70845839	+	Atp5s	0x0
21172	chr12	70904376	70906080	-	Map4k5	0x0
21173	chr12	71065558	71067498	-	Sav1	0x2
21174	chr12	71069513	71070666	-	Sav1	0x2
21175	chr12	71112672	71114123	-	Nin	0x2
21176	chr12	71566681	71569053	+	Tmx1	0x0
21177	chr12	72000976	72002094	+	Frmd6	0x0
21178	chr12	72002167	72003280	+	Frmd6	0x0
21179	chr12	72095599	72096779	+	Psma3	0x0
21180	chr12	72154206	72155345	+	Arid4a	0x0
21181	chr12	72238076	72239311	+	2700049A03Rik	0x0
21182	chr12	72337229	72338369	+	2700049A03Rik	0x0
21183	chr12	72367195	72368292	-	Timm9	0x0
21184	chr12	73089376	73090519	+	Daam1	0x0
21185	chr12	73091184	73093067	+	Daam1	0x0
21186	chr12	73201450	73202775	+	Jkamp	0x0
21187	chr12	73312209	73313456	-	Rtn1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21188	chr12	73569382	73570571	+	Lrrc9	0x0
21189	chr12	73649287	73650375	+	Pcnxl4	0x0
21190	chr12	73861819	73863038	+	Ppm1a	0x0
21191	chr12	73887421	73890281	+	Ppm1a	0x0
21192	chr12	73894386	73895981	+	Ppm1a	0x0
21193	chr12	73896452	73897578	+	Ppm1a	0x0
21194	chr12	73993298	73995232	-	4930447C04Rik	0x2
21195	chr12	74017495	74018667	-	4930447C04Rik	0x2
21196	chr12	74200320	74201863	-	Six4	0x2
21197	chr12	74201941	74203373	-	Six4	0x2
21198	chr12	74372880	74374325	+	Mnat1	0x2
21199	chr12	74382042	74383161	-	Trmt5	0x0
21200	chr12	75029721	75030916	+	Hif1a	0x0
21201	chr12	75046741	75048866	+	Hif1a	0x0
21202	chr12	75084750	75085927	+	Snapc1	0x0
21203	chr12	76551794	76552915	-	Ppp2r5e	0x0
21204	chr12	76553272	76554780	-	Ppp2r5e	0x0
21205	chr12	76581846	76583007	-	Ppp2r5e	0x0
21206	chr12	76731496	76732845	-	Rplp2-ps1	0x0
21207	chr12	76731496	76732845	-	Wdr89	0x0
21208	chr12	76945949	76947098	+	Syne2	0x0
21209	chr12	77016151	77017375	+	Syne2	0x0
21210	chr12	77022219	77023322	+	Syne2	0x0
21211	chr12	77252257	77253452	-	Esr2	0x1
21212	chr12	77404150	77405300	+	Mthfd1	0x0
21213	chr12	77407076	77408239	+	Mthfd1	0x0
21214	chr12	77445183	77447438	-	Zbtb25	0x0
21215	chr12	77553990	77555132	+	Gm10451	0x0
21216	chr12	77721779	77723000	-	Sptb	0x2
21217	chr12	77898697	77900905	-	Rab15	0x0
21218	chr12	77954004	77955193	+	Fntb	0x0
21219	chr12	78021031	78022786	+	Fntb	0x0
21220	chr12	78036285	78037342	-	Max	0x0
21221	chr12	78038551	78040682	-	Max	0x0
21222	chr12	78057748	78058832	-	Max	0x0
21223	chr12	78432403	78433595	+	Fut8	0x0
21224	chr12	78575914	78577301	+	Fut8	0x0
21225	chr12	78679103	78680305	+	Fut8	0x0
21226	chr12	79357887	79359088	+	Gphn	0x2
21227	chr12	79412238	79413481	+	Gphn	0x2
21228	chr12	79451357	79452710	+	Gphn	0x2
21229	chr12	79507297	79508588	-	Atp6v1d	0x0
21230	chr12	79509503	79510689	-	Atp6v1d	0x0
21231	chr12	79939727	79940920	+	Mpp5	0x0
21232	chr12	79943468	79944775	-	Atp6v1d	0x0
21233	chr12	79985894	79987149	+	Eif2s1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21234	chr12	80091296	80092464	-	Tmem229b	0x0
21235	chr12	80180361	80181716	+	Plekhh1	0x0
21236	chr12	80214283	80215542	+	Arg2	0x0
21237	chr12	80275659	80277345	-	Rdh11	0x0
21238	chr12	80332875	80334924	-	Zfyve26	0x0
21239	chr12	80341351	80342549	-	Zfyve26	0x0
21240	chr12	80376503	80377700	-	Zfyve26	0x0
21241	chr12	80433839	80435035	+	Rad51b	0x2
21242	chr12	80441922	80443102	+	Rad51b	0x2
21243	chr12	80443340	80444530	+	Rad51b	0x2
21244	chr12	80456071	80457177	+	Rad51b	0x2
21245	chr12	80504080	80505233	+	Rad51b	0x2
21246	chr12	80506380	80507543	+	Rad51b	0x2
21247	chr12	80538643	80539754	+	Rad51b	0x2
21248	chr12	80622498	80623648	+	Rad51b	0x2
21249	chr12	80693191	80694300	+	Rad51b	0x2
21250	chr12	80708707	80709855	+	Rad51b	0x2
21251	chr12	80821042	80822174	-	Zfp36l1	0x2
21252	chr12	81208990	81210440	-	Zfp36l1	0x2
21253	chr12	81221134	81222376	-	2310015A10Rik	0x0
21254	chr12	81267774	81269363	-	Actn1	0x0
21255	chr12	81273420	81274548	-	Actn1	0x0
21256	chr12	81336827	81337954	-	Actn1	0x0
21257	chr12	81343401	81344607	-	Actn1	0x0
21258	chr12	81439370	81440546	-	Dcaf5	0x0
21259	chr12	81494683	81495920	-	Scarna3b	0x0
21260	chr12	81579201	81580341	+	Exd2	0x0
21261	chr12	81703240	81704847	+	Galnt16	0x0
21262	chr12	81734759	81735997	-	Erh	0x0
21263	chr12	81762969	81764114	+	Slc39a9	0x0
21264	chr12	81780311	81784436	+	Slc39a9	0x0
21265	chr12	81916928	81918114	+	4933426M11Rik	0x0
21266	chr12	81978585	81981051	+	4933426M11Rik	0x0
21267	chr12	82046711	82047887	+	Srsf5	0x0
21268	chr12	82048651	82049898	+	Srsf5	0x0
21269	chr12	82050730	82051995	+	Srsf5	0x0
21270	chr12	82159217	82160439	+	Smoc1	0x0
21271	chr12	82194145	82195294	+	Smoc1	0x0
21272	chr12	82205016	82206147	+	Smoc1	0x0
21273	chr12	82260865	82262062	+	Mir3067	0x0
21274	chr12	82285417	82287463	+	Smoc1	0x0
21275	chr12	82513836	82514961	-	Adam4	0x0
21276	chr12	82542141	82543240	-	Adam4	0x0
21277	chr12	82548236	82549413	-	Cox16	0x0
21278	chr12	82569365	82570544	-	Cox16	0x0
21279	chr12	82614909	82616029	-	Synj2bp	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21280	chr12	82826538	82827677	-	Map3k9	0x0
21281	chr12	83006969	83008070	+	Pcnx	0x0
21282	chr12	83019571	83020769	+	Pcnx	0x0
21283	chr12	83053182	83054381	+	Pcnx	0x0
21284	chr12	83064426	83065627	+	Pcnx	0x0
21285	chr12	83074904	83076099	+	Pcnx	0x0
21286	chr12	83081287	83082465	+	Pcnx	0x0
21287	chr12	83083953	83085123	+	Pcnx	0x0
21288	chr12	83088371	83089534	+	Pcnx	0x0
21289	chr12	83096547	83097969	+	Pcnx	0x0
21290	chr12	83098405	83099647	+	Pcnx	0x0
21291	chr12	83100241	83102150	+	Pcnx	0x0
21292	chr12	83389738	83390887	+	Sipa1l1	0x0
21293	chr12	83442414	83444007	+	Sipa1l1	0x0
21294	chr12	83446167	83447285	+	Sipa1l1	0x0
21295	chr12	83457681	83458827	+	Sipa1l1	0x0
21296	chr12	83547833	83548935	+	Sipa1l1	0x0
21297	chr12	83780776	83781924	+	Rgs6	0x0
21298	chr12	84878115	84879286	+	Dcaf4	0x0
21299	chr12	84895300	84896497	-	Zfyve1	0x0
21300	chr12	84913996	84915183	-	Zfyve1	0x0
21301	chr12	84923274	84924375	-	Zfyve1	0x0
21302	chr12	84926147	84927292	-	Zfyve1	0x0
21303	chr12	84991742	84992961	+	Rbm25	0x0
21304	chr12	84993693	84994854	+	Rbm25	0x0
21305	chr12	84996432	84997557	+	Rbm25	0x0
21306	chr12	84999896	85001114	+	Rbm25	0x0
21307	chr12	85001199	85002342	+	Rbm25	0x0
21308	chr12	85008565	85009718	+	Rbm25	0x0
21309	chr12	85013174	85014321	+	Rbm25	0x0
21310	chr12	85022237	85024421	+	Rbm25	0x0
21311	chr12	85052271	85053902	+	Psen1	0x0
21312	chr12	85074813	85078374	+	Psen1	0x0
21313	chr12	85134673	85135821	-	Numb	0x0
21314	chr12	85479960	85481252	+	Dnalc1	0x0
21315	chr12	85481531	85483234	+	Dnalc1	0x0
21316	chr12	85491274	85492718	-	Elmsan1	0x0
21317	chr12	85506647	85507765	-	Elmsan1	0x0
21318	chr12	85512459	85514547	-	Elmsan1	0x0
21319	chr12	85514586	85515756	-	Elmsan1	0x0
21320	chr12	85543257	85544356	-	Elmsan1	0x0
21321	chr12	85638537	85639730	+	Ptgr2	0x0
21322	chr12	85655899	85657185	+	Ptgr2	0x0
21323	chr12	85711420	85712609	+	Coq6	0x0
21324	chr12	85714088	85715283	+	Coq6	0x0
21325	chr12	85727362	85728551	-	Entpd5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21326	chr12	85771720	85773006	-	Aldh6a1	0x0
21327	chr12	85815029	85816182	+	Lin52	0x0
21328	chr12	85830165	85831293	+	Lin52	0x0
21329	chr12	85845936	85847102	+	Lin52	0x0
21330	chr12	85871391	85872517	+	Lin52	0x0
21331	chr12	85922944	85924101	-	Abcd4	0x0
21332	chr12	86096485	86098611	-	Npc2	0x0
21333	chr12	86115169	86116433	+	Isca2	0x0
21334	chr12	86256787	86257957	-	1110018G07Rik	0x0
21335	chr12	86258663	86261490	-	1110018G07Rik	0x0
21336	chr12	86369426	86370577	+	Ylpm1	0x0
21337	chr12	86390733	86391870	+	Ylpm1	0x0
21338	chr12	86398104	86399261	+	Ylpm1	0x0
21339	chr12	86467965	86469163	+	Dlst	0x0
21340	chr12	86473261	86475441	+	Dlst	0x0
21341	chr12	86476273	86477608	-	Rps6kl1	0x0
21342	chr12	86507593	86508763	-	Pgf	0x0
21343	chr12	86566611	86567954	+	Eif2b2	0x0
21344	chr12	86606562	86607754	-	Mlh3	0x0
21345	chr12	86640003	86642355	-	Nek9	0x2
21346	chr12	86658276	86659487	-	Nek9	0x2
21347	chr12	86681340	86684297	-	Tmed10	0x0
21348	chr12	86980113	86981334	+	Jdp2	0x1
21349	chr12	87058843	87060112	-	0610007P14Rik	0x0
21350	chr12	87155911	87157125	-	0610007P14Rik	0x0
21351	chr12	87366186	87367406	+	Ttll5	0x0
21352	chr12	87601082	87602187	+	Gpatch2l	0x0
21353	chr12	87630779	87632035	+	Gpatch2l	0x0
21354	chr12	87634364	87635508	+	Gpatch2l	0x0
21355	chr12	87790175	87791370	-	Angel1	0x0
21356	chr12	87792673	87793833	-	Angel1	0x0
21357	chr12	87798152	87799251	-	Angel1	0x0
21358	chr12	87810571	87811741	+	Esrrb	0x0
21359	chr12	87821441	87822651	+	Esrrb	0x0
21360	chr12	87832178	87834429	+	Esrrb	0x0
21361	chr12	87842021	87843266	+	Esrrb	0x0
21362	chr12	87851324	87852488	+	Esrrb	0x0
21363	chr12	87854819	87856056	+	Esrrb	0x0
21364	chr12	87859064	87863028	+	Esrrb	0x0
21365	chr12	88032698	88035666	+	Vash1	0x0
21366	chr12	88035864	88037090	+	Vash1	0x0
21367	chr12	88041606	88042825	-	Angel1	0x0
21368	chr12	88058766	88059975	-	Angel1	0x0
21369	chr12	88160237	88161410	+	Gm6772	0x0
21370	chr12	88221193	88222465	-	Irf2bpl	0x0
21371	chr12	88224518	88225693	-	Irf2bpl	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21372	chr12	88229279	88230490	+	2310044G17Rik	0x0
21373	chr12	88295582	88296780	+	2310044G17Rik	0x0
21374	chr12	88304561	88306646	+	2310044G17Rik	0x0
21375	chr12	88447435	88448564	-	Pomt2	0x0
21376	chr12	88496174	88497370	-	Pomt2	0x0
21377	chr12	88504663	88505817	+	Gstz1	0x0
21378	chr12	88506838	88510456	-	Tmed8	0x0
21379	chr12	88511504	88512649	-	Tmed8	0x0
21380	chr12	88646128	88648692	-	Sptlc2	0x0
21381	chr12	88694860	88696070	-	Sptlc2	0x0
21382	chr12	88790650	88792394	-	Snw1	0x0
21383	chr12	89685735	89686891	+	Adck1	0x0
21384	chr12	89699366	89700506	+	Adck1	0x0
21385	chr12	92236577	92237751	-	Cep128	0x0
21386	chr12	92423917	92425122	-	Bc1	0x0
21387	chr12	92620627	92621820	-	Cep128	0x0
21388	chr12	92794670	92797834	-	Gtf2a1	0x0
21389	chr12	92811437	92812572	-	Gtf2a1	0x0
21390	chr12	92872812	92874710	-	Ston2	0x0
21391	chr12	92875252	92876333	-	Ston2	0x0
21392	chr12	92885957	92887075	-	Ston2	0x0
21393	chr12	93044649	93046304	-	Sel1l	0x0
21394	chr12	93046730	93050500	-	Sel1l	0x0
21395	chr12	93052928	93054150	-	Sel1l	0x0
21396	chr12	94342811	94344005	-	Sel1l	0x0
21397	chr12	97021146	97022331	+	Flrt2	0x0
21398	chr12	97022644	97023829	+	Flrt2	0x0
21399	chr12	98160173	98161817	-	1700019M22Rik	0x0
21400	chr12	99082563	99083756	+	Gpr65	0x0
21401	chr12	99996190	99997289	+	Zc3h14	0x0
21402	chr12	100024820	100026278	+	Zc3h14	0x0
21403	chr12	100137592	100138795	-	Eml5	0x0
21404	chr12	100428855	100432002	-	Foxn3	0x0
21405	chr12	100432279	100433993	-	Foxn3	0x0
21406	chr12	100498448	100499656	-	Foxn3	0x0
21407	chr12	100552741	100553929	-	Foxn3	0x0
21408	chr12	100626079	100627352	-	Foxn3	0x0
21409	chr12	100655049	100656227	-	Foxn3	0x0
21410	chr12	100773424	100774593	-	Foxn3	0x0
21411	chr12	101175157	101176347	+	Tdp1	0x0
21412	chr12	101356790	101357919	+	Psmc1	0x0
21413	chr12	101360945	101362108	+	Psmc1	0x0
21414	chr12	101444642	101446012	+	Calm1	0x0
21415	chr12	101447423	101448551	+	Calm1	0x0
21416	chr12	101450631	101451772	-	Nrde2	0x0
21417	chr12	101538623	101540173	-	Ttc7b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21418	chr12	101708736	101709872	-	Ttc7b	0x0
21419	chr12	101829057	101830279	-	Rps6ka5	0x0
21420	chr12	102149260	102151553	-	Ccdc88c	0x0
21421	chr12	102163345	102164487	-	Ccdc88c	0x0
21422	chr12	102171731	102172960	-	Ccdc88c	0x0
21423	chr12	102235126	102236942	-	Ccdc88c	0x0
21424	chr12	102258724	102259927	-	Mir1190	0x0
21425	chr12	102277680	102279507	-	Smek1	0x0
21426	chr12	103073634	103074804	-	Trip11	0x2
21427	chr12	103156814	103157923	-	Atxn3	0x2
21428	chr12	103158240	103159448	-	Atxn3	0x2
21429	chr12	103159506	103161418	-	Atxn3	0x2
21430	chr12	103167618	103168703	-	Atxn3	0x2
21431	chr12	103193298	103194443	-	Atxn3	0x2
21432	chr12	103207165	103208339	-	Atxn3	0x2
21433	chr12	103242158	103245123	+	Cpsf2	0x0
21434	chr12	103491206	103492409	-	Lgmn	0x0
21435	chr12	103631864	103633033	-	Lgmn	0x0
21436	chr12	103661255	103662420	-	Lgmn	0x0
21437	chr12	103806331	103808813	-	Itpk1	0x0
21438	chr12	103822048	103823224	-	Itpk1	0x0
21439	chr12	103824691	103825870	-	Itpk1	0x0
21440	chr12	103840438	103841629	-	Itpk1	0x0
21441	chr12	103894729	103895863	-	Itpk1	0x0
21442	chr12	103906316	103907477	-	Itpk1	0x0
21443	chr12	103912465	103913697	-	Itpk1	0x0
21444	chr12	103917169	103918355	-	Itpk1	0x0
21445	chr12	103981770	103982998	-	Moap1	0x0
21446	chr12	103996171	103997332	+	Ubr7	0x0
21447	chr12	104013883	104016370	+	Ubr7	0x0
21448	chr12	104018919	104021763	-	Btbd7	0x0
21449	chr12	104022067	104023153	-	Btbd7	0x0
21450	chr12	104041451	104042551	-	Btbd7	0x0
21451	chr12	104104519	104105948	-	Btbd7	0x0
21452	chr12	105625467	105626663	+	Serpina3m	0x0
21453	chr12	105925817	105927473	-	Dicer1	0x2
21454	chr12	105934739	105935846	-	Dicer1	0x2
21455	chr12	105968740	105969946	-	Dicer1	0x2
21456	chr12	106002283	106003414	-	Clmn	0x0
21457	chr12	106029528	106030647	-	Clmn	0x0
21458	chr12	106164491	106165667	+	Glrx5	0x0
21459	chr12	106166768	106167956	-	Syne3	0x0
21460	chr12	106268893	106270128	-	Mir3069	0x0
21461	chr12	106268893	106270128	-	Scarna13	0x0
21462	chr12	106268893	106270128	-	Snhg10	0x0
21463	chr12	106278270	106279587	+	Glrx5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21464	chr12	106336428	106337547	+	Tcl1b2	0x0
21465	chr12	106446136	106447350	-	Tcl1	0x0
21466	chr12	106454414	106456356	-	Tcl1	0x0
21467	chr12	106561334	106562496	+	2810011L19Rik	0x0
21468	chr12	106853834	106855234	-	Atg2b	0x0
21469	chr12	106922287	106923485	-	Atg2b	0x0
21470	chr12	107037421	107038580	+	Papola	0x0
21471	chr12	107044205	107045306	+	Papola	0x0
21472	chr12	107073278	107074607	+	Papola	0x0
21473	chr12	107074900	107077626	+	Papola	0x0
21474	chr12	107287008	107288158	+	Vrk1	0x0
21475	chr12	107313136	107315205	+	Vrk1	0x0
21476	chr12	107316123	107317358	+	Vrk1	0x0
21477	chr12	109229200	109230347	+	Ccnk	0x0
21478	chr12	109344892	109346086	-	Setd3	0x0
21479	chr12	109350090	109351285	-	Setd3	0x0
21480	chr12	109440662	109441956	+	Ccnk	0x0
21481	chr12	109441613	109444299	-	Ccdc85c	0x0
21482	chr12	109510034	109511203	-	Ccdc85c	0x0
21483	chr12	109567136	109568303	+	Hhipl1	0x0
21484	chr12	109777041	109778190	+	Eml1	0x0
21485	chr12	109849962	109851139	+	Evl	0x0
21486	chr12	109923729	109924919	+	Evl	0x0
21487	chr12	109925756	109926898	+	Evl	0x0
21488	chr12	110046141	110047279	+	Yy1	0x0
21489	chr12	110053731	110055378	+	Yy1	0x0
21490	chr12	110056739	110057878	+	Yy1	0x0
21491	chr12	110097895	110099975	-	Wars	0x0
21492	chr12	110155900	110157095	+	Wdr25	0x0
21493	chr12	110170599	110171770	+	Wdr25	0x0
21494	chr12	110744999	110746194	-	Rtl1	0x4
21495	chr12	110783946	110785073	+	Meg3	0x5
21496	chr12	110785250	110788427	+	Meg3	0x5
21497	chr12	110790422	110791582	+	Meg3	0x5
21498	chr12	110800578	110801677	+	Meg3	0x5
21499	chr12	110809131	110810363	+	Meg3	0x5
21500	chr12	110809131	110810363	+	Mir673	0x0
21501	chr12	110817191	110820135	+	Mir493	0x0
21502	chr12	110830485	110832661	+	6430411K18Rik	0x0
21503	chr12	110830485	110832661	+	Mir127	0x0
21504	chr12	110832986	110834114	+	Mir136	0x0
21505	chr12	110832986	110834114	+	Mir432	0x0
21506	chr12	110834347	110835628	+	Mir136	0x0
21507	chr12	110841162	110842330	+	Rian	0x4
21508	chr12	110848343	110849484	+	Mir341	0x0
21509	chr12	110849774	110851006	+	Mir1188	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21510	chr12	110849774	110851006	+	Mir341	0x0
21511	chr12	110857983	110859189	+	Rian	0x4
21512	chr12	110862775	110863963	+	Rian	0x4
21513	chr12	110864701	110866427	+	Rian	0x4
21514	chr12	110867530	110868740	+	Rian	0x4
21515	chr12	110870958	110872170	+	AF357425	0x0
21516	chr12	110873086	110874244	+	AF357425	0x0
21517	chr12	110875523	110876710	+	AF357425	0x0
21518	chr12	110877947	110879105	+	Rian	0x4
21519	chr12	110882948	110884900	+	Rian	0x4
21520	chr12	110886878	110889877	+	AF357359	0x0
21521	chr12	110886878	110889877	+	DQ267100	0x0
21522	chr12	110886878	110889877	+	DQ267101	0x0
21523	chr12	110886878	110889877	+	Rian	0x4
21524	chr12	110892007	110893153	+	AF357355	0x0
21525	chr12	110892007	110893153	+	Rian	0x4
21526	chr12	110893507	110894719	+	DQ267102	0x0
21527	chr12	110893507	110894719	+	Rian	0x4
21528	chr12	110898426	110900160	+	Rian	0x4
21529	chr12	110902895	110903997	+	Rian	0x4
21530	chr12	110911283	110912742	+	Mir882	0x0
21531	chr12	110922621	110923771	+	Mir882	0x0
21532	chr12	110932112	110934009	+	Mir882	0x0
21533	chr12	110944476	110945588	+	Mir379	0x0
21534	chr12	110951764	110953745	+	Mir329	0x0
21535	chr12	110951764	110953745	+	Mir494	0x0
21536	chr12	110956237	110957386	+	Mir495	0x0
21537	chr12	110969889	110971069	+	Mir382	0x0
21538	chr12	110971680	110973073	+	Mir134	0x0
21539	chr12	110971680	110973073	+	Mir382	0x0
21540	chr12	110971680	110973073	+	Mir668	0x0
21541	chr12	110977540	110978649	+	Mir377	0x0
21542	chr12	110979782	110981008	+	Mir541	0x0
21543	chr12	110979782	110981008	+	Mirg	0x0
21544	chr12	110981372	110982471	+	Mir369	0x0
21545	chr12	110981372	110982471	+	Mir409	0x0
21546	chr12	110981372	110982471	+	Mir410	0x0
21547	chr12	110981372	110982471	+	Mir412	0x0
21548	chr12	110981372	110982471	+	Mirg	0x0
21549	chr12	111518365	111519502	+	Dio3	0x4
21550	chr12	111687356	111689673	+	Ppp2r5c	0x0
21551	chr12	111703915	111705127	+	Ppp2r5c	0x0
21552	chr12	111733832	111734934	+	Ppp2r5c	0x0
21553	chr12	111751999	111753164	+	Ppp2r5c	0x0
21554	chr12	111760251	111761424	+	Ppp2r5c	0x0
21555	chr12	111769897	111771047	+	Ppp2r5c	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21556	chr12	111783416	111784593	+	Ppp2r5c	0x0
21557	chr12	111808461	111810367	+	Ppp2r5c	0x0
21558	chr12	111818934	111821469	+	Ppp2r5c	0x0
21559	chr12	111854020	111855241	+	Dync1h1	0x0
21560	chr12	111855859	111856963	+	Dync1h1	0x0
21561	chr12	111858001	111859232	+	Dync1h1	0x0
21562	chr12	111866638	111867812	+	Dync1h1	0x0
21563	chr12	111868272	111870494	+	Dync1h1	0x0
21564	chr12	111870511	111871617	+	Dync1h1	0x0
21565	chr12	111871940	111873066	+	Dync1h1	0x0
21566	chr12	111874144	111875244	+	Dync1h1	0x0
21567	chr12	111878276	111879641	+	Dync1h1	0x0
21568	chr12	111886791	111888389	+	Dync1h1	0x0
21569	chr12	111890963	111892966	+	Dync1h1	0x0
21570	chr12	111893123	111894255	+	Dync1h1	0x0
21571	chr12	111894706	111895906	+	Dync1h1	0x0
21572	chr12	111896381	111897482	+	Dync1h1	0x0
21573	chr12	111898881	111899980	+	Dync1h1	0x0
21574	chr12	111900319	111901745	+	Dync1h1	0x0
21575	chr12	111902246	111903483	+	Dync1h1	0x0
21576	chr12	111904278	111905669	+	Dync1h1	0x0
21577	chr12	111928852	111930188	-	Hsp90aa1	0x2
21578	chr12	111930738	111931889	-	Hsp90aa1	0x2
21579	chr12	111932265	111934405	-	Hsp90aa1	0x2
21580	chr12	111987686	111988906	-	Hsp90aa1	0x2
21581	chr12	112017757	112018891	+	Wdr20a	0x0
21582	chr12	112028953	112030141	+	Wdr20a	0x0
21583	chr12	112034681	112035851	+	Wdr20a	0x0
21584	chr12	112111036	112112370	-	Cinp	0x0
21585	chr12	112135779	112136983	+	Tecpr2	0x0
21586	chr12	112177490	112178684	+	Tecpr2	0x0
21587	chr12	112196833	112197995	+	Tecpr2	0x0
21588	chr12	112209673	112210954	+	Tecpr2	0x0
21589	chr12	112213283	112214476	-	Ankrd9	0x0
21590	chr12	112320287	112321488	+	Rcor1	0x0
21591	chr12	112350625	112354223	+	Rcor1	0x0
21592	chr12	112418766	112419912	+	Traf3	0x2
21593	chr12	112475352	112476540	+	Traf3	0x2
21594	chr12	112501278	112503376	+	Traf3	0x2
21595	chr12	112539535	112540883	-	Cdc42bpb	0x2
21596	chr12	112779813	112781953	+	Eif5	0x0
21597	chr12	112782665	112784880	+	Eif5	0x0
21598	chr12	112830296	112831435	+	Mark3	0x0
21599	chr12	112864782	112866639	+	Mark3	0x0
21600	chr12	112866981	112868175	+	Mark3	0x0
21601	chr12	112893411	112894612	+	Mark3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21602	chr12	112907064	112908281	-	Ckb	0x0
21603	chr12	112909093	112910309	-	Ckb	0x0
21604	chr12	112918794	112919927	+	Trmt61a	0x0
21605	chr12	113029830	113031229	+	Klc1	0x0
21606	chr12	113041296	113043021	-	Xrcc3	0x0
21607	chr12	113066180	113067364	-	Ppp1r13b	0x0
21608	chr12	113891778	113892960	-	Akt1	0x2
21609	chr12	113978038	113979323	+	Cep170b	0x0
21610	chr12	113982314	113985293	+	Cep170b	0x0
21611	chr12	114057974	114059709	-	Cdca4	0x0
21612	chr12	114145676	114147226	-	Jag2	0x0
21613	chr12	114204576	114205770	-	Brf1	0x1
21614	chr12	114288069	114289209	+	Pacs2	0x0
21615	chr12	114302017	114303166	+	Pacs2	0x0
21616	chr12	114310029	114312665	+	Pacs2	0x0
21617	chr12	114338333	114339484	+	Mta1	0x2
21618	chr12	114343636	114344782	+	Mta1	0x2
21619	chr12	114345707	114346885	+	Mta1	0x2
21620	chr12	114363203	114364374	+	Mta1	0x2
21621	chr12	114365324	114366442	+	Mta1	0x2
21622	chr12	114374562	114375851	+	Mta1	0x2
21623	chr12	114383051	114384175	+	Crip2	0x0
21624	chr12	114401381	114403718	+	4930427A07Rik	0x0
21625	chr12	114426878	114428089	+	Tmem121	0x0
21626	chr12	115517346	115518524	+	Adam6a	0x0
21627	chr12	116914833	116916046	-	Wdr60	0x0
21628	chr12	117230046	117231294	-	Wdr60	0x0
21629	chr12	117302902	117304054	+	Zfp386	0x0
21630	chr12	117309091	117310194	-	Wdr60	0x0
21631	chr12	117561763	117563128	+	Esyt2	0x0
21632	chr12	117586323	117587494	+	Esyt2	0x0
21633	chr12	117597353	117598508	+	Esyt2	0x0
21634	chr12	117608333	117611749	+	Esyt2	0x0
21635	chr12	117627051	117628689	-	D430020J02Rik	0x0
21636	chr12	117637327	117638560	-	D430020J02Rik	0x0
21637	chr12	117638810	117640500	-	D430020J02Rik	0x0
21638	chr12	117676950	117678102	+	Ncapg2	0x0
21639	chr12	117698877	117701636	+	Ncapg2	0x0
21640	chr12	118514933	118516128	+	Ptprn2	0x0
21641	chr12	118772527	118773665	+	Rapgef5	0x0
21642	chr12	118797542	118798641	+	Rapgef5	0x0
21643	chr12	118907045	118908193	+	Rapgef5	0x0
21644	chr12	118924138	118925298	+	Rapgef5	0x0
21645	chr12	118997005	118998122	+	Rapgef5	0x0
21646	chr12	119086614	119087720	+	Cdca7l	0x0
21647	chr12	119116144	119117307	+	Cdca7l	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21648	chr12	120563041	120564286	-	Itgb8	0x0
21649	chr12	120590537	120591743	+	Macc1	0x0
21650	chr12	120802915	120804091	-	Itgb8	0x0
21651	chr12	121157234	121158469	-	Itgb8	0x0
21652	chr13	3198757	3199969	-	BC016423	0x0
21653	chr13	3297619	3299452	+	Speer6-ps1	0x0
21654	chr13	3426141	3427263	-	BC016423	0x0
21655	chr13	3555191	3556332	+	Gdi2	0x0
21656	chr13	3563948	3565551	+	Gdi2	0x0
21657	chr13	3881679	3884124	-	Net1	0x0
21658	chr13	4569946	4571465	+	Akr1c21	0x0
21659	chr13	6551688	6553012	+	Pitrm1	0x0
21660	chr13	6558778	6560002	+	Pitrm1	0x0
21661	chr13	6564887	6566056	+	Pitrm1	0x0
21662	chr13	6567457	6568566	+	Pitrm1	0x0
21663	chr13	6569738	6570889	+	Pitrm1	0x0
21664	chr13	6573070	6574220	+	Pitrm1	0x0
21665	chr13	6585206	6586345	-	Pfkp	0x2
21666	chr13	6588048	6590152	-	Pfkp	0x2
21667	chr13	6590569	6591631	-	Pfkp	0x2
21668	chr13	6592210	6593375	-	Pfkp	0x2
21669	chr13	6603636	6604851	-	Pfkp	0x2
21670	chr13	6620576	6621813	-	Pfkp	0x2
21671	chr13	6647283	6648478	-	Pfkp	0x2
21672	chr13	8029591	8030817	-	Wdr37	0x0
21673	chr13	8128248	8129398	+	Adarb2	0x2
21674	chr13	8442199	8443406	-	Wdr37	0x0
21675	chr13	8760732	8762179	-	Wdr37	0x0
21676	chr13	8818625	8819770	-	Wdr37	0x0
21677	chr13	8847515	8848719	-	Wdr37	0x0
21678	chr13	8849948	8851121	-	Wdr37	0x0
21679	chr13	8889651	8891089	+	Idi1	0x0
21680	chr13	8971483	8972905	-	Gtpbp4	0x1
21681	chr13	8976058	8977244	-	Gtpbp4	0x1
21682	chr13	8984371	8985507	-	Gtpbp4	0x1
21683	chr13	8986478	8987577	-	Gtpbp4	0x1
21684	chr13	9170064	9173741	+	Larp4b	0x0
21685	chr13	9287395	9288559	+	Dip2c	0x0
21686	chr13	9353810	9355004	+	Dip2c	0x0
21687	chr13	9365004	9366110	+	Dip2c	0x0
21688	chr13	9385351	9386541	-	Zmynd11	0x0
21689	chr13	9413934	9415134	+	Dip2c	0x0
21690	chr13	9665152	9668311	+	Dip2c	0x0
21691	chr13	9683538	9684953	-	Zmynd11	0x0
21692	chr13	9832978	9834312	-	Chrm3	0x0
21693	chr13	10171988	10173162	-	Chrm3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21694	chr13	11724907	11726101	-	Ryr2	0x2
21695	chr13	12275477	12277470	-	Gm10336	0x0
21696	chr13	12277558	12278658	-	Gm10336	0x0
21697	chr13	12281179	12282354	-	Mtr	0x0
21698	chr13	12289629	12290822	-	Mtr	0x0
21699	chr13	12488153	12489242	+	Heatr1	0x0
21700	chr13	12523479	12524679	+	Heatr1	0x0
21701	chr13	12550534	12551724	-	Lgals8	0x0
21702	chr13	12695616	12696774	+	Ero1lb	0x0
21703	chr13	12703794	12705013	-	Gpr137b-ps	0x0
21704	chr13	13366859	13368007	+	Prl2c5	0x0
21705	chr13	13444038	13445179	+	Nid1	0x0
21706	chr13	13446777	13447915	-	Gpr137b	0x0
21707	chr13	13450056	13451205	-	Gpr137b	0x0
21708	chr13	13452084	13453219	-	Gpr137b	0x0
21709	chr13	13559958	13561183	+	Nid1	0x0
21710	chr13	13578463	13579565	+	Nid1	0x0
21711	chr13	13602055	13604639	+	Nid1	0x0
21712	chr13	13822114	13823258	+	Lyst	0x0
21713	chr13	13869535	13870713	+	Lyst	0x0
21714	chr13	14090084	14091744	+	B3galnt2	0x0
21715	chr13	14144119	14145436	-	Ggps1	0x0
21716	chr13	14229164	14230313	+	Arid4b	0x0
21717	chr13	14278561	14279694	+	Arid4b	0x0
21718	chr13	14290147	14291287	+	Arid4b	0x0
21719	chr13	14718286	14719385	+	Psma2	0x0
21720	chr13	15210179	15211454	-	Mrpl32	0x0
21721	chr13	15210359	15212007	+	Gli3	0x6
21722	chr13	15555348	15556491	+	Gli3	0x6
21723	chr13	15556914	15558013	+	Gli3	0x6
21724	chr13	15669268	15670417	+	Gli3	0x6
21725	chr13	15772161	15773338	+	Gli3	0x6
21726	chr13	15818161	15819351	+	Gli3	0x6
21727	chr13	15819498	15820920	+	Gli3	0x6
21728	chr13	15821093	15822306	+	Gli3	0x6
21729	chr13	17789312	17790489	+	Mplkip	0x0
21730	chr13	17797967	17799090	+	Mplkip	0x0
21731	chr13	17801037	17802138	-	Cdk13	0x0
21732	chr13	17808296	17810107	-	Cdk13	0x0
21733	chr13	17864067	17865180	-	Cdk13	0x0
21734	chr13	17889648	17890840	-	Cdk13	0x0
21735	chr13	17972197	17974003	-	Rala	0x0
21736	chr13	18007670	18008984	-	Rala	0x0
21737	chr13	18078449	18079579	-	Yae1d1	0x0
21738	chr13	18871169	18872316	+	Vps41	0x0
21739	chr13	18919166	18920271	+	Vps41	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21740	chr13	18955336	18956512	-	Pou6f2	0x1
21741	chr13	18957746	18959027	+	Vps41	0x0
21742	chr13	19241848	19243175	+	Amph	0x2
21743	chr13	19449326	19450520	-	Stard3nl	0x0
21744	chr13	19683388	19684487	-	Epdr1	0x0
21745	chr13	20375323	20376512	+	Elmo1	0x2
21746	chr13	20472287	20473389	+	Elmo1	0x2
21747	chr13	20542171	20543365	+	Elmo1	0x2
21748	chr13	20582405	20583533	+	Elmo1	0x2
21749	chr13	20606280	20607426	+	Elmo1	0x2
21750	chr13	21030586	21031691	+	Aoah	0x0
21751	chr13	21260976	21262151	-	Olfr1368	0x0
21752	chr13	21278053	21279163	+	Trim27	0x2
21753	chr13	21283545	21284728	+	Trim27	0x2
21754	chr13	21291545	21292776	+	Trim27	0x2
21755	chr13	21306719	21307916	-	Gpx5	0x0
21756	chr13	21478577	21480162	-	Zkscan3	0x0
21757	chr13	21807018	21808227	-	Hist1h2bl	0x0
21758	chr13	21809336	21810549	+	Hist1h3h	0x0
21759	chr13	21826685	21827865	+	Hist1h4j	0x0
21760	chr13	21841475	21842679	-	Hist1h4k	0x0
21761	chr13	21844949	21846023	-	Hist1h2ak	0x0
21762	chr13	21845436	21846603	+	Hist1h2bn	0x0
21763	chr13	21871330	21872991	-	Hist1h1b	0x2
21764	chr13	21887185	21888288	+	Hist1h2bp	0x0
21765	chr13	21946626	21947807	-	Hist1h2ao	0x0
21766	chr13	21974196	21975433	-	Mir1983	0x0
21767	chr13	21988240	21989467	-	Mir1983	0x0
21768	chr13	21998438	21999625	+	Zfp184	0x0
21769	chr13	22006201	22007393	+	Zfp184	0x0
21770	chr13	22032268	22033332	-	Mir1983	0x0
21771	chr13	22085473	22086607	-	Prss16	0x0
21772	chr13	22112442	22113636	-	Prss16	0x0
21773	chr13	22132328	22133715	-	Hist1h4i	0x0
21774	chr13	22141968	22143155	-	Hist1h2ag	0x0
21775	chr13	22404001	22405163	+	Vmn1r197	0x0
21776	chr13	22797954	22799129	-	Vmn1r207-ps	0x0
21777	chr13	23084199	23085306	+	Vmn1r213	0x0
21778	chr13	23445394	23446522	-	Zfp322a	0x0
21779	chr13	23513006	23514152	-	Abt1	0x0
21780	chr13	23517875	23519063	+	Hist1h4h	0x0
21781	chr13	23522766	23523880	+	Hist1h4h	0x0
21782	chr13	23554833	23556057	+	Hist1h4h	0x0
21783	chr13	23591833	23593028	-	Btn2a2	0x0
21784	chr13	23626790	23627939	+	Hist1h3g	0x0
21785	chr13	23634477	23635663	-	Hist1h2bh	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21786	chr13	23635944	23637104	+	Hist1h3f	0x0
21787	chr13	23642636	23643753	-	Hist1h4f	0x0
21788	chr13	23646341	23647557	+	Hist1h1d	0x0
21789	chr13	23662423	23663524	-	Hist1h2ae	0x0
21790	chr13	23662710	23663889	+	Hist1h2bg	0x0
21791	chr13	23672929	23674393	+	Hist1h4d	0x0
21792	chr13	23677233	23678390	-	Hist1h2be	0x2
21793	chr13	23713508	23714918	-	Hist1h1e	0x2
21794	chr13	23775537	23776695	+	Hist1h2bc	0x2
21795	chr13	23784023	23785215	-	Hist1h4c	0x0
21796	chr13	23789411	23790861	-	Hist1h4c	0x0
21797	chr13	23842873	23843980	+	Hist1h2ab	0x0
21798	chr13	23848333	23849661	+	Hist1h4b	0x0
21799	chr13	23852130	23853506	-	Hist1h4a	0x0
21800	chr13	23855217	23856613	+	Hist1h1a	0x0
21801	chr13	24857824	24859035	+	Fam65b	0x0
21802	chr13	24864122	24865291	+	BC005537	0x0
21803	chr13	24892706	24895914	+	BC005537	0x0
21804	chr13	24896220	24898368	+	BC005537	0x0
21805	chr13	24904285	24906101	+	BC005537	0x0
21806	chr13	24909318	24910484	-	Acot13	0x0
21807	chr13	24922664	24923800	-	Acot13	0x0
21808	chr13	24932895	24934222	+	Tdp2	0x0
21809	chr13	25001997	25003194	-	Aldh5a1	0x0
21810	chr13	25078812	25081587	-	Mrs2	0x0
21811	chr13	25674342	25675544	-	Nrsn1	0x0
21812	chr13	25874146	25875295	+	Dcdc2a	0x0
21813	chr13	28349247	28350518	+	Prl5a1	0x0
21814	chr13	28686975	28688188	-	2610307P16Rik	0x0
21815	chr13	28820281	28821515	-	2610307P16Rik	0x0
21816	chr13	28918160	28919269	-	2610307P16Rik	0x0
21817	chr13	29040873	29042027	-	Sox4	0x0
21818	chr13	29042149	29043453	-	Sox4	0x0
21819	chr13	29693403	29694502	-	Cdkal1	0x0
21820	chr13	29695930	29697123	-	Cdkal1	0x0
21821	chr13	29765887	29767121	-	Cdkal1	0x0
21822	chr13	29775894	29776990	-	Cdkal1	0x0
21823	chr13	29931522	29932720	-	Cdkal1	0x0
21824	chr13	29998474	30000461	-	E2f3	0x2
21825	chr13	30000534	30001718	-	E2f3	0x2
21826	chr13	30007615	30008787	-	E2f3	0x2
21827	chr13	30041213	30042412	-	E2f3	0x2
21828	chr13	30046419	30047592	-	E2f3	0x2
21829	chr13	30058040	30059231	-	E2f3	0x2
21830	chr13	30266670	30267827	+	Mboat1	0x0
21831	chr13	30631864	30633761	-	Uqcrfs1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21832	chr13	30905455	30906817	-	Exoc2	0x2
21833	chr13	30968840	30970035	-	Exoc2	0x2
21834	chr13	31762912	31764124	+	Foxf2	0x0
21835	chr13	31991956	31993158	-	Gmds	0x0
21836	chr13	32379180	32380374	-	Gmds	0x0
21837	chr13	33152930	33154165	+	Serpinb9b	0x0
21838	chr13	33658792	33659977	-	Serpinb6e	0x0
21839	chr13	33990720	33991892	-	Serpinb6c	0x0
21840	chr13	34059266	34060463	+	Nqo2	0x0
21841	chr13	34138234	34139350	+	Bphl	0x0
21842	chr13	34143297	34144397	+	Bphl	0x0
21843	chr13	34206019	34207161	-	4930447K03Rik	0x0
21844	chr13	34211109	34212212	-	4930447K03Rik	0x0
21845	chr13	34213972	34216149	-	Tubb2b	0x0
21846	chr13	34218782	34220822	-	Tubb2b	0x0
21847	chr13	34250037	34251213	-	Slc22a23	0x0
21848	chr13	34270999	34272241	-	Slc22a23	0x0
21849	chr13	34435387	34436566	-	Slc22a23	0x0
21850	chr13	34957621	34958772	-	Fam217a	0x0
21851	chr13	34993288	34995230	+	Prpf4b	0x2
21852	chr13	34995544	34996734	+	Prpf4b	0x2
21853	chr13	34997249	34998348	+	Prpf4b	0x2
21854	chr13	35847774	35848892	+	Cdyl	0x2
21855	chr13	35859484	35860650	+	Cdyl	0x2
21856	chr13	35962917	35964095	+	Cdyl	0x2
21857	chr13	35965121	35966413	+	Cdyl	0x2
21858	chr13	35985129	35986260	-	Rpp40	0x0
21859	chr13	36094131	36095230	-	Lyrm4	0x0
21860	chr13	36153685	36154858	-	Lyrm4	0x0
21861	chr13	36298514	36300164	+	Fars2	0x0
21862	chr13	36316868	36318063	+	Fars2	0x0
21863	chr13	36506688	36507834	+	Fars2	0x0
21864	chr13	37193968	37195114	+	Ly86	0x0
21865	chr13	37891483	37892678	+	Rreb1	0x0
21866	chr13	37957457	37958607	+	Rreb1	0x0
21867	chr13	37969941	37971179	+	Rreb1	0x0
21868	chr13	38027298	38029020	+	Rreb1	0x0
21869	chr13	38038103	38039297	+	Rreb1	0x0
21870	chr13	38041312	38042556	+	Rreb1	0x0
21871	chr13	38067385	38071568	-	Ssr1	0x0
21872	chr13	38255302	38256410	+	Dsp	0x0
21873	chr13	38286571	38287732	+	Dsp	0x0
21874	chr13	38581306	38582502	+	Bmp6	0x0
21875	chr13	38591830	38593822	-	Txndc5	0x0
21876	chr13	38601422	38602596	-	Txndc5	0x0
21877	chr13	38610274	38611455	-	Txndc5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21878	chr13	38794588	38795687	+	Bmp6	0x0
21879	chr13	40833787	40834985	-	Tfap2a	0x1
21880	chr13	40986878	40988039	+	Gcnt2	0x0
21881	chr13	40988509	40989679	+	Gcnt2	0x0
21882	chr13	40989869	40991006	+	Gcnt2	0x0
21883	chr13	41054184	41056567	+	Gcnt2	0x0
21884	chr13	41107700	41108849	+	Pak1ip1	0x0
21885	chr13	41117031	41118409	+	Tmem14c	0x0
21886	chr13	41275437	41276536	+	Smim13	0x0
21887	chr13	41278880	41280047	-	Elovl2	0x0
21888	chr13	41369041	41370390	+	Smim13	0x0
21889	chr13	41370576	41371784	+	Smim13	0x0
21890	chr13	41732608	41735305	+	Tmem170b	0x0
21891	chr13	42249840	42250994	+	Hivep1	0x0
21892	chr13	42251333	42252507	+	Hivep1	0x0
21893	chr13	42255303	42256401	+	Hivep1	0x0
21894	chr13	42864409	42865585	+	Phactr1	0x0
21895	chr13	43290772	43292378	-	Gfod1	0x0
21896	chr13	43290852	43292008	+	Phactr1	0x0
21897	chr13	43295739	43296936	-	Gfod1	0x0
21898	chr13	43299685	43300793	+	Phactr1	0x0
21899	chr13	43363418	43364559	-	Gfod1	0x0
21900	chr13	43392134	43393332	-	Gfod1	0x0
21901	chr13	43519846	43521079	-	Ranbp9	0x0
21902	chr13	43529702	43530853	-	Ranbp9	0x0
21903	chr13	43635788	43636887	-	Ccdc90a	0x0
21904	chr13	44356621	44357824	-	A330076C08Rik	0x0
21905	chr13	44443817	44444917	-	A330076C08Rik	0x0
21906	chr13	44454899	44456115	-	A330076C08Rik	0x0
21907	chr13	44839325	44841360	+	Jarid2	0x2
21908	chr13	44844409	44845599	-	Dtnbp1	0x0
21909	chr13	44847694	44848828	+	Jarid2	0x2
21910	chr13	44873626	44874768	+	Jarid2	0x2
21911	chr13	44879983	44881182	+	Jarid2	0x2
21912	chr13	44884510	44885684	+	Jarid2	0x2
21913	chr13	44889866	44890982	+	Jarid2	0x2
21914	chr13	44918245	44919347	+	Jarid2	0x2
21915	chr13	44979528	44980721	+	Jarid2	0x2
21916	chr13	44991250	44992386	+	Jarid2	0x2
21917	chr13	44997098	44998903	+	Jarid2	0x2
21918	chr13	45001114	45002579	+	Jarid2	0x2
21919	chr13	45001307	45002526	-	Dtnbp1	0x0
21920	chr13	45015327	45017438	+	Jarid2	0x2
21921	chr13	45173361	45174460	-	Dtnbp1	0x0
21922	chr13	45505547	45506717	+	Mylip	0x0
21923	chr13	45648630	45649809	-	Atxn1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21924	chr13	45970661	45971859	-	Atxn1	0x0
21925	chr13	46770638	46771751	+	C78339	0x0
21926	chr13	46771862	46773720	+	C78339	0x0
21927	chr13	46775455	46777566	-	Nup153	0x0
21928	chr13	46781775	46782953	-	Nup153	0x0
21929	chr13	46784014	46785213	-	Nup153	0x0
21930	chr13	46802603	46803715	-	Nup153	0x0
21931	chr13	46844107	46845510	-	Kif13a	0x0
21932	chr13	46854993	46856092	-	Kif13a	0x0
21933	chr13	46862368	46863532	-	Kif13a	0x0
21934	chr13	46866070	46867255	-	Kif13a	0x0
21935	chr13	46979892	46981015	-	Kif13a	0x0
21936	chr13	47009834	47010942	-	Kif13a	0x0
21937	chr13	47179653	47181885	-	Dek	0x2
21938	chr13	47200912	47202120	-	Dek	0x2
21939	chr13	47996093	47997306	+	G630093K05Rik	0x0
21940	chr13	48000412	48001687	+	G630093K05Rik	0x0
21941	chr13	48582239	48583476	-	Zfp169	0x0
21942	chr13	48636145	48637351	-	Mirlet7a-1	0x1
21943	chr13	48673693	48674857	-	Ptpdc1	0x0
21944	chr13	48801453	48802633	+	Barx1	0x0
21945	chr13	48902441	48903617	-	Phf2	0x0
21946	chr13	48916157	48917347	-	Phf2	0x0
21947	chr13	48920890	48922100	-	Phf2	0x0
21948	chr13	48974116	48976041	-	Fam120a	0x1
21949	chr13	48980144	48981278	-	Fam120a	0x1
21950	chr13	48986743	48988250	-	Fam120a	0x1
21951	chr13	48992524	48993631	-	Fam120a	0x1
21952	chr13	48999880	49001907	-	Fam120a	0x1
21953	chr13	49004955	49006059	-	Fam120a	0x1
21954	chr13	49022488	49023703	-	Fam120a	0x1
21955	chr13	49043933	49045144	-	Fam120a	0x1
21956	chr13	49168216	49169370	-	Wnk2	0x1
21957	chr13	49230443	49231628	-	Wnk2	0x1
21958	chr13	49479237	49480456	+	Bicd2	0x0
21959	chr13	49481633	49482825	+	Bicd2	0x0
21960	chr13	49520269	49521462	+	Ippk	0x0
21961	chr13	49669949	49671104	-	Cenpp	0x0
21962	chr13	49745244	49746417	-	Cenpp	0x0
21963	chr13	49779257	49780355	+	Iars	0x0
21964	chr13	49783089	49784250	+	Iars	0x0
21965	chr13	49785269	49786368	+	Iars	0x0
21966	chr13	49799119	49800263	+	Iars	0x0
21967	chr13	49809964	49811128	+	Iars	0x0
21968	chr13	49817008	49818694	+	Iars	0x0
21969	chr13	49824901	49825969	+	Iars	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
21970	chr13	49828754	49830836	+	Iars	0x0
21971	chr13	51245044	51248143	+	Spin1	0x0
21972	chr13	51297693	51298893	-	9430083A17Rik	0x0
21973	chr13	51515340	51516536	+	S1pr3	0x0
21974	chr13	51778501	51779627	+	Secisbp2	0x0
21975	chr13	51796681	51798574	-	Sema4d	0x0
21976	chr13	51799905	51801094	-	Sema4d	0x0
21977	chr13	52687393	52688600	+	Syk	0x1
21978	chr13	52742180	52743947	+	Syk	0x1
21979	chr13	53016023	53017180	-	Auh	0x0
21980	chr13	53212516	53213618	-	Ror2	0x0
21981	chr13	53239547	53240689	-	Ror2	0x0
21982	chr13	53288978	53290102	-	Ror2	0x0
21983	chr13	53314149	53315366	-	Ror2	0x0
21984	chr13	53352967	53354076	-	Ror2	0x0
21985	chr13	53361128	53362261	-	Ror2	0x0
21986	chr13	53427605	53429566	-	Sptlc1	0x0
21987	chr13	54174431	54175598	+	Sfxn1	0x0
21988	chr13	54187831	54188998	+	Sfxn1	0x0
21989	chr13	54202256	54204175	+	Sfxn1	0x0
21990	chr13	54560058	54561467	-	Thoc3	0x0
21991	chr13	54600463	54601647	-	Thoc3	0x0
21992	chr13	54651804	54653148	+	Simc1	0x0
21993	chr13	54652150	54654310	-	4833439L19Rik	0x0
21994	chr13	54682633	54684690	+	Arl10	0x0
21995	chr13	54685836	54687000	-	Nop16	0x0
21996	chr13	54762331	54765438	+	Faf2	0x0
21997	chr13	54780440	54783288	-	Rnf44	0x0
21998	chr13	54895904	54897007	+	Tspan17	0x0
21999	chr13	54897222	54898653	+	Tspan17	0x0
22000	chr13	55170554	55171720	-	Uimc1	0x0
22001	chr13	55193978	55195127	-	Uimc1	0x0
22002	chr13	55234509	55236326	+	Zfp346	0x0
22003	chr13	55346399	55349493	+	Nsd1	0x2
22004	chr13	55369313	55370436	+	Nsd1	0x2
22005	chr13	55392103	55393205	+	Nsd1	0x2
22006	chr13	55403646	55405331	+	Nsd1	0x2
22007	chr13	55406413	55407610	+	Nsd1	0x2
22008	chr13	55407840	55408895	+	Nsd1	0x2
22009	chr13	55415824	55418448	+	Nsd1	0x2
22010	chr13	55418883	55420001	+	Nsd1	0x2
22011	chr13	55420774	55421972	-	Rab24	0x2
22012	chr13	55422941	55424154	-	Rab24	0x2
22013	chr13	55423693	55424877	+	Prelid1	0x0
22014	chr13	55445300	55448105	-	Lman2	0x0
22015	chr13	55553979	55555070	+	Grk6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22016	chr13	55555414	55556540	+	Grk6	0x0
22017	chr13	55561205	55562799	+	Grk6	0x0
22018	chr13	55574625	55575828	-	Dbn1	0x2
22019	chr13	55584858	55585999	+	Prr7	0x0
22020	chr13	55607622	55608835	-	Pdlim7	0x0
22021	chr13	55646038	55647228	-	Fam193b	0x0
22022	chr13	55694105	55695322	+	Tmed9	0x0
22023	chr13	55697821	55699454	+	Tmed9	0x0
22024	chr13	55764671	55765770	+	Ddx46	0x0
22025	chr13	55774828	55775955	+	Ddx46	0x0
22026	chr13	55779997	55781728	+	Ddx46	0x0
22027	chr13	55781917	55783050	+	Ddx46	0x0
22028	chr13	55800382	55801503	+	B230219D22Rik	0x0
22029	chr13	55802678	55804148	+	B230219D22Rik	0x0
22030	chr13	55826705	55828148	+	Txndc15	0x0
22031	chr13	55831749	55832941	-	Pitx1	0x0
22032	chr13	56182309	56183427	-	H2afy	0x0
22033	chr13	56190425	56191599	-	H2afy	0x0
22034	chr13	56192679	56193828	-	H2afy	0x0
22035	chr13	56196168	56197294	-	H2afy	0x0
22036	chr13	56201226	56202407	-	H2afy	0x0
22037	chr13	56267238	56268396	-	Tifab	0x0
22038	chr13	56383674	56384837	+	Gm10782	0x0
22039	chr13	56421955	56423148	+	Gm10782	0x0
22040	chr13	56838790	56843813	+	Smad5	0x0
22041	chr13	57904469	57905645	-	Spock1	0x0
22042	chr13	58226728	58228373	-	Hnrnpa0	0x0
22043	chr13	58277239	58279600	-	Ubqln1	0x0
22044	chr13	58284009	58285184	-	Ubqln1	0x0
22045	chr13	58288719	58289883	-	Ubqln1	0x0
22046	chr13	58292546	58294126	-	Ubqln1	0x0
22047	chr13	58294256	58295405	-	Ubqln1	0x0
22048	chr13	58376628	58377775	+	Idnk	0x0
22049	chr13	58492105	58493921	-	Hnrnpk	0x0
22050	chr13	58500959	58502155	-	Hnrnpk	0x0
22051	chr13	58510646	58511834	+	Rmi1	0x0
22052	chr13	58540622	58541864	-	Hnrnpk	0x0
22053	chr13	59546985	59548169	-	Agtpbp1	0x0
22054	chr13	59625837	59627049	-	Agtpbp1	0x0
22055	chr13	59637097	59638235	-	Agtpbp1	0x0
22056	chr13	59683628	59684815	-	A230056J06Rik	0x0
22057	chr13	59731485	59732622	+	Naa35	0x0
22058	chr13	59736006	59738396	-	Golm1	0x0
22059	chr13	59856742	59857875	-	Isca1	0x0
22060	chr13	59873105	59874463	-	Zcchc6	0x0
22061	chr13	59915690	59916897	-	Zcchc6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22062	chr13	60276847	60278002	-	Gas1	0x1
22063	chr13	60734624	60735793	+	Dapk1	0x1
22064	chr13	60763238	60764441	+	Dapk1	0x1
22065	chr13	60772187	60773336	+	Dapk1	0x1
22066	chr13	60862689	60864456	+	Dapk1	0x1
22067	chr13	61811607	61812810	-	Cts3	0x0
22068	chr13	61838524	61839672	+	BC052688	0x0
22069	chr13	61847187	61848408	+	BC052688	0x0
22070	chr13	61888936	61890070	+	BC052688	0x0
22071	chr13	61962618	61963795	+	BC052688	0x0
22072	chr13	62146750	62147852	+	Zfp808	0x0
22073	chr13	62234627	62235822	+	Zfp808	0x0
22074	chr13	62241165	62242415	+	Zfp808	0x0
22075	chr13	62244458	62245608	+	Zfp808	0x0
22076	chr13	62276016	62278098	+	Zfp808	0x0
22077	chr13	62283074	62284188	+	Zfp808	0x0
22078	chr13	62433264	62434425	-	Gm3604	0x0
22079	chr13	62551956	62553157	-	Zfp935	0x0
22080	chr13	62608810	62610013	-	Zfp934	0x0
22081	chr13	62617885	62619191	-	Zfp934	0x0
22082	chr13	62654232	62655378	-	Zfp934	0x0
22083	chr13	62770379	62771530	-	6720489N17Rik	0x2
22084	chr13	62797818	62798973	-	6720489N17Rik	0x2
22085	chr13	62842761	62843940	-	Gm5141	0x0
22086	chr13	62844097	62845290	-	Gm5141	0x0
22087	chr13	63387804	63388952	+	2010111I01Rik	0x0
22088	chr13	63412889	63414173	-	Fancc	0x2
22089	chr13	63476328	63477457	-	Fancc	0x2
22090	chr13	63498851	63500055	-	Fancc	0x2
22091	chr13	63609138	63612034	-	Ptch1	0x1
22092	chr13	63627903	63629118	-	Ptch1	0x1
22093	chr13	63644460	63645676	-	Ptch1	0x1
22094	chr13	63948106	63949243	+	Ercc6l2	0x0
22095	chr13	63976433	63977551	+	Ercc6l2	0x0
22096	chr13	64004928	64006076	+	Ercc6l2	0x0
22097	chr13	64046803	64047908	-	Hsd17b3	0x0
22098	chr13	64235330	64236523	-	Zfp367	0x0
22099	chr13	64293679	64294846	-	Cdc14b	0x0
22100	chr13	64295489	64300500	-	Cdc14b	0x0
22101	chr13	64310661	64311845	-	Cdc14b	0x0
22102	chr13	64391042	64392383	-	Aaed1	0x0
22103	chr13	64392930	64394029	-	Aaed1	0x0
22104	chr13	64464125	64465224	-	Ctsl	0x0
22105	chr13	64467257	64468398	-	Ctsl	0x0
22106	chr13	64468698	64469797	-	Ctsl	0x0
22107	chr13	65015046	65016198	+	Spata31	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22108	chr13	65166072	65168064	-	Hiatl1	0x0
22109	chr13	65172907	65180500	-	Hiatl1	0x0
22110	chr13	65288302	65289495	-	Nlrp4f	0x0
22111	chr13	65351918	65353070	+	Zfp369	0x0
22112	chr13	65392755	65393865	-	Nlrp4f	0x0
22113	chr13	65397229	65398387	+	Zfp369	0x0
22114	chr13	65401770	65402883	+	Zfp369	0x0
22115	chr13	65437583	65438910	-	Nlrp4f	0x0
22116	chr13	65760713	65761918	+	Zfp369	0x0
22117	chr13	66062499	66063676	+	Gm10324	0x0
22118	chr13	66108098	66109291	-	2410141K09Rik	0x0
22119	chr13	66109535	66110835	+	Gm10324	0x0
22120	chr13	66110984	66120500	+	Gm10324	0x0
22121	chr13	66312447	66313645	+	Gm10324	0x0
22122	chr13	66357844	66358977	-	2410141K09Rik	0x0
22123	chr13	66536596	66537804	-	2410141K09Rik	0x0
22124	chr13	66677341	66678537	+	Gm10767	0x0
22125	chr13	66974822	66975973	+	Gm10767	0x0
22126	chr13	67097663	67099308	+	Ptdss1	0x0
22127	chr13	67198350	67199543	-	Rslcan18	0x0
22128	chr13	67198350	67199543	-	Zfp708	0x0
22129	chr13	67351268	67352456	-	Zfp458	0x0
22130	chr13	67414695	67415801	-	Zfp595	0x0
22131	chr13	67439987	67441344	-	Zfp953	0x0
22132	chr13	67441419	67442610	-	Zfp953	0x0
22133	chr13	67506771	67508955	-	Zfp459	0x0
22134	chr13	67512286	67513470	-	Zfp459	0x0
22135	chr13	67616566	67617732	-	Zfp87	0x0
22136	chr13	67690514	67691677	-	AA987161	0x0
22137	chr13	67747139	67748301	+	4930441O14Rik	0x0
22138	chr13	67911028	67912319	+	Zfp273	0x0
22139	chr13	67966279	67967409	+	BC048507	0x0
22140	chr13	68699764	68700966	-	Mtrr	0x0
22141	chr13	69636495	69638728	-	Papd7	0x0
22142	chr13	69657233	69658403	-	Papd7	0x0
22143	chr13	69750463	69752456	+	Nsun2	0x0
22144	chr13	69767989	69769098	+	Nsun2	0x0
22145	chr13	69772430	69773717	+	Nsun2	0x0
22146	chr13	69776223	69777320	+	Nsun2	0x0
22147	chr13	70560262	70561414	-	BC018507	0x0
22148	chr13	70727186	70728450	-	BC018507	0x0
22149	chr13	70737363	70738579	-	BC018507	0x0
22150	chr13	70739379	70740596	-	BC018507	0x0
22151	chr13	73456797	73458044	-	Ndufs6	0x0
22152	chr13	73617416	73618528	+	Lpcat1	0x0
22153	chr13	73625810	73626984	+	Lpcat1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22154	chr13	73651565	73654086	+	Lpcat1	0x0
22155	chr13	73757400	73758532	+	Clptm1l	0x0
22156	chr13	73763399	73764494	+	Tert	0x2
22157	chr13	73767999	73769123	+	Tert	0x2
22158	chr13	73773950	73775081	+	Tert	0x2
22159	chr13	73788961	73790168	+	Tert	0x2
22160	chr13	73917679	73918877	+	Slc12a7	0x0
22161	chr13	73937908	73939057	+	Slc12a7	0x0
22162	chr13	73939992	73941111	+	Slc12a7	0x0
22163	chr13	73952265	73954467	+	Slc12a7	0x0
22164	chr13	74043192	74044297	-	Trip13	0x0
22165	chr13	74049615	74050897	-	Trip13	0x0
22166	chr13	74446585	74447823	-	Pdcd6	0x3
22167	chr13	74459289	74460962	-	Sdha	0x1
22168	chr13	74495510	74496677	+	Ccdc127	0x0
22169	chr13	74543733	74545041	+	Ccdc127	0x0
22170	chr13	74570081	74571276	-	Zfp825	0x0
22171	chr13	74617040	74618233	-	Zfp825	0x0
22172	chr13	74734491	74735707	-	Cast	0x0
22173	chr13	74741373	74742558	-	Cast	0x0
22174	chr13	74742841	74744033	-	Cast	0x0
22175	chr13	74862294	74863413	-	Cast	0x0
22176	chr13	74904463	74905720	-	Cast	0x0
22177	chr13	75781885	75783163	+	Mir682	0x0
22178	chr13	75844462	75845684	+	Ell2	0x0
22179	chr13	75849243	75850392	+	Ell2	0x0
22180	chr13	75893351	75894499	+	Ell2	0x0
22181	chr13	75905051	75906202	+	Ell2	0x0
22182	chr13	75908551	75910249	+	Ell2	0x0
22183	chr13	75986897	75988098	+	Glrx	0x0
22184	chr13	76091429	76092536	+	Spata9	0x0
22185	chr13	76136375	76137490	-	Rfesd	0x0
22186	chr13	76205767	76206916	-	Arsk	0x0
22187	chr13	76324575	76325674	+	Ttc37	0x0
22188	chr13	76327786	76328885	+	Ttc37	0x0
22189	chr13	77205663	77206853	-	Ankrd32	0x0
22190	chr13	77336996	77338097	+	2210408I21Rik	0x0
22191	chr13	77339356	77342005	+	2210408I21Rik	0x0
22192	chr13	77911124	77912232	+	Fam172a	0x0
22193	chr13	78220852	78221999	+	Pou5f2	0x0
22194	chr13	78263025	78264201	+	Fam172a	0x0
22195	chr13	78303197	78305614	+	Fam172a	0x0
22196	chr13	78334155	78335323	-	Nr2f1	0x0
22197	chr13	80843613	80844957	+	Arrdc3	0x0
22198	chr13	81204478	81205697	+	9330111N05Rik	0x0
22199	chr13	81671900	81673112	-	Gpr98	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22200	chr13	81706840	81709128	-	Gpr98	0x0
22201	chr13	81809392	81810529	+	Lysmd3	0x0
22202	chr13	81812487	81815221	-	Polr3g	0x0
22203	chr13	82632347	82633516	-	Polr3g	0x0
22204	chr13	83971886	83973082	+	2810049E08Rik	0x0
22205	chr13	84376534	84377730	+	Tmem161b	0x0
22206	chr13	84419189	84420424	+	Tmem161b	0x0
22207	chr13	84421634	84422801	+	Tmem161b	0x0
22208	chr13	84434195	84435338	+	Tmem161b	0x0
22209	chr13	85336553	85337658	+	Ccnh	0x0
22210	chr13	85341360	85342560	+	Ccnh	0x0
22211	chr13	85354786	85355935	-	Rasa1	0x2
22212	chr13	86004143	86005370	-	Cox7c	0x0
22213	chr13	86183917	86186001	-	Cox7c	0x0
22214	chr13	87220423	87221485	-	Cox7c	0x0
22215	chr13	88967713	88968911	+	Edil3	0x0
22216	chr13	89716364	89717535	-	Vcan	0x0
22217	chr13	89794664	89795719	-	Vcan	0x0
22218	chr13	89796048	89797183	-	Vcan	0x0
22219	chr13	89851117	89852287	-	Vcan	0x0
22220	chr13	90030961	90032170	-	Xrcc4	0x0
22221	chr13	90072326	90073438	-	Xrcc4	0x0
22222	chr13	90129662	90130874	-	Xrcc4	0x0
22223	chr13	90246133	90247542	+	Tmem167	0x0
22224	chr13	91074926	91076149	-	Atg10	0x0
22225	chr13	91318448	91319693	-	Atg10	0x0
22226	chr13	91401527	91402720	-	Atg10	0x0
22227	chr13	91839911	91841107	+	Ssbp2	0x0
22228	chr13	93055267	93056465	-	Msh3	0x2
22229	chr13	93058824	93059946	-	Msh3	0x2
22230	chr13	93137843	93138945	+	Dhfr	0x0
22231	chr13	93142045	93143206	+	Dhfr	0x0
22232	chr13	93481311	93482426	+	Serinc5	0x0
22233	chr13	94151566	94152716	+	Homer1	0x0
22234	chr13	94173003	94175190	+	Homer1	0x0
22235	chr13	94181219	94182382	+	Homer1	0x0
22236	chr13	94199676	94200853	-	Jmy	0x0
22237	chr13	94201436	94202729	-	Jmy	0x0
22238	chr13	94710996	94712145	+	Arsb	0x0
22239	chr13	94971009	94973092	-	Scamp1	0x0
22240	chr13	95206477	95207640	+	Ap3b1	0x0
22241	chr13	95225098	95226279	+	Ap3b1	0x0
22242	chr13	95255719	95256816	+	Ap3b1	0x0
22243	chr13	95296401	95297642	+	Ap3b1	0x0
22244	chr13	95335547	95336784	+	Ap3b1	0x0
22245	chr13	95383512	95384686	+	Ap3b1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22246	chr13	95612064	95613239	+	Tbca	0x0
22247	chr13	95791671	95793537	+	Wdr41	0x0
22248	chr13	95799335	95800478	+	Wdr41	0x0
22249	chr13	95877157	95878383	-	Pde8b	0x0
22250	chr13	96101855	96103017	+	Snora47	0x0
22251	chr13	96120146	96121465	-	Aggf1	0x0
22252	chr13	96281069	96283845	-	F2rl1	0x0
22253	chr13	96372219	96373535	-	F2r	0x0
22254	chr13	97372453	97373650	+	Col4a3bp	0x0
22255	chr13	97388420	97389603	+	Col4a3bp	0x0
22256	chr13	97406449	97407539	+	Col4a3bp	0x0
22257	chr13	97408557	97410459	+	Col4a3bp	0x0
22258	chr13	97418645	97420941	-	Hmgcr	0x0
22259	chr13	97430099	97431241	-	Hmgcr	0x0
22260	chr13	97857198	97858396	+	Fam169a	0x0
22261	chr13	97861108	97862486	+	Fam169a	0x0
22262	chr13	97863509	97864646	+	Fam169a	0x0
22263	chr13	97868052	97869629	-	Nsa2	0x0
22264	chr13	97872204	97873398	+	Fam169a	0x0
22265	chr13	97880738	97881924	+	Fam169a	0x0
22266	chr13	97886152	97887287	+	Fam169a	0x0
22267	chr13	97897023	97898877	+	Fam169a	0x0
22268	chr13	97955464	97956584	-	Hexb	0x0
22269	chr13	98021976	98023118	+	Enc1	0x0
22270	chr13	98255721	98256771	+	Gm5086	0x0
22271	chr13	98257627	98260339	+	Gm5086	0x0
22272	chr13	98263120	98264216	+	Gm5086	0x0
22273	chr13	98264539	98268359	+	Gm5086	0x0
22274	chr13	98268760	98269830	+	Gm5086	0x0
22275	chr13	98278569	98279678	+	Gm5086	0x0
22276	chr13	98279953	98282887	+	Gm5086	0x0
22277	chr13	98529823	98531030	-	Arhgef28	0x0
22278	chr13	98561767	98562962	-	Arhgef28	0x0
22279	chr13	98698374	98699539	-	Arhgef28	0x0
22280	chr13	99016948	99019193	-	Utp15	0x0
22281	chr13	99492929	99495246	-	Fcho2	0x0
22282	chr13	99504677	99505981	-	Fcho2	0x0
22283	chr13	99517596	99518760	-	Fcho2	0x0
22284	chr13	99520041	99521248	-	Fcho2	0x0
22285	chr13	99526296	99527465	-	Fcho2	0x0
22286	chr13	99569637	99570831	-	Fcho2	0x0
22287	chr13	99608485	99610878	-	Tnpo1	0x2
22288	chr13	99611742	99614201	-	Tnpo1	0x2
22289	chr13	99624850	99626071	-	Tnpo1	0x2
22290	chr13	99633062	99634313	-	Tnpo1	0x2
22291	chr13	99648042	99649219	-	Tnpo1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22292	chr13	99659587	99660757	-	Tnpo1	0x2
22293	chr13	99671781	99672975	-	Tnpo1	0x2
22294	chr13	99876037	99877148	+	Zfp366	0x1
22295	chr13	99888689	99889842	+	Zfp366	0x1
22296	chr13	100101747	100102968	-	Ptcd2	0x0
22297	chr13	100184416	100186031	+	Mrps27	0x0
22298	chr13	100191118	100194386	-	Map1b	0x2
22299	chr13	100194776	100195926	-	Map1b	0x2
22300	chr13	100203061	100204195	-	Map1b	0x2
22301	chr13	100758512	100760822	-	Mccc2	0x0
22302	chr13	100788229	100790629	-	Bdp1	0x0
22303	chr13	100819260	100820449	-	Bdp1	0x0
22304	chr13	100822408	100823532	-	Bdp1	0x0
22305	chr13	100861477	100862613	-	Bdp1	0x0
22306	chr13	101229472	101230665	-	Naip1	0x0
22307	chr13	101267632	101268845	-	Ocln	0x0
22308	chr13	101386754	101388007	-	Marveld2	0x0
22309	chr13	101386754	101388007	-	Rad17	0x0
22310	chr13	101468066	101469210	-	Cdk7	0x0
22311	chr13	101469252	101471894	-	Cdk7	0x0
22312	chr13	101472411	101473596	-	Cdk7	0x0
22313	chr13	101540940	101542120	-	Cenph	0x0
22314	chr13	101548193	101549677	-	Ccnb1	0x0
22315	chr13	101594915	101596055	-	Slc30a5	0x0
22316	chr13	102452092	102453224	-	Pik3r1	0x2
22317	chr13	103755988	103757246	-	Mast4	0x0
22318	chr13	104111909	104113101	-	Mast4	0x0
22319	chr13	104146904	104148058	+	Cd180	0x0
22320	chr13	104509310	104510491	+	Sgtb	0x0
22321	chr13	104531165	104533366	-	Srek1	0x0
22322	chr13	104540792	104541927	-	Srek1	0x0
22323	chr13	104571002	104572195	-	Srek1	0x0
22324	chr13	104813357	104814526	-	Nln	0x2
22325	chr13	104930201	104932472	+	Sgtb	0x0
22326	chr13	104933259	104934500	-	Trappc13	0x0
22327	chr13	105220539	105221743	-	Cwc27	0x0
22328	chr13	105589247	105590421	-	Cwc27	0x0
22329	chr13	105627378	105629144	+	Srek1ip1	0x0
22330	chr13	107584483	107586060	-	Ipo11	0x0
22331	chr13	107667758	107668939	-	Ipo11	0x0
22332	chr13	107685324	107686503	-	Ipo11	0x0
22333	chr13	107699817	107701002	-	Ipo11	0x0
22334	chr13	107749276	107752173	-	Kif2a	0x0
22335	chr13	108620398	108621559	-	Zswim6	0x0
22336	chr13	108837834	108839439	+	Smim15	0x0
22337	chr13	108881129	108882328	-	Ndufaf2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22338	chr13	108984091	108985169	+	Ercc8	0x0
22339	chr13	109106225	109107439	+	Depdc1b	0x0
22340	chr13	109151877	109153077	+	Depdc1b	0x0
22341	chr13	109460448	109462168	+	Pde4d	0x0
22342	chr13	110015004	110016105	+	Mir582	0x0
22343	chr13	110023178	110024357	+	Mir582	0x0
22344	chr13	110178367	110179511	+	Mir582	0x0
22345	chr13	110213262	110214501	+	Mir582	0x0
22346	chr13	110567226	110568333	+	Pde4d	0x0
22347	chr13	110742527	110743955	+	Pde4d	0x0
22348	chr13	110744633	110745814	+	Pde4d	0x0
22349	chr13	112215445	112217133	-	Gpbp1	0x0
22350	chr13	112505864	112508673	+	Mier3	0x2
22351	chr13	112536621	112538913	-	Map3k1	0x2
22352	chr13	113252383	113253575	-	Il31ra	0x0
22353	chr13	113268241	113269371	+	Il6st	0x2
22354	chr13	113271182	113272321	+	Il6st	0x2
22355	chr13	113285664	113286768	+	Il6st	0x2
22356	chr13	113294812	113297609	+	Il6st	0x2
22357	chr13	113298268	113299329	+	Il6st	0x2
22358	chr13	113367909	113369099	-	Il31ra	0x0
22359	chr13	113523526	113525247	+	Slc38a9	0x0
22360	chr13	113591895	113593119	+	Ppap2a	0x1
22361	chr13	113594999	113596870	+	Ppap2a	0x1
22362	chr13	113612310	113613495	+	Ppap2a	0x1
22363	chr13	113643913	113645085	+	Ppap2a	0x1
22364	chr13	113658685	113659880	-	Skiv2l2	0x0
22365	chr13	113670710	113671892	-	Skiv2l2	0x0
22366	chr13	113688473	113689607	-	Skiv2l2	0x0
22367	chr13	113701819	113703013	-	Skiv2l2	0x0
22368	chr13	114107540	114108713	+	Esm1	0x0
22369	chr13	114143083	114144183	+	Esm1	0x0
22370	chr13	114159031	114161026	+	Esm1	0x0
22371	chr13	114382026	114385240	-	Snx18	0x0
22372	chr13	114388306	114389462	-	Snx18	0x0
22373	chr13	114510794	114511960	+	Arl15	0x0
22374	chr13	114625102	114626231	+	Arl15	0x0
22375	chr13	114678361	114679460	+	Arl15	0x0
22376	chr13	114704223	114705426	+	Arl15	0x0
22377	chr13	114716027	114717233	+	Arl15	0x0
22378	chr13	114759909	114761042	+	Arl15	0x0
22379	chr13	114810916	114812062	+	Arl15	0x0
22380	chr13	114946527	114947751	+	Arl15	0x0
22381	chr13	115119289	115120469	-	Ndufs4	0x0
22382	chr13	115131385	115132597	-	Ndufs4	0x0
22383	chr13	115618055	115619456	+	Mocs2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22384	chr13	118009786	118010988	+	Emb	0x0
22385	chr13	118024266	118025433	+	Emb	0x0
22386	chr13	118052667	118053859	+	Emb	0x0
22387	chr13	118062007	118063108	+	Emb	0x0
22388	chr13	118065668	118066868	+	Emb	0x0
22389	chr13	119168430	119169883	-	Mrps30	0x0
22390	chr13	119174958	119176089	-	Mrps30	0x0
22391	chr13	119577806	119579030	+	Fgf10	0x0
22392	chr13	120123898	120125228	-	Nnt	0x0
22393	chr13	120154182	120155332	+	Paip1	0x0
22394	chr13	120225007	120226175	+	Paip1	0x0
22395	chr13	120252581	120253793	+	4833420G17Rik	0x0
22396	chr14	3272280	3273477	-	LOC100861615	0x0
22397	chr14	8693358	8694553	+	Flnb	0x2
22398	chr14	8710957	8712114	+	Flnb	0x2
22399	chr14	8741621	8742777	+	Flnb	0x2
22400	chr14	8751118	8752322	+	Flnb	0x2
22401	chr14	8755491	8756623	+	Flnb	0x2
22402	chr14	8760986	8762131	+	Flnb	0x2
22403	chr14	8782642	8784623	+	Flnb	0x2
22404	chr14	9242053	9243176	+	Kctd6	0x0
22405	chr14	9263303	9264627	-	4930452B06Rik	0x0
22406	chr14	9415101	9416253	-	4930452B06Rik	0x0
22407	chr14	9440059	9441488	-	4930452B06Rik	0x0
22408	chr14	9455147	9456853	-	4930452B06Rik	0x0
22409	chr14	9459220	9460319	-	4930452B06Rik	0x0
22410	chr14	9576891	9578089	-	4930452B06Rik	0x0
22411	chr14	9631314	9633138	-	4930452B06Rik	0x0
22412	chr14	10788244	10789441	-	Fhit	0x1
22413	chr14	12437555	12438664	+	Ptprg	0x0
22414	chr14	12450655	12451798	+	Ptprg	0x0
22415	chr14	12457382	12458481	+	Ptprg	0x0
22416	chr14	12482368	12483467	+	Ptprg	0x0
22417	chr14	12491299	12492463	+	Ptprg	0x0
22418	chr14	12512889	12514059	+	Ptprg	0x0
22419	chr14	12554095	12555200	+	Ptprg	0x0
22420	chr14	12602696	12603846	+	Ptprg	0x0
22421	chr14	12606482	12607631	+	Ptprg	0x0
22422	chr14	12614980	12616169	+	Ptprg	0x0
22423	chr14	12622575	12623775	+	Ptprg	0x0
22424	chr14	12630091	12631263	-	Fezf2	0x0
22425	chr14	12630579	12631779	+	Ptprg	0x0
22426	chr14	12650913	12652025	+	Ptprg	0x0
22427	chr14	12692218	12693459	+	Ptprg	0x0
22428	chr14	12718159	12719317	+	Ptprg	0x0
22429	chr14	12751305	12752454	+	Ptprg	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22430	chr14	12986098	12987260	+	Ptprg	0x0
22431	chr14	13058312	13059453	+	Ptprg	0x0
22432	chr14	13070312	13071469	+	Ptprg	0x0
22433	chr14	14781060	14782235	-	Thoc7	0x0
22434	chr14	15545906	15547023	+	Slc4a7	0x0
22435	chr14	15628575	15632671	+	Slc4a7	0x0
22436	chr14	17073718	17074936	-	Oxsm	0x0
22437	chr14	17105699	17106855	+	Ngly1	0x0
22438	chr14	17197198	17198335	+	Top2b	0x0
22439	chr14	17215757	17216981	+	Top2b	0x0
22440	chr14	17241830	17243016	+	Top2b	0x0
22441	chr14	17245677	17246778	+	Top2b	0x0
22442	chr14	18790198	18791393	+	Thrb	0x1
22443	chr14	19036401	19037596	-	Nr1d2	0x0
22444	chr14	19047283	19048454	-	Nr1d2	0x0
22445	chr14	19063319	19064469	+	Nkiras1	0x0
22446	chr14	19099966	19101931	-	Rpl15	0x0
22447	chr14	19114028	19115141	+	Nkiras1	0x0
22448	chr14	19114874	19116195	-	Ube2e1	0x0
22449	chr14	19364310	19365460	+	Nkiras1	0x0
22450	chr14	19378813	19380052	+	Nkiras1	0x0
22451	chr14	19629315	19630515	-	Ube2e2	0x0
22452	chr14	19661924	19663136	-	Ube2e2	0x0
22453	chr14	19675298	19676482	-	Ube2e2	0x0
22454	chr14	19992532	19993652	-	Ube2e2	0x0
22455	chr14	20609003	20610069	+	Nid2	0x0
22456	chr14	20610175	20611324	+	Nid2	0x0
22457	chr14	20621792	20622937	+	Nid2	0x0
22458	chr14	20624021	20625761	+	Nid2	0x0
22459	chr14	20629693	20631426	+	Nid2	0x0
22460	chr14	20635772	20636928	-	2700060E02Rik	0x0
22461	chr14	20638573	20639714	-	2700060E02Rik	0x0
22462	chr14	20959233	20961335	-	Kcnk5	0x0
22463	chr14	20965215	20966362	-	Kcnk5	0x0
22464	chr14	20975892	20977101	-	Kcnk5	0x0
22465	chr14	20991801	20992994	-	Kcnk5	0x0
22466	chr14	20995898	20997080	-	Kcnk5	0x0
22467	chr14	21080451	21081633	-	Kcnk16	0x0
22468	chr14	21136141	21137242	+	Nudt13	0x0
22469	chr14	21138964	21140218	-	Ecd	0x0
22470	chr14	21182333	21183407	+	Fam149b	0x0
22471	chr14	21203556	21204870	-	Dnajc9	0x0
22472	chr14	21275146	21276341	-	Anxa7	0x1
22473	chr14	21318433	21320802	-	Ppp3cb	0x0
22474	chr14	21326305	21327418	-	Ppp3cb	0x0
22475	chr14	21340561	21341758	-	Ppp3cb	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22476	chr14	21367773	21368907	-	Usp54	0x0
22477	chr14	21511140	21512224	+	Sec24c	0x0
22478	chr14	21512652	21514474	+	Fut11	0x0
22479	chr14	21512652	21514474	+	Sec24c	0x0
22480	chr14	21541542	21542683	+	Zswim8	0x0
22481	chr14	21554476	21555608	-	Camk2g	0x0
22482	chr14	21566858	21567959	-	Camk2g	0x0
22483	chr14	21570124	21571319	-	Camk2g	0x0
22484	chr14	21582744	21583894	-	Camk2g	0x0
22485	chr14	21786259	21787407	+	Vcl	0x1
22486	chr14	21801384	21802522	+	Vcl	0x1
22487	chr14	21827489	21828682	+	Vcl	0x1
22488	chr14	21838344	21839522	-	Ap3m1	0x0
22489	chr14	21850841	21853020	+	Vcl	0x1
22490	chr14	21854672	21856150	-	Ap3m1	0x0
22491	chr14	22143876	22145026	+	Adk	0x0
22492	chr14	22200161	22201359	+	Adk	0x0
22493	chr14	22308031	22309229	+	Kat6b	0x2
22494	chr14	22335360	22337223	+	Kat6b	0x2
22495	chr14	22360652	22361839	+	Kat6b	0x2
22496	chr14	22370607	22371705	+	Kat6b	0x2
22497	chr14	22373477	22374657	+	Kat6b	0x2
22498	chr14	22409571	22410672	+	Kat6b	0x2
22499	chr14	22436900	22438030	+	Kat6b	0x2
22500	chr14	22443647	22445303	+	Kat6b	0x2
22501	chr14	22445419	22446603	+	Kat6b	0x2
22502	chr14	22453185	22454404	+	Kat6b	0x2
22503	chr14	22477607	22478802	+	Kat6b	0x2
22504	chr14	22487582	22489502	+	Kat6b	0x2
22505	chr14	22489834	22491812	+	Kat6b	0x2
22506	chr14	22591351	22592497	+	Samd8	0x0
22507	chr14	22612216	22613438	+	Samd8	0x0
22508	chr14	22614713	22615889	+	Samd8	0x0
22509	chr14	22615898	22618286	+	Samd8	0x0
22510	chr14	22662324	22663470	+	Vdac2	0x0
22511	chr14	22664099	22665418	+	Vdac2	0x0
22512	chr14	23324801	23325942	+	1700112E06Rik	0x0
22513	chr14	23353068	23354194	+	1700112E06Rik	0x0
22514	chr14	24888456	24890143	+	E330034G19Rik	0x0
22515	chr14	24950662	24952093	-	Dlg5	0x2
22516	chr14	24952676	24954179	-	Dlg5	0x2
22517	chr14	25048549	25049723	-	Dlg5	0x2
22518	chr14	25266143	25267382	-	Polr3a	0x2
22519	chr14	25283143	25284318	-	Polr3a	0x2
22520	chr14	25310769	25311842	+	Rps24	0x0
22521	chr14	25312144	25313241	+	Rps24	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22522	chr14	25313895	25315742	+	Rps24	0x0
22523	chr14	25463239	25464356	+	Rps24	0x0
22524	chr14	26483336	26484525	+	Zmiz1	0x0
22525	chr14	26518806	26520182	+	Ppif	0x0
22526	chr14	26530820	26531919	-	Zcchc24	0x0
22527	chr14	26532913	26534124	-	Zcchc24	0x0
22528	chr14	27232330	27234729	-	Slmap	0x0
22529	chr14	27449673	27450878	+	Dennd6a	0x0
22530	chr14	27452848	27454050	+	Dennd6a	0x0
22531	chr14	27475024	27476781	+	Arf4	0x0
22532	chr14	27481328	27482427	-	Pde12	0x0
22533	chr14	27731761	27733293	-	Appl1	0x0
22534	chr14	27734242	27735268	-	Appl1	0x0
22535	chr14	27735700	27736934	-	Appl1	0x0
22536	chr14	27774318	27775501	-	Appl1	0x0
22537	chr14	27892093	27893282	+	Il17rd	0x1
22538	chr14	27904940	27906122	+	Il17rd	0x1
22539	chr14	27915800	27916977	+	Il17rd	0x1
22540	chr14	27917365	27920825	+	Il17rd	0x1
22541	chr14	28102731	28103878	+	Arhgef3	0x0
22542	chr14	28119907	28121027	+	Arhgef3	0x0
22543	chr14	28156203	28157330	+	Arhgef3	0x0
22544	chr14	28242232	28243447	+	D14Abb1e	0x0
22545	chr14	28262603	28263752	+	D14Abb1e	0x0
22546	chr14	28270789	28271968	+	D14Abb1e	0x0
22547	chr14	28284396	28285496	+	D14Abb1e	0x0
22548	chr14	28293325	28295214	+	D14Abb1e	0x0
22549	chr14	28467167	28468673	+	Erc2	0x0
22550	chr14	28469304	28470459	+	Erc2	0x0
22551	chr14	28475033	28476178	+	Erc2	0x0
22552	chr14	28511367	28512566	+	Erc2	0x0
22553	chr14	28626508	28627679	+	Erc2	0x0
22554	chr14	29021174	29022273	+	Erc2	0x0
22555	chr14	29282598	29283721	+	Erc2	0x0
22556	chr14	29290785	29291946	+	Erc2	0x0
22557	chr14	30255906	30257009	+	Lrtm1	0x0
22558	chr14	30805663	30806990	+	Actr8	0x0
22559	chr14	30878942	30880134	-	Cacna1d	0x0
22560	chr14	31163411	31164613	-	Cacna1d	0x0
22561	chr14	31294563	31295771	+	Dcp1a	0x0
22562	chr14	31336449	31337693	+	Dcp1a	0x0
22563	chr14	31338571	31339748	+	Dcp1a	0x0
22564	chr14	31382623	31384979	+	Tkt	0x0
22565	chr14	31386097	31387196	+	Tkt	0x0
22566	chr14	31468151	31469251	+	Rft1	0x0
22567	chr14	31479306	31480501	+	Rft1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22568	chr14	31527391	31528634	-	Prkcd	0x1
22569	chr14	31631649	31632789	+	Sfmbt1	0x0
22570	chr14	31798491	31799694	+	Nek4	0x0
22571	chr14	31880041	31881455	+	Pbrm1	0x1
22572	chr14	31895246	31896467	+	Pbrm1	0x1
22573	chr14	31932175	31935169	+	Pbrm1	0x1
22574	chr14	31951530	31952645	+	Nt5dc2	0x0
22575	chr14	31983752	31985072	-	Nisch	0x0
22576	chr14	31985190	31986286	-	Nisch	0x0
22577	chr14	32017499	32018631	-	Nisch	0x0
22578	chr14	32071644	32073509	+	Bap1	0x1
22579	chr14	32074269	32075463	-	Dnahc1	0x0
22580	chr14	32183899	32185358	+	Capn7	0x0
22581	chr14	32320370	32322713	+	Eaf1	0x0
22582	chr14	32511597	32514843	-	Ankrd28	0x0
22583	chr14	32605355	32606529	-	Ankrd28	0x0
22584	chr14	32992271	32993434	+	Ncoa4	0x1
22585	chr14	33022235	33023370	+	Parg	0x0
22586	chr14	33058620	33059762	+	Parg	0x0
22587	chr14	33109014	33110212	+	Parg	0x0
22588	chr14	33113918	33115061	-	1700024G13Rik	0x0
22589	chr14	33148584	33149773	+	Ogdhl	0x0
22590	chr14	33153859	33155033	+	Ogdhl	0x0
22591	chr14	33160564	33161801	+	Ogdhl	0x0
22592	chr14	34170545	34171735	+	Arhgap22	0x0
22593	chr14	34192833	34195362	-	Mapk8	0x0
22594	chr14	34210405	34211533	-	Mapk8	0x0
22595	chr14	34258417	34259569	-	Mapk8	0x0
22596	chr14	34442371	34443503	+	Ptpn20	0x0
22597	chr14	34909182	34910314	+	Anxa8	0x0
22598	chr14	35045693	35047940	-	Fam35a	0x0
22599	chr14	35049246	35050433	-	Fam35a	0x0
22600	chr14	35125249	35126400	+	Glud1	0x0
22601	chr14	35147943	35149191	+	Glud1	0x0
22602	chr14	35156383	35158522	+	Glud1	0x0
22603	chr14	35156383	35158522	+	Gm3219	0x0
22604	chr14	35177865	35179600	+	Mmrn2	0x0
22605	chr14	35187164	35188262	+	Mmrn2	0x0
22606	chr14	35190797	35191910	+	Mmrn2	0x0
22607	chr14	35206403	35207520	+	Mmrn2	0x0
22608	chr14	35215432	35216581	+	Mmrn2	0x0
22609	chr14	35223852	35225163	-	Bmpr1a	0x2
22610	chr14	35225243	35230500	-	Bmpr1a	0x2
22611	chr14	35504654	35505887	+	Wapal	0x0
22612	chr14	35534905	35536070	+	Wapal	0x0
22613	chr14	35558606	35561445	+	Wapal	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22614	chr14	35864939	35866044	+	Grid1	0x2
22615	chr14	36633179	36634323	-	4930596D02Rik	0x0
22616	chr14	37690786	37691988	-	Ccser2	0x0
22617	chr14	37739423	37740628	-	Ccser2	0x0
22618	chr14	37890558	37892667	-	Cdhr1	0x0
22619	chr14	37933637	37935054	-	Ghitm	0x0
22620	chr14	37949882	37951085	+	Lrit2	0x0
22621	chr14	40460655	40461789	-	Nrg3	0x2
22622	chr14	41715971	41717070	-	Tspan14	0x0
22623	chr14	41717165	41718641	-	Tspan14	0x0
22624	chr14	41719331	41720713	-	Tspan14	0x0
22625	chr14	41723246	41724364	-	Tspan14	0x0
22626	chr14	41779503	41780694	-	Tspan14	0x0
22627	chr14	41782632	41783765	+	Dydc1	0x0
22628	chr14	41806713	41807936	-	Fam213a	0x0
22629	chr14	43796974	43799523	-	Gm10377	0x0
22630	chr14	45215825	45216965	+	BC061237	0x0
22631	chr14	45754045	45755377	-	Txndc16	0x0
22632	chr14	45903641	45906210	-	Ero1l	0x0
22633	chr14	45968234	45969432	+	Psmc6	0x0
22634	chr14	46077882	46079936	-	Fermt2	0x4
22635	chr14	46083873	46085072	-	Fermt2	0x4
22636	chr14	46163611	46164766	-	Fermt2	0x4
22637	chr14	46249409	46250620	-	Ddhd1	0x0
22638	chr14	46332798	46333995	+	4930527F14Rik	0x0
22639	chr14	46647399	46648533	+	Gm1821	0x0
22640	chr14	47395097	47396494	-	Cnih	0x0
22641	chr14	47427706	47431520	-	Gmfb	0x0
22642	chr14	47434736	47435896	-	Gmfb	0x0
22643	chr14	47860356	47861550	-	Wdhd1	0x0
22644	chr14	47910809	47911906	+	Socs4	0x0
22645	chr14	47912356	47913473	+	Socs4	0x0
22646	chr14	47938722	47940836	+	Mapk1ip1l	0x0
22647	chr14	47941092	47942386	+	Mapk1ip1l	0x0
22648	chr14	48008841	48010056	-	Dlgap5	0x0
22649	chr14	48035626	48036819	-	Dlgap5	0x0
22650	chr14	48148621	48149722	+	Fbxo34	0x0
22651	chr14	48150512	48151952	+	Fbxo34	0x0
22652	chr14	48160287	48161483	-	Atg14	0x0
22653	chr14	48192143	48193288	-	Atg14	0x0
22654	chr14	48315024	48316140	+	Ktn1	0x2
22655	chr14	48325575	48326727	+	Ktn1	0x2
22656	chr14	48355360	48356743	+	Ktn1	0x2
22657	chr14	48770091	48771280	+	Peli2	0x0
22658	chr14	49172375	49173565	+	6720456H20Rik	0x0
22659	chr14	49331079	49332269	+	Otx2os1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22660	chr14	49644255	49645420	-	Exoc5	0x0
22661	chr14	49706254	49710088	+	Ap5m1	0x0
22662	chr14	49808144	49811028	+	Naa30	0x0
22663	chr14	50223160	50224397	+	Naa30	0x0
22664	chr14	50299047	50300190	-	3632451O06Rik	0x0
22665	chr14	51085174	51086649	+	Olfr741	0x0
22666	chr14	51394432	51395565	-	Ttc5	0x0
22667	chr14	51418901	51420015	-	Ccnb1ip1	0x0
22668	chr14	51426553	51427997	-	Rpph1	0x0
22669	chr14	51546414	51547947	-	Tmem55b	0x0
22670	chr14	51597406	51598591	-	Tmem55b	0x0
22671	chr14	51708615	51709826	+	Ang	0x0
22672	chr14	51708615	51709826	+	Rnase4	0x0
22673	chr14	52212350	52213534	+	Gm5622	0x0
22674	chr14	52524454	52525627	-	Ndrg2	0x1
22675	chr14	52625512	52626758	-	Zfp219	0x0
22676	chr14	52629220	52630565	-	Zfp219	0x0
22677	chr14	52631107	52632405	-	Zfp219	0x0
22678	chr14	52688961	52690123	+	Snord58b	0x0
22679	chr14	52692731	52695506	-	Hnrnpc	0x0
22680	chr14	52700947	52702046	-	Hnrnpc	0x0
22681	chr14	52703376	52704613	-	Hnrnpc	0x0
22682	chr14	52705866	52706969	-	Hnrnpc	0x0
22683	chr14	52723046	52724204	-	Hnrnpc	0x0
22684	chr14	52779671	52781606	-	Supt16	0x0
22685	chr14	52796139	52797363	-	Supt16	0x0
22686	chr14	52801232	52802481	-	Supt16	0x0
22687	chr14	52821270	52822489	-	Chd8	0x0
22688	chr14	52826095	52827320	+	Rpgrip1	0x2
22689	chr14	52846731	52847913	-	Chd8	0x0
22690	chr14	52854426	52855645	-	Chd8	0x0
22691	chr14	52912609	52914112	+	Tox4	0x0
22692	chr14	52914375	52915598	+	Tox4	0x0
22693	chr14	52924002	52925194	-	Mettl3	0x2
22694	chr14	53128249	53129389	-	Olfr1507	0x0
22695	chr14	54854625	54855929	-	Dad1	0x0
22696	chr14	54887758	54889099	+	Abhd4	0x0
22697	chr14	54980182	54981332	+	Oxa1l	0x2
22698	chr14	54988242	54990021	-	Slc7a7	0x0
22699	chr14	55047948	55049080	+	Mrpl52	0x0
22700	chr14	55059343	55061368	+	Mmp14	0x0
22701	chr14	55086205	55087346	+	Lrp10	0x0
22702	chr14	55088169	55089335	+	Lrp10	0x0
22703	chr14	55125545	55126973	-	Prmt5	0x0
22704	chr14	55134766	55135964	-	Prmt5	0x0
22705	chr14	55167092	55168235	-	Haus4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22706	chr14	55185770	55187896	-	Ajuba	0x0
22707	chr14	55188165	55189344	-	Ajuba	0x0
22708	chr14	55236189	55237355	-	Psmb5	0x0
22709	chr14	55264773	55265892	-	Acin1	0x2
22710	chr14	55282668	55283861	-	Acin1	0x2
22711	chr14	55462601	55463751	+	Bcl2l2	0x2
22712	chr14	55504157	55506804	+	Bcl2l2	0x2
22713	chr14	55512740	55513900	+	Pabpn1	0x2
22714	chr14	55516409	55517887	+	Pabpn1	0x2
22715	chr14	55685100	55686280	-	Zfhx2	0x0
22716	chr14	55692175	55693872	-	Zfhx2	0x0
22717	chr14	55716768	55717937	+	Thtpa	0x0
22718	chr14	55725281	55726607	-	Ap1g2	0x0
22719	chr14	55725281	55726607	-	Jph4	0x0
22720	chr14	56101491	56102721	-	Nrl	0x0
22721	chr14	56160836	56161958	+	Pck2	0x0
22722	chr14	56187938	56189125	+	Dcaf11	0x0
22723	chr14	56199352	56200535	+	Psme1	0x0
22724	chr14	56227783	56228956	+	Irf9	0x0
22725	chr14	56276527	56277712	-	Mdp1	0x0
22726	chr14	56280654	56281816	-	Nedd8	0x0
22727	chr14	56297425	56298610	-	Tinf2	0x0
22728	chr14	56299490	56300614	-	Tinf2	0x0
22729	chr14	56300191	56301388	+	Gmpr2	0x0
22730	chr14	56335503	56336687	-	Rabggta	0x0
22731	chr14	56372032	56373173	+	Nop9	0x0
22732	chr14	56373778	56375164	+	Nop9	0x0
22733	chr14	56450980	56452128	+	Nfatc4	0x0
22734	chr14	56452968	56454163	+	Nfatc4	0x0
22735	chr14	56491088	56492284	+	Nynrin	0x0
22736	chr14	56492576	56493773	+	Nynrin	0x0
22737	chr14	56506030	56507175	+	Khnyn	0x0
22738	chr14	56513891	56516422	+	Khnyn	0x0
22739	chr14	56779883	56781121	-	Gzmg	0x0
22740	chr14	57089645	57090758	+	Rnf17	0x0
22741	chr14	57286752	57287944	+	Mphosph8	0x0
22742	chr14	57295764	57296927	+	Mphosph8	0x0
22743	chr14	57340876	57342765	-	Pspc1	0x0
22744	chr14	57365249	57366617	-	Pspc1	0x0
22745	chr14	57387081	57388178	-	Pspc1	0x0
22746	chr14	57484028	57485197	+	Zmym2	0x2
22747	chr14	57562332	57563526	+	Zmym2	0x2
22748	chr14	57578517	57580383	+	Zmym2	0x2
22749	chr14	58167993	58169183	-	N6amt2	0x0
22750	chr14	58196335	58198924	-	Xpo4	0x0
22751	chr14	58199539	58201444	-	Xpo4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22752	chr14	58204214	58205313	-	Xpo4	0x0
22753	chr14	58216215	58217402	-	Xpo4	0x0
22754	chr14	58261420	58262537	-	Xpo4	0x0
22755	chr14	58318258	58319469	-	Lats2	0x1
22756	chr14	58421669	58422833	+	Sap18	0x0
22757	chr14	58425242	58426732	-	Ska3	0x0
22758	chr14	58441566	58442793	-	Ska3	0x0
22759	chr14	58453368	58454838	-	Zdhhc20	0x0
22760	chr14	58474216	58475409	-	Zdhhc20	0x0
22761	chr14	59825453	59826670	+	Rcbtb1	0x0
22762	chr14	59849306	59851430	+	Rcbtb1	0x0
22763	chr14	59853106	59854936	+	Rcbtb1	0x0
22764	chr14	59855015	59856101	+	Rcbtb1	0x0
22765	chr14	60037446	60038615	-	Setdb2	0x0
22766	chr14	60151377	60152531	+	Cab39l	0x0
22767	chr14	60157411	60158561	+	Cab39l	0x0
22768	chr14	60166927	60168179	+	Cab39l	0x0
22769	chr14	60194071	60195246	-	Cdadc1	0x0
22770	chr14	60658022	60659573	-	Atp8a2	0x1
22771	chr14	60837061	60838568	-	Nupl1	0x0
22772	chr14	60842440	60843567	-	Nupl1	0x0
22773	chr14	60846230	60847534	-	Nupl1	0x0
22774	chr14	60919062	60921532	+	Mtmr6	0x0
22775	chr14	61309851	61311022	+	Spata13	0x2
22776	chr14	61326961	61328058	+	Spata13	0x2
22777	chr14	61381759	61383801	+	Spata13	0x2
22778	chr14	61418921	61420108	+	Mipep	0x0
22779	chr14	61584564	61585668	-	Tnfrsf19	0x0
22780	chr14	61610851	61611991	-	Tnfrsf19	0x0
22781	chr14	61813459	61814606	+	Sacs	0x0
22782	chr14	61828369	61829469	+	Sacs	0x0
22783	chr14	61832907	61834226	+	Sacs	0x0
22784	chr14	61942780	61943997	-	Ebpl	0x0
22785	chr14	61959255	61960485	-	Ebpl	0x0
22786	chr14	61983564	61986602	-	Kpna3	0x0
22787	chr14	62009593	62010707	-	Kpna3	0x0
22788	chr14	62218081	62219314	+	Trim13	0x1
22789	chr14	62228437	62229581	+	Kcnrg	0x1
22790	chr14	62279416	62280580	-	Dleu2	0x1
22791	chr14	63203257	63204401	+	Fam124a	0x0
22792	chr14	63760708	63762502	+	Ctsb	0x0
22793	chr14	63777994	63779113	-	Fdft1	0x0
22794	chr14	63785720	63786894	-	Fdft1	0x0
22795	chr14	63787977	63789303	+	Ctsb	0x0
22796	chr14	63792513	63793983	-	Fdft1	0x0
22797	chr14	63802820	63804020	-	Neil2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22798	chr14	64110127	64113294	-	Tdh	0x0
22799	chr14	64140833	64142045	-	Mtmr9	0x0
22800	chr14	64157900	64159068	+	Xkr6	0x0
22801	chr14	64231974	64233076	+	Xkr6	0x0
22802	chr14	64251870	64253035	+	Xkr6	0x0
22803	chr14	64443998	64445216	+	Xkr6	0x0
22804	chr14	64501130	64502533	+	Pinx1	0x1
22805	chr14	65178514	65179714	+	A930011O12Rik	0x0
22806	chr14	65249815	65250991	-	Msra	0x0
22807	chr14	65310044	65311147	+	Kif13b	0x0
22808	chr14	65326789	65327905	+	Kif13b	0x0
22809	chr14	65372228	65373467	+	Kif13b	0x0
22810	chr14	65425256	65428815	+	Kif13b	0x0
22811	chr14	65430812	65433572	-	Hmbox1	0x0
22812	chr14	65435782	65436882	-	Hmbox1	0x0
22813	chr14	65438732	65441369	-	Hmbox1	0x0
22814	chr14	65451053	65452269	-	Hmbox1	0x0
22815	chr14	65607591	65608727	+	Ints9	0x0
22816	chr14	65612568	65613717	+	Ints9	0x0
22817	chr14	65670758	65673050	-	Extl3	0x1
22818	chr14	65693997	65695096	-	Extl3	0x1
22819	chr14	65695162	65697339	-	Extl3	0x1
22820	chr14	65817197	65818592	-	Fzd3	0x2
22821	chr14	65820170	65821464	-	Fzd3	0x2
22822	chr14	66015307	66016488	+	Zfp395	0x0
22823	chr14	66016902	66018040	+	Zfp395	0x0
22824	chr14	66148886	66150743	-	Elp3	0x0
22825	chr14	66158787	66159976	-	Elp3	0x0
22826	chr14	66168920	66170128	-	Elp3	0x0
22827	chr14	66170242	66171387	-	Elp3	0x0
22828	chr14	66382398	66383516	+	Scara5	0x0
22829	chr14	66437616	66439105	-	Esco2	0x0
22830	chr14	66445922	66447124	-	Esco2	0x0
22831	chr14	66481110	66482300	+	Ccdc25	0x0
22832	chr14	66483701	66485506	+	Ccdc25	0x0
22833	chr14	66537910	66539083	-	Scara3	0x0
22834	chr14	66928366	66930687	+	Trim35	0x1
22835	chr14	67421325	67424122	-	Dpysl2	0x0
22836	chr14	67537408	67538835	+	Pnma2	0x0
22837	chr14	67586181	67589083	+	Pnma2	0x0
22838	chr14	67603742	67606136	-	Bnip3l	0x1
22839	chr14	67633969	67635767	-	Ppp2r2a	0x0
22840	chr14	67685745	67686882	-	Ppp2r2a	0x0
22841	chr14	68320817	68321979	-	Cdca2	0x0
22842	chr14	68372423	68373526	-	Dock5	0x0
22843	chr14	68702326	68703509	+	Nefl	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22844	chr14	68734528	68735691	+	A230070E04Rik	0x0
22845	chr14	69776152	69777664	+	Nkx2-6	0x0
22846	chr14	69859363	69860548	-	Slc25a37	0x0
22847	chr14	69861955	69863316	-	Slc25a37	0x0
22848	chr14	69966659	69967809	+	Entpd4	0x0
22849	chr14	69983688	69985149	+	Entpd4	0x0
22850	chr14	70116464	70118508	-	Chmp7	0x0
22851	chr14	70182322	70183644	+	Tnfrsf10b	0x1
22852	chr14	70184744	70185883	-	Rhobtb2	0x1
22853	chr14	70186517	70187883	-	Rhobtb2	0x1
22854	chr14	70375280	70376471	+	Pebp4	0x0
22855	chr14	70428660	70429897	-	2610301G19Rik	0x0
22856	chr14	70537848	70539052	-	2610301G19Rik	0x0
22857	chr14	70703241	70704999	-	Slc39a14	0x0
22858	chr14	70732029	70733220	-	Slc39a14	0x0
22859	chr14	70771857	70773990	-	Piwil2	0x0
22860	chr14	70945822	70946916	+	Reep4	0x0
22861	chr14	71003135	71004504	-	Epb4.9	0x0
22862	chr14	71031104	71032304	-	Epb4.9	0x0
22863	chr14	71035651	71036825	-	Epb4.9	0x0
22864	chr14	71035651	71036825	-	Fgf17	0x0
22865	chr14	71046933	71048112	+	Nudt18	0x0
22866	chr14	71064336	71065879	-	Xpo7	0x2
22867	chr14	71086960	71088060	-	Xpo7	0x2
22868	chr14	71176729	71177908	+	Dok2	0x1
22869	chr14	72630446	72631602	-	Fndc3a	0x0
22870	chr14	72937631	72939719	-	Fndc3a	0x0
22871	chr14	72955741	72956920	-	Fndc3a	0x0
22872	chr14	72995474	72996673	-	Fndc3a	0x0
22873	chr14	73048653	73049867	-	Fndc3a	0x0
22874	chr14	73097805	73098989	-	Fndc3a	0x0
22875	chr14	73238675	73239806	-	Fndc3a	0x0
22876	chr14	73428841	73430060	-	Cysltr2	0x0
22877	chr14	73594954	73596641	-	Rb1	0x5
22878	chr14	73652114	73653293	-	Rb1	0x5
22879	chr14	73917252	73918540	+	Med4	0x0
22880	chr14	73991967	73993109	+	Sucla2	0x0
22881	chr14	74667730	74668918	-	Lrch1	0x0
22882	chr14	75026628	75027815	-	Lrch1	0x0
22883	chr14	75234869	75236059	-	Lrch1	0x0
22884	chr14	75345335	75346500	-	Lrch1	0x0
22885	chr14	75455429	75456642	-	Lrrc63	0x0
22886	chr14	75677830	75679025	-	Lrrc63	0x0
22887	chr14	75743615	75744758	+	Zc3h13	0x0
22888	chr14	76101898	76104106	-	Cog3	0x0
22889	chr14	76130319	76131512	-	Cog3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22890	chr14	76159702	76163003	-	Slc25a30	0x0
22891	chr14	76296814	76297966	-	Gtf2f2	0x0
22892	chr14	76485639	76489054	-	1200011I18Rik	0x0
22893	chr14	76840308	76841521	+	Tsc22d1	0x1
22894	chr14	76906121	76908049	+	Tsc22d1	0x1
22895	chr14	76921059	76922233	+	Tsc22d1	0x1
22896	chr14	77035704	77036899	-	Serp2	0x0
22897	chr14	77044024	77045169	+	1700108F19Rik	0x0
22898	chr14	77078412	77079582	+	1700108F19Rik	0x0
22899	chr14	77959673	77960830	+	Enox1	0x0
22900	chr14	78021037	78022187	+	Enox1	0x0
22901	chr14	78707198	78708365	-	Tnfsf11	0x0
22902	chr14	78710511	78711671	-	Tnfsf11	0x0
22903	chr14	78891826	78894897	-	Akap11	0x2
22904	chr14	78909862	78911093	-	Akap11	0x2
22905	chr14	78969036	78970204	-	Dgkh	0x0
22906	chr14	78995871	78997066	-	Dgkh	0x0
22907	chr14	79346387	79347610	+	Vwa8	0x0
22908	chr14	79419827	79420962	+	Vwa8	0x0
22909	chr14	79777490	79778711	-	Naa16	0x0
22910	chr14	79828624	79829919	+	Kbtbd7	0x0
22911	chr14	79860555	79862284	-	Wbp4	0x0
22912	chr14	79905740	79906900	+	Elf1	0x0
22913	chr14	80029228	80030441	+	Sugt1	0x0
22914	chr14	80050192	80051329	-	Lect1	0x0
22915	chr14	80711841	80713069	+	Olfm4	0x0
22916	chr14	87054746	87056438	-	Diap3	0x0
22917	chr14	87130065	87131213	-	Diap3	0x0
22918	chr14	87172015	87173176	-	Diap3	0x0
22919	chr14	87224393	87225525	+	4930529K09Rik	0x0
22920	chr14	87265660	87266873	-	Diap3	0x0
22921	chr14	87356551	87357738	-	Diap3	0x0
22922	chr14	87410024	87411123	-	Diap3	0x0
22923	chr14	87415169	87416268	-	Diap3	0x0
22924	chr14	87471765	87472945	-	Diap3	0x0
22925	chr14	87900823	87901984	+	Tdrd3	0x0
22926	chr14	87913193	87914519	+	Tdrd3	0x0
22927	chr14	90296910	90298659	-	Pcdh20	0x2
22928	chr14	93002770	93004011	-	Pcdh9	0x0
22929	chr14	94308423	94309662	-	Pcdh9	0x0
22930	chr14	96843641	96844850	+	4921530L21Rik	0x0
22931	chr14	97820103	97821281	+	4921530L21Rik	0x0
22932	chr14	98918123	98919313	-	Dach1	0x0
22933	chr14	99348283	99349382	+	Bora	0x0
22934	chr14	99392748	99393921	-	Mzt1	0x0
22935	chr14	99434660	99435902	-	Mzt1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22936	chr14	99437617	99438778	-	Mzt1	0x0
22937	chr14	99472891	99474118	+	Bora	0x0
22938	chr14	99473979	99476194	-	Dis3	0x2
22939	chr14	99487481	99488619	-	Dis3	0x2
22940	chr14	99553776	99554946	+	Pibf1	0x0
22941	chr14	99648385	99649487	+	Pibf1	0x0
22942	chr14	99697803	99698978	+	Klf5	0x1
22943	chr14	99712145	99714740	+	Klf5	0x1
22944	chr14	99885688	99886787	+	Klf5	0x1
22945	chr14	102035895	102037010	-	Commd6	0x0
22946	chr14	102330035	102331279	+	Lmo7	0x2
22947	chr14	102332694	102333895	+	Lmo7	0x2
22948	chr14	103378669	103379835	-	Kctd12	0x0
22949	chr14	103475444	103476930	+	Cln5	0x0
22950	chr14	103481972	103483187	-	Fbxl3	0x0
22951	chr14	103587242	103588309	-	Mycbp2	0x2
22952	chr14	103671580	103672774	-	Mycbp2	0x2
22953	chr14	105505660	105506859	-	Gm17066	0x0
22954	chr14	105506888	105508076	-	Gm17066	0x0
22955	chr14	105511511	105512623	-	Gm17066	0x0
22956	chr14	105513208	105514432	-	Gm17066	0x0
22957	chr14	105513208	105514432	-	Rbm26	0x0
22958	chr14	105550067	105551270	-	Rbm26	0x0
22959	chr14	105572690	105573815	-	Rbm26	0x0
22960	chr14	106080619	106081945	+	4930449E01Rik	0x0
22961	chr14	106295320	106296468	-	Spry2	0x1
22962	chr14	106992099	106993271	-	1700128A07Rik	0x0
22963	chr14	108257213	108258396	+	Trim52	0x0
22964	chr14	110560538	110561731	+	Slitrk5	0x0
22965	chr14	112077926	112079140	+	Slitrk5	0x0
22966	chr14	113713751	113715041	+	4930524C18Rik	0x0
22967	chr14	114494132	114495349	-	4930505G20Rik	0x0
22968	chr14	115442805	115444245	+	Mir17	0x0
22969	chr14	115442805	115444245	+	Mir17hg	0x0
22970	chr14	115442805	115444245	+	Mir18	0x0
22971	chr14	115442805	115444245	+	Mir19a	0x0
22972	chr14	115442805	115444245	+	Mir19b-1	0x0
22973	chr14	115442805	115444245	+	Mir20a	0x0
22974	chr14	115442805	115444245	+	Mir92-1	0x0
22975	chr14	115445179	115446302	+	Mir17hg	0x0
22976	chr14	118882079	118883993	-	Abcc4	0x0
22977	chr14	119012440	119013555	-	Abcc4	0x0
22978	chr14	119028330	119029498	-	Abcc4	0x0
22979	chr14	119077849	119079197	-	Abcc4	0x0
22980	chr14	119247736	119248943	-	Dzip1	0x0
22981	chr14	119312292	119313456	-	Dzip1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
22982	chr14	119377757	119378948	+	Dnajc3	0x0
22983	chr14	119379154	119381075	+	Dnajc3	0x0
22984	chr14	119383171	119384354	-	Uggt2	0x0
22985	chr14	119552869	119553998	+	Hs6st3	0x0
22986	chr14	119556104	119557428	+	Hs6st3	0x0
22987	chr14	119705136	119706238	+	Hs6st3	0x0
22988	chr14	119716964	119718163	+	Hs6st3	0x0
22989	chr14	120272819	120273938	+	Hs6st3	0x0
22990	chr14	121112231	121113416	+	Ipo5	0x0
22991	chr14	121313476	121314692	+	Ipo5	0x0
22992	chr14	121320849	121321955	+	Ipo5	0x0
22993	chr14	121325149	121326234	+	Ipo5	0x0
22994	chr14	121328038	121329159	+	Ipo5	0x0
22995	chr14	121333798	121334972	+	Ipo5	0x0
22996	chr14	121337467	121339351	+	Ipo5	0x0
22997	chr14	121343157	121344296	+	Ipo5	0x0
22998	chr14	121345669	121347497	+	Ipo5	0x0
22999	chr14	121458640	121459806	+	Farp1	0x0
23000	chr14	121645797	121646967	+	Farp1	0x0
23001	chr14	121681521	121682679	+	Farp1	0x0
23002	chr14	121683609	121686197	-	Stk24	0x0
23003	chr14	121693024	121694175	-	Stk24	0x0
23004	chr14	121764225	121765330	-	Stk24	0x0
23005	chr14	121767756	121768912	-	Stk24	0x0
23006	chr14	121880481	121881685	-	Slc15a1	0x2
23007	chr14	121889744	121890893	-	Slc15a1	0x2
23008	chr14	121892891	121894085	-	Slc15a1	0x2
23009	chr14	121928078	121929270	-	Dock9	0x0
23010	chr14	121988633	121989760	-	Dock9	0x0
23011	chr14	121990444	121991636	-	Dock9	0x0
23012	chr14	121993569	121994770	-	Dock9	0x0
23013	chr14	122303835	122304979	+	Ubac2	0x0
23014	chr14	122419007	122420739	+	Ubac2	0x0
23015	chr14	122557687	122559192	+	Tm9sf2	0x0
23016	chr14	122583919	122585075	+	Clybl	0x0
23017	chr14	122777193	122778322	+	Clybl	0x0
23018	chr14	122834547	122835715	-	Gm5089	0x0
23019	chr14	122838168	122839325	-	Gm5089	0x0
23020	chr14	122855745	122858111	-	Zic5	0x0
23021	chr14	122878281	122879832	+	Zic2	0x0
23022	chr14	123340466	123341692	-	Tmtc4	0x0
23023	chr14	123536308	123537465	-	Nalcn	0x2
23024	chr14	124096788	124097971	-	Nalcn	0x2
23025	chr15	3166832	3168675	-	Ccdc152	0x0
23026	chr15	3229705	3230887	+	Sepp1	0x0
23027	chr15	3931807	3934148	-	AW549877	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23028	chr15	3935391	3936573	-	AW549877	0x0
23029	chr15	4103789	4105732	+	Oxct1	0x0
23030	chr15	4509117	4510524	-	C7	0x0
23031	chr15	5066259	5068952	+	Rpl37	0x0
23032	chr15	5066259	5068952	+	Snord72	0x0
23033	chr15	5107729	5108949	+	Prkaa1	0x0
23034	chr15	5129142	5131484	+	Prkaa1	0x0
23035	chr15	5167192	5170453	+	Ttc33	0x0
23036	chr15	5172190	5173334	+	Ttc33	0x0
23037	chr15	5944080	5945250	-	Ptger4	0x0
23038	chr15	6545367	6546538	-	Osmr	0x0
23039	chr15	6603432	6605049	+	Fyb	0x0
23040	chr15	6746142	6747227	+	Rictor	0x0
23041	chr15	6749601	6750752	+	Rictor	0x0
23042	chr15	7100958	7102161	+	Lifr	0x2
23043	chr15	7142495	7144377	+	Lifr	0x2
23044	chr15	7144418	7145604	+	Lifr	0x2
23045	chr15	7145865	7147115	+	Lifr	0x2
23046	chr15	7840208	7841388	-	Wdr70	0x0
23047	chr15	8028577	8029821	-	Wdr70	0x0
23048	chr15	8090733	8091935	+	Nup155	0x0
23049	chr15	8107151	8111167	+	Nup155	0x0
23050	chr15	8201446	8202645	+	2410089E03Rik	0x0
23051	chr15	8244979	8246078	-	Nipbl	0x0
23052	chr15	8272930	8274079	-	Nipbl	0x0
23053	chr15	8284411	8285541	-	Nipbl	0x0
23054	chr15	8357778	8358973	-	Nipbl	0x0
23055	chr15	8365213	8366406	-	Nipbl	0x0
23056	chr15	8394005	8395135	-	Nipbl	0x0
23057	chr15	8771050	8772918	-	Slc1a3	0x0
23058	chr15	9038151	9039935	+	Nadkd1	0x0
23059	chr15	9041767	9043160	-	Skp2	0x2
23060	chr15	9046100	9047273	-	Skp2	0x2
23061	chr15	9097582	9098738	+	Lmbrd2	0x0
23062	chr15	9127282	9129315	+	Lmbrd2	0x0
23063	chr15	9129545	9131906	+	Lmbrd2	0x0
23064	chr15	10359055	10360251	-	Dnajc21	0x0
23065	chr15	10386594	10387788	-	Dnajc21	0x0
23066	chr15	10404759	10406884	-	Brix1	0x0
23067	chr15	10498530	10500047	-	Rai14	0x0
23068	chr15	10504286	10505432	-	Rai14	0x0
23069	chr15	10599166	10600301	-	Rai14	0x0
23070	chr15	10602740	10603863	-	Rai14	0x0
23071	chr15	11313043	11314193	-	Tars	0x0
23072	chr15	12100055	12101205	+	Zfr	0x0
23073	chr15	12113664	12115546	+	Zfr	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23074	chr15	12160714	12161813	+	Mtmr12	0x0
23075	chr15	12162102	12163175	+	Mtmr12	0x0
23076	chr15	12165329	12166426	+	Mtmr12	0x0
23077	chr15	12199952	12202192	+	Mtmr12	0x0
23078	chr15	12250684	12251862	+	Golph3	0x0
23079	chr15	12279176	12281796	+	Golph3	0x0
23080	chr15	12738818	12740062	-	6030458C11Rik	0x0
23081	chr15	12785211	12786340	+	Drosha	0x2
23082	chr15	12819276	12820480	+	Drosha	0x2
23083	chr15	12842293	12843405	+	Drosha	0x2
23084	chr15	18314607	18315789	-	4921515E04Rik	0x0
23085	chr15	18449296	18450445	-	4921515E04Rik	0x0
23086	chr15	19927154	19928320	-	Acot10	0x0
23087	chr15	19931463	19932569	-	Acot10	0x0
23088	chr15	22629931	22632370	-	Gm5803	0x0
23089	chr15	23419583	23420773	+	Cdh18	0x4
23090	chr15	24177726	24178925	+	Cdh18	0x4
23091	chr15	25293099	25294251	-	Basp1	0x0
23092	chr15	25617158	25618334	+	Myo10	0x0
23093	chr15	25676462	25677845	+	Myo10	0x0
23094	chr15	25688259	25689476	+	Myo10	0x0
23095	chr15	25710834	25712045	+	Myo10	0x0
23096	chr15	25738108	25739285	+	Myo10	0x0
23097	chr15	25742156	25743445	+	Myo10	0x0
23098	chr15	25902088	25903706	+	Fam134b	0x0
23099	chr15	26955067	26956310	+	Mir297-1	0x0
23100	chr15	27522835	27524132	+	Ank	0x0
23101	chr15	27535371	27536546	-	Fam105b	0x0
23102	chr15	27742220	27743421	-	Trio	0x0
23103	chr15	27841824	27843006	-	Trio	0x0
23104	chr15	27885883	27887071	-	Trio	0x0
23105	chr15	27927126	27928255	-	Trio	0x0
23106	chr15	27949614	27950734	-	Trio	0x0
23107	chr15	27953123	27954246	-	Trio	0x0
23108	chr15	30314012	30315121	+	Ctnnd2	0x0
23109	chr15	30633732	30634899	+	Ctnnd2	0x0
23110	chr15	30957320	30958449	+	Ctnnd2	0x0
23111	chr15	31221657	31222781	-	Ankrd33b	0x0
23112	chr15	31223355	31224454	-	Ankrd33b	0x0
23113	chr15	31385979	31389331	-	March6	0x0
23114	chr15	31391199	31392371	-	March6	0x0
23115	chr15	31400820	31402034	-	March6	0x0
23116	chr15	31409699	31410829	-	March6	0x0
23117	chr15	31522095	31523230	-	Cct5	0x0
23118	chr15	31523593	31524708	-	Cct5	0x0
23119	chr15	31524905	31526076	-	Cct5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23120	chr15	32169877	32171058	-	0610007N19Rik	0x0
23121	chr15	32196404	32197581	+	Sema5a	0x0
23122	chr15	32962066	32964465	+	Sdc2	0x0
23123	chr15	33613520	33614716	-	Tspyl5	0x0
23124	chr15	34012327	34013523	+	Mtdh	0x0
23125	chr15	34016479	34017584	+	Mtdh	0x0
23126	chr15	34047149	34048397	+	Mtdh	0x0
23127	chr15	34060384	34061536	+	Mtdh	0x0
23128	chr15	34069032	34070180	+	Mtdh	0x0
23129	chr15	34070280	34073332	+	Mtdh	0x0
23130	chr15	34177118	34178220	-	9430069I07Rik	0x0
23131	chr15	34198962	34200061	-	9430069I07Rik	0x0
23132	chr15	34212769	34214560	+	Laptm4b	0x0
23133	chr15	34413335	34414585	-	Hrsp12	0x0
23134	chr15	34415837	34417029	-	Hrsp12	0x0
23135	chr15	35377751	35378960	+	Vps13b	0x0
23136	chr15	35501244	35502371	+	Vps13b	0x0
23137	chr15	35731209	35732400	+	Vps13b	0x0
23138	chr15	35861167	35862342	-	Cox6c	0x0
23139	chr15	36170605	36171748	-	Rnf19a	0x0
23140	chr15	36524900	36529629	-	Pabpc1	0x2
23141	chr15	36529858	36531606	-	Pabpc1	0x2
23142	chr15	36532143	36533250	-	Pabpc1	0x2
23143	chr15	36534684	36536173	-	Pabpc1	0x2
23144	chr15	36537560	36538681	-	Pabpc1	0x2
23145	chr15	36699977	36702531	-	Ywhaz	0x2
23146	chr15	36928369	36931123	-	Zfp706	0x0
23147	chr15	37099148	37100291	-	Zfp706	0x0
23148	chr15	37855653	37856871	-	Rrm2b	0x0
23149	chr15	37897093	37898697	-	Ubr5	0x2
23150	chr15	37905404	37906547	-	Ubr5	0x2
23151	chr15	37907982	37909631	-	Ubr5	0x2
23152	chr15	37910703	37911881	-	Ubr5	0x2
23153	chr15	37915335	37916448	-	Ubr5	0x2
23154	chr15	37917265	37918464	-	Ubr5	0x2
23155	chr15	37918534	37919929	-	Ubr5	0x2
23156	chr15	37921161	37922307	-	Ubr5	0x2
23157	chr15	37925925	37927316	-	Ubr5	0x2
23158	chr15	37929087	37930306	-	Ubr5	0x2
23159	chr15	37931430	37932711	-	Ubr5	0x2
23160	chr15	37933758	37934984	-	Ubr5	0x2
23161	chr15	37935081	37936174	-	Ubr5	0x2
23162	chr15	37944249	37945439	-	Ubr5	0x2
23163	chr15	37948156	37949847	-	Ubr5	0x2
23164	chr15	37953992	37955127	-	Ubr5	0x2
23165	chr15	37958818	37959877	-	Ubr5	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23166	chr15	37970008	37971865	-	Ubr5	0x2
23167	chr15	37985389	37986575	-	Ubr5	0x2
23168	chr15	37988724	37989871	-	Ubr5	0x2
23169	chr15	38167877	38168976	+	Odf1	0x0
23170	chr15	38223935	38225852	-	Klf10	0x1
23171	chr15	38417444	38418779	-	Azin1	0x0
23172	chr15	38419052	38420236	-	Azin1	0x0
23173	chr15	38621307	38622568	+	Atp6v1c1	0x0
23174	chr15	38849517	38850750	+	Fzd6	0x0
23175	chr15	38862540	38863687	+	Fzd6	0x0
23176	chr15	38868680	38870046	+	Fzd6	0x0
23177	chr15	38925872	38927081	-	Slc25a32	0x0
23178	chr15	39042999	39044145	+	Rims2	0x2
23179	chr15	39074129	39075753	-	Slc25a32	0x0
23180	chr15	39076239	39077561	-	Slc25a32	0x0
23181	chr15	39101143	39102319	+	Rims2	0x2
23182	chr15	39390417	39391594	+	Rims2	0x2
23183	chr15	39447439	39448571	+	Rims2	0x2
23184	chr15	39459456	39460662	+	Rims2	0x2
23185	chr15	39613093	39614200	+	Gm16291	0x0
23186	chr15	39709418	39710529	-	Lrp12	0x0
23187	chr15	41632590	41633753	+	Oxr1	0x0
23188	chr15	41651121	41652549	+	Oxr1	0x0
23189	chr15	41672011	41673144	+	Oxr1	0x0
23190	chr15	41691260	41692467	+	Oxr1	0x0
23191	chr15	41892099	41893198	+	Oxr1	0x0
23192	chr15	42805063	42806231	+	Emc2	0x0
23193	chr15	43094204	43095367	-	Eif3e	0x0
23194	chr15	44206329	44208259	-	Nudcd1	0x0
23195	chr15	44224098	44225288	-	Nudcd1	0x0
23196	chr15	44264955	44266057	+	Eny2	0x0
23197	chr15	44471717	44473041	+	Ebag9	0x0
23198	chr15	44518957	44520134	+	Ebag9	0x0
23199	chr15	46868004	46869127	+	4930548G14Rik	0x0
23200	chr15	47199039	47200195	+	4930548G14Rik	0x0
23201	chr15	47370995	47372248	+	4930548G14Rik	0x0
23202	chr15	50486513	50487647	-	Trps1	0x0
23203	chr15	50560722	50561900	-	Trps1	0x0
23204	chr15	50572218	50573397	-	Trps1	0x0
23205	chr15	50585995	50587172	-	Trps1	0x0
23206	chr15	50595190	50596291	-	Trps1	0x0
23207	chr15	50598223	50599358	-	Trps1	0x0
23208	chr15	50650246	50652419	-	Trps1	0x0
23209	chr15	50677126	50678298	-	Trps1	0x0
23210	chr15	50719529	50720690	-	Mir1907	0x0
23211	chr15	50787153	50788340	+	Utp23	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23212	chr15	51617614	51618863	-	Eif3h	0x2
23213	chr15	51621026	51622220	-	Eif3h	0x2
23214	chr15	51630208	51631381	-	Eif3h	0x2
23215	chr15	51663896	51665098	-	Eif3h	0x2
23216	chr15	51673534	51674679	-	Eif3h	0x2
23217	chr15	51714343	51715453	+	Utp23	0x0
23218	chr15	51725532	51726751	+	Utp23	0x0
23219	chr15	51793745	51795803	-	Rad21	0x0
23220	chr15	52006088	52007414	+	Slc30a8	0x0
23221	chr15	52550442	52551578	+	Med30	0x0
23222	chr15	53079951	53081048	-	Ext1	0x1
23223	chr15	53091127	53092319	-	Ext1	0x1
23224	chr15	53106112	53107289	-	Ext1	0x1
23225	chr15	53119833	53121019	-	Ext1	0x1
23226	chr15	53145324	53146467	-	Ext1	0x1
23227	chr15	54846286	54848176	-	Taf2	0x2
23228	chr15	54859831	54861036	-	Taf2	0x2
23229	chr15	54943710	54944862	+	Deptor	0x0
23230	chr15	55084967	55086087	+	Deptor	0x0
23231	chr15	55086225	55087293	+	Deptor	0x0
23232	chr15	55087652	55091118	+	Deptor	0x0
23233	chr15	55397178	55398365	+	Mtbp	0x0
23234	chr15	55449852	55450954	+	Mtbp	0x0
23235	chr15	55467983	55469082	-	Sntb1	0x0
23236	chr15	55707682	55708894	+	Mtbp	0x0
23237	chr15	57700202	57702571	-	Derl1	0x0
23238	chr15	57706723	57707828	-	Derl1	0x0
23239	chr15	57863467	57864649	-	9130401M01Rik	0x0
23240	chr15	57879087	57880754	-	Zhx1	0x0
23241	chr15	57925294	57926794	-	Atad2	0x0
23242	chr15	57942187	57943404	-	Atad2	0x0
23243	chr15	58286619	58289701	+	D15Ertd621e	0x0
23244	chr15	58613438	58615975	-	Tmem65	0x0
23245	chr15	58636375	58637565	-	Tmem65	0x0
23246	chr15	58730354	58731547	+	Rnf139	0x0
23247	chr15	58737895	58739075	+	Rnf139	0x0
23248	chr15	58751779	58752895	-	Tatdn1	0x0
23249	chr15	58764808	58765981	+	Ndufb9	0x0
23250	chr15	58772801	58774181	-	Mtss1	0x1
23251	chr15	58776246	58777345	-	Mtss1	0x1
23252	chr15	59146094	59147406	+	Sqle	0x0
23253	chr15	59148961	59150110	+	Sqle	0x0
23254	chr15	59163035	59164227	-	E430025E21Rik	0x0
23255	chr15	59196687	59197915	-	E430025E21Rik	0x0
23256	chr15	59301652	59302888	+	Nsmce2	0x0
23257	chr15	59313483	59314685	+	Nsmce2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23258	chr15	59316063	59317257	+	Nsmce2	0x0
23259	chr15	59479799	59481037	+	Trib1	0x2
23260	chr15	60299274	60301594	+	9930014A18Rik	0x0
23261	chr15	61819068	61820181	+	Myc	0x2
23262	chr15	61870731	61871847	+	Pvt1	0x0
23263	chr15	61911722	61912844	+	Pvt1	0x0
23264	chr15	61938203	61939576	+	Pvt1	0x0
23265	chr15	61949273	61950469	+	Pvt1	0x0
23266	chr15	61956486	61957678	+	Pvt1	0x0
23267	chr15	61971338	61972498	+	Pvt1	0x0
23268	chr15	62006527	62007970	+	Pvt1	0x0
23269	chr15	63762002	63763230	-	Fam49b	0x0
23270	chr15	63813943	63815194	-	Fam49b	0x0
23271	chr15	63831198	63832344	-	Fam49b	0x0
23272	chr15	63852742	63853917	-	Fam49b	0x0
23273	chr15	63919551	63921167	-	Asap1	0x0
23274	chr15	63933055	63934296	-	Asap1	0x0
23275	chr15	63954698	63955876	-	Asap1	0x0
23276	chr15	63963353	63964541	-	Asap1	0x0
23277	chr15	64118817	64120631	-	Asap1	0x0
23278	chr15	64167061	64168214	-	Asap1	0x0
23279	chr15	65634861	65636092	+	Efr3a	0x0
23280	chr15	65668497	65669708	+	Efr3a	0x0
23281	chr15	65680802	65681935	+	Efr3a	0x0
23282	chr15	65686359	65687498	+	Efr3a	0x0
23283	chr15	65702678	65705659	+	Efr3a	0x0
23284	chr15	66032699	66033877	-	Kcnq3	0x2
23285	chr15	66760594	66762841	-	Ndrg1	0x1
23286	chr15	66781875	66783044	-	Ndrg1	0x1
23287	chr15	68017753	68018946	-	Zfat	0x4
23288	chr15	68084812	68085989	-	Zfat	0x4
23289	chr15	68545216	68546448	-	Mir30d	0x0
23290	chr15	68876468	68877632	+	Khdrbs3	0x0
23291	chr15	68923675	68924896	+	Khdrbs3	0x0
23292	chr15	68930670	68931835	+	Khdrbs3	0x0
23293	chr15	72442659	72443854	-	Trappc9	0x0
23294	chr15	72471837	72473019	-	Trappc9	0x0
23295	chr15	72475871	72477077	-	Trappc9	0x0
23296	chr15	72505175	72506366	-	Trappc9	0x0
23297	chr15	72517788	72519555	-	Trappc9	0x0
23298	chr15	72520144	72521248	-	Trappc9	0x0
23299	chr15	72522446	72524451	-	Trappc9	0x0
23300	chr15	72636730	72637904	-	Peg13	0x0
23301	chr15	72670082	72671181	-	Trappc9	0x0
23302	chr15	72846319	72847528	-	Trappc9	0x0
23303	chr15	72878022	72879233	-	Trappc9	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23304	chr15	72880311	72881424	-	Trappc9	0x0
23305	chr15	72926163	72927218	-	Eif2c2	0x0
23306	chr15	72927381	72930511	-	Eif2c2	0x0
23307	chr15	72932204	72933298	-	Eif2c2	0x0
23308	chr15	72943653	72944799	+	Chrac1	0x0
23309	chr15	72949213	72950449	-	Eif2c2	0x0
23310	chr15	72951042	72952143	-	Eif2c2	0x0
23311	chr15	72953272	72954365	+	Chrac1	0x0
23312	chr15	72956889	72957991	+	Chrac1	0x0
23313	chr15	72958229	72959328	-	Eif2c2	0x0
23314	chr15	72971757	72972926	-	Eif2c2	0x0
23315	chr15	72976336	72977534	-	Eif2c2	0x0
23316	chr15	72976394	72977596	+	Chrac1	0x0
23317	chr15	72993012	72994148	-	Eif2c2	0x0
23318	chr15	73001861	73003023	-	Eif2c2	0x0
23319	chr15	73011511	73012638	-	Eif2c2	0x0
23320	chr15	73035320	73036609	-	Ptk2	0x0
23321	chr15	73058499	73059602	-	Ptk2	0x0
23322	chr15	73156219	73157661	-	Ptk2	0x0
23323	chr15	73159874	73161119	-	Ptk2	0x0
23324	chr15	73222290	73223429	-	Ptk2	0x0
23325	chr15	73410402	73412567	-	Slc45a4	0x0
23326	chr15	73416574	73417672	-	Slc45a4	0x0
23327	chr15	73435506	73436717	-	Slc45a4	0x0
23328	chr15	73438067	73439259	-	Slc45a4	0x0
23329	chr15	73451120	73452349	-	Slc45a4	0x0
23330	chr15	73581439	73582566	+	Ptp4a3	0x0
23331	chr15	73917421	73918532	+	Ptp4a3	0x0
23332	chr15	73923025	73924235	-	Mroh5	0x0
23333	chr15	74126242	74127422	-	Mroh4	0x0
23334	chr15	74359805	74360949	+	Bai1	0x0
23335	chr15	74373826	74374987	+	Bai1	0x0
23336	chr15	74403979	74405078	+	Bai1	0x0
23337	chr15	74499202	74500521	-	Arc	0x0
23338	chr15	74531033	74532193	+	4933427E11Rik	0x0
23339	chr15	74553940	74555136	+	Them6	0x0
23340	chr15	74788903	74790237	+	Ly6e	0x0
23341	chr15	74916318	74917470	+	Ly6e	0x0
23342	chr15	75454738	75456044	+	Zfp41	0x0
23343	chr15	75575503	75576723	-	Mafa	0x1
23344	chr15	75597661	75598831	-	Zc3h3	0x0
23345	chr15	75725728	75727374	-	Eef1d	0x0
23346	chr15	75730982	75732216	-	Eef1d	0x0
23347	chr15	75732598	75733746	-	Eef1d	0x0
23348	chr15	75802052	75803193	+	Zfp707	0x0
23349	chr15	75877086	75878321	-	Scrib	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23350	chr15	75888849	75890057	-	Scrib	0x1
23351	chr15	75900108	75901298	-	Puf60	0x0
23352	chr15	75900108	75901298	-	Scrib	0x1
23353	chr15	75901556	75902739	-	Puf60	0x0
23354	chr15	76000964	76002948	-	Plec	0x0
23355	chr15	76006590	76007775	-	Plec	0x0
23356	chr15	76010098	76011237	-	Plec	0x0
23357	chr15	76018454	76020057	-	Plec	0x0
23358	chr15	76021311	76022482	-	Plec	0x0
23359	chr15	76078986	76080099	+	Grina	0x0
23360	chr15	76157677	76158783	+	Exosc4	0x0
23361	chr15	76162238	76163341	+	Gpaa1	0x0
23362	chr15	76164197	76165305	+	Gpaa1	0x0
23363	chr15	76168074	76169226	+	Gpaa1	0x0
23364	chr15	76173448	76176725	+	Cyc1	0x0
23365	chr15	76176969	76178123	-	Sharpin	0x0
23366	chr15	76183993	76185167	+	Maf1	0x0
23367	chr15	76193443	76194641	+	Fam203a	0x0
23368	chr15	76199507	76200680	+	Fam203a	0x0
23369	chr15	76278061	76279196	+	Mroh1	0x0
23370	chr15	76286742	76287919	-	Bop1	0x0
23371	chr15	76319846	76320897	+	Hsf1	0x0
23372	chr15	76323190	76324241	+	Hsf1	0x0
23373	chr15	76400104	76401292	-	Cpsf1	0x0
23374	chr15	76477409	76478621	-	Cyhr1	0x0
23375	chr15	76478859	76480042	-	Cyhr1	0x0
23376	chr15	76486261	76487493	-	Cyhr1	0x0
23377	chr15	76497755	76499133	-	Foxh1	0x0
23378	chr15	76508384	76509543	+	Ppp1r16a	0x0
23379	chr15	76523625	76524849	+	Ppp1r16a	0x0
23380	chr15	76540224	76541421	-	Recql4	0x2
23381	chr15	76543273	76544514	+	Lrrc14	0x0
23382	chr15	76734290	76737306	+	Rpl8	0x0
23383	chr15	76908928	76912568	-	Rbfox2	0x0
23384	chr15	76913160	76914258	-	Rbfox2	0x0
23385	chr15	76940701	76941889	-	Rbfox2	0x0
23386	chr15	76946179	76948046	-	Rbfox2	0x0
23387	chr15	77033070	77034266	-	Rbfox2	0x0
23388	chr15	77036392	77037583	-	Rbfox2	0x0
23389	chr15	77085776	77086952	-	Rbfox2	0x0
23390	chr15	77095755	77096962	-	Rbfox2	0x0
23391	chr15	77098306	77099445	-	Rbfox2	0x0
23392	chr15	77102655	77103813	-	Rbfox2	0x0
23393	chr15	77116702	77117898	-	Rbfox2	0x0
23394	chr15	77160896	77162088	-	Rbfox2	0x0
23395	chr15	77590670	77592629	-	Myh9	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23396	chr15	77593912	77594927	-	Myh9	0x2
23397	chr15	77605085	77606243	-	Myh9	0x2
23398	chr15	77613283	77614450	-	Myh9	0x2
23399	chr15	77617427	77618628	-	Myh9	0x2
23400	chr15	77770522	77771674	-	Foxred2	0x0
23401	chr15	77789373	77790590	-	Eif3d	0x0
23402	chr15	77792388	77793497	-	Eif3d	0x0
23403	chr15	77798118	77799492	-	Eif3d	0x0
23404	chr15	78258894	78260070	+	Kctd17	0x0
23405	chr15	78268576	78270030	+	Kctd17	0x0
23406	chr15	78724153	78725340	+	Gga1	0x2
23407	chr15	78748889	78750082	+	Pdxp	0x0
23408	chr15	78821186	78822395	+	Triobp	0x2
23409	chr15	78867068	78868281	+	Gcat	0x0
23410	chr15	78905455	78906648	+	Eif3l	0x0
23411	chr15	78907888	78909111	+	Eif3l	0x0
23412	chr15	78913100	78914199	+	Eif3l	0x0
23413	chr15	78915544	78916643	+	Eif3l	0x0
23414	chr15	78919388	78920957	+	Eif3l	0x0
23415	chr15	78964009	78965106	+	Micall1	0x0
23416	chr15	79076417	79077538	+	Pick1	0x0
23417	chr15	79121943	79123135	-	Pla2g6	0x0
23418	chr15	79187344	79188591	+	Maff	0x0
23419	chr15	79189300	79190447	-	Tmem184b	0x0
23420	chr15	79190599	79192907	-	Tmem184b	0x0
23421	chr15	79199817	79200996	-	Tmem184b	0x0
23422	chr15	79247819	79249984	-	Csnk1e	0x0
23423	chr15	79357290	79358454	+	Kdelr3	0x0
23424	chr15	79357792	79360976	-	Ddx17	0x0
23425	chr15	79361602	79362792	-	Ddx17	0x0
23426	chr15	79373607	79374796	-	Ddx17	0x0
23427	chr15	79502276	79503685	+	Tomm22	0x0
23428	chr15	79504563	79506324	-	Josd1	0x0
23429	chr15	79544687	79545863	+	Gtpbp1	0x0
23430	chr15	79547518	79548621	+	Gtpbp1	0x0
23431	chr15	79550350	79551942	+	Gtpbp1	0x0
23432	chr15	79586975	79588131	+	Gm16576	0x0
23433	chr15	79599874	79601030	-	Dnalc4	0x0
23434	chr15	79616790	79619218	-	Npcd	0x0
23435	chr15	79616790	79619218	-	Nptxr	0x0
23436	chr15	79619509	79620700	-	Npcd	0x0
23437	chr15	79619509	79620700	-	Nptxr	0x0
23438	chr15	79653840	79656785	-	Cbx6	0x0
23439	chr15	79656876	79658341	-	Cbx6	0x0
23440	chr15	79717874	79719040	-	D730005E14Rik	0x0
23441	chr15	79737394	79739286	+	Apobec3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23442	chr15	79745727	79748680	-	Cbx7	0x0
23443	chr15	79748767	79749901	+	Apobec3	0x0
23444	chr15	79749816	79750915	-	Cbx7	0x0
23445	chr15	79821569	79822667	+	Apobec3	0x0
23446	chr15	79909599	79910775	-	Rpl3	0x0
23447	chr15	79943191	79944367	+	Syngr1	0x0
23448	chr15	79948084	79949238	+	Syngr1	0x0
23449	chr15	79950243	79951380	+	Syngr1	0x0
23450	chr15	80042707	80045625	+	Mgat3	0x0
23451	chr15	80059412	80060608	-	Rps19bp1	0x0
23452	chr15	80080497	80083454	+	Smcr7l	0x0
23453	chr15	80123600	80124801	+	Cacna1i	0x0
23454	chr15	80545783	80546988	+	Tnrc6b	0x0
23455	chr15	80608784	80609979	+	Tnrc6b	0x0
23456	chr15	80762782	80763848	+	Tnrc6b	0x0
23457	chr15	80766611	80767946	+	Tnrc6b	0x0
23458	chr15	80769279	80771420	+	Mir5113	0x0
23459	chr15	80769279	80771420	+	Tnrc6b	0x0
23460	chr15	81132673	81133779	-	Slc25a17	0x0
23461	chr15	81149009	81150223	-	Slc25a17	0x0
23462	chr15	81168782	81169975	-	Slc25a17	0x0
23463	chr15	81193849	81196058	-	St13	0x1
23464	chr15	81201392	81202586	-	St13	0x1
23465	chr15	81285168	81287205	+	Xpnpep3	0x0
23466	chr15	81480867	81482421	+	Ep300	0x2
23467	chr15	81517127	81519074	+	L3mbtl2	0x0
23468	chr15	81534240	81536082	-	Rangap1	0x0
23469	chr15	81541522	81542698	-	Rangap1	0x0
23470	chr15	81559195	81560399	-	Rangap1	0x0
23471	chr15	81604609	81605806	+	Zc3h7b	0x0
23472	chr15	81624193	81625360	+	Zc3h7b	0x0
23473	chr15	81625792	81627026	+	Zc3h7b	0x0
23474	chr15	81655099	81657679	+	Tef	0x0
23475	chr15	81711928	81713026	+	Aco2	0x0
23476	chr15	81713209	81714308	+	Aco2	0x0
23477	chr15	81736190	81738457	+	Aco2	0x0
23478	chr15	81739759	81740896	+	Aco2	0x0
23479	chr15	81743563	81746046	+	Aco2	0x0
23480	chr15	81744934	81746149	-	Polr3h	0x0
23481	chr15	81781065	81782482	-	Pmm1	0x0
23482	chr15	81802547	81803847	+	1700029P11Rik	0x0
23483	chr15	81811271	81812371	+	1700029P11Rik	0x0
23484	chr15	81823149	81824757	-	Desi1	0x0
23485	chr15	81871449	81873046	-	Nhp2l1	0x0
23486	chr15	82002729	82004672	+	Srebf2	0x0
23487	chr15	82007343	82010500	+	Srebf2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23488	chr15	82015150	82016357	+	Srebf2	0x0
23489	chr15	82027504	82028712	+	Mir33	0x0
23490	chr15	82027504	82028712	+	Srebf2	0x0
23491	chr15	82029390	82030494	+	Srebf2	0x0
23492	chr15	82033865	82036212	+	Srebf2	0x0
23493	chr15	82063718	82064896	-	Cenpm	0x0
23494	chr15	82120739	82121838	+	Sept3	0x0
23495	chr15	82122125	82124402	+	Sept3	0x0
23496	chr15	82178761	82179870	+	1500032L24Rik	0x0
23497	chr15	82638626	82640250	-	Tcf20	0x0
23498	chr15	82641690	82642838	-	Tcf20	0x0
23499	chr15	82655115	82656303	-	Tcf20	0x0
23500	chr15	82696412	82697558	-	Tcf20	0x0
23501	chr15	82698845	82699993	-	Tcf20	0x0
23502	chr15	82705299	82706499	-	Tbrg3	0x0
23503	chr15	82737467	82738680	-	Tcf20	0x0
23504	chr15	82778077	82779252	-	Tcf20	0x0
23505	chr15	82782711	82784035	-	Tcf20	0x0
23506	chr15	82956097	82958356	-	Poldip3	0x0
23507	chr15	82960947	82962079	-	Poldip3	0x0
23508	chr15	82965215	82966415	-	Poldip3	0x0
23509	chr15	82979546	82980770	+	Rnu12	0x0
23510	chr15	82984191	82985330	-	Cyb5r3	0x0
23511	chr15	83184172	83186618	-	1700001L05Rik	0x0
23512	chr15	83191540	83192732	-	1700001L05Rik	0x0
23513	chr15	83207152	83208251	-	Pacsin2	0x0
23514	chr15	83377195	83378367	-	Mcat	0x0
23515	chr15	83405720	83407860	-	Ttll12	0x0
23516	chr15	83412027	83413192	-	Ttll12	0x0
23517	chr15	83421290	83422484	-	Ttll12	0x0
23518	chr15	83906085	83907276	-	Sult4a1	0x0
23519	chr15	83907423	83908519	-	Sult4a1	0x0
23520	chr15	84016258	84017388	+	Pnpla3	0x0
23521	chr15	84025613	84026851	+	Samm50	0x0
23522	chr15	84041042	84042201	+	Samm50	0x0
23523	chr15	84109959	84111127	+	Parvb	0x0
23524	chr15	84143471	84146391	+	Parvb	0x0
23525	chr15	84384929	84386111	-	Ldoc1l	0x0
23526	chr15	84557185	84558378	+	Arhgap8	0x1
23527	chr15	84770245	84773810	+	Nup50	0x0
23528	chr15	84777345	84779794	-	5031439G07Rik	0x0
23529	chr15	84785699	84786901	-	5031439G07Rik	0x0
23530	chr15	84802877	84804051	-	5031439G07Rik	0x0
23531	chr15	84894778	84895955	-	Smc1b	0x0
23532	chr15	84940523	84941672	-	Smc1b	0x0
23533	chr15	85061349	85062512	+	Fbln1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23534	chr15	85069591	85071867	+	Fbln1	0x0
23535	chr15	85077472	85078574	+	Fbln1	0x0
23536	chr15	85197428	85198538	+	Atxn10	0x0
23537	chr15	85221538	85222718	+	Atxn10	0x0
23538	chr15	85223269	85224444	+	Atxn10	0x0
23539	chr15	85226750	85227911	+	Atxn10	0x0
23540	chr15	85228398	85229597	+	Atxn10	0x0
23541	chr15	85254622	85255772	+	Atxn10	0x0
23542	chr15	85292915	85294202	+	Atxn10	0x0
23543	chr15	85407594	85408759	-	Wnt7b	0x0
23544	chr15	85627747	85628887	+	Ppara	0x0
23545	chr15	85688368	85689522	+	Ttc38	0x0
23546	chr15	85703553	85704736	+	Gtse1	0x0
23547	chr15	85733870	85735049	-	Celsr1	0x0
23548	chr15	85847409	85848614	-	Celsr1	0x0
23549	chr15	85966196	85968349	+	Gramd4	0x0
23550	chr15	86327825	86329488	+	Tbc1d22a	0x0
23551	chr15	87587572	87588698	+	Fam19a5	0x0
23552	chr15	88517357	88518722	-	Brd1	0x0
23553	chr15	88541545	88542821	-	Brd1	0x0
23554	chr15	88548642	88549829	+	Zbed4	0x0
23555	chr15	88654524	88655726	+	Creld2	0x0
23556	chr15	88693255	88694446	+	Pim3	0x0
23557	chr15	88694545	88696599	+	Pim3	0x0
23558	chr15	88856344	88857496	+	Mov10l1	0x0
23559	chr15	88916807	88918007	+	Trabd	0x0
23560	chr15	88989851	88991179	-	Plxnb2	0x0
23561	chr15	88992653	88993830	-	Plxnb2	0x0
23562	chr15	88998254	88999439	-	Plxnb2	0x0
23563	chr15	89116677	89117854	+	Ppp6r2	0x0
23564	chr15	89124254	89125487	-	Sbf1	0x0
23565	chr15	89135195	89136428	-	Sbf1	0x0
23566	chr15	89182573	89183718	-	Lmf2	0x0
23567	chr15	89201373	89203601	+	Ncaph2	0x0
23568	chr15	89302927	89304036	-	Arsa	0x0
23569	chr15	89379188	89380377	+	Shank3	0x0
23570	chr15	89380882	89383072	+	Shank3	0x0
23571	chr15	89385537	89386601	+	Shank3	0x0
23572	chr15	89387065	89388279	+	Shank3	0x0
23573	chr15	89597748	89600157	+	Acr	0x0
23574	chr15	90058438	90061210	+	Alg10b	0x0
23575	chr15	90062101	90063948	+	Alg10b	0x0
23576	chr15	90594112	90595348	-	Cpne8	0x0
23577	chr15	93031643	93032742	-	Gxylt1	0x2
23578	chr15	93064287	93065496	+	Pphln1	0x0
23579	chr15	93071528	93074065	-	Gxylt1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23580	chr15	93104796	93106001	-	Gxylt1	0x2
23581	chr15	93289231	93290413	+	Pphln1	0x0
23582	chr15	93295050	93296182	+	Pphln1	0x0
23583	chr15	93317732	93318928	-	Prickle1	0x1
23584	chr15	93321563	93322828	+	Pphln1	0x0
23585	chr15	93508735	93509961	-	Prickle1	0x1
23586	chr15	94408029	94410498	-	Twf1	0x0
23587	chr15	94591390	94592510	+	Tmem117	0x0
23588	chr15	95665488	95666627	+	Ano6	0x0
23589	chr15	95794302	95795537	+	Ano6	0x0
23590	chr15	95803070	95804670	+	Ano6	0x0
23591	chr15	95804736	95805885	+	Ano6	0x0
23592	chr15	96188777	96189998	+	Arid2	0x1
23593	chr15	96192204	96193347	+	Arid2	0x1
23594	chr15	96209683	96210844	+	Arid2	0x1
23595	chr15	96212876	96214073	+	Arid2	0x1
23596	chr15	96232087	96234522	+	Arid2	0x1
23597	chr15	96242653	96243837	-	Scaf11	0x0
23598	chr15	96244150	96245495	-	Scaf11	0x0
23599	chr15	96401987	96405434	-	Slc38a1	0x0
23600	chr15	96434607	96435784	-	Slc38a1	0x0
23601	chr15	96454019	96455196	-	Slc38a1	0x0
23602	chr15	96471990	96473207	-	Slc38a1	0x0
23603	chr15	96518138	96520811	-	Slc38a2	0x0
23604	chr15	96523179	96524338	-	Slc38a2	0x0
23605	chr15	96527043	96528142	-	Slc38a2	0x0
23606	chr15	96824845	96827533	-	Slc38a4	0x4
23607	chr15	96884915	96886090	-	Slc38a4	0x4
23608	chr15	96987099	96988608	-	Amigo2	0x0
23609	chr15	96989505	96990728	-	Amigo2	0x0
23610	chr15	96991003	96992195	-	Amigo2	0x0
23611	chr15	97211464	97212611	+	Pced1b	0x0
23612	chr15	97213601	97215463	+	Pced1b	0x0
23613	chr15	97511978	97513154	-	Rpap3	0x0
23614	chr15	97590220	97591397	-	Rapgef3	0x0
23615	chr15	97621242	97623402	+	Slc48a1	0x0
23616	chr15	97642665	97643778	-	Hdac7	0x0
23617	chr15	97862085	97863299	-	Senp1	0x0
23618	chr15	97868919	97872758	-	Senp1	0x0
23619	chr15	97896327	97897602	-	Senp1	0x0
23620	chr15	97914838	97916051	-	Senp1	0x0
23621	chr15	98350347	98351417	-	Kansl2	0x0
23622	chr15	98357045	98358111	-	Kansl2	0x0
23623	chr15	98369099	98370312	-	Ccnt1	0x0
23624	chr15	98371124	98372289	-	Ccnt1	0x0
23625	chr15	98420022	98421948	-	Adcy6	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23626	chr15	98475093	98476948	-	Ddx23	0x0
23627	chr15	98480098	98481274	-	Ddx23	0x0
23628	chr15	98556957	98558156	-	Fkbp11	0x0
23629	chr15	98566446	98571171	-	Arf3	0x0
23630	chr15	98662072	98664699	-	Mll2	0x0
23631	chr15	98665124	98666229	-	Mll2	0x0
23632	chr15	98667250	98668374	-	Mll2	0x0
23633	chr15	98679103	98681118	-	Mll2	0x0
23634	chr15	98682866	98684535	-	Mll2	0x0
23635	chr15	98684902	98686121	-	Mll2	0x0
23636	chr15	98688099	98689141	-	Mll2	0x0
23637	chr15	98690758	98691911	-	Mll2	0x0
23638	chr15	98693033	98694217	-	Mll2	0x0
23639	chr15	98694520	98695785	-	Mll2	0x0
23640	chr15	98707803	98708902	-	Rhebl1	0x2
23641	chr15	98734096	98735242	-	Lmbr1l	0x0
23642	chr15	98739955	98741090	-	Lmbr1l	0x0
23643	chr15	98761389	98762998	-	Tuba1b	0x0
23644	chr15	98779758	98780953	-	Tuba1a	0x0
23645	chr15	98861356	98862488	+	Tuba1c	0x0
23646	chr15	98867790	98868986	+	Tuba1c	0x0
23647	chr15	99003356	99004457	+	Spats2	0x0
23648	chr15	99127548	99128768	+	Prpf40b	0x0
23649	chr15	99131485	99132666	+	Prpf40b	0x0
23650	chr15	99157057	99158262	-	Fmnl3	0x2
23651	chr15	99238634	99240973	+	Tmbim6	0x0
23652	chr15	99424620	99425763	+	Aqp5	0x0
23653	chr15	99450464	99452149	-	Racgap1	0x0
23654	chr15	99458518	99459721	-	Racgap1	0x0
23655	chr15	99469555	99470674	-	Racgap1	0x0
23656	chr15	99501944	99503050	+	Asic1	0x0
23657	chr15	99530837	99531959	+	Asic1	0x0
23658	chr15	99542886	99544816	+	Smarcd1	0x2
23659	chr15	99557791	99558943	+	Cox14	0x0
23660	chr15	99564978	99567138	-	Cers5	0x0
23661	chr15	99569924	99571063	-	Cers5	0x0
23662	chr15	99608393	99611205	-	Lima1	0x0
23663	chr15	99638906	99640089	-	Lima1	0x0
23664	chr15	99673615	99674736	-	Lima1	0x0
23665	chr15	99691708	99692943	-	Lima1	0x0
23666	chr15	99700117	99701310	-	Lima1	0x0
23667	chr15	99728327	99729478	-	1700030F18Rik	0x0
23668	chr15	99816019	99817153	+	Larp4	0x0
23669	chr15	99844421	99846954	+	Larp4	0x0
23670	chr15	99972126	99973321	+	Dip2b	0x0
23671	chr15	100045991	100047304	+	Dip2b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23672	chr15	100047468	100049015	+	Dip2b	0x0
23673	chr15	100049134	100050343	+	Dip2b	0x0
23674	chr15	100084073	100085465	+	Atf1	0x2
23675	chr15	100143778	100144910	+	Mettl7a1	0x0
23676	chr15	100222686	100225514	-	Slc11a2	0x0
23677	chr15	100302883	100303982	+	Letmd1	0x0
23678	chr15	100332237	100333336	-	Tfcp2	0x0
23679	chr15	100450107	100451687	+	Dazap2	0x0
23680	chr15	100522498	100523688	-	Galnt6	0x0
23681	chr15	100621527	100622720	+	Slc4a8	0x0
23682	chr15	100632665	100633824	+	Slc4a8	0x0
23683	chr15	100718471	100719635	+	Scn8a	0x0
23684	chr15	100739653	100740804	+	Scn8a	0x0
23685	chr15	100746700	100747842	+	Scn8a	0x0
23686	chr15	100789678	100790792	+	Scn8a	0x0
23687	chr15	100853677	100854794	+	Scn8a	0x0
23688	chr15	100880111	100882665	-	Fignl2	0x0
23689	chr15	100903620	100904778	-	Fignl2	0x0
23690	chr15	101031909	101033035	+	Acvr1b	0x2
23691	chr15	101040992	101044448	+	Acvr1b	0x2
23692	chr15	101097524	101098663	+	Nr4a1	0x1
23693	chr15	101120637	101121910	+	9430023L20Rik	0x0
23694	chr15	101914125	101915252	+	Eif4b	0x0
23695	chr15	101916454	101917559	+	Eif4b	0x0
23696	chr15	101918803	101920008	+	Eif4b	0x0
23697	chr15	101923022	101924092	+	Eif4b	0x0
23698	chr15	101925271	101927911	+	Eif4b	0x0
23699	chr15	101947128	101948323	-	Spryd3	0x0
23700	chr15	102021686	102022828	-	Csad	0x0
23701	chr15	102043749	102045829	+	Zfp740	0x0
23702	chr15	102064855	102066914	-	Rarg	0x0
23703	chr15	102075926	102077103	-	Rarg	0x0
23704	chr15	102113969	102115068	+	Mfsd5	0x0
23705	chr15	102118032	102119233	+	Mfsd5	0x0
23706	chr15	102126595	102127760	+	Espl1	0x2
23707	chr15	102133377	102134572	+	Espl1	0x2
23708	chr15	102135875	102137017	+	Espl1	0x2
23709	chr15	102170208	102171376	-	Aaas	0x0
23710	chr15	102221166	102222370	+	Sp1	0x2
23711	chr15	102255565	102256809	+	Sp1	0x2
23712	chr15	102262155	102263817	+	Sp1	0x2
23713	chr15	102264226	102267228	+	Sp1	0x2
23714	chr15	102292553	102293716	+	Prr13	0x0
23715	chr15	102301548	102302709	+	Pcbp2	0x0
23716	chr15	102304499	102305837	+	Pcbp2	0x0
23717	chr15	102308507	102309698	+	Pcbp2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23718	chr15	102309713	102310814	+	Pcbp2	0x0
23719	chr15	102315249	102316411	+	Pcbp2	0x0
23720	chr15	102320564	102321719	+	Pcbp2	0x0
23721	chr15	102328424	102330978	+	Pcbp2	0x0
23722	chr15	102370630	102371819	-	Atf7	0x0
23723	chr15	102446247	102447444	+	Tarbp2	0x0
23724	chr15	102464920	102466266	+	Tarbp2	0x0
23725	chr15	102769956	102771108	+	Hoxc12	0x0
23726	chr15	102983594	102985518	-	Smug1	0x0
23727	chr15	103022450	103023528	-	Cbx5	0x0
23728	chr15	103023841	103024925	-	Cbx5	0x0
23729	chr15	103030706	103031890	-	Cbx5	0x0
23730	chr15	103043013	103044190	-	Cbx5	0x0
23731	chr15	103074314	103075646	+	Gm10052	0x0
23732	chr15	103074314	103075646	+	Gm5643	0x0
23733	chr15	103074314	103075646	+	Hnrnpa1	0x0
23734	chr15	103076493	103077592	+	Gm5643	0x0
23735	chr15	103076493	103077592	+	Hnrnpa1	0x0
23736	chr15	103107139	103108331	+	Copz1	0x0
23737	chr15	103129197	103130804	+	Copz1	0x0
23738	chr15	103144862	103145990	-	Zfp385a	0x0
23739	chr15	103324250	103325397	+	Nckap1l	0x0
23740	chr15	103328255	103329439	+	Nckap1l	0x0
23741	chr16	3333569	3334725	+	Olfr161	0x0
23742	chr16	3730111	3731362	+	Zfp263	0x0
23743	chr16	3731560	3733075	+	Zfp263	0x0
23744	chr16	3862590	3863705	-	Zfp597	0x4
23745	chr16	3871688	3872864	-	Zfp597	0x4
23746	chr16	3902464	3904479	+	Naa60	0x4
23747	chr16	3981893	3983081	-	Slx4	0x0
23748	chr16	3990073	3991275	-	Slx4	0x0
23749	chr16	4052726	4053867	-	Trap1	0x0
23750	chr16	4061893	4062990	-	Trap1	0x0
23751	chr16	4064461	4065688	-	Trap1	0x0
23752	chr16	4080889	4083949	-	Crebbp	0x1
23753	chr16	4179288	4180441	-	Crebbp	0x1
23754	chr16	4200509	4201659	-	Crebbp	0x1
23755	chr16	4286125	4287324	-	Adcy9	0x0
23756	chr16	4372124	4373302	-	Adcy9	0x0
23757	chr16	4406950	4408177	-	Adcy9	0x0
23758	chr16	4477588	4478790	-	Srl	0x0
23759	chr16	4480048	4482946	-	Srl	0x0
23760	chr16	4522368	4523537	-	Srl	0x0
23761	chr16	4560030	4561129	-	Tfap4	0x0
23762	chr16	4613360	4614614	+	Glis2	0x0
23763	chr16	4614644	4616080	+	Glis2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23764	chr16	4641431	4642596	-	Coro7	0x0
23765	chr16	4692743	4693888	+	Dnaja3	0x0
23766	chr16	4706679	4708147	+	Dnaja3	0x0
23767	chr16	4762737	4763851	-	Cdip1	0x0
23768	chr16	4766375	4767658	-	Cdip1	0x0
23769	chr16	4874779	4875987	-	Ubald1	0x0
23770	chr16	4922150	4923345	+	Mgrn1	0x0
23771	chr16	4926844	4928432	+	Mgrn1	0x0
23772	chr16	4930711	4931861	+	Mgrn1	0x0
23773	chr16	4934191	4935372	-	Gm16861	0x0
23774	chr16	4936719	4938568	+	Mgrn1	0x0
23775	chr16	4946647	4947800	-	Anks3	0x0
23776	chr16	5013631	5016014	-	Glyr1	0x0
23777	chr16	5013631	5016014	-	Rogdi	0x0
23778	chr16	5018404	5019600	-	Glyr1	0x0
23779	chr16	5083966	5086524	+	Ubn1	0x0
23780	chr16	5086414	5087623	-	Ppl	0x0
23781	chr16	5097679	5098884	-	Ppl	0x0
23782	chr16	5244017	5245483	+	Alg1	0x0
23783	chr16	5244731	5245914	-	Fam86	0x0
23784	chr16	7948592	7949716	-	Cldn26	0x0
23785	chr16	8487224	8488430	+	Mettl22	0x0
23786	chr16	8633605	8634816	-	Tmem186	0x0
23787	chr16	8658199	8661182	-	Carhsp1	0x0
23788	chr16	8689332	8691013	-	Usp7	0x0
23789	chr16	8703005	8704171	-	Usp7	0x0
23790	chr16	8708061	8709142	-	Usp7	0x0
23791	chr16	8718340	8719449	-	Usp7	0x0
23792	chr16	8731777	8732966	-	Usp7	0x0
23793	chr16	8733590	8734724	-	Usp7	0x0
23794	chr16	8746674	8747821	-	Usp7	0x0
23795	chr16	8769958	8771106	-	Usp7	0x0
23796	chr16	8776083	8777276	-	Usp7	0x0
23797	chr16	8791849	8792948	-	Usp7	0x0
23798	chr16	8848330	8849542	+	1810013L24Rik	0x0
23799	chr16	8856480	8858715	+	1810013L24Rik	0x0
23800	chr16	9140350	9141462	+	1810013L24Rik	0x0
23801	chr16	9143432	9144615	+	1810013L24Rik	0x0
23802	chr16	9184694	9185839	+	1810013L24Rik	0x0
23803	chr16	9220138	9221283	+	1810013L24Rik	0x0
23804	chr16	9224581	9225774	+	1810013L24Rik	0x0
23805	chr16	10174029	10175193	+	Rpl39l	0x0
23806	chr16	10283164	10284272	-	Emp2	0x0
23807	chr16	10423358	10425597	+	Nubp1	0x0
23808	chr16	10644306	10645508	+	Clec16a	0x0
23809	chr16	10669246	10670349	+	Clec16a	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23810	chr16	10742767	10744734	+	Clec16a	0x0
23811	chr16	10841597	10842781	+	Rmi2	0x0
23812	chr16	10959583	10960790	-	Litaf	0x1
23813	chr16	11009273	11010432	+	Gm4262	0x0
23814	chr16	11073585	11075527	+	Snn	0x0
23815	chr16	11085425	11086600	-	Txndc11	0x0
23816	chr16	11091122	11092350	-	Txndc11	0x0
23817	chr16	11104094	11105321	-	Txndc11	0x0
23818	chr16	11128085	11129279	-	Txndc11	0x0
23819	chr16	11146625	11147788	-	Zc3h7a	0x0
23820	chr16	11192598	11193876	-	Rsl1d1	0x0
23821	chr16	11208351	11209502	+	2610020C07Rik	0x0
23822	chr16	11218235	11220629	-	Gspt1	0x0
23823	chr16	11587118	11588260	+	Snx29	0x0
23824	chr16	11755176	11756378	+	Snx29	0x0
23825	chr16	11756637	11758629	+	Snx29	0x0
23826	chr16	11803842	11806671	-	Cpped1	0x0
23827	chr16	13270517	13271676	+	Mkl2	0x0
23828	chr16	13274299	13275424	+	Mkl2	0x0
23829	chr16	13315158	13316300	+	Mkl2	0x0
23830	chr16	13368646	13369825	-	2310015D24Rik	0x0
23831	chr16	13436928	13438073	+	Mir193b	0x1
23832	chr16	13537752	13539541	-	Parn	0x0
23833	chr16	13601650	13602838	-	Parn	0x0
23834	chr16	13698494	13699691	+	Bfar	0x0
23835	chr16	13702063	13704028	+	Bfar	0x0
23836	chr16	13714672	13715885	-	Pla2g10	0x2
23837	chr16	13724654	13725888	-	Pla2g10	0x2
23838	chr16	13754528	13755715	+	1810007I06Rik	0x0
23839	chr16	13757433	13758964	+	1810007I06Rik	0x0
23840	chr16	13792589	13793870	+	Rrn3	0x0
23841	chr16	13802690	13803801	+	Rrn3	0x0
23842	chr16	13812790	13815359	+	Rrn3	0x0
23843	chr16	13834040	13835235	-	Pdxdc1	0x0
23844	chr16	13838842	13839941	-	Pdxdc1	0x0
23845	chr16	13917436	13918628	+	Mpv17l	0x0
23846	chr16	13946871	13948207	+	Mpv17l	0x0
23847	chr16	13998839	13999997	+	2900011O08Rik	0x0
23848	chr16	14069028	14070131	+	2900011O08Rik	0x0
23849	chr16	14109038	14111433	-	Marf1	0x0
23850	chr16	14130978	14132186	-	Marf1	0x0
23851	chr16	14145023	14146123	-	Marf1	0x0
23852	chr16	14153423	14154589	-	Marf1	0x0
23853	chr16	14191777	14193368	+	Nde1	0x0
23854	chr16	14312496	14313693	-	Fopnl	0x0
23855	chr16	14418246	14419409	+	Abcc1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23856	chr16	14464668	14465845	+	Abcc1	0x0
23857	chr16	14474131	14475327	+	Abcc1	0x0
23858	chr16	14957791	14958971	-	Ube2v2	0x0
23859	chr16	15553424	15554681	-	Ube2v2	0x0
23860	chr16	15609308	15610461	+	Prkdc	0x0
23861	chr16	15623779	15625265	-	Mcm4	0x0
23862	chr16	15627302	15628521	-	Mcm4	0x0
23863	chr16	15696779	15697924	+	Prkdc	0x0
23864	chr16	15704707	15705905	+	Prkdc	0x0
23865	chr16	15734650	15735855	+	Prkdc	0x0
23866	chr16	15816313	15817488	+	Prkdc	0x0
23867	chr16	15862754	15863996	-	Mzt2	0x0
23868	chr16	16272082	16273335	+	Pkp2	0x0
23869	chr16	16311832	16313708	-	Dnm1l	0x0
23870	chr16	16321084	16322315	-	Dnm1l	0x0
23871	chr16	16358361	16359538	-	Dnm1l	0x0
23872	chr16	16472693	16473867	-	Fgd4	0x0
23873	chr16	16924464	16927100	+	Ppm1f	0x0
23874	chr16	17025190	17026679	+	Mapk1	0x0
23875	chr16	17034189	17035418	+	Mapk1	0x0
23876	chr16	17038312	17039503	+	Mapk1	0x0
23877	chr16	17043455	17045734	+	Mapk1	0x0
23878	chr16	17046689	17047816	+	Mapk1	0x0
23879	chr16	17086245	17087396	-	Ppil2	0x0
23880	chr16	17099849	17101035	-	Ppil2	0x0
23881	chr16	17129729	17131104	-	Sdf2l1	0x0
23882	chr16	17136821	17138013	+	Ydjc	0x0
23883	chr16	17151891	17154123	-	Ube2l3	0x0
23884	chr16	17195131	17196305	-	Ube2l3	0x0
23885	chr16	17214254	17215380	+	Rimbp3	0x0
23886	chr16	17257508	17258712	+	Hic2	0x0
23887	chr16	17259374	17263796	+	Hic2	0x0
23888	chr16	17304444	17305618	-	Pi4ka	0x2
23889	chr16	17428898	17430929	+	Snap29	0x0
23890	chr16	17468754	17469874	+	Crkl	0x0
23891	chr16	17483737	17487737	+	Crkl	0x0
23892	chr16	17639691	17640830	+	Smpd4	0x0
23893	chr16	17655916	17657109	-	Med15	0x0
23894	chr16	17665601	17666802	-	Med15	0x0
23895	chr16	17680140	17681336	-	Med15	0x0
23896	chr16	17697152	17698276	-	Med15	0x0
23897	chr16	17775996	17777167	+	Klhl22	0x0
23898	chr16	17778966	17780162	+	Klhl22	0x0
23899	chr16	17788755	17789957	+	Klhl22	0x0
23900	chr16	17792290	17793943	+	Klhl22	0x0
23901	chr16	17839923	17842696	-	Dgcr2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23902	chr16	17873422	17874621	-	Dgcr2	0x0
23903	chr16	17913924	17915120	-	Gsc2	0x0
23904	chr16	17925002	17926332	-	Slc25a1	0x0
23905	chr16	18014142	18015995	+	Vpreb2	0x0
23906	chr16	18016058	18017108	+	Vpreb2	0x0
23907	chr16	18118799	18119945	+	Rtn4r	0x0
23908	chr16	18222090	18224300	-	Zdhhc8	0x0
23909	chr16	18224410	18225603	-	Zdhhc8	0x0
23910	chr16	18240226	18241458	-	Ranbp1	0x0
23911	chr16	18253902	18255131	-	Dgcr8	0x0
23912	chr16	18336446	18337639	-	Tango2	0x0
23913	chr16	18406689	18407840	-	Comt	0x0
23914	chr16	18410672	18411838	-	Comt	0x0
23915	chr16	18532721	18533971	-	Tbx1	0x0
23916	chr16	18680979	18682175	-	Sept5	0x2
23917	chr16	18828809	18830386	+	Ufd1l	0x0
23918	chr16	18838696	18839892	+	2510002D24Rik	0x0
23919	chr16	18911193	18912853	+	Hira	0x0
23920	chr16	18921625	18923573	+	Hira	0x0
23921	chr16	18934566	18935747	+	Hira	0x0
23922	chr16	18948000	18949151	+	Hira	0x0
23923	chr16	18969100	18970464	+	Hira	0x0
23924	chr16	19098780	19100010	+	Hira	0x0
23925	chr16	19106250	19107451	+	Hira	0x0
23926	chr16	19123650	19124825	+	Hira	0x0
23927	chr16	19436358	19437482	+	Olfr166	0x2
23928	chr16	19770170	19772808	+	B3gnt5	0x0
23929	chr16	20100837	20102035	+	Klhl24	0x0
23930	chr16	20124660	20125759	+	Klhl24	0x0
23931	chr16	20125806	20126945	+	Klhl24	0x0
23932	chr16	20127979	20129641	+	Klhl24	0x0
23933	chr16	20199951	20201125	+	Yeats2	0x0
23934	chr16	20231401	20232986	+	Yeats2	0x0
23935	chr16	20233906	20235086	-	Map6d1	0x0
23936	chr16	20290400	20291514	-	Parl	0x0
23937	chr16	20330926	20332815	-	Abcc5	0x0
23938	chr16	20333227	20334350	-	Abcc5	0x0
23939	chr16	20357962	20359196	-	Abcc5	0x0
23940	chr16	20387746	20388900	-	Abcc5	0x0
23941	chr16	20399964	20401085	-	Abcc5	0x0
23942	chr16	20499818	20500903	+	Eif2b5	0x0
23943	chr16	20501482	20503273	+	Eif2b5	0x0
23944	chr16	20508655	20509876	+	Eif2b5	0x0
23945	chr16	20532655	20534023	+	Dvl3	0x0
23946	chr16	20538745	20539889	+	Ap2m1	0x0
23947	chr16	20543447	20544647	+	Ap2m1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23948	chr16	20644433	20645637	+	Ece2	0x0
23949	chr16	20654903	20655945	+	Psmd2	0x0
23950	chr16	20656114	20658181	+	Psmd2	0x0
23951	chr16	20659034	20661012	+	Psmd2	0x0
23952	chr16	20661134	20662233	+	Psmd2	0x0
23953	chr16	20678927	20680511	+	Eif4g1	0x0
23954	chr16	20685102	20686913	+	Eif4g1	0x0
23955	chr16	20691833	20693246	+	Eif4g1	0x0
23956	chr16	20711813	20712985	-	Clcn2	0x0
23957	chr16	20721460	20722659	+	Polr2h	0x0
23958	chr16	20821743	20823196	-	Thpo	0x0
23959	chr16	20890017	20891166	+	Chrd	0x0
23960	chr16	21222324	21223498	+	Ephb3	0x0
23961	chr16	21469670	21470851	+	Vps8	0x0
23962	chr16	21624432	21625611	+	Vps8	0x0
23963	chr16	21761802	21762937	-	Ehhadh	0x0
23964	chr16	21805154	21806348	+	1300002E11Rik	0x0
23965	chr16	21808273	21809372	+	1300002E11Rik	0x0
23966	chr16	21934033	21935210	-	Tmem41a	0x0
23967	chr16	21954590	21956315	-	Liph	0x0
23968	chr16	21976510	21977701	-	Liph	0x0
23969	chr16	21979612	21980823	-	Liph	0x0
23970	chr16	22026193	22027398	+	Senp2	0x0
23971	chr16	22046297	22048707	+	Senp2	0x0
23972	chr16	22058699	22061199	-	Igf2bp2	0x0
23973	chr16	22117044	22118219	-	Igf2bp2	0x0
23974	chr16	22162373	22163604	-	Igf2bp2	0x0
23975	chr16	22174011	22175204	-	Igf2bp2	0x0
23976	chr16	22231014	22232227	+	Senp2	0x0
23977	chr16	22245527	22247022	-	Tra2b	0x0
23978	chr16	22380902	22383584	-	Etv5	0x2
23979	chr16	22392193	22393350	-	Etv5	0x2
23980	chr16	22395356	22396576	-	Etv5	0x2
23981	chr16	22411240	22412339	-	Etv5	0x2
23982	chr16	22413857	22415054	-	Etv5	0x2
23983	chr16	22846736	22847900	-	Tbccd1	0x0
23984	chr16	22871267	22872938	+	Dnajb11	0x0
23985	chr16	23015462	23017562	-	Kng2	0x0
23986	chr16	23049883	23051430	+	Kng1	0x0
23987	chr16	23109975	23111092	+	Eif4a2	0x2
23988	chr16	23109975	23111092	+	Snora81	0x0
23989	chr16	23358828	23360707	+	St6gal1	0x0
23990	chr16	23460149	23461305	-	Masp1	0x0
23991	chr16	23605018	23606254	+	Rtp4	0x0
23992	chr16	24474454	24475644	+	Lpp	0x0
23993	chr16	24979657	24980801	+	Lpp	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
23994	chr16	24989820	24991126	+	Lpp	0x0
23995	chr16	24991270	24992730	+	Lpp	0x0
23996	chr16	25517376	25518494	+	Tprg	0x0
23997	chr16	26711307	26712540	+	Il1rap	0x0
23998	chr16	27040022	27041187	+	Ostn	0x0
23999	chr16	27446227	27447554	+	Ccdc50	0x0
24000	chr16	27447913	27450423	+	Ccdc50	0x0
24001	chr16	27450481	27452470	+	Ccdc50	0x0
24002	chr16	28870978	28872175	-	Mb21d2	0x0
24003	chr16	28883627	28884827	-	Mb21d2	0x0
24004	chr16	29651595	29655115	+	Opa1	0x0
24005	chr16	29659934	29661087	+	Opa1	0x0
24006	chr16	29933791	29934985	-	Gm1968	0x0
24007	chr16	29999016	30000173	-	Gm1968	0x0
24008	chr16	30057148	30058283	-	9030404E10Rik	0x0
24009	chr16	30153057	30154207	-	Cpn2	0x0
24010	chr16	30269210	30272522	-	Lrrc15	0x0
24011	chr16	30312962	30315937	-	Atp13a3	0x0
24012	chr16	30333931	30335113	-	Atp13a3	0x0
24013	chr16	30339202	30341021	-	Atp13a3	0x0
24014	chr16	30378386	30379507	-	Atp13a3	0x0
24015	chr16	30572794	30573954	-	Lsg1	0x0
24016	chr16	30586125	30587310	-	Lsg1	0x0
24017	chr16	30818550	30819739	-	AI480653	0x0
24018	chr16	30890598	30891809	-	AI480653	0x0
24019	chr16	30955795	30957301	-	AI480653	0x0
24020	chr16	30989265	30990411	-	AI480653	0x0
24021	chr16	31001128	31002294	-	AI480653	0x0
24022	chr16	31092214	31093383	-	Acap2	0x0
24023	chr16	31093781	31095020	-	Acap2	0x0
24024	chr16	31251895	31253239	-	Ppp1r2	0x0
24025	chr16	31266616	31267738	-	Ppp1r2	0x0
24026	chr16	31457134	31458332	+	Bdh1	0x0
24027	chr16	31687193	31688437	+	Dlg1	0x1
24028	chr16	31708885	31710001	+	Dlg1	0x1
24029	chr16	31871271	31873896	+	Dlg1	0x1
24030	chr16	31956578	31958374	+	Ncbp2	0x0
24031	chr16	31959222	31961856	-	Senp5	0x0
24032	chr16	32016495	32017674	-	Pak2	0x0
24033	chr16	32017905	32020732	-	Pak2	0x0
24034	chr16	32229797	32231322	-	Fbxo45	0x0
24035	chr16	32243327	32244537	-	Fbxo45	0x0
24036	chr16	32297963	32299173	+	Rnf168	0x0
24037	chr16	32300161	32301570	+	Rnf168	0x0
24038	chr16	32386167	32388289	+	Ubxn7	0x0
24039	chr16	32388749	32391269	+	Ubxn7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24040	chr16	32391469	32394129	+	Ubxn7	0x0
24041	chr16	32410142	32411363	+	Tm4sf19	0x0
24042	chr16	32427340	32428537	+	Tctex1d2	0x0
24043	chr16	32472882	32474483	+	Pcyt1a	0x0
24044	chr16	32590389	32591561	-	Gm10818	0x0
24045	chr16	32614751	32615920	+	Tfrc	0x2
24046	chr16	32626141	32627403	+	Tfrc	0x2
24047	chr16	32630193	32631406	+	Tfrc	0x2
24048	chr16	32631585	32633359	+	Tfrc	0x2
24049	chr16	32644520	32646140	+	Tnk2	0x0
24050	chr16	32648385	32649463	+	Tnk2	0x0
24051	chr16	32654839	32656009	+	Tnk2	0x0
24052	chr16	32657229	32658328	+	Tnk2	0x0
24053	chr16	32660171	32661494	+	Tnk2	0x0
24054	chr16	32669515	32670716	+	Tnk2	0x0
24055	chr16	32682266	32683406	+	Tnk2	0x0
24056	chr16	32905613	32908477	+	Fyttd1	0x0
24057	chr16	32990179	32991279	+	Lrch3	0x0
24058	chr16	33001402	33002696	+	Lrch3	0x0
24059	chr16	33012306	33014110	+	Lrch3	0x0
24060	chr16	33047176	33048334	+	Rpl35a	0x0
24061	chr16	33061213	33062412	+	Lmln	0x0
24062	chr16	33126572	33127733	+	Lmln	0x0
24063	chr16	33137615	33138810	-	Iqcg	0x0
24064	chr16	33187396	33188584	+	Osbpl11	0x0
24065	chr16	33242326	33243720	+	Osbpl11	0x0
24066	chr16	33250424	33251663	-	1700007L15Rik	0x0
24067	chr16	33298177	33299960	+	Snx4	0x2
24068	chr16	33412374	33413546	+	Zfp148	0x0
24069	chr16	33426779	33427948	+	Zfp148	0x0
24070	chr16	33434175	33435595	+	Zfp148	0x0
24071	chr16	33475524	33476724	+	Zfp148	0x0
24072	chr16	33498480	33501466	+	Zfp148	0x0
24073	chr16	33517245	33518431	+	Slc12a8	0x0
24074	chr16	33534480	33535579	+	Slc12a8	0x0
24075	chr16	33539675	33540832	+	Slc12a8	0x0
24076	chr16	33550415	33551618	+	Slc12a8	0x0
24077	chr16	33864949	33866069	+	Itgb5	0x0
24078	chr16	33884511	33885653	+	Itgb5	0x0
24079	chr16	33948300	33949626	+	Itgb5	0x0
24080	chr16	33955285	33956948	-	Umps	0x0
24081	chr16	33961502	33962668	-	Umps	0x0
24082	chr16	33997481	33998629	-	Kalrn	0x2
24083	chr16	34033799	34034983	-	Kalrn	0x2
24084	chr16	34115021	34116164	-	Kalrn	0x2
24085	chr16	34427629	34428821	-	Kalrn	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24086	chr16	34713629	34714788	+	Ccdc14	0x0
24087	chr16	35105903	35107077	+	Ptplb	0x0
24088	chr16	35171276	35172503	+	Adcy5	0x0
24089	chr16	35308123	35309343	-	Sec22a	0x0
24090	chr16	35405192	35406375	-	Pdia5	0x0
24091	chr16	35479440	35480648	-	Pdia5	0x0
24092	chr16	35554827	35556014	+	Sema5b	0x2
24093	chr16	35572827	35574172	-	1600019K03Rik	0x0
24094	chr16	35663512	35664735	+	Sema5b	0x2
24095	chr16	35696650	35698395	-	Dirc2	0x0
24096	chr16	35771871	35772970	+	Hspbap1	0x0
24097	chr16	35774994	35776094	+	Hspbap1	0x0
24098	chr16	35778148	35779281	+	Hspbap1	0x0
24099	chr16	35780808	35781959	+	Hspbap1	0x0
24100	chr16	35786830	35787954	+	Hspbap1	0x0
24101	chr16	35817131	35818236	+	Hspbap1	0x0
24102	chr16	35824331	35825484	+	Hspbap1	0x0
24103	chr16	35857250	35858443	-	Parp14	0x0
24104	chr16	35892559	35893787	+	Parp9	0x2
24105	chr16	35928115	35929258	-	Dtx3l	0x0
24106	chr16	35981249	35982451	-	Dtx3l	0x0
24107	chr16	36033566	36037596	+	Kpna1	0x0
24108	chr16	36054964	36056063	-	Fam162a	0x0
24109	chr16	36721589	36722789	+	Ildr1	0x0
24110	chr16	36851839	36852992	+	Iqcb1	0x0
24111	chr16	36892840	36894062	+	Golgb1	0x0
24112	chr16	36911726	36912923	+	Golgb1	0x0
24113	chr16	36918370	36919531	+	Golgb1	0x0
24114	chr16	36931740	36933467	+	Golgb1	0x0
24115	chr16	37040107	37041273	+	Polq	0x0
24116	chr16	37509497	37511452	-	Gtf2e1	0x0
24117	chr16	37571247	37572445	+	Rabl3	0x0
24118	chr16	37650133	37651232	-	Ndufb4	0x0
24119	chr16	37834800	37837044	+	Fstl1	0x0
24120	chr16	37882165	37884986	+	Lrrc58	0x0
24121	chr16	37885792	37888165	+	Lrrc58	0x0
24122	chr16	38127098	38128295	+	Gsk3b	0x2
24123	chr16	38170207	38171367	+	Gsk3b	0x2
24124	chr16	38208743	38209842	+	Gsk3b	0x2
24125	chr16	38241613	38242801	+	Gsk3b	0x2
24126	chr16	38244657	38245782	+	Gsk3b	0x2
24127	chr16	38318522	38319721	-	Maats1	0x0
24128	chr16	38445087	38446231	-	Adprh	0x1
24129	chr16	38446868	38448041	-	Adprh	0x1
24130	chr16	38497922	38499181	-	Timmdc1	0x0
24131	chr16	38524819	38527222	-	Poglut1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24132	chr16	38556586	38557735	+	Tmem39a	0x0
24133	chr16	38562512	38563740	+	Tmem39a	0x0
24134	chr16	38581543	38582642	+	Tmem39a	0x0
24135	chr16	38831365	38832553	-	4930435E12Rik	0x0
24136	chr16	39025521	39026686	+	Igsf11	0x0
24137	chr16	39653736	39654928	+	Igsf11	0x0
24138	chr16	41217335	41218498	+	Lsamp	0x1
24139	chr16	42415892	42417112	-	Gap43	0x0
24140	chr16	42877224	42878393	+	BC002163	0x0
24141	chr16	42892685	42893851	+	BC002163	0x0
24142	chr16	42936889	42937999	+	BC002163	0x0
24143	chr16	43124383	43125491	+	Zbtb20	0x0
24144	chr16	43174335	43175434	+	Zbtb20	0x0
24145	chr16	43373942	43375057	+	Zbtb20	0x0
24146	chr16	43620187	43621356	+	Zbtb20	0x0
24147	chr16	43630410	43631588	+	Mir568	0x0
24148	chr16	43633828	43634962	+	Mir568	0x0
24149	chr16	43639817	43640931	+	Mir568	0x0
24150	chr16	43769137	43770317	-	Qtrtd1	0x0
24151	chr16	43862648	43863888	-	Qtrtd1	0x0
24152	chr16	43965166	43967033	-	Zdhhc23	0x0
24153	chr16	44085134	44087833	-	Atp6v1a	0x0
24154	chr16	44159342	44162639	+	Naa50	0x0
24155	chr16	44215892	44217051	+	Gm608	0x0
24156	chr16	44217739	44219476	+	Gm608	0x0
24157	chr16	44223148	44225172	+	Gm608	0x0
24158	chr16	44225612	44227500	+	Gm608	0x0
24159	chr16	44736358	44737566	-	Gtpbp8	0x0
24160	chr16	44737121	44738668	+	BC027231	0x0
24161	chr16	44744318	44745469	-	Gtpbp8	0x0
24162	chr16	45204999	45206189	+	Atg3	0x0
24163	chr16	45729573	45730746	-	Abhd10	0x0
24164	chr16	45739979	45741198	-	Abhd10	0x0
24165	chr16	45960526	45961683	-	Plcxd2	0x0
24166	chr16	46152773	46154036	-	Cd96	0x0
24167	chr16	46394681	46395905	-	Pvrl3	0x0
24168	chr16	46430240	46431426	-	Pvrl3	0x0
24169	chr16	46443664	46446645	-	Pvrl3	0x0
24170	chr16	48293290	48294477	+	Dppa4	0x0
24171	chr16	48303653	48304762	+	Dppa2	0x0
24172	chr16	48311224	48312358	+	Dppa2	0x0
24173	chr16	48318446	48319689	+	Dppa2	0x0
24174	chr16	48510279	48511503	+	Morc1	0x2
24175	chr16	48586591	48587755	+	Morc1	0x2
24176	chr16	48588727	48589928	+	Morc1	0x2
24177	chr16	48592433	48593622	+	Morc1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24178	chr16	48618141	48619293	+	Morc1	0x2
24179	chr16	48628346	48629466	+	Morc1	0x2
24180	chr16	48925020	48927663	-	Dzip3	0x0
24181	chr16	48951419	48952568	-	Dzip3	0x0
24182	chr16	49018579	49019758	+	C330027C09Rik	0x0
24183	chr16	49020400	49021671	+	C330027C09Rik	0x0
24184	chr16	49886497	49887670	+	Cd47	0x0
24185	chr16	49911258	49913592	+	Cd47	0x0
24186	chr16	50193291	50194390	-	Bbx	0x0
24187	chr16	50194491	50196355	-	Bbx	0x0
24188	chr16	50196493	50197591	-	Bbx	0x0
24189	chr16	50204389	50205577	-	Bbx	0x0
24190	chr16	50356218	50357395	-	Bbx	0x0
24191	chr16	50414895	50416040	-	Bbx	0x0
24192	chr16	50933041	50934162	+	4930542D17Rik	0x0
24193	chr16	51362110	51363746	-	5330426P16Rik	0x0
24194	chr16	52205397	52206519	+	Cblb	0x2
24195	chr16	53984086	53986559	+	Cblb	0x2
24196	chr16	55900191	55901290	-	Cep97	0x0
24197	chr16	55903335	55904529	-	Cep97	0x0
24198	chr16	55973024	55974220	-	2310061J03Rik	0x0
24199	chr16	56015118	56017241	-	Pcnp	0x0
24200	chr16	56703994	56705156	-	Tfg	0x2
24201	chr16	56825341	56826524	-	Tmem45a	0x0
24202	chr16	56827324	56828518	-	Tmem45a	0x0
24203	chr16	56849174	56850323	-	Tmem45a	0x0
24204	chr16	57152444	57154993	+	Tomm70a	0x0
24205	chr16	57168691	57170032	-	Tbc1d23	0x2
24206	chr16	57326292	57327491	+	Filip1l	0x0
24207	chr16	57501763	57502958	-	Cmss1	0x0
24208	chr16	57546624	57547808	-	Cmss1	0x0
24209	chr16	57830944	57832096	+	Filip1l	0x0
24210	chr16	58466170	58469479	+	Dcbld2	0x0
24211	chr16	58679140	58680423	+	Cpox	0x0
24212	chr16	58732995	58734799	+	Cldn25	0x0
24213	chr16	59478310	59479413	+	Mina	0x0
24214	chr16	59525177	59526414	-	Crybg3	0x0
24215	chr16	61055686	61056859	-	Epha6	0x0
24216	chr16	62716310	62718901	+	Stx19	0x0
24217	chr16	62793927	62795091	-	Arl13b	0x0
24218	chr16	62927922	62929063	+	Pros1	0x0
24219	chr16	64757929	64759111	-	4930453N24Rik	0x0
24220	chr16	64762845	64764102	-	4930453N24Rik	0x0
24221	chr16	64784956	64786889	-	Zfp654	0x0
24222	chr16	64856176	64857293	+	Cggbp1	0x0
24223	chr16	64857369	64859671	+	Cggbp1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24224	chr16	64916886	64918034	-	Htr1f	0x0
24225	chr16	65538922	65540753	-	Chmp2b	0x2
24226	chr16	67920850	67922042	-	Cadm2	0x0
24227	chr16	68073474	68074658	+	1700010K23Rik	0x0
24228	chr16	70314222	70315430	+	Gbe1	0x0
24229	chr16	70483513	70484708	+	Gbe1	0x0
24230	chr16	71404812	71405984	-	Speer2	0x0
24231	chr16	72779350	72780500	+	Robo1	0x2
24232	chr16	72877378	72878540	+	Robo1	0x2
24233	chr16	73044497	73046481	+	Robo1	0x2
24234	chr16	73510203	73511302	+	Robo1	0x2
24235	chr16	73974246	73975484	+	Robo1	0x2
24236	chr16	76403080	76404514	-	Nrip1	0x0
24237	chr16	77604877	77606103	+	Mirlet7c-1	0x1
24238	chr16	78073571	78074725	+	Cxadr	0x0
24239	chr16	78336952	78340472	+	Cxadr	0x0
24240	chr16	78541734	78542857	-	D16Ertd472e	0x0
24241	chr16	81909302	81910505	+	Ncam2	0x2
24242	chr16	84513181	84514389	-	Mrpl39	0x0
24243	chr16	84773883	84775315	+	Jam2	0x0
24244	chr16	84809113	84810985	+	Jam2	0x0
24245	chr16	84823218	84825728	+	Jam2	0x0
24246	chr16	84838810	84839965	+	Gabpa	0x0
24247	chr16	84857071	84858278	+	Gabpa	0x0
24248	chr16	84861219	84863974	+	Gabpa	0x0
24249	chr16	84954332	84955480	-	App	0x0
24250	chr16	85551851	85553055	-	Cyyr1	0x0
24251	chr16	85644228	85645464	+	4930556C24Rik	0x0
24252	chr16	87363174	87364358	+	N6amt1	0x0
24253	chr16	87368205	87369399	+	N6amt1	0x0
24254	chr16	87377176	87379254	-	Ltn1	0x0
24255	chr16	87398419	87399655	-	Ltn1	0x0
24256	chr16	87414315	87416488	-	Ltn1	0x0
24257	chr16	87471725	87472920	+	Usp16	0x2
24258	chr16	87483541	87484810	-	Cct8	0x2
24259	chr16	87490235	87491396	-	Cct8	0x2
24260	chr16	87719751	87720884	+	Bach1	0x0
24261	chr16	87722257	87723444	+	Bach1	0x0
24262	chr16	87729893	87731090	+	Bach1	0x0
24263	chr16	88681973	88683072	-	Krtap27-1	0x0
24264	chr16	89786828	89787927	-	Tiam1	0x2
24265	chr16	89788255	89789566	-	Tiam1	0x2
24266	chr16	89828560	89829765	-	Tiam1	0x2
24267	chr16	89859957	89861152	-	Tiam1	0x2
24268	chr16	90023527	90024876	-	Tiam1	0x2
24269	chr16	90029595	90030791	-	Tiam1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24270	chr16	90106137	90107306	-	Scaf4	0x0
24271	chr16	90220453	90221690	+	Sod1	0x0
24272	chr16	90224857	90227100	+	Sod1	0x0
24273	chr16	90246899	90248041	-	Scaf4	0x0
24274	chr16	90258331	90259430	-	Scaf4	0x0
24275	chr16	90259857	90261050	-	Scaf4	0x0
24276	chr16	90470724	90471901	+	Hunk	0x0
24277	chr16	90497865	90500195	+	Hunk	0x0
24278	chr16	90602199	90603366	+	Hunk	0x0
24279	chr16	90751440	90752602	-	Urb1	0x0
24280	chr16	90754647	90755756	-	Urb1	0x0
24281	chr16	90767894	90769126	-	Urb1	0x0
24282	chr16	90958425	90959570	-	Synj1	0x2
24283	chr16	91014373	91015570	-	Paxbp1	0x0
24284	chr16	91028083	91029212	-	Paxbp1	0x0
24285	chr16	91505478	91507510	+	Ifnar1	0x0
24286	chr16	91510091	91511232	+	Ifnar1	0x0
24287	chr16	91539030	91540256	-	Tmem50b	0x0
24288	chr16	91631669	91632844	-	Gart	0x0
24289	chr16	91657784	91658920	+	Son	0x2
24290	chr16	91659180	91660301	+	Son	0x2
24291	chr16	91662602	91663788	+	Son	0x2
24292	chr16	91678326	91679979	+	Son	0x2
24293	chr16	91679125	91680398	-	Donson	0x0
24294	chr16	91700931	91702106	-	Cryzl1	0x0
24295	chr16	91761878	91763101	+	Itsn1	0x0
24296	chr16	91808362	91809510	+	Itsn1	0x0
24297	chr16	91925011	91926186	-	Atp5o	0x0
24298	chr16	92058036	92059258	+	Mrps6	0x0
24299	chr16	92058036	92059258	+	Slc5a3	0x0
24300	chr16	92083984	92085084	+	Slc5a3	0x0
24301	chr16	92086088	92087139	+	Slc5a3	0x0
24302	chr16	92111486	92112649	+	Mrps6	0x0
24303	chr16	92392580	92394008	-	Rcan1	0x0
24304	chr16	92431135	92432311	-	Rcan1	0x0
24305	chr16	92463382	92464530	-	Rcan1	0x0
24306	chr16	92540050	92541204	+	Clic6	0x0
24307	chr16	93852830	93853948	+	Morc3	0x0
24308	chr16	93874523	93875885	+	Morc3	0x0
24309	chr16	93900718	93901986	+	Chaf1b	0x0
24310	chr16	94351391	94352565	-	Hlcs	0x0
24311	chr16	94604974	94606215	+	Ttc3	0x0
24312	chr16	94609356	94610531	+	Ttc3	0x0
24313	chr16	94617055	94618218	+	Ttc3	0x0
24314	chr16	94620736	94621871	+	Ttc3	0x0
24315	chr16	94624177	94625330	+	Ttc3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24316	chr16	94640475	94641672	+	Ttc3	0x0
24317	chr16	94656528	94657729	+	Ttc3	0x0
24318	chr16	94663892	94665573	+	Ttc3	0x0
24319	chr16	94689878	94691315	+	Ttc3	0x0
24320	chr16	94719815	94720981	-	Dscr3	0x0
24321	chr16	94832443	94833637	+	Dyrk1a	0x0
24322	chr16	94914106	94916943	+	Dyrk1a	0x0
24323	chr16	96064970	96066145	-	1600002D24Rik	0x0
24324	chr16	96212344	96213476	-	Psmg1	0x0
24325	chr16	96216669	96217828	-	Brwd1	0x0
24326	chr16	96220463	96221525	-	Brwd1	0x0
24327	chr16	96221842	96224133	-	Brwd1	0x0
24328	chr16	96262402	96263501	-	Brwd1	0x0
24329	chr16	96277227	96278329	-	Brwd1	0x0
24330	chr16	96288357	96289533	-	Brwd1	0x0
24331	chr16	96293113	96294182	-	Brwd1	0x0
24332	chr16	96302194	96303405	-	Brwd1	0x0
24333	chr16	96342656	96344222	-	Hmgn1	0x0
24334	chr16	96366965	96368157	+	Wrb	0x0
24335	chr16	96371195	96372371	+	Wrb	0x0
24336	chr16	96377885	96379393	+	Wrb	0x0
24337	chr16	96396828	96397982	+	Wrb	0x0
24338	chr16	98055104	98056262	-	Prdm15	0x0
24339	chr16	98062153	98063355	-	Prdm15	0x0
24340	chr16	98167857	98168993	-	Zbtb21	0x0
24341	chr16	98169757	98170895	-	Zbtb21	0x0
24342	chr16	98227924	98229036	+	Mx2	0x2
24343	chr16	98231396	98232542	+	Mx2	0x2
24344	chr16	98233185	98234346	+	Mx2	0x2
24345	chr16	98284679	98285826	-	A630089N07Rik	0x0
24346	chr17	3043610	3044756	-	Pisd-ps2	0x0
24347	chr17	3197586	3198763	+	Scaf8	0x0
24348	chr17	3200859	3201984	+	Scaf8	0x0
24349	chr17	3204312	3205456	+	Scaf8	0x0
24350	chr17	3207160	3208312	+	Scaf8	0x0
24351	chr17	3236244	3237348	+	Scaf8	0x0
24352	chr17	3281639	3282811	+	Tiam2	0x0
24353	chr17	3517319	3519074	-	Tfb1m	0x0
24354	chr17	5153876	5155044	+	Arid1b	0x2
24355	chr17	5327197	5328349	+	Arid1b	0x2
24356	chr17	5338629	5339834	+	Arid1b	0x2
24357	chr17	5343060	5344228	+	Arid1b	0x2
24358	chr17	5828864	5830060	-	Serac1	0x0
24359	chr17	6040254	6041461	-	Serac1	0x0
24360	chr17	6067842	6069014	-	Serac1	0x0
24361	chr17	6120576	6121961	-	Serac1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24362	chr17	6131445	6132796	-	Serac1	0x0
24363	chr17	6137037	6138829	+	Tulp4	0x0
24364	chr17	6172043	6173194	+	Tulp4	0x0
24365	chr17	6239323	6240514	+	Tulp4	0x0
24366	chr17	6305103	6308678	+	Tmem181a	0x0
24367	chr17	6438510	6439752	-	Tmem181b-ps	0x0
24368	chr17	6451356	6452566	-	Tmem181b-ps	0x0
24369	chr17	6507931	6509103	-	Tmem181b-ps	0x0
24370	chr17	6512526	6513625	-	Tmem181b-ps	0x0
24371	chr17	6942126	6944584	-	Ezr	0x2
24372	chr17	7098904	7100097	-	Mir692-1	0x0
24373	chr17	7158978	7160160	-	Tagap1	0x0
24374	chr17	7403192	7404384	+	Rps6ka2	0x1
24375	chr17	7442214	7443382	+	Rps6ka2	0x1
24376	chr17	8387800	8389029	+	Fgfr1op	0x2
24377	chr17	8509301	8510414	+	Sft2d1	0x0
24378	chr17	8740363	8741564	+	T	0x0
24379	chr17	9930878	9931996	+	B930003M22Rik	0x0
24380	chr17	10397212	10401330	-	Qk	0x0
24381	chr17	10401549	10402614	-	Qk	0x0
24382	chr17	10403842	10404904	-	Qk	0x0
24383	chr17	10419261	10420458	-	Qk	0x0
24384	chr17	10438903	10440114	-	Qk	0x0
24385	chr17	10459706	10460805	-	Qk	0x0
24386	chr17	10475140	10476367	-	Qk	0x0
24387	chr17	10504972	10506071	-	Qk	0x0
24388	chr17	10512255	10513448	+	B930003M22Rik	0x0
24389	chr17	10708290	10709437	-	Pacrg	0x1
24390	chr17	12420139	12421301	-	Map3k4	0x2
24391	chr17	12444529	12445727	-	Map3k4	0x2
24392	chr17	12463287	12464513	-	Map3k4	0x2
24393	chr17	12470264	12471471	-	Map3k4	0x2
24394	chr17	12874938	12877138	-	Igf2r	0x5
24395	chr17	12885028	12886156	-	Igf2r	0x5
24396	chr17	12889756	12890939	-	Igf2r	0x5
24397	chr17	12894290	12895689	-	Igf2r	0x5
24398	chr17	12908891	12910047	-	Igf2r	0x5
24399	chr17	12911029	12912164	-	Igf2r	0x5
24400	chr17	12928251	12929469	-	Igf2r	0x5
24401	chr17	12931650	12932840	-	Igf2r	0x5
24402	chr17	12949790	12950927	+	Airn	0x0
24403	chr17	12963659	12964840	+	Airn	0x0
24404	chr17	13110453	13111537	+	Tcp1	0x0
24405	chr17	13114982	13117065	+	Snora20	0x0
24406	chr17	13114982	13117065	+	Tcp1	0x0
24407	chr17	13135482	13136924	-	Acat2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24408	chr17	13159198	13161157	-	Wtap	0x0
24409	chr17	13208306	13210515	+	Sod2	0x1
24410	chr17	13675767	13677994	-	2700054A10Rik	0x0
24411	chr17	13825343	13826514	-	Tcte2	0x0
24412	chr17	13954662	13955831	+	Mllt4	0x2
24413	chr17	13959790	13961003	+	Mllt4	0x2
24414	chr17	13987352	13988524	+	Mllt4	0x2
24415	chr17	13991678	13992869	+	Mllt4	0x2
24416	chr17	14002261	14003496	+	Mllt4	0x2
24417	chr17	14018301	14019473	+	Mllt4	0x2
24418	chr17	14040760	14043154	+	Mllt4	0x2
24419	chr17	15081298	15082531	+	1600012H06Rik	0x0
24420	chr17	15092425	15093573	-	Phf10	0x0
24421	chr17	15207791	15209057	+	2210404J11Rik	0x0
24422	chr17	15330016	15331189	-	Gm5091	0x0
24423	chr17	15371715	15372870	-	Gm5091	0x0
24424	chr17	15612539	15613728	-	Psmb1	0x0
24425	chr17	15616348	15617447	-	Psmb1	0x0
24426	chr17	15634595	15635780	-	Psmb1	0x0
24427	chr17	15863838	15864947	+	Chd1	0x2
24428	chr17	15884195	15885294	+	Chd1	0x2
24429	chr17	15886361	15887413	+	Chd1	0x2
24430	chr17	15892183	15893288	+	Chd1	0x2
24431	chr17	15895932	15897110	+	Chd1	0x2
24432	chr17	15907884	15909421	+	Chd1	0x2
24433	chr17	15941116	15942348	-	Rgmb	0x0
24434	chr17	16805722	16807212	-	Rgmb	0x0
24435	chr17	17321451	17322658	+	Zfp97	0x0
24436	chr17	17381533	17382632	+	Zfp97	0x0
24437	chr17	17404737	17405899	+	Riok2	0x0
24438	chr17	17481850	17483425	-	Lnpep	0x0
24439	chr17	17523797	17525075	+	Riok2	0x0
24440	chr17	17530149	17531692	+	Riok2	0x0
24441	chr17	17657909	17660435	-	Lnpep	0x0
24442	chr17	17661482	17664220	-	Lnpep	0x0
24443	chr17	17971734	17972833	+	Ncrna00085	0x0
24444	chr17	21092296	21094354	+	Ppp2r1a	0x2
24445	chr17	21095820	21097014	+	Ppp2r1a	0x2
24446	chr17	21101980	21103284	+	Ppp2r1a	0x2
24447	chr17	21697932	21699124	+	Zfp52	0x0
24448	chr17	21846491	21847627	+	Zfp760	0x0
24449	chr17	21883984	21885096	+	Zfp229	0x0
24450	chr17	21888617	21889712	+	Zfp229	0x0
24451	chr17	21952871	21954153	-	Zfp820	0x0
24452	chr17	22104190	22105383	-	Zfp942	0x0
24453	chr17	22321218	22322411	-	Gm4944	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24454	chr17	22442704	22443878	-	Zfp944	0x0
24455	chr17	22474023	22475200	-	Zfp944	0x0
24456	chr17	22725628	22726760	+	Vmn2r112	0x0
24457	chr17	22847033	22849175	-	Gm16386	0x0
24458	chr17	22982374	22983524	-	Zfp945	0x2
24459	chr17	22988512	22989684	-	Zfp945	0x2
24460	chr17	22994906	22996080	-	Zfp945	0x2
24461	chr17	23001913	23003128	-	Zfp945	0x2
24462	chr17	23710623	23711755	-	Zfp13	0x0
24463	chr17	23764885	23766342	-	Mmp25	0x0
24464	chr17	23767558	23768703	-	Mmp25	0x0
24465	chr17	23870555	23871736	+	Pkmyt1	0x0
24466	chr17	23889346	23890553	+	9530082P21Rik	0x0
24467	chr17	23943552	23944710	+	Srrm2	0x0
24468	chr17	23948717	23949887	+	Srrm2	0x0
24469	chr17	23954650	23955936	+	Srrm2	0x0
24470	chr17	23956129	23958666	+	Srrm2	0x0
24471	chr17	23959202	23962177	+	Srrm2	0x0
24472	chr17	24184372	24186163	-	Kctd5	0x0
24473	chr17	24211253	24212435	-	Pdpk1	0x0
24474	chr17	24212991	24214035	-	Pdpk1	0x0
24475	chr17	24227576	24228760	-	Pdpk1	0x0
24476	chr17	24303784	24304958	-	Atp6v0c	0x0
24477	chr17	24303784	24304958	-	Atp6v0c-ps2	0x0
24478	chr17	24313103	24314955	-	Tbc1d24	0x0
24479	chr17	24315657	24316823	-	Tbc1d24	0x0
24480	chr17	24360112	24361341	-	Ccnf	0x0
24481	chr17	24368189	24369324	-	Ccnf	0x0
24482	chr17	24373502	24374630	-	Ccnf	0x0
24483	chr17	24387044	24388226	-	Ccnf	0x0
24484	chr17	24498829	24500018	-	Abca17	0x0
24485	chr17	24503238	24504401	+	Abca3	0x0
24486	chr17	24546268	24547624	+	Abca3	0x0
24487	chr17	24561735	24562939	+	Rnps1	0x0
24488	chr17	24572062	24573212	+	Eci1	0x0
24489	chr17	24599170	24600370	-	E4f1	0x0
24490	chr17	24608468	24610533	+	Pgp	0x0
24491	chr17	24611335	24612561	-	Mlst8	0x0
24492	chr17	24645370	24646635	-	Traf7	0x0
24493	chr17	24651159	24652261	-	Traf7	0x0
24494	chr17	24652976	24654075	-	Traf7	0x0
24495	chr17	24655579	24656738	-	Traf7	0x0
24496	chr17	24664836	24666083	+	2610019E17Rik	0x0
24497	chr17	24706224	24707374	+	Pkd1	0x1
24498	chr17	24725023	24726099	+	Pkd1	0x1
24499	chr17	24732684	24733844	+	Pkd1	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24500	chr17	24736220	24737370	-	Tsc2	0x1
24501	chr17	24739678	24740748	-	Tsc2	0x1
24502	chr17	24740906	24742652	-	Tsc2	0x1
24503	chr17	24751147	24752327	-	Tsc2	0x1
24504	chr17	24770158	24772243	+	Nthl1	0x0
24505	chr17	24775879	24777424	-	Slc9a3r2	0x0
24506	chr17	24777275	24778423	+	Nthl1	0x0
24507	chr17	24813899	24816078	+	Zfp598	0x0
24508	chr17	24816702	24817875	+	Zfp598	0x0
24509	chr17	24826090	24827270	-	Syngr3	0x0
24510	chr17	24829764	24830925	-	Gfer	0x0
24511	chr17	24856131	24857296	-	Snhg9	0x0
24512	chr17	24856131	24857296	-	Snora78	0x0
24513	chr17	24879107	24880244	+	Msrb1	0x0
24514	chr17	24985159	24986287	-	Fahd1	0x0
24515	chr17	24992186	24993323	+	Hagh	0x0
24516	chr17	25000671	25001884	+	Hagh	0x0
24517	chr17	25019093	25020351	-	Nubp2	0x0
24518	chr17	25033725	25034931	+	Nme3	0x0
24519	chr17	25036197	25037388	-	Mapk8ip3	0x2
24520	chr17	25040398	25041578	-	Mapk8ip3	0x2
24521	chr17	25063473	25064608	-	Mapk8ip3	0x2
24522	chr17	25078870	25081866	-	Hn1l	0x0
24523	chr17	25094393	25095469	-	Hn1l	0x0
24524	chr17	25097869	25102018	-	Cramp1l	0x0
24525	chr17	25109506	25110692	-	Cramp1l	0x0
24526	chr17	25148094	25149292	-	Cramp1l	0x0
24527	chr17	25295118	25296323	+	Clcn7	0x0
24528	chr17	25395598	25396778	-	Ube2i	0x0
24529	chr17	25397378	25398713	-	Ube2i	0x0
24530	chr17	25401795	25402984	-	Ube2i	0x0
24531	chr17	25403503	25405817	-	Ube2i	0x0
24532	chr17	25703764	25704966	-	Sox8	0x6
24533	chr17	25737215	25738411	+	Lmf1	0x0
24534	chr17	25918749	25920721	+	Narfl	0x0
24535	chr17	25927992	25929139	-	Fam173a	0x0
24536	chr17	25956879	25958048	+	Fbxl16	0x0
24537	chr17	25967213	25968406	+	Jmjd8	0x0
24538	chr17	25975625	25976859	-	Rhot2	0x0
24539	chr17	25981429	25982532	-	Rhot2	0x0
24540	chr17	25981429	25982532	-	Wdr90	0x0
24541	chr17	25982631	25983803	-	Wdr90	0x0
24542	chr17	25984300	25985371	-	Wdr90	0x0
24543	chr17	25994126	25995309	-	Wdr90	0x0
24544	chr17	26018577	26020122	-	Rab40c	0x0
24545	chr17	26058913	26060819	-	Rab40c	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24546	chr17	26061779	26062880	-	Pigq	0x0
24547	chr17	26063117	26064297	-	Pigq	0x0
24548	chr17	26073715	26074921	-	Pigq	0x0
24549	chr17	26095325	26096490	-	Solh	0x0
24550	chr17	26096795	26097930	-	Solh	0x0
24551	chr17	26099774	26100967	-	Solh	0x0
24552	chr17	26126214	26127945	-	Rab11fip3	0x0
24553	chr17	26144173	26145590	-	Rab11fip3	0x0
24554	chr17	26204431	26205607	-	Rab11fip3	0x0
24555	chr17	26218286	26219520	-	Decr2	0x0
24556	chr17	26235392	26236646	-	Nme4	0x0
24557	chr17	26254789	26255917	+	Tmem8	0x0
24558	chr17	26257005	26258153	+	Tmem8	0x0
24559	chr17	26258715	26260441	+	Tmem8	0x0
24560	chr17	26262831	26264022	+	Mrpl28	0x0
24561	chr17	26331343	26332987	+	Axin1	0x1
24562	chr17	26389600	26390796	+	Luc7l	0x0
24563	chr17	26405967	26407856	+	Luc7l	0x0
24564	chr17	26419131	26420273	+	Luc7l	0x0
24565	chr17	26420531	26422740	+	Luc7l	0x0
24566	chr17	26679509	26680738	+	Ergic1	0x0
24567	chr17	26705352	26706549	+	Ergic1	0x0
24568	chr17	26730239	26731338	+	Ergic1	0x0
24569	chr17	26791595	26794410	+	Ergic1	0x0
24570	chr17	26812931	26814080	+	Atp6v0e	0x0
24571	chr17	26835713	26837028	+	Atp6v0e	0x0
24572	chr17	26879386	26880559	+	Crebrf	0x0
24573	chr17	26901493	26902587	+	Crebrf	0x0
24574	chr17	26908620	26913392	+	Crebrf	0x0
24575	chr17	27046368	27047528	+	Kifc5b	0x0
24576	chr17	27075329	27076521	-	Cuta	0x0
24577	chr17	27093372	27094635	+	Zbtb9	0x0
24578	chr17	27096229	27097593	+	Zbtb9	0x0
24579	chr17	27111654	27113779	+	Zbtb9	0x0
24580	chr17	27156279	27157679	-	Bak1	0x0
24581	chr17	27227945	27229150	+	Itpr3	0x2
24582	chr17	27229591	27230797	+	Itpr3	0x2
24583	chr17	27231874	27233039	+	Itpr3	0x2
24584	chr17	27234424	27235710	+	Itpr3	0x2
24585	chr17	27254877	27255984	+	Itpr3	0x2
24586	chr17	27257915	27259624	+	Itpr3	0x2
24587	chr17	27326049	27327708	-	Lemd2	0x0
24588	chr17	27371933	27373153	-	Lemd2	0x0
24589	chr17	27562292	27563496	-	Grm4	0x0
24590	chr17	27569863	27570962	-	Grm4	0x0
24591	chr17	27571500	27572666	-	Grm4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24592	chr17	27643213	27644367	-	Grm4	0x0
24593	chr17	27645256	27646453	-	Grm4	0x0
24594	chr17	27666817	27667983	+	Hmga1	0x2
24595	chr17	27695997	27697164	+	Hmga1	0x2
24596	chr17	27695997	27697164	+	Hmga1-rs1	0x2
24597	chr17	27699660	27700860	+	Hmga1	0x2
24598	chr17	27699660	27700860	+	Hmga1-rs1	0x2
24599	chr17	27715941	27717882	-	Nudt3	0x0
24600	chr17	27749621	27750767	-	Nudt3	0x0
24601	chr17	27846362	27847617	+	Pacsin1	0x0
24602	chr17	27887874	27891248	-	D17Wsu92e	0x0
24603	chr17	28033748	28036500	+	Uhrf1bp1	0x0
24604	chr17	28049414	28050587	+	Anks1	0x0
24605	chr17	28060275	28061466	+	Anks1	0x0
24606	chr17	28070847	28072051	+	Anks1	0x0
24607	chr17	28132074	28133581	+	Anks1	0x0
24608	chr17	28144209	28145394	+	Anks1	0x0
24609	chr17	28149549	28150762	+	Anks1	0x0
24610	chr17	28196445	28198758	+	Anks1	0x0
24611	chr17	28307867	28309048	+	Scube3	0x0
24612	chr17	28309984	28311650	+	Scube3	0x0
24613	chr17	28362488	28363646	+	Def6	0x0
24614	chr17	28431762	28432942	+	Ppard	0x0
24615	chr17	28436764	28438027	+	Ppard	0x0
24616	chr17	28466662	28468458	+	Rpl10a	0x0
24617	chr17	28468677	28469876	-	Tead3	0x0
24618	chr17	28535843	28537552	-	Fkbp5	0x0
24619	chr17	28539358	28540473	-	Fkbp5	0x0
24620	chr17	28551352	28552669	-	Fkbp5	0x0
24621	chr17	28619303	28620410	-	Fkbp5	0x0
24622	chr17	28621318	28622517	-	Fkbp5	0x0
24623	chr17	28724165	28726531	-	Srpk1	0x0
24624	chr17	28755070	28756192	-	Srpk1	0x0
24625	chr17	28861255	28862398	+	Mapk14	0x0
24626	chr17	28864766	28865984	+	Mapk14	0x0
24627	chr17	28883937	28885729	+	Mapk14	0x0
24628	chr17	28911718	28912843	+	Mapk13	0x0
24629	chr17	28942652	28944535	+	Brpf3	0x0
24630	chr17	28950611	28951710	+	Brpf3	0x0
24631	chr17	28965057	28967040	+	Brpf3	0x0
24632	chr17	28973130	28975909	+	Brpf3	0x0
24633	chr17	29103379	29104722	+	Kctd20	0x0
24634	chr17	29105164	29106648	+	Kctd20	0x0
24635	chr17	29107430	29109342	-	Stk38	0x0
24636	chr17	29111089	29112192	-	Stk38	0x0
24637	chr17	29115576	29116751	-	Stk38	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24638	chr17	29116950	29118116	-	Stk38	0x0
24639	chr17	29178141	29180279	+	Srsf3	0x2
24640	chr17	29204570	29205764	-	Gm16197	0x0
24641	chr17	29235017	29236125	+	Cdkn1a	0x1
24642	chr17	29236271	29238116	+	Cdkn1a	0x1
24643	chr17	29387396	29388920	-	Ppil1	0x0
24644	chr17	29432996	29434189	+	BC004004	0x0
24645	chr17	29613856	29615041	+	Pim1	0x2
24646	chr17	29628053	29629239	+	Pim1	0x2
24647	chr17	29631067	29633066	+	Pim1	0x2
24648	chr17	29742735	29744226	+	Tbc1d22b	0x0
24649	chr17	29758013	29759115	+	Rnf8	0x0
24650	chr17	29777676	29778932	+	Rnf8	0x0
24651	chr17	29822339	29823435	+	Ftsjd2	0x0
24652	chr17	29823530	29824642	+	Ftsjd2	0x0
24653	chr17	29830456	29831660	-	Ccdc167	0x0
24654	chr17	29839120	29841228	+	Ftsjd2	0x0
24655	chr17	29840095	29841303	-	Ccdc167	0x0
24656	chr17	29909458	29910637	-	Mdga1	0x0
24657	chr17	30207665	30208764	+	Zfand3	0x0
24658	chr17	30220446	30221590	+	Zfand3	0x0
24659	chr17	30270868	30272058	+	Zfand3	0x0
24660	chr17	30354775	30356029	-	Btbd9	0x0
24661	chr17	30384437	30385620	-	Btbd9	0x0
24662	chr17	30611783	30612943	-	Btbd9	0x0
24663	chr17	30646418	30647625	-	Btbd9	0x0
24664	chr17	30653620	30654769	-	Btbd9	0x0
24665	chr17	30661092	30662193	-	Btbd9	0x0
24666	chr17	30663831	30664974	-	Btbd9	0x0
24667	chr17	30727817	30729179	-	Glo1	0x0
24668	chr17	30729350	30730973	-	Glo1	0x0
24669	chr17	30786068	30787265	+	Dnahc8	0x0
24670	chr17	30857382	30858597	+	Dnahc8	0x0
24671	chr17	30903423	30905172	+	Dnahc8	0x0
24672	chr17	30923559	30924708	+	Dnahc8	0x0
24673	chr17	31008161	31009358	+	Dnahc8	0x0
24674	chr17	31072702	31073850	+	Glp1r	0x0
24675	chr17	31251870	31253059	+	Abcg1	0x0
24676	chr17	31253152	31254290	+	Abcg1	0x0
24677	chr17	31486289	31487626	+	Slc37a1	0x0
24678	chr17	31632589	31633986	-	Wdr4	0x0
24679	chr17	31665592	31666692	+	Ndufv3	0x0
24680	chr17	31667593	31668748	+	Ndufv3	0x0
24681	chr17	31721233	31722365	+	Pknox1	0x2
24682	chr17	31728567	31729764	+	Pknox1	0x2
24683	chr17	31742301	31744104	+	Pknox1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24684	chr17	31783542	31784650	-	U2af1	0x2
24685	chr17	31981043	31983879	-	Sik1	0x1
24686	chr17	31986479	31987596	-	Sik1	0x1
24687	chr17	31991280	31992512	-	Sik1	0x1
24688	chr17	32082535	32083726	-	Hsf2bp	0x0
24689	chr17	32123754	32124949	-	Hsf2bp	0x0
24690	chr17	32191181	32192280	+	Rrp1b	0x0
24691	chr17	32197067	32198893	+	Rrp1b	0x0
24692	chr17	32257212	32258721	-	Notch3	0x0
24693	chr17	32265521	32266673	-	Notch3	0x0
24694	chr17	32277605	32278791	-	Notch3	0x0
24695	chr17	32279780	32280983	-	Notch3	0x0
24696	chr17	32332848	32335120	-	Brd4	0x0
24697	chr17	32341382	32343258	-	Brd4	0x0
24698	chr17	32350298	32351478	-	Brd4	0x0
24699	chr17	32364677	32365776	-	Brd4	0x0
24700	chr17	32374520	32375700	-	Brd4	0x0
24701	chr17	32399107	32400290	-	Brd4	0x0
24702	chr17	32413998	32415144	-	Brd4	0x0
24703	chr17	32440458	32442206	-	Akap8	0x2
24704	chr17	32458045	32459250	-	Akap8	0x2
24705	chr17	32458045	32459250	-	Akap8l	0x0
24706	chr17	32467469	32468639	+	A530088E08Rik	0x0
24707	chr17	32490499	32491855	-	Wiz	0x0
24708	chr17	32496269	32497452	-	Wiz	0x0
24709	chr17	32509065	32510260	+	A530088E08Rik	0x0
24710	chr17	32643461	32644610	+	Cyp4f17	0x0
24711	chr17	32654300	32655454	+	Cyp4f17	0x0
24712	chr17	32683248	32684381	+	Cyp4f16	0x0
24713	chr17	32902512	32903683	-	Zfp871	0x0
24714	chr17	32910171	32912699	-	Zfp871	0x0
24715	chr17	32913904	32915003	-	Zfp871	0x0
24716	chr17	32954426	32955598	-	Zfp799	0x2
24717	chr17	33018438	33019657	-	Zfp870	0x0
24718	chr17	33074734	33075933	-	Cyp4f13	0x0
24719	chr17	33135255	33136389	+	Zfp952	0x0
24720	chr17	33154597	33155794	-	Zfp763	0x0
24721	chr17	33439755	33440887	+	Zfp955b	0x0
24722	chr17	33512812	33513927	-	Zfp101	0x0
24723	chr17	33686831	33687938	+	Adamts10	0x2
24724	chr17	33782724	33784091	-	Hnrnpm	0x0
24725	chr17	33786767	33787858	-	Hnrnpm	0x0
24726	chr17	33805887	33807048	-	Hnrnpm	0x0
24727	chr17	33827819	33829193	-	March2	0x0
24728	chr17	33829935	33831132	-	March2	0x0
24729	chr17	33883530	33884725	-	Rab11b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24730	chr17	33961969	33963168	+	Ndufa7	0x0
24731	chr17	33974602	33975799	+	Ndufa7	0x0
24732	chr17	33984022	33986157	+	Cd320	0x0
24733	chr17	34050019	34051118	+	Daxx	0x2
24734	chr17	34053595	34054795	+	Zbtb22	0x0
24735	chr17	34058012	34059157	+	Tapbp	0x0
24736	chr17	34061995	34063095	+	Tapbp	0x0
24737	chr17	34065036	34066562	+	Tapbp	0x0
24738	chr17	34073854	34075004	+	Rgl2	0x0
24739	chr17	34086568	34087666	-	B3galt4	0x0
24740	chr17	34088461	34089956	-	Rps18	0x0
24741	chr17	34096664	34098367	+	Vps52	0x0
24742	chr17	34132511	34133721	-	H2-K1	0x0
24743	chr17	34164754	34168306	-	H2-Ke6	0x0
24744	chr17	34164754	34168306	-	Slc39a7	0x0
24745	chr17	34174197	34175684	+	Rxrb	0x0
24746	chr17	34248855	34250156	-	Brd2	0x0
24747	chr17	34250822	34252655	-	Brd2	0x0
24748	chr17	34253354	34254527	-	Brd2	0x0
24749	chr17	34255296	34256426	-	Brd2	0x0
24750	chr17	34394104	34395312	+	H2-Ab1	0x0
24751	chr17	34452511	34453704	+	H2-Eb1	0x0
24752	chr17	34675615	34677419	+	Notch4	0x0
24753	chr17	34717317	34718611	+	Notch4	0x0
24754	chr17	34722334	34723451	+	Notch4	0x0
24755	chr17	34723588	34725867	+	Notch4	0x0
24756	chr17	34732313	34734413	+	Pbx2	0x0
24757	chr17	34749159	34750474	+	Agpat1	0x0
24758	chr17	34786258	34787868	+	Atf6b	0x0
24759	chr17	34889228	34890417	-	C4b	0x0
24760	chr17	34992524	34993714	+	Nelfe	0x0
24761	chr17	35047834	35048933	+	Ehmt2	0x0
24762	chr17	35050237	35051542	+	Ehmt2	0x0
24763	chr17	35050237	35051542	+	Slc44a4	0x0
24764	chr17	35086776	35087938	-	1110038B12Rik	0x0
24765	chr17	35086776	35087938	-	Snord52	0x0
24766	chr17	35102496	35103663	+	Hspa1l	0x0
24767	chr17	35114730	35115873	-	Hspa1a	0x0
24768	chr17	35133522	35135739	-	Hspa1a	0x0
24769	chr17	35140887	35141986	+	Vars	0x0
24770	chr17	35148238	35149379	+	Vars	0x0
24771	chr17	35150617	35153204	+	Vars	0x0
24772	chr17	35189129	35190347	+	Clic1	0x0
24773	chr17	35198381	35199578	+	Ddah2	0x0
24774	chr17	35214827	35216202	+	Ly6g6e	0x0
24775	chr17	35235507	35236837	+	Abhd16a	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24776	chr17	35254901	35256074	-	Csnk2b	0x2
24777	chr17	35261107	35262226	+	Gpank1	0x0
24778	chr17	35276682	35277813	+	Bag6	0x0
24779	chr17	35285935	35288137	-	Prrc2a	0x0
24780	chr17	35289974	35291131	-	Prrc2a	0x0
24781	chr17	35291399	35293471	-	Prrc2a	0x0
24782	chr17	35297773	35298958	-	Prrc2a	0x0
24783	chr17	35299006	35300186	-	Prrc2a	0x0
24784	chr17	35386326	35387585	+	Ddx39b	0x0
24785	chr17	35387715	35388874	+	Ddx39b	0x0
24786	chr17	35389471	35391064	+	Ddx39b	0x0
24787	chr17	35403371	35404516	+	H2-D1	0x2
24788	chr17	35403371	35404516	+	H2-L	0x0
24789	chr17	35473165	35474344	+	H2-Q2	0x0
24790	chr17	35565565	35566762	+	H2-Q6	0x0
24791	chr17	35565565	35566762	+	H2-Q8	0x0
24792	chr17	35642533	35643856	+	Pou5f1	0x2
24793	chr17	35646421	35647575	+	Pou5f1	0x2
24794	chr17	35792397	35793596	-	Vars2	0x0
24795	chr17	35825218	35826394	-	Ddr1	0x0
24796	chr17	35958834	35959979	+	Ier3	0x0
24797	chr17	35970452	35973737	-	Tubb5	0x2
24798	chr17	35980927	35982063	+	Mdc1	0x0
24799	chr17	35989512	35990606	+	Mdc1	0x0
24800	chr17	35994811	35997089	+	Mdc1	0x0
24801	chr17	36005047	36006247	+	Ppp1r18	0x0
24802	chr17	36011792	36012957	+	Ppp1r18	0x0
24803	chr17	36028895	36030094	+	Dhx16	0x0
24804	chr17	36031421	36032584	-	2310061I04Rik	0x0
24805	chr17	36035874	36037093	-	Atat1	0x0
24806	chr17	36054074	36055234	+	Mir1894	0x0
24807	chr17	36054074	36055234	+	Ppp1r10	0x0
24808	chr17	36093318	36095655	-	Abcf1	0x0
24809	chr17	36124919	36126130	+	Gnl1	0x0
24810	chr17	36142415	36143624	-	H2-T24	0x0
24811	chr17	36217745	36218951	-	H2-Bl	0x0
24812	chr17	36985045	36986203	+	Trim26	0x0
24813	chr17	36990532	36991705	+	Trim26	0x0
24814	chr17	37085690	37086831	-	Ppp1r11	0x0
24815	chr17	37090827	37092026	-	Znrd1	0x0
24816	chr17	37105537	37106733	-	2410137M14Rik	0x0
24817	chr17	37111136	37112352	-	2410137M14Rik	0x0
24818	chr17	37113396	37115249	-	2410137M14Rik	0x0
24819	chr17	37120760	37122561	-	H2-M5	0x0
24820	chr17	37134344	37135454	+	Zfp57	0x0
24821	chr17	37138985	37140528	+	Zfp57	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24822	chr17	37141449	37142588	+	Zfp57	0x0
24823	chr17	37146138	37148705	+	Zfp57	0x0
24824	chr17	37184988	37188174	+	Gabbr1	0x2
24825	chr17	37190533	37191786	+	Gabbr1	0x2
24826	chr17	37193274	37194459	+	Gabbr1	0x2
24827	chr17	37199470	37200620	+	Gabbr1	0x2
24828	chr17	37204229	37205349	+	Gabbr1	0x2
24829	chr17	37209342	37211594	+	Gabbr1	0x2
24830	chr17	37221834	37222936	+	Gabbr1	0x2
24831	chr17	37328241	37329445	-	Olfr94	0x0
24832	chr17	38143081	38144275	+	Olfr130	0x0
24833	chr17	38150208	38151737	+	Olfr130	0x0
24834	chr17	38170351	38171489	+	Olfr130	0x0
24835	chr17	40317118	40318472	+	Gm21946	0x0
24836	chr17	40318969	40320985	+	Gm21946	0x0
24837	chr17	40720948	40722047	+	Gm20580	0x0
24838	chr17	41092659	41093811	+	Mut	0x0
24839	chr17	41097462	41099128	+	Mut	0x0
24840	chr17	42929720	42933722	-	Cd2ap	0x0
24841	chr17	42941537	42942783	-	Cd2ap	0x0
24842	chr17	42955231	42956347	-	Cd2ap	0x0
24843	chr17	42962217	42963448	-	Cd2ap	0x0
24844	chr17	42971727	42972922	-	Cd2ap	0x0
24845	chr17	43021279	43022454	-	Cd2ap	0x0
24846	chr17	43174418	43175559	+	Tnfrsf21	0x0
24847	chr17	43224811	43226656	+	Tnfrsf21	0x0
24848	chr17	44233710	44235083	-	Enpp4	0x0
24849	chr17	45231816	45232990	+	Supt3	0x0
24850	chr17	45526501	45527734	-	Cdc5l	0x0
24851	chr17	45547185	45548343	-	Cdc5l	0x0
24852	chr17	45549557	45550747	-	Cdc5l	0x0
24853	chr17	45564496	45565842	-	Cdc5l	0x0
24854	chr17	45572824	45573996	+	Aars2	0x0
24855	chr17	45576134	45578079	+	Aars2	0x0
24856	chr17	45583537	45584660	-	Spats1	0x0
24857	chr17	45595667	45596887	+	Aars2	0x0
24858	chr17	45679313	45681010	-	Tmem151b	0x0
24859	chr17	45682238	45683432	-	Tmem151b	0x0
24860	chr17	45701191	45702472	+	Slc35b2	0x0
24861	chr17	45704336	45707965	-	Hsp90ab1	0x2
24862	chr17	45709543	45710771	-	Hsp90ab1	0x2
24863	chr17	45721773	45723236	-	Slc29a1	0x2
24864	chr17	45723675	45724777	-	Slc29a1	0x2
24865	chr17	45730682	45731904	-	Slc29a1	0x2
24866	chr17	45802728	45803915	-	Tmem63b	0x0
24867	chr17	46025650	46026865	-	Vegfa	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24868	chr17	46154738	46155923	-	Vegfa	0x0
24869	chr17	46158116	46159319	-	Vegfa	0x0
24870	chr17	46265175	46266389	+	Mrps18a	0x0
24871	chr17	46365752	46366907	+	Xpo5	0x0
24872	chr17	46367413	46368647	+	Mir693	0x0
24873	chr17	46379316	46380518	+	Xpo5	0x0
24874	chr17	46380474	46381901	-	Polr1c	0x0
24875	chr17	46382115	46383214	-	Polr1c	0x0
24876	chr17	46385067	46386232	+	Yipf3	0x0
24877	chr17	46395469	46396568	-	Tjap1	0x0
24878	chr17	46397873	46399031	-	Tjap1	0x0
24879	chr17	46408230	46409435	-	Tjap1	0x0
24880	chr17	46416076	46417268	-	Tjap1	0x0
24881	chr17	46442460	46443640	-	Abcc10	0x0
24882	chr17	46540548	46541697	+	Zfp318	0x0
24883	chr17	46550565	46551844	+	Zfp318	0x0
24884	chr17	46635627	46637087	+	Dnph1	0x0
24885	chr17	46683437	46686035	-	Srf	0x0
24886	chr17	46701321	46702900	-	Ptk7	0x0
24887	chr17	46708915	46710109	-	Ptk7	0x0
24888	chr17	46710798	46711975	-	Ptk7	0x0
24889	chr17	46721628	46722775	+	Mrpl2	0x0
24890	chr17	46795051	46796179	+	Cul7	0x2
24891	chr17	46811100	46812490	-	Klhdc3	0x0
24892	chr17	46811100	46812490	-	Rrp36	0x0
24893	chr17	46815836	46817030	-	Klhdc3	0x0
24894	chr17	46819584	46821032	-	Ppp2r5d	0x0
24895	chr17	46821724	46822961	-	Ppp2r5d	0x0
24896	chr17	46872255	46873411	-	Cnpy3	0x0
24897	chr17	46911497	46914158	-	Rpl7l1	0x0
24898	chr17	46935553	46937615	-	Gltscr1l	0x0
24899	chr17	47018027	47019212	-	Ubr2	0x0
24900	chr17	47072452	47073631	-	Ubr2	0x0
24901	chr17	47100863	47102028	-	Ubr2	0x0
24902	chr17	47364212	47365405	+	Trerf1	0x0
24903	chr17	47400712	47401904	+	Trerf1	0x0
24904	chr17	47495927	47497484	+	Trerf1	0x0
24905	chr17	47547456	47549189	+	Guca1b	0x0
24906	chr17	47629468	47630621	-	Taf8	0x0
24907	chr17	47660246	47661410	+	Ccnd3	0x2
24908	chr17	47735608	47737084	+	Ccnd3	0x2
24909	chr17	47736411	47739066	-	Bysl	0x0
24910	chr17	47751772	47752971	+	Med20	0x0
24911	chr17	47760095	47761336	+	Med20	0x0
24912	chr17	47818641	47822304	+	Usp49	0x0
24913	chr17	47838173	47839307	-	Gm14873	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24914	chr17	47893351	47894549	+	Tfeb	0x2
24915	chr17	47915826	47916976	+	Tfeb	0x2
24916	chr17	47928463	47929818	+	Tfeb	0x2
24917	chr17	48007640	48008863	-	Foxp4	0x0
24918	chr17	48527020	48528320	-	Nfya	0x0
24919	chr17	48535868	48536993	-	Nfya	0x0
24920	chr17	48555619	48556919	+	Oard1	0x0
24921	chr17	48577510	48578628	+	Unc5cl	0x0
24922	chr17	50289872	50291036	-	Rftn1	0x0
24923	chr17	50299122	50300221	-	Rftn1	0x0
24924	chr17	50694045	50695170	+	Plcl2	0x0
24925	chr17	50873429	50874546	-	Tbc1d5	0x0
24926	chr17	53645319	53646496	+	Rab5a	0x0
24927	chr17	53726580	53727816	+	Kat2b	0x0
24928	chr17	53756242	53757390	+	Kat2b	0x0
24929	chr17	53763145	53764347	+	Kat2b	0x0
24930	chr17	53809900	53812303	+	Kat2b	0x0
24931	chr17	53814966	53816123	-	Sgol1	0x0
24932	chr17	53822325	53823521	-	Sgol1	0x0
24933	chr17	56155672	56156861	-	Sh3gl1	0x2
24934	chr17	56206702	56207882	+	Chaf1a	0x0
24935	chr17	56207248	56208459	-	Ubxn6	0x0
24936	chr17	56208906	56210014	+	Chaf1a	0x0
24937	chr17	56237686	56239248	+	Hdgfrp2	0x0
24938	chr17	56315611	56316781	-	D17Wsu104e	0x0
24939	chr17	56417958	56419490	-	Plin3	0x0
24940	chr17	56448296	56449499	+	Uhrf1	0x0
24941	chr17	56451997	56453144	+	Uhrf1	0x0
24942	chr17	56461670	56463005	+	Uhrf1	0x0
24943	chr17	56492488	56493591	+	Kdm4b	0x0
24944	chr17	56495024	56496236	+	Kdm4b	0x0
24945	chr17	56551452	56552638	-	Ptprs	0x2
24946	chr17	56553823	56554965	-	Ptprs	0x2
24947	chr17	56570706	56571894	-	Ptprs	0x2
24948	chr17	56578412	56579579	-	Ptprs	0x2
24949	chr17	56593193	56594305	-	Ptprs	0x2
24950	chr17	56693452	56694643	-	Safb2	0x1
24951	chr17	56710876	56712076	-	Safb2	0x1
24952	chr17	56729845	56731055	+	Safb	0x1
24953	chr17	56743067	56744202	+	Safb	0x1
24954	chr17	56752577	56753787	+	Rpl36	0x0
24955	chr17	56832930	56834083	+	Ranbp3	0x0
24956	chr17	56848157	56849276	+	Ranbp3	0x0
24957	chr17	56849921	56851537	+	Ranbp3	0x0
24958	chr17	56852965	56854850	-	Vmac	0x0
24959	chr17	56860245	56861440	+	Ndufa11	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
24960	chr17	56914819	56916911	-	Rfx2	0x2
24961	chr17	56939733	56940908	-	Rfx2	0x2
24962	chr17	57032300	57033858	-	Mllt1	0x2
24963	chr17	57160366	57162202	-	Khsrp	0x2
24964	chr17	57169670	57170785	-	Khsrp	0x2
24965	chr17	57182675	57184267	-	Slc25a23	0x0
24966	chr17	57197170	57198367	-	Slc25a23	0x0
24967	chr17	57206678	57207872	-	Dennd1c	0x0
24968	chr17	57375548	57376919	-	Gpr108	0x0
24969	chr17	59559480	59560651	+	Cntnap5c	0x0
24970	chr17	62954202	62955401	-	Efna5	0x1
24971	chr17	63394821	63395943	-	Fbxl17	0x0
24972	chr17	63396395	63397630	-	Fbxl17	0x0
24973	chr17	63402895	63404038	-	Fbxl17	0x0
24974	chr17	63667473	63668649	-	Fbxl17	0x0
24975	chr17	63834417	63835518	-	Fbxl17	0x0
24976	chr17	63836581	63837771	-	Fbxl17	0x0
24977	chr17	64303748	64305557	+	Fert2	0x0
24978	chr17	64428627	64429783	+	Fert2	0x0
24979	chr17	64482198	64483383	+	Fert2	0x0
24980	chr17	64490070	64491216	+	Fert2	0x0
24981	chr17	64630287	64633156	-	Pja2	0x0
24982	chr17	64653115	64654310	-	Pja2	0x0
24983	chr17	64951884	64953032	+	Man2a1	0x0
24984	chr17	64968263	64969432	+	Man2a1	0x0
24985	chr17	65024033	65025177	+	Man2a1	0x0
24986	chr17	65102614	65104812	+	Man2a1	0x0
24987	chr17	65928969	65930413	-	Vapa	0x0
24988	chr17	65943687	65944883	-	Vapa	0x0
24989	chr17	65962188	65963401	-	Vapa	0x0
24990	chr17	66001061	66002820	-	Rab31	0x0
24991	chr17	66152695	66153879	+	Ppp4r1	0x0
24992	chr17	66160082	66161242	+	Ppp4r1	0x0
24993	chr17	66164774	66165901	+	Ppp4r1	0x0
24994	chr17	66178305	66179426	+	Ppp4r1	0x0
24995	chr17	66186739	66187825	+	Ppp4r1	0x0
24996	chr17	66190103	66191747	+	Ppp4r1	0x0
24997	chr17	66197441	66199496	-	Ralbp1	0x0
24998	chr17	66273392	66275567	-	Twsg1	0x0
24999	chr17	66290046	66291222	-	Twsg1	0x0
25000	chr17	66324772	66325974	-	Ankrd12	0x0
25001	chr17	66370833	66372072	-	Ankrd12	0x0
25002	chr17	66376046	66377228	-	Ankrd12	0x0
25003	chr17	66428288	66429478	-	Ndufv2	0x0
25004	chr17	66468241	66469390	+	Wash	0x0
25005	chr17	66490419	66491569	+	Ddx11	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25006	chr17	66498870	66500034	+	Ddx11	0x2
25007	chr17	66686156	66687261	-	Soga2	0x0
25008	chr17	66689398	66691107	-	Soga2	0x0
25009	chr17	66715978	66717272	-	Soga2	0x0
25010	chr17	66728829	66730034	-	Soga2	0x0
25011	chr17	66757697	66758798	-	Soga2	0x0
25012	chr17	66775162	66776340	-	Soga2	0x0
25013	chr17	66787104	66788279	-	Soga2	0x0
25014	chr17	66820595	66821775	-	Soga2	0x0
25015	chr17	66832311	66833488	-	Rab12	0x0
25016	chr17	66843445	66845337	-	Rab12	0x0
25017	chr17	66865717	66867645	-	Rab12	0x0
25018	chr17	67028763	67029867	-	Ptprm	0x0
25019	chr17	68095618	68096810	+	Lama1	0x2
25020	chr17	68193620	68194829	-	Arhgap28	0x2
25021	chr17	69544733	69545949	+	Epb4.1l3	0x1
25022	chr17	69637723	69638897	+	Epb4.1l3	0x1
25023	chr17	69738047	69739405	+	Zbtb14	0x0
25024	chr17	70309367	70310556	+	Dlgap1	0x0
25025	chr17	71193171	71194463	-	Tgif1	0x0
25026	chr17	71200136	71201280	-	Tgif1	0x0
25027	chr17	71224990	71226200	+	Dlgap1	0x0
25028	chr17	71312518	71313760	+	Myom1	0x0
25029	chr17	71324752	71325868	-	Myl12b	0x0
25030	chr17	71335285	71336384	-	Myl12b	0x0
25031	chr17	71343195	71344339	-	Myl12a	0x0
25032	chr17	71584608	71585825	+	Lpin2	0x0
25033	chr17	71693380	71694715	-	Smchd1	0x0
25034	chr17	71743368	71744594	-	Smchd1	0x0
25035	chr17	71803949	71805163	-	Smchd1	0x0
25036	chr17	71808108	71809323	-	Smchd1	0x0
25037	chr17	71811927	71813104	-	Smchd1	0x0
25038	chr17	71820291	71821476	-	Smchd1	0x0
25039	chr17	71974155	71975331	+	Wdr43	0x0
25040	chr17	71980144	71981245	+	Snord92	0x0
25041	chr17	71982398	71983555	+	Wdr43	0x0
25042	chr17	71989008	71990109	+	Wdr43	0x0
25043	chr17	72006789	72008798	+	Wdr43	0x0
25044	chr17	72148572	72149671	+	Clip4	0x0
25045	chr17	72179534	72180643	+	Clip4	0x0
25046	chr17	72869276	72870444	-	Alk	0x2
25047	chr17	73589252	73590668	+	Lclat1	0x0
25048	chr17	74624215	74625358	-	Memo1	0x0
25049	chr17	74643772	74644956	-	Memo1	0x0
25050	chr17	74645409	74646577	-	Memo1	0x0
25051	chr17	74693611	74694830	-	Memo1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25052	chr17	74789119	74790825	+	Spast	0x0
25053	chr17	74822327	74823705	+	Slc30a6	0x0
25054	chr17	74898496	74899648	+	Yipf4	0x0
25055	chr17	74946613	74947674	+	Birc6	0x0
25056	chr17	74978594	74979744	+	Birc6	0x0
25057	chr17	75012234	75013467	+	Birc6	0x0
25058	chr17	75020932	75022129	+	Birc6	0x0
25059	chr17	75022503	75023751	+	Birc6	0x0
25060	chr17	75025796	75026939	+	Birc6	0x0
25061	chr17	75033654	75034761	+	Birc6	0x0
25062	chr17	75041152	75042358	+	Birc6	0x0
25063	chr17	75049377	75050568	+	Birc6	0x0
25064	chr17	75050758	75051906	+	Birc6	0x0
25065	chr17	75101996	75103120	+	Birc6	0x0
25066	chr17	75175740	75176903	+	Ttc27	0x0
25067	chr17	75212946	75214090	+	Ttc27	0x0
25068	chr17	75560427	75561528	-	Fam98a	0x0
25069	chr17	75790393	75791589	+	Ltbp1	0x0
25070	chr17	75936032	75937756	-	Fam98a	0x0
25071	chr17	78576282	78577447	-	Fez2	0x0
25072	chr17	78723833	78724950	+	Crim1	0x0
25073	chr17	78892177	78893297	+	Vit	0x0
25074	chr17	79049025	79050485	-	Strn	0x0
25075	chr17	79051820	79053846	-	Strn	0x0
25076	chr17	79134797	79135971	-	Strn	0x0
25077	chr17	79151904	79153212	-	Heatr5b	0x0
25078	chr17	79190855	79191955	-	Heatr5b	0x0
25079	chr17	79249630	79251887	-	Gm6548	0x0
25080	chr17	79257759	79258956	+	Gpatch11	0x0
25081	chr17	79267334	79268506	-	Eif2ak2	0x1
25082	chr17	79275954	79277098	-	Eif2ak2	0x1
25083	chr17	79345147	79346280	+	Ndufaf7	0x0
25084	chr17	79348439	79350834	-	Prkd3	0x0
25085	chr17	80248021	80249895	-	Atl2	0x0
25086	chr17	80292715	80293836	-	Atl2	0x0
25087	chr17	80332435	80333714	-	Atl2	0x0
25088	chr17	80428419	80430249	-	Hnrpll	0x0
25089	chr17	80432861	80434054	-	Hnrpll	0x0
25090	chr17	80452286	80453528	-	Hnrpll	0x0
25091	chr17	80561421	80562536	+	Galm	0x0
25092	chr17	80598941	80601068	-	Srsf7	0x0
25093	chr17	80604694	80605788	-	Srsf7	0x0
25094	chr17	80650248	80651418	-	Dhx57	0x0
25095	chr17	80796490	80797679	-	Sos1	0x2
25096	chr17	80839206	80840336	-	Sos1	0x2
25097	chr17	80848039	80849228	-	Sos1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25098	chr17	80979291	80981220	-	Map4k3	0x0
25099	chr17	81022545	81023692	-	Map4k3	0x0
25100	chr17	81177428	81178585	-	Map4k3	0x0
25101	chr17	82366786	82367981	-	Slc8a1	0x0
25102	chr17	82808732	82809904	-	Gm19689	0x0
25103	chr17	83783992	83785150	+	Eml4	0x2
25104	chr17	83808781	83809983	+	Eml4	0x2
25105	chr17	83840121	83841259	+	Eml4	0x2
25106	chr17	83847987	83849129	+	Eml4	0x2
25107	chr17	83877527	83880132	+	Eml4	0x2
25108	chr17	83900723	83902577	-	Cox7a2l	0x0
25109	chr17	84165354	84166466	+	Mta3	0x0
25110	chr17	84175389	84176579	+	Mta3	0x0
25111	chr17	84583784	84586180	-	Zfp36l2	0x4
25112	chr17	84588938	84591311	-	Thada	0x0
25113	chr17	84732862	84734057	-	Thada	0x0
25114	chr17	84784769	84785956	-	Thada	0x0
25115	chr17	84797025	84798159	-	Thada	0x0
25116	chr17	84815919	84817057	-	Thada	0x0
25117	chr17	84840553	84841652	-	Thada	0x0
25118	chr17	84843086	84844279	-	Thada	0x0
25119	chr17	84851358	84852545	-	Thada	0x0
25120	chr17	85004680	85005862	+	Plekhh2	0x0
25121	chr17	85105429	85106614	-	Lrpprc	0x0
25122	chr17	85114911	85116026	-	Lrpprc	0x0
25123	chr17	85121479	85122675	-	Lrpprc	0x0
25124	chr17	85135832	85136931	-	Lrpprc	0x0
25125	chr17	85151103	85152227	-	Lrpprc	0x0
25126	chr17	85165834	85166933	-	Lrpprc	0x0
25127	chr17	85168803	85170438	-	Lrpprc	0x0
25128	chr17	85392532	85394110	+	Ppm1b	0x0
25129	chr17	85408950	85410097	+	Ppm1b	0x0
25130	chr17	85411340	85412456	+	Ppm1b	0x0
25131	chr17	85412982	85414118	+	Ppm1b	0x0
25132	chr17	85415877	85416994	+	Ppm1b	0x0
25133	chr17	85461386	85463622	-	Prepl	0x0
25134	chr17	85557616	85558793	-	Prepl	0x0
25135	chr17	85601814	85602960	+	Camkmt	0x0
25136	chr17	85897629	85898785	+	Camkmt	0x0
25137	chr17	86501683	86502880	-	Srbd1	0x0
25138	chr17	87168705	87169877	+	Epas1	0x0
25139	chr17	87230926	87233094	+	Epas1	0x0
25140	chr17	87433944	87435231	+	Cript	0x0
25141	chr17	87653667	87655573	-	Mcfd2	0x2
25142	chr17	87663767	87664910	-	Mcfd2	0x2
25143	chr17	87748044	87749176	+	Ttc7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25144	chr17	87779521	87781596	+	Ttc7	0x0
25145	chr17	87832385	87833702	-	Calm2	0x0
25146	chr17	87834627	87835805	-	Calm2	0x0
25147	chr17	88039101	88040305	+	Epcam	0x0
25148	chr17	88049432	88050769	+	Epcam	0x0
25149	chr17	88072403	88073488	+	Msh2	0x1
25150	chr17	88076957	88078155	+	Msh2	0x1
25151	chr17	88093009	88094108	+	Msh2	0x1
25152	chr17	88228354	88229489	+	Msh2	0x1
25153	chr17	88237485	88238592	+	Msh2	0x1
25154	chr17	88258056	88259187	+	Msh6	0x2
25155	chr17	88376183	88377368	+	Msh6	0x2
25156	chr17	88383895	88385000	+	Msh6	0x2
25157	chr17	88385607	88386775	+	Msh6	0x2
25158	chr17	88388309	88389402	+	Msh6	0x2
25159	chr17	88390685	88391786	-	Fbxo11	0x2
25160	chr17	88424772	88425951	-	Fbxo11	0x2
25161	chr17	88436387	88437522	-	Fbxo11	0x2
25162	chr17	88457460	88458635	-	Fbxo11	0x2
25163	chr17	88529888	88531075	+	Gm4832	0x0
25164	chr17	88862003	88863149	+	Foxn2	0x0
25165	chr17	88878805	88880006	+	Foxn2	0x0
25166	chr17	88887381	88888768	+	Foxn2	0x0
25167	chr17	89046460	89047656	+	Ston1	0x0
25168	chr17	89490807	89492016	+	4933400B14Rik	0x0
25169	chr17	89884387	89885575	+	Gm4719	0x0
25170	chr17	90128783	90129973	-	Nrxn1	0x0
25171	chr17	91343515	91344647	-	Nrxn1	0x0
25172	chr17	93737396	93738547	+	Adcyap1	0x0
25173	chr17	93751507	93752706	+	Adcyap1	0x0
25174	chr17	95084167	95086704	+	2700099C18Rik	0x0
25175	chr17	95123460	95124578	-	Mettl4	0x0
25176	chr17	95124831	95127030	-	Mettl4	0x0
25177	chr17	95140713	95141907	-	Mettl4	0x0
25178	chr17	95214387	95215544	-	2610044O15Rik8	0x0
25179	chr17	95215756	95216831	-	2610044O15Rik8	0x0
25180	chr18	3241031	3242204	-	Crem	0x2
25181	chr18	3279836	3281055	-	Crem	0x2
25182	chr18	3290031	3291254	-	Crem	0x2
25183	chr18	3292376	3293475	-	Crem	0x2
25184	chr18	3430378	3432139	+	Cul2	0x1
25185	chr18	3866987	3868086	-	Map3k8	0x2
25186	chr18	4391124	4392318	+	Mtpap	0x0
25187	chr18	4415056	4416191	+	Mtpap	0x0
25188	chr18	4681144	4682912	+	9430020K01Rik	0x0
25189	chr18	4931198	4932315	+	Gm10556	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25190	chr18	5076666	5077861	+	Svil	0x0
25191	chr18	5118443	5119639	+	Svil	0x0
25192	chr18	5225716	5226911	-	Zfp438	0x0
25193	chr18	5333622	5334814	-	Zfp438	0x0
25194	chr18	5598044	5599150	+	Zeb1	0x0
25195	chr18	5764515	5765616	+	Zeb1	0x0
25196	chr18	5772585	5773792	+	Zeb1	0x0
25197	chr18	5773998	5775155	+	Zeb1	0x0
25198	chr18	6024323	6026902	-	Arhgap12	0x0
25199	chr18	6028899	6030430	-	Arhgap12	0x0
25200	chr18	6054261	6055438	-	Arhgap12	0x0
25201	chr18	6084835	6086011	+	Zeb1	0x0
25202	chr18	6111413	6112949	-	Arhgap12	0x0
25203	chr18	6200792	6202742	-	Kif5b	0x2
25204	chr18	6202798	6204019	-	Kif5b	0x2
25205	chr18	6216229	6217389	-	Kif5b	0x2
25206	chr18	6223038	6224213	-	Kif5b	0x2
25207	chr18	6437753	6438930	-	Epc1	0x2
25208	chr18	6455129	6456296	-	Epc1	0x2
25209	chr18	6549085	6550242	+	4921524L21Rik	0x0
25210	chr18	6678107	6679254	+	4921524L21Rik	0x0
25211	chr18	6759706	6760814	-	Mkx	0x0
25212	chr18	6788306	6790698	+	Rab18	0x0
25213	chr18	7029559	7030842	+	Rab18	0x0
25214	chr18	7348407	7349573	-	Mpp7	0x0
25215	chr18	7391986	7393181	-	Mpp7	0x0
25216	chr18	7479064	7480241	-	Mpp7	0x0
25217	chr18	7587635	7588789	-	Mpp7	0x0
25218	chr18	7896275	7897375	+	Wac	0x0
25219	chr18	7926538	7927830	+	Wac	0x0
25220	chr18	8050786	8052055	+	Wac	0x0
25221	chr18	9313717	9315168	-	Ccny	0x0
25222	chr18	9315321	9316670	-	Ccny	0x0
25223	chr18	9467942	9469071	-	Ccny	0x0
25224	chr18	9593250	9594372	+	Colec12	0x0
25225	chr18	9595157	9597077	+	Colec12	0x0
25226	chr18	9960354	9961492	+	Thoc1	0x0
25227	chr18	9993232	9996272	-	Usp14	0x0
25228	chr18	10001229	10002426	-	Usp14	0x0
25229	chr18	10021268	10022476	-	Usp14	0x0
25230	chr18	10051556	10052731	-	Rock1	0x0
25231	chr18	10063999	10066029	-	Rock1	0x0
25232	chr18	10150390	10151664	-	Rock1	0x0
25233	chr18	10156827	10158051	-	Rock1	0x0
25234	chr18	10563555	10564687	-	Esco1	0x0
25235	chr18	10566270	10567412	-	Esco1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25236	chr18	10593722	10595884	-	Esco1	0x0
25237	chr18	10751382	10752520	+	Mib1	0x0
25238	chr18	10755075	10756258	+	Mib1	0x0
25239	chr18	10760261	10761423	+	Mib1	0x0
25240	chr18	10795175	10796374	+	Mib1	0x0
25241	chr18	10796540	10797749	+	Mib1	0x0
25242	chr18	10813236	10818021	+	Mib1	0x0
25243	chr18	12314172	12315285	+	Riok3	0x0
25244	chr18	12345934	12347063	-	Npc1	0x0
25245	chr18	12380962	12382196	-	Npc1	0x0
25246	chr18	12913369	12914813	-	Osbpl1a	0x0
25247	chr18	13084848	13085980	-	Osbpl1a	0x0
25248	chr18	13132712	13133867	+	Impact	0x4
25249	chr18	13136514	13137664	+	Impact	0x4
25250	chr18	13148954	13151783	+	Impact	0x4
25251	chr18	13902080	13903275	-	Zfp521	0x0
25252	chr18	13947025	13948223	-	Zfp521	0x0
25253	chr18	14728347	14730155	+	Psma8	0x0
25254	chr18	14783718	14786116	-	Ss18	0x0
25255	chr18	14919836	14920946	+	Psma8	0x0
25256	chr18	14924881	14925980	+	Psma8	0x0
25257	chr18	14927964	14929161	+	Psma8	0x0
25258	chr18	15032087	15033218	+	Taf4b	0x2
25259	chr18	17230857	17232102	-	4921533I20Rik	0x0
25260	chr18	20188784	20189895	-	Dsc2	0x0
25261	chr18	20752079	20753290	+	Dsg2	0x0
25262	chr18	20760884	20763454	+	Dsg2	0x0
25263	chr18	20843411	20845506	-	B4galt6	0x0
25264	chr18	20846176	20847273	-	B4galt6	0x0
25265	chr18	20850384	20851604	-	B4galt6	0x0
25266	chr18	20867075	20868276	-	B4galt6	0x0
25267	chr18	20922943	20924156	-	B4galt6	0x0
25268	chr18	20975466	20977009	-	Trappc8	0x0
25269	chr18	21005131	21006340	-	Trappc8	0x0
25270	chr18	21028852	21030052	-	Trappc8	0x0
25271	chr18	21121375	21122574	+	Rnf125	0x0
25272	chr18	21141766	21146099	+	Rnf125	0x0
25273	chr18	21164448	21165568	+	Rnf138	0x0
25274	chr18	21166786	21167932	+	Rnf138	0x0
25275	chr18	21184382	21186443	+	Rnf138	0x0
25276	chr18	21283315	21285755	-	Garem	0x0
25277	chr18	21286129	21287311	-	Garem	0x0
25278	chr18	21457896	21459074	-	Garem	0x0
25279	chr18	22477597	22478808	+	Asxl3	0x0
25280	chr18	24049158	24050496	+	Mapre2	0x0
25281	chr18	24122474	24123649	+	Zfp397	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25282	chr18	24160846	24162011	+	Zfp35	0x0
25283	chr18	24170292	24172646	-	Zfp191	0x0
25284	chr18	24262396	24264278	-	Ino80c	0x0
25285	chr18	24425510	24426703	+	Galnt1	0x0
25286	chr18	24443849	24445421	+	Galnt1	0x0
25287	chr18	24649363	24650533	-	Rprd1a	0x0
25288	chr18	24663557	24664796	-	Rprd1a	0x0
25289	chr18	24738235	24739704	-	Slc39a6	0x0
25290	chr18	24751826	24753019	-	Slc39a6	0x0
25291	chr18	24884284	24885429	+	Fhod3	0x0
25292	chr18	24936952	24938056	+	Fhod3	0x0
25293	chr18	24959672	24960811	+	Fhod3	0x0
25294	chr18	24982303	24983449	+	Fhod3	0x0
25295	chr18	25080507	25081677	+	Fhod3	0x0
25296	chr18	25155996	25157178	+	Fhod3	0x0
25297	chr18	25233776	25234924	+	Fhod3	0x0
25298	chr18	25400995	25402184	+	AW554918	0x0
25299	chr18	25417104	25418206	+	AW554918	0x0
25300	chr18	25470329	25471456	+	AW554918	0x0
25301	chr18	25636266	25637505	-	Celf4	0x2
25302	chr18	25652266	25653463	-	Celf4	0x2
25303	chr18	26584524	26585686	-	Celf4	0x2
25304	chr18	27116143	27117242	-	Celf4	0x2
25305	chr18	28345369	28347194	-	4930578E11Rik	0x0
25306	chr18	28346819	28348137	+	4930474G06Rik	0x0
25307	chr18	30495678	30496871	+	Pik3c3	0x0
25308	chr18	30503083	30504234	+	Pik3c3	0x0
25309	chr18	31739671	31741969	-	Slc25a46	0x0
25310	chr18	31814106	31815264	+	Sap130	0x0
25311	chr18	31843014	31844160	+	Sap130	0x0
25312	chr18	31881750	31883146	+	Sap130	0x0
25313	chr18	31942729	31943841	+	Ammecr1l	0x0
25314	chr18	31955272	31956769	+	Polr2d	0x0
25315	chr18	31995702	31996846	+	Wdr33	0x0
25316	chr18	32009153	32010319	+	Wdr33	0x0
25317	chr18	32012728	32013829	+	Wdr33	0x0
25318	chr18	32016186	32017393	+	Wdr33	0x0
25319	chr18	32030796	32031985	+	Wdr33	0x0
25320	chr18	32036324	32037474	+	Wdr33	0x0
25321	chr18	32043917	32045058	+	Wdr33	0x0
25322	chr18	32066220	32067339	+	Wdr33	0x0
25323	chr18	32249565	32250672	+	Iws1	0x0
25324	chr18	32257098	32259059	+	Iws1	0x0
25325	chr18	32427272	32428475	+	Ercc3	0x2
25326	chr18	33023789	33024987	+	Wdr36	0x0
25327	chr18	33358399	33362250	-	Stard4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25328	chr18	34051414	34052530	-	Epb4.1l4a	0x0
25329	chr18	34130371	34131497	-	Epb4.1l4a	0x0
25330	chr18	34131935	34133112	-	Epb4.1l4a	0x0
25331	chr18	34162706	34163815	-	Epb4.1l4a	0x0
25332	chr18	34411884	34413051	+	Apc	0x1
25333	chr18	34457608	34458855	+	Apc	0x1
25334	chr18	34475805	34476892	+	Apc	0x1
25335	chr18	34478339	34481749	+	Apc	0x1
25336	chr18	34494125	34495264	+	Srp19	0x0
25337	chr18	34505449	34506632	-	Reep5	0x0
25338	chr18	34532449	34533559	-	Reep5	0x0
25339	chr18	34600716	34601950	-	Fam13b	0x0
25340	chr18	34659416	34660530	-	Fam13b	0x0
25341	chr18	34766906	34768708	-	Brd8	0x2
25342	chr18	34788298	34790678	+	Kif20a	0x0
25343	chr18	34792373	34793948	-	Cdc23	0x0
25344	chr18	34794143	34795312	-	Cdc23	0x0
25345	chr18	34806515	34807760	+	Kif20a	0x0
25346	chr18	34906167	34907342	-	Cdc25c	0x2
25347	chr18	34931168	34933607	+	Fam53c	0x0
25348	chr18	34967615	34969197	+	Kdm3b	0x1
25349	chr18	34969294	34970548	+	Kdm3b	0x1
25350	chr18	34976510	34977686	-	Cdc25c	0x2
25351	chr18	34979865	34981093	+	Kdm3b	0x1
25352	chr18	34987634	34988780	+	Kdm3b	0x1
25353	chr18	34997159	34999023	+	Kdm3b	0x1
25354	chr18	35023394	35024493	+	Egr1	0x1
25355	chr18	35062418	35064728	-	Etf1	0x0
25356	chr18	35096687	35098301	-	Hspa9	0x0
25357	chr18	35101042	35102165	-	Hspa9	0x0
25358	chr18	35150509	35151672	+	Egr1	0x1
25359	chr18	35313525	35314734	+	Ctnna1	0x0
25360	chr18	35333439	35334594	+	Ctnna1	0x0
25361	chr18	35359180	35360352	+	Ctnna1	0x0
25362	chr18	35408811	35409901	+	Ctnna1	0x0
25363	chr18	35413189	35414820	+	Ctnna1	0x0
25364	chr18	35617870	35619044	-	Sil1	0x0
25365	chr18	35713686	35714798	+	Mir1949	0x0
25366	chr18	35713686	35714798	+	Snhg4	0x0
25367	chr18	35722784	35723941	+	Matr3	0x0
25368	chr18	35725698	35726925	+	Matr3	0x0
25369	chr18	35731549	35733107	+	Matr3	0x0
25370	chr18	35746009	35747956	+	Matr3	0x0
25371	chr18	35748038	35749237	+	Matr3	0x0
25372	chr18	35749868	35751624	+	Matr3	0x0
25373	chr18	35762722	35763886	+	Paip2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25374	chr18	35765790	35766997	+	Paip2	0x0
25375	chr18	35775378	35777250	+	Paip2	0x0
25376	chr18	35830263	35832087	-	Dnajc18	0x0
25377	chr18	35938526	35939628	+	Ube2d2a	0x0
25378	chr18	35944888	35946028	+	Ube2d2a	0x0
25379	chr18	35964576	35965748	+	Ube2d2a	0x0
25380	chr18	35965858	35967009	+	Ube2d2a	0x0
25381	chr18	35990994	35992223	+	Cxxc5	0x0
25382	chr18	36013790	36014915	+	Cxxc5	0x0
25383	chr18	36019104	36021508	+	Cxxc5	0x0
25384	chr18	36176538	36177716	-	Nrg2	0x2
25385	chr18	36343118	36344321	-	Nrg2	0x2
25386	chr18	36445624	36451907	+	Pura	0x0
25387	chr18	36456232	36457385	+	6330403M23Rik	0x0
25388	chr18	36458874	36460002	+	6330403M23Rik	0x0
25389	chr18	36486172	36487334	+	Cystm1	0x0
25390	chr18	36510968	36512112	+	Cystm1	0x0
25391	chr18	36563474	36564633	-	Pfdn1	0x0
25392	chr18	36748519	36749741	+	Ankhd1	0x0
25393	chr18	36769569	36770758	+	Ankhd1	0x0
25394	chr18	36838281	36839484	-	Apbb3	0x0
25395	chr18	36840847	36841975	+	Slc35a4	0x0
25396	chr18	36842526	36843901	+	Slc35a4	0x0
25397	chr18	36901611	36902845	-	Ndufa2	0x0
25398	chr18	36916654	36917776	+	Ik	0x0
25399	chr18	36925876	36927078	-	Hars	0x2
25400	chr18	36927207	36928395	-	Hars	0x2
25401	chr18	36955617	36956816	+	Zmat2	0x0
25402	chr18	36959200	36960300	+	Zmat2	0x0
25403	chr18	36960944	36962233	+	Vaultrc5	0x0
25404	chr18	37800441	37802572	-	Taf7	0x0
25405	chr18	37955143	37956286	+	Pcdhgc3	0x0
25406	chr18	37989550	37990717	-	Diap1	0x2
25407	chr18	37999254	38002009	+	Pcdha4-g	0x0
25408	chr18	37999254	38002009	+	Pcdhga1	0x0
25409	chr18	37999254	38002009	+	Pcdhga10	0x0
25410	chr18	37999254	38002009	+	Pcdhga11	0x0
25411	chr18	37999254	38002009	+	Pcdhga12	0x0
25412	chr18	37999254	38002009	+	Pcdhga2	0x0
25413	chr18	37999254	38002009	+	Pcdhga3	0x0
25414	chr18	37999254	38002009	+	Pcdhga4	0x0
25415	chr18	37999254	38002009	+	Pcdhga5	0x0
25416	chr18	37999254	38002009	+	Pcdhga6	0x0
25417	chr18	37999254	38002009	+	Pcdhga7	0x0
25418	chr18	37999254	38002009	+	Pcdhga8	0x0
25419	chr18	37999254	38002009	+	Pcdhga9	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25420	chr18	37999254	38002009	+	Pcdhgb1	0x0
25421	chr18	37999254	38002009	+	Pcdhgb2	0x0
25422	chr18	37999254	38002009	+	Pcdhgb4	0x0
25423	chr18	37999254	38002009	+	Pcdhgb5	0x0
25424	chr18	37999254	38002009	+	Pcdhgb6	0x0
25425	chr18	37999254	38002009	+	Pcdhgb7	0x0
25426	chr18	37999254	38002009	+	Pcdhgb8	0x0
25427	chr18	37999254	38002009	+	Pcdhgc3	0x0
25428	chr18	37999254	38002009	+	Pcdhgc4	0x0
25429	chr18	37999254	38002009	+	Pcdhgc5	0x2
25430	chr18	38002859	38005106	-	Diap1	0x2
25431	chr18	38012449	38013619	-	Diap1	0x2
25432	chr18	38019560	38020709	-	Diap1	0x2
25433	chr18	38057140	38058330	-	Diap1	0x2
25434	chr18	38064064	38065261	-	Diap1	0x2
25435	chr18	38096244	38097468	-	Hdac3	0x1
25436	chr18	38318634	38319737	-	Pcdh1	0x0
25437	chr18	38356298	38357481	-	Pcdh1	0x0
25438	chr18	38410427	38411570	+	0610009O20Rik	0x0
25439	chr18	38467024	38468169	+	Rnf14	0x0
25440	chr18	38476219	38477983	+	Rnf14	0x0
25441	chr18	38478053	38479216	+	Rnf14	0x0
25442	chr18	38487482	38489054	-	Gnpda1	0x0
25443	chr18	38606827	38607973	+	Ndfip1	0x0
25444	chr18	38623616	38625348	+	Ndfip1	0x0
25445	chr18	38745649	38746860	-	Spry4	0x0
25446	chr18	38747073	38748172	-	Spry4	0x0
25447	chr18	38748485	38749607	-	Spry4	0x0
25448	chr18	38930799	38931957	-	Fgf1	0x0
25449	chr18	39154944	39156091	+	Arhgap26	0x2
25450	chr18	39570288	39571485	-	Nr3c1	0x0
25451	chr18	39645576	39646772	-	Nr3c1	0x0
25452	chr18	41187515	41188701	+	Kctd16	0x0
25453	chr18	42361526	42362774	-	Lars	0x0
25454	chr18	42388712	42389908	-	Lars	0x0
25455	chr18	42416240	42417328	-	Lars	0x0
25456	chr18	42458353	42459461	+	Rbm27	0x0
25457	chr18	42497943	42501279	+	Rbm27	0x0
25458	chr18	42684014	42685188	+	Tcerg1	0x2
25459	chr18	42733747	42735635	+	Tcerg1	0x2
25460	chr18	42788308	42789490	+	Tcerg1	0x2
25461	chr18	43284073	43285267	+	Stk32a	0x0
25462	chr18	43480182	43481333	-	Dpysl3	0x0
25463	chr18	43481713	43484192	-	Dpysl3	0x0
25464	chr18	43635312	43636867	-	Jakmip2	0x0
25465	chr18	44577124	44580221	+	Dcp2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25466	chr18	44580633	44583123	+	Dcp2	0x0
25467	chr18	44583474	44584830	+	Dcp2	0x0
25468	chr18	44586211	44587718	-	Mcc	0x1
25469	chr18	45731840	45733049	+	Kcnn2	0x0
25470	chr18	46397092	46398284	-	Pggt1b	0x0
25471	chr18	46399072	46400983	-	Pggt1b	0x0
25472	chr18	46661971	46664373	-	Fem1c	0x0
25473	chr18	46719290	46720390	-	Ticam2	0x0
25474	chr18	46745186	46747939	-	Tmed7	0x0
25475	chr18	46757086	46758264	+	Eif1a	0x0
25476	chr18	46767526	46769889	+	Eif1a	0x0
25477	chr18	46893342	46894511	-	Atg12	0x0
25478	chr18	47092204	47094361	+	Arl14epl	0x0
25479	chr18	47162509	47163628	+	Commd10	0x0
25480	chr18	47187303	47188492	+	Commd10	0x0
25481	chr18	47208621	47209839	+	Commd10	0x0
25482	chr18	47211292	47212479	+	Commd10	0x0
25483	chr18	47237047	47238173	+	Commd10	0x0
25484	chr18	47241081	47242227	+	Commd10	0x0
25485	chr18	47246570	47248011	+	Commd10	0x0
25486	chr18	47271405	47272612	+	Commd10	0x0
25487	chr18	49884693	49885831	-	Dtwd2	0x0
25488	chr18	49888028	49889247	-	Dtwd2	0x0
25489	chr18	49992106	49993323	+	Dmxl1	0x0
25490	chr18	50037514	50039169	+	Dmxl1	0x0
25491	chr18	50113055	50114224	+	Dmxl1	0x0
25492	chr18	50116494	50117599	+	Dmxl1	0x0
25493	chr18	50122733	50123943	+	Dmxl1	0x0
25494	chr18	53044057	53045231	+	Sncaip	0x0
25495	chr18	53346090	53347310	+	Snx2	0x0
25496	chr18	53379643	53380882	+	Snx2	0x0
25497	chr18	53441838	53443015	-	Ppic	0x0
25498	chr18	53458722	53459870	+	Snx24	0x0
25499	chr18	53501966	53503164	+	Snx24	0x0
25500	chr18	53548928	53550193	+	Snx24	0x0
25501	chr18	53568501	53569637	-	Ppic	0x0
25502	chr18	53840820	53842945	-	Cep120	0x0
25503	chr18	53874308	53875504	-	Cep120	0x0
25504	chr18	53890252	53891426	-	Cep120	0x0
25505	chr18	54113368	54115669	+	Csnk1g3	0x0
25506	chr18	54782163	54783347	-	Zfp608	0x0
25507	chr18	56656380	56657486	+	Gramd3	0x0
25508	chr18	56686010	56687201	-	Aldh7a1	0x0
25509	chr18	56800853	56802078	-	Aldh7a1	0x0
25510	chr18	56888480	56889620	+	Lmnb1	0x0
25511	chr18	56891740	56893553	+	Lmnb1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25512	chr18	56902451	56903565	+	Lmnb1	0x0
25513	chr18	56911918	56913447	+	Lmnb1	0x0
25514	chr18	57030351	57031587	-	March3	0x0
25515	chr18	57550376	57552114	+	Prrc1	0x0
25516	chr18	58038017	58039204	+	Slc12a2	0x0
25517	chr18	58054332	58055525	+	Slc12a2	0x0
25518	chr18	58060547	58061650	+	Slc12a2	0x0
25519	chr18	58100237	58101319	+	Slc12a2	0x0
25520	chr18	58103527	58106889	+	Slc12a2	0x0
25521	chr18	58837533	58840526	+	Isoc1	0x0
25522	chr18	60332211	60333434	+	Gm4951	0x0
25523	chr18	60693895	60695056	+	Dctn4	0x0
25524	chr18	60731606	60732822	+	Rbm22	0x0
25525	chr18	60844583	60845855	-	Ndst1	0x0
25526	chr18	60846066	60847891	-	Ndst1	0x0
25527	chr18	60936055	60938731	+	Rps14	0x0
25528	chr18	60981995	60983172	-	Tcof1	0x0
25529	chr18	61003189	61004425	-	Tcof1	0x0
25530	chr18	61145630	61146729	+	Camk2a	0x0
25531	chr18	61290845	61292018	-	Hmgxb3	0x0
25532	chr18	61316729	61317857	-	Hmgxb3	0x0
25533	chr18	61353645	61355364	-	Slc26a2	0x0
25534	chr18	61723418	61724531	+	Csnk1a1	0x0
25535	chr18	61741196	61742597	+	Csnk1a1	0x0
25536	chr18	61746942	61750105	+	Csnk1a1	0x0
25537	chr18	61871888	61873036	-	Grpel2	0x0
25538	chr18	61873256	61874347	-	Grpel2	0x0
25539	chr18	61874378	61875512	-	Grpel2	0x0
25540	chr18	61886948	61888145	+	1500015A07Rik	0x0
25541	chr18	63111647	63113831	+	Apcdd1	0x0
25542	chr18	63157137	63158856	+	Napg	0x0
25543	chr18	63702991	63704445	-	Txnl1	0x0
25544	chr18	63820731	63823948	-	Txnl1	0x0
25545	chr18	63928941	63930041	+	Wdr7	0x0
25546	chr18	64447610	64448943	+	St8sia3	0x0
25547	chr18	64616421	64617814	-	Fech	0x0
25548	chr18	64658726	64660716	-	Nars	0x0
25549	chr18	64663470	64665589	-	Nars	0x0
25550	chr18	65076026	65077151	+	Nedd4l	0x0
25551	chr18	65159599	65160737	+	Nedd4l	0x0
25552	chr18	65182871	65184073	+	Nedd4l	0x0
25553	chr18	65200771	65201953	-	Alpk2	0x0
25554	chr18	65312137	65313291	+	Nedd4l	0x0
25555	chr18	65575252	65576407	-	Alpk2	0x0
25556	chr18	65636157	65637390	+	Malt1	0x2
25557	chr18	65782721	65785528	+	Zfp532	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25558	chr18	65797973	65799141	+	Zfp532	0x0
25559	chr18	65803311	65804512	+	Zfp532	0x0
25560	chr18	65810671	65811935	+	Zfp532	0x0
25561	chr18	65815524	65816736	+	Zfp532	0x0
25562	chr18	65844679	65845845	+	Zfp532	0x0
25563	chr18	65847472	65848748	+	Zfp532	0x0
25564	chr18	66092223	66093384	+	Grp	0x0
25565	chr18	66140200	66143622	-	Lman1	0x0
25566	chr18	66150686	66151870	-	Lman1	0x0
25567	chr18	66152855	66154073	-	Lman1	0x0
25568	chr18	66156244	66157375	-	Lman1	0x0
25569	chr18	67387224	67388421	-	Mppe1	0x0
25570	chr18	67451403	67453441	+	Impa2	0x0
25571	chr18	67466243	67467370	+	Impa2	0x0
25572	chr18	67477700	67479054	+	Impa2	0x0
25573	chr18	67480191	67481341	+	Impa2	0x0
25574	chr18	67549896	67551046	+	Tubb6	0x0
25575	chr18	67561604	67562708	+	Tubb6	0x0
25576	chr18	67588245	67589387	-	Afg3l2	0x0
25577	chr18	67638473	67639663	+	Sumo1	0x0
25578	chr18	67647587	67651231	-	Spire1	0x0
25579	chr18	67776764	67777926	-	Cep76	0x0
25580	chr18	67799087	67800269	-	Cep76	0x0
25581	chr18	67800528	67801725	-	Cep76	0x0
25582	chr18	67952533	67955542	+	Seh1l	0x0
25583	chr18	67989906	67991049	+	Cep192	0x0
25584	chr18	68000745	68001948	+	Cep192	0x0
25585	chr18	68421667	68422851	-	Fam210a	0x0
25586	chr18	68424065	68425522	-	Fam210a	0x0
25587	chr18	68480750	68482085	+	Rnmt	0x0
25588	chr18	68482775	68484806	+	Rnmt	0x0
25589	chr18	69547893	69549108	+	Tcf4	0x1
25590	chr18	69843778	69844971	+	Tcf4	0x1
25591	chr18	69846916	69848056	+	Tcf4	0x1
25592	chr18	70806954	70808187	-	Poli	0x0
25593	chr18	73749348	73752532	+	Mex3c	0x0
25594	chr18	73795560	73796624	-	Smad4	0x1
25595	chr18	73798227	73800170	-	Smad4	0x1
25596	chr18	73836894	73838095	-	Smad4	0x1
25597	chr18	73858670	73859797	-	Smad4	0x1
25598	chr18	73928247	73929511	-	Me2	0x0
25599	chr18	74129127	74131383	-	Mapk4	0x0
25600	chr18	74185966	74187101	-	Mapk4	0x0
25601	chr18	74439033	74440229	+	Mbd1	0x0
25602	chr18	74655153	74656294	+	Myo5b	0x0
25603	chr18	74937450	74938695	-	Scarna17	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25604	chr18	74952466	74953565	+	Acaa2	0x0
25605	chr18	74965145	74966348	+	Acaa2	0x0
25606	chr18	75168923	75170095	+	BC031181	0x0
25607	chr18	75241531	75242667	+	Dym	0x0
25608	chr18	75258386	75259587	+	Dym	0x0
25609	chr18	75261513	75262653	+	Dym	0x0
25610	chr18	75348352	75349494	+	Dym	0x0
25611	chr18	75390341	75391512	+	Dym	0x0
25612	chr18	75420769	75421967	+	Dym	0x0
25613	chr18	75527668	75529193	+	Smad7	0x0
25614	chr18	75553029	75555329	+	Smad7	0x0
25615	chr18	75592668	75593883	-	Ctif	0x2
25616	chr18	75628292	75629457	-	Ctif	0x2
25617	chr18	75791427	75792610	-	Ctif	0x2
25618	chr18	75834848	75836041	-	Ctif	0x2
25619	chr18	76003763	76004925	+	Zbtb7c	0x1
25620	chr18	76217981	76219083	+	Zbtb7c	0x1
25621	chr18	76248228	76249351	+	Zbtb7c	0x1
25622	chr18	76306681	76307840	+	Zbtb7c	0x1
25623	chr18	76468677	76469880	+	Smad2	0x1
25624	chr18	76470320	76471623	+	Smad2	0x1
25625	chr18	77179440	77180674	+	Ier3ip1	0x0
25626	chr18	77299712	77300861	+	Pias2	0x0
25627	chr18	77305184	77306324	+	Pias2	0x0
25628	chr18	77307810	77309005	+	Pias2	0x0
25629	chr18	77311204	77312460	+	Pias2	0x0
25630	chr18	77318832	77320019	+	Pias2	0x0
25631	chr18	77335613	77336818	+	Pias2	0x0
25632	chr18	77380147	77382519	+	Pias2	0x0
25633	chr18	77384258	77385394	+	Pias2	0x0
25634	chr18	77391741	77392847	+	Pias2	0x0
25635	chr18	77393075	77394239	+	Pias2	0x0
25636	chr18	77536074	77537237	-	Rnf165	0x0
25637	chr18	77680815	77682014	-	Rnf165	0x0
25638	chr18	77694488	77696260	-	Rnf165	0x0
25639	chr18	77696445	77697539	-	Rnf165	0x0
25640	chr18	77698113	77699664	-	Rnf165	0x0
25641	chr18	77700018	77701226	-	Rnf165	0x0
25642	chr18	77754627	77755742	-	Rnf165	0x0
25643	chr18	77767004	77768111	-	Rnf165	0x0
25644	chr18	77768171	77769274	-	Rnf165	0x0
25645	chr18	77869947	77871095	-	8030462N17Rik	0x0
25646	chr18	77871762	77872974	-	8030462N17Rik	0x0
25647	chr18	77928915	77930092	-	8030462N17Rik	0x0
25648	chr18	77995834	77997045	-	Haus1	0x0
25649	chr18	78015868	78018162	+	Atp5a1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25650	chr18	78018450	78019597	+	Atp5a1	0x0
25651	chr18	78020668	78022107	+	Atp5a1	0x0
25652	chr18	78174475	78175672	+	Epg5	0x0
25653	chr18	78915154	78916256	+	Epg5	0x0
25654	chr18	79199977	79201159	-	Setbp1	0x0
25655	chr18	79212289	79213393	-	Setbp1	0x0
25656	chr18	79265637	79266822	-	Setbp1	0x0
25657	chr18	80314968	80316421	+	Pard6g	0x0
25658	chr18	80323017	80324949	-	Adnp2	0x0
25659	chr18	80326904	80328074	-	Adnp2	0x0
25660	chr18	80338850	80340025	-	Adnp2	0x0
25661	chr18	80388782	80389934	-	Rbfa	0x0
25662	chr18	80391725	80392855	-	Rbfa	0x0
25663	chr18	80393497	80394655	-	Rbfa	0x0
25664	chr18	80408735	80409976	+	Txnl4a	0x0
25665	chr18	80604481	80605683	-	Ctdp1	0x0
25666	chr18	80931358	80932880	-	Atp9b	0x0
25667	chr18	80946896	80948059	-	Atp9b	0x0
25668	chr18	80959389	80960565	-	Atp9b	0x0
25669	chr18	80975129	80976228	-	Atp9b	0x0
25670	chr18	80987954	80989091	-	Atp9b	0x0
25671	chr18	81113914	81115076	-	Atp9b	0x0
25672	chr18	81130126	81131309	-	Atp9b	0x0
25673	chr18	82765640	82767078	-	Zfp236	0x0
25674	chr18	82825778	82826950	-	Zfp236	0x0
25675	chr18	82837605	82838778	-	Zfp236	0x0
25676	chr18	83125457	83126897	+	Zfp516	0x0
25677	chr18	83156956	83158119	+	Zfp516	0x0
25678	chr18	83171690	83172746	+	Zfp516	0x0
25679	chr18	83173416	83174476	+	Zfp516	0x0
25680	chr18	83536804	83537952	+	Zfp516	0x0
25681	chr18	83542396	83543592	+	Zfp516	0x0
25682	chr18	83657032	83658282	-	4921531P14Rik	0x0
25683	chr18	84383200	84384352	-	Zfp407	0x2
25684	chr18	84454052	84455224	-	Zfp407	0x2
25685	chr18	84484097	84485274	-	Zfp407	0x2
25686	chr18	84537095	84538199	-	Zfp407	0x2
25687	chr18	84589285	84590512	-	Zfp407	0x2
25688	chr18	84595006	84596172	-	Zfp407	0x2
25689	chr18	84614180	84615357	-	Zfp407	0x2
25690	chr18	84679367	84680505	-	Zfp407	0x2
25691	chr18	84727936	84729126	-	Zfp407	0x2
25692	chr18	84729686	84730799	-	Zfp407	0x2
25693	chr18	84730977	84732817	-	Zfp407	0x2
25694	chr18	84739830	84741030	-	Zfp407	0x2
25695	chr18	84836410	84837712	-	Cndp2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25696	chr18	84848497	84849720	-	Cndp2	0x2
25697	chr18	85048511	85049645	+	Cyb5	0x0
25698	chr18	85129017	85130128	+	Fbxo15	0x0
25699	chr18	85134363	85135476	+	Fbxo15	0x0
25700	chr18	85150079	85151299	+	Fbxo15	0x0
25701	chr18	87401884	87403085	+	Cbln2	0x0
25702	chr18	89028014	89029170	-	Socs6	0x0
25703	chr18	89030276	89031484	-	Socs6	0x0
25704	chr18	89036367	89037515	-	Socs6	0x0
25705	chr18	89054361	89055582	-	Socs6	0x0
25706	chr18	89211721	89212884	+	Rttn	0x0
25707	chr18	89259304	89260523	+	Rttn	0x0
25708	chr18	89260701	89261840	+	Rttn	0x0
25709	chr18	90339350	90340583	+	Tmx3	0x0
25710	chr18	90480051	90481235	-	Dok6	0x0
25711	chr18	90710565	90711754	+	Tmx3	0x0
25712	chr19	3205604	3206809	+	Mrpl21	0x0
25713	chr19	3334497	3335663	+	Cpt1a	0x0
25714	chr19	3383599	3385624	+	Cpt1a	0x0
25715	chr19	3454511	3457076	-	Ppp6r3	0x0
25716	chr19	3542351	3543485	-	Ppp6r3	0x0
25717	chr19	3549835	3551021	-	Ppp6r3	0x0
25718	chr19	3552786	3553925	-	Ppp6r3	0x0
25719	chr19	3603530	3604656	-	Lrp5	0x2
25720	chr19	3605615	3606766	-	Lrp5	0x2
25721	chr19	3805172	3806386	+	Suv420h1	0x0
25722	chr19	3807356	3808506	+	Suv420h1	0x0
25723	chr19	3867336	3868450	+	Chka	0x0
25724	chr19	3929826	3930985	-	Aldh3b1	0x0
25725	chr19	4002184	4003357	+	Doc2g	0x0
25726	chr19	4008124	4009298	-	Ndufv1	0x0
25727	chr19	4077862	4079072	-	BC021614	0x0
25728	chr19	4120241	4121415	-	Aip	0x1
25729	chr19	4130815	4131989	+	Tmem134	0x0
25730	chr19	4157117	4158336	-	Rps6kb2	0x0
25731	chr19	4194072	4195268	+	Ppp1ca	0x1
25732	chr19	4285798	4286984	-	Adrbk1	0x0
25733	chr19	4287346	4288544	-	Adrbk1	0x0
25734	chr19	4291606	4292785	-	Adrbk1	0x0
25735	chr19	4317567	4318659	-	Kdm2a	0x0
25736	chr19	4342285	4343503	-	Kdm2a	0x0
25737	chr19	4351229	4352407	-	Kdm2a	0x0
25738	chr19	4356249	4357368	-	Kdm2a	0x0
25739	chr19	4361398	4363444	-	Kdm2a	0x0
25740	chr19	4375583	4376715	-	Kdm2a	0x0
25741	chr19	4386982	4388175	-	Kdm2a	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25742	chr19	4621024	4622213	+	Pcx	0x0
25743	chr19	4747384	4748529	+	Sptbn2	0x0
25744	chr19	4751378	4752707	+	Sptbn2	0x0
25745	chr19	4754328	4755530	-	Rbm4	0x0
25746	chr19	4779014	4780204	-	Rbm4	0x0
25747	chr19	4784661	4786049	-	Rbm4	0x0
25748	chr19	4786914	4788483	-	Rbm4	0x0
25749	chr19	4793261	4794493	-	Rbm4	0x0
25750	chr19	4794802	4795869	-	Rbm4	0x0
25751	chr19	4797460	4798562	-	Rbm14	0x1
25752	chr19	4798981	4801569	-	Rbm14	0x1
25753	chr19	4802010	4804127	-	Rbm14	0x1
25754	chr19	4830029	4831158	-	Ccs	0x0
25755	chr19	4859220	4860422	+	Ctsf	0x0
25756	chr19	4860756	4861951	-	Actn3	0x0
25757	chr19	4906748	4908215	-	Dpp3	0x0
25758	chr19	4913993	4915627	-	Dpp3	0x0
25759	chr19	4930699	4931936	-	Peli3	0x0
25760	chr19	5031196	5032389	+	Slc29a2	0x2
25761	chr19	5040369	5041524	+	B3gnt1	0x0
25762	chr19	5040369	5041524	+	Brms1	0x1
25763	chr19	5045576	5047262	+	Brms1	0x1
25764	chr19	5049004	5050197	+	Brms1	0x1
25765	chr19	5089437	5090634	+	Yif1a	0x0
25766	chr19	5091674	5092921	+	Yif1a	0x0
25767	chr19	5098768	5100529	-	Rab1b	0x4
25768	chr19	5133223	5134462	-	Pacs1	0x0
25769	chr19	5273442	5274955	-	Sf3b2	0x0
25770	chr19	5324553	5325785	+	Catsper1	0x0
25771	chr19	5364179	5366552	-	Banf1	0x0
25772	chr19	5370427	5371606	+	Eif1ad	0x0
25773	chr19	5379730	5380912	-	Sart1	0x0
25774	chr19	5381406	5382579	-	Sart1	0x0
25775	chr19	5427223	5428384	+	AI837181	0x0
25776	chr19	5435602	5436929	+	AI837181	0x0
25777	chr19	5493084	5494531	+	Cfl1	0x0
25778	chr19	5511571	5512730	+	Cfl1	0x0
25779	chr19	5607224	5608419	-	Kat5	0x0
25780	chr19	5654335	5655535	-	Sipa1	0x0
25781	chr19	5664195	5665332	-	Pcnxl3	0x0
25782	chr19	5674429	5675611	-	Pcnxl3	0x0
25783	chr19	5678874	5680017	-	Pcnxl3	0x0
25784	chr19	5683847	5686057	-	Pcnxl3	0x0
25785	chr19	5686625	5687724	-	Pcnxl3	0x0
25786	chr19	5700155	5701372	+	Map3k11	0x0
25787	chr19	5729822	5731006	-	Sssca1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25788	chr19	5796741	5797840	-	Malat1	0x0
25789	chr19	5798351	5800291	-	Malat1	0x0
25790	chr19	5800727	5802489	-	Malat1	0x0
25791	chr19	5827399	5828502	-	Neat1	0x0
25792	chr19	5833729	5834873	-	Neat1	0x0
25793	chr19	5842820	5845549	-	Neat1	0x0
25794	chr19	5850962	5852178	-	Frmd8	0x0
25795	chr19	5865453	5866552	-	Frmd8	0x0
25796	chr19	5867265	5868471	-	Frmd8	0x0
25797	chr19	5885016	5886135	+	Slc25a45	0x0
25798	chr19	5897056	5899082	-	Dpf2	0x0
25799	chr19	5940086	5941324	-	Pola2	0x0
25800	chr19	5997219	5998440	-	Capn1	0x0
25801	chr19	6043962	6045163	-	Mrpl49	0x0
25802	chr19	6052545	6053679	+	Syvn1	0x0
25803	chr19	6053502	6054636	-	Mrpl49	0x0
25804	chr19	6061795	6062995	+	Znhit2	0x0
25805	chr19	6090402	6091857	+	Cdca5	0x0
25806	chr19	6115635	6116818	-	Sac3d1	0x0
25807	chr19	6134166	6135358	-	Arl2	0x0
25808	chr19	6138814	6140012	-	Arl2	0x0
25809	chr19	6298546	6300435	+	Ehd1	0x0
25810	chr19	6324464	6325864	+	Cdc42bpg	0x2
25811	chr19	6339547	6340745	+	Men1	0x1
25812	chr19	6364936	6366229	+	Sf1	0x0
25813	chr19	6375611	6378167	+	Sf1	0x0
25814	chr19	6475171	6476268	+	Nrxn2	0x2
25815	chr19	6485700	6486853	+	Nrxn2	0x2
25816	chr19	6903236	6904420	-	Mir5046	0x0
25817	chr19	6903236	6904420	-	Rps6ka4	0x0
25818	chr19	6985936	6987044	-	Esrra	0x0
25819	chr19	7012230	7013385	-	Gpr137	0x0
25820	chr19	7037496	7038599	+	Ppp1r14b	0x0
25821	chr19	7050883	7052194	+	Ppp1r14b	0x0
25822	chr19	7056476	7057671	-	Vegfb	0x0
25823	chr19	7094768	7096154	-	Stip1	0x0
25824	chr19	7108083	7109731	-	Stip1	0x0
25825	chr19	7142378	7143530	-	Flrt1	0x0
25826	chr19	7163250	7164456	-	Flrt1	0x0
25827	chr19	7238150	7239259	+	Macrod1	0x0
25828	chr19	7272975	7274074	-	Otub1	0x0
25829	chr19	7289217	7290524	-	Cox8a	0x0
25830	chr19	7299932	7302103	-	Naa40	0x0
25831	chr19	7348023	7350156	+	Rcor2	0x0
25832	chr19	7349921	7351242	-	Mark2	0x0
25833	chr19	7380009	7381184	-	Mark2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25834	chr19	7414870	7416062	-	Mark2	0x0
25835	chr19	7431963	7433512	-	AI846148	0x0
25836	chr19	7447914	7449111	-	AI846148	0x0
25837	chr19	7498693	7499890	+	2700081O15Rik	0x0
25838	chr19	7499993	7502624	-	Rtn3	0x0
25839	chr19	7521004	7522103	-	Rtn3	0x0
25840	chr19	7545671	7546822	-	Rtn3	0x0
25841	chr19	7556484	7560500	-	Rtn3	0x0
25842	chr19	7608543	7614498	+	Atl3	0x0
25843	chr19	7671042	7672201	-	Lgals12	0x0
25844	chr19	8033732	8035298	-	Slc22a27	0x0
25845	chr19	8330233	8331811	-	Slc22a29	0x0
25846	chr19	8674795	8675897	-	9830166K06Rik	0x0
25847	chr19	8781596	8783123	-	Slc3a2	0x0
25848	chr19	8783523	8784672	-	Slc3a2	0x0
25849	chr19	8786735	8788791	-	Slc3a2	0x0
25850	chr19	8790367	8791599	-	Slc3a2	0x0
25851	chr19	8798899	8800132	+	Snhg1	0x0
25852	chr19	8836327	8837479	+	Nxf1	0x2
25853	chr19	8839053	8840195	+	Nxf1	0x2
25854	chr19	8852571	8853778	-	Taf6l	0x0
25855	chr19	8858019	8859238	-	Taf6l	0x0
25856	chr19	8883915	8886155	-	Ttc9c	0x0
25857	chr19	8905860	8908771	+	Hnrnpul2	0x0
25858	chr19	8947533	8948647	+	Ubxn1	0x0
25859	chr19	8964496	8965583	+	1810009A15Rik	0x0
25860	chr19	8965881	8967012	+	Ints5	0x0
25861	chr19	8970732	8971906	+	Ints5	0x0
25862	chr19	8984793	8985892	+	Ganab	0x0
25863	chr19	8986460	8987783	+	Ganab	0x0
25864	chr19	8990155	8991645	+	Ganab	0x0
25865	chr19	9000970	9002190	+	B3gat3	0x0
25866	chr19	9014511	9015709	+	Eml3	0x0
25867	chr19	9036392	9037609	+	Tut1	0x0
25868	chr19	9046875	9048077	+	Eef1g	0x0
25869	chr19	9051898	9053219	+	Eef1g	0x0
25870	chr19	9078337	9079443	+	Ahnak	0x2
25871	chr19	9085076	9086175	+	Ahnak	0x2
25872	chr19	9086452	9087556	+	Ahnak	0x2
25873	chr19	9092720	9093848	+	Ahnak	0x2
25874	chr19	9111627	9112771	+	Ahnak	0x2
25875	chr19	9186336	9187446	-	Asrgl1	0x0
25876	chr19	9945239	9947680	-	Incenp	0x0
25877	chr19	9960915	9961968	-	Incenp	0x0
25878	chr19	9968759	9969948	-	Incenp	0x0
25879	chr19	10056797	10057856	+	Fth1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25880	chr19	10058158	10059976	+	Fth1	0x0
25881	chr19	10135221	10136392	+	Fads3	0x0
25882	chr19	10137013	10139042	-	Fads2	0x0
25883	chr19	10151403	10152520	-	Fads2	0x0
25884	chr19	10159703	10160879	-	Fads2	0x0
25885	chr19	10173950	10175095	-	Fads2	0x0
25886	chr19	10269185	10271624	+	Fads1	0x0
25887	chr19	10273554	10274819	-	Fen1	0x0
25888	chr19	10283174	10285457	-	Myrf	0x0
25889	chr19	10508025	10509193	+	Syt7	0x0
25890	chr19	10524823	10526326	+	Syt7	0x0
25891	chr19	10590905	10592103	-	Sdhaf2	0x0
25892	chr19	10605784	10606913	+	Cpsf7	0x0
25893	chr19	10621025	10622323	+	Cpsf7	0x0
25894	chr19	10680818	10682007	+	Ddb1	0x0
25895	chr19	10688825	10689957	+	Ddb1	0x0
25896	chr19	10693012	10694363	+	Ddb1	0x0
25897	chr19	10695832	10696980	+	Ddb1	0x0
25898	chr19	10699249	10701019	+	Ddb1	0x0
25899	chr19	10701771	10702838	+	Ddb1	0x0
25900	chr19	10703316	10704862	+	Ddb1	0x0
25901	chr19	10787584	10788790	+	Vps37c	0x0
25902	chr19	10945166	10946529	-	Tmem109	0x0
25903	chr19	10973020	10974289	+	Prpf19	0x0
25904	chr19	10980723	10981887	+	Prpf19	0x0
25905	chr19	11849506	11850698	-	Stx3	0x0
25906	chr19	11850730	11851883	+	Mrpl16	0x0
25907	chr19	11851909	11853600	-	Stx3	0x0
25908	chr19	12017660	12018807	+	Patl1	0x0
25909	chr19	12044801	12045902	+	Osbp	0x0
25910	chr19	12066540	12067991	+	Osbp	0x0
25911	chr19	12085561	12086717	-	Olfr1423	0x2
25912	chr19	12204525	12205752	+	Olfr1431	0x0
25913	chr19	12540263	12541481	-	Dtx4	0x0
25914	chr19	12620093	12621258	+	Fam111a	0x0
25915	chr19	12663275	12664401	+	Fam111a	0x0
25916	chr19	12838167	12839365	-	Cntf	0x0
25917	chr19	12838167	12839365	-	U05342	0x0
25918	chr19	12842822	12845189	-	U05342	0x0
25919	chr19	12842822	12845189	-	Zfp91	0x0
25920	chr19	13128789	13130164	+	Olfr1454	0x0
25921	chr19	13838522	13839695	-	Olfr1497	0x0
25922	chr19	14522206	14524538	-	Tle4	0x2
25923	chr19	14540503	14541722	-	Tle4	0x2
25924	chr19	14572578	14573724	-	Tle4	0x2
25925	chr19	14584418	14586041	-	Tle4	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25926	chr19	14631406	14632581	-	Tle4	0x2
25927	chr19	14650333	14651534	-	Tle4	0x2
25928	chr19	14671689	14672838	-	Tle4	0x2
25929	chr19	15267571	15268726	-	Tle4	0x2
25930	chr19	15978964	15980906	-	Psat1	0x0
25931	chr19	15988855	15990059	-	Psat1	0x0
25932	chr19	15991024	15993391	-	Psat1	0x0
25933	chr19	16001603	16002757	+	C130060C02Rik	0x0
25934	chr19	16030227	16031388	-	Cep78	0x0
25935	chr19	16457792	16462329	+	Gnaq	0x2
25936	chr19	16706595	16707826	-	Vps13a	0x0
25937	chr19	16784276	16785502	-	Vps13a	0x0
25938	chr19	16825221	16826391	-	Vps13a	0x0
25939	chr19	17297208	17298360	+	Prune2	0x2
25940	chr19	17401074	17402196	-	Gcnt1	0x0
25941	chr19	17473810	17476326	+	Rfk	0x0
25942	chr19	17767251	17768392	+	Rfk	0x0
25943	chr19	18001315	18002674	+	Rfk	0x0
25944	chr19	18654994	18656225	-	Ostf1	0x0
25945	chr19	18663632	18665513	-	Ostf1	0x0
25946	chr19	18713652	18714881	+	Nmrk1	0x0
25947	chr19	18725830	18726994	+	Nmrk1	0x0
25948	chr19	18757349	18758490	+	2410127L17Rik	0x0
25949	chr19	18780111	18781648	+	2410127L17Rik	0x0
25950	chr19	18787223	18788351	+	D030056L22Rik	0x0
25951	chr19	18791448	18793019	+	D030056L22Rik	0x0
25952	chr19	20454268	20455446	-	Anxa1	0x1
25953	chr19	21352686	21353840	+	Zfand5	0x0
25954	chr19	21355432	21356651	+	Zfand5	0x0
25955	chr19	21671676	21672851	-	1110059E24Rik	0x4
25956	chr19	21727221	21728444	+	Fam108b	0x0
25957	chr19	21752697	21753862	+	Fam108b	0x0
25958	chr19	21758167	21760287	+	Fam108b	0x0
25959	chr19	21806288	21807389	+	Tmem2	0x0
25960	chr19	21930504	21932723	+	Tmem2	0x0
25961	chr19	22797600	22798725	-	Smc5	0x0
25962	chr19	22798887	22800656	-	Smc5	0x0
25963	chr19	23024497	23025733	-	Smc5	0x0
25964	chr19	23034425	23035592	-	Smc5	0x0
25965	chr19	23122041	23123242	-	Smc5	0x0
25966	chr19	23137247	23138486	-	Smc5	0x0
25967	chr19	23165175	23166356	-	Smc5	0x0
25968	chr19	23214940	23216122	+	Klf9	0x0
25969	chr19	23219974	23221125	+	Mir1192	0x0
25970	chr19	23238929	23242084	+	Klf9	0x0
25971	chr19	23282514	23283788	-	Smc5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
25972	chr19	23342724	23343858	-	Smc5	0x0
25973	chr19	23794085	23795186	+	Ptar1	0x0
25974	chr19	23796775	23798866	+	Ptar1	0x0
25975	chr19	23801137	23802289	+	Ptar1	0x0
25976	chr19	23802363	23803619	+	Ptar1	0x0
25977	chr19	24008091	24009405	-	Fam189a2	0x0
25978	chr19	24168634	24170086	-	Tjp2	0x0
25979	chr19	24242759	24243938	-	Tjp2	0x0
25980	chr19	24287000	24288101	-	Tjp2	0x0
25981	chr19	24363105	24364344	-	Pip5k1b	0x0
25982	chr19	24993887	24995078	-	Cbwd1	0x0
25983	chr19	25334439	25335588	+	Kank1	0x1
25984	chr19	25437482	25438598	+	Kank1	0x1
25985	chr19	25484621	25486817	+	Kank1	0x1
25986	chr19	27323151	27324250	+	Vldlr	0x0
25987	chr19	27325037	27326231	+	Vldlr	0x0
25988	chr19	27463154	27464339	-	D19Bwg1357e	0x0
25989	chr19	27486637	27487793	-	D19Bwg1357e	0x0
25990	chr19	27836388	27837575	-	Rfx3	0x0
25991	chr19	27837813	27839507	-	Rfx3	0x0
25992	chr19	27841097	27842386	-	Rfx3	0x0
25993	chr19	28156469	28157696	+	D930032P07Rik	0x0
25994	chr19	28485391	28486555	-	Glis3	0x4
25995	chr19	28496782	28497977	-	Glis3	0x4
25996	chr19	28604866	28606635	-	Glis3	0x4
25997	chr19	28657200	28658393	-	Glis3	0x4
25998	chr19	28693181	28694349	-	Glis3	0x4
25999	chr19	28708216	28709413	-	Glis3	0x4
26000	chr19	28936376	28938452	-	4430402I18Rik	0x0
26001	chr19	29090682	29091997	+	Cdc37l1	0x0
26002	chr19	29095885	29098285	-	Ak3	0x0
26003	chr19	29198570	29199675	+	Rcl1	0x0
26004	chr19	29205388	29206580	+	Rcl1	0x0
26005	chr19	29217202	29218557	+	Rcl1	0x0
26006	chr19	29235108	29236270	+	Rcl1	0x0
26007	chr19	29349082	29350185	+	Jak2	0x2
26008	chr19	29350654	29351851	+	Jak2	0x2
26009	chr19	29641186	29642331	+	C030046E11Rik	0x0
26010	chr19	29673879	29675087	+	C030046E11Rik	0x0
26011	chr19	29678604	29681820	+	C030046E11Rik	0x0
26012	chr19	29684330	29686732	-	Ermp1	0x0
26013	chr19	29722268	29723432	-	Ermp1	0x0
26014	chr19	29860261	29861405	-	9930021J03Rik	0x0
26015	chr19	30133483	30134587	+	Uhrf2	0x1
26016	chr19	30138720	30139826	+	Uhrf2	0x1
26017	chr19	30140125	30141280	+	Uhrf2	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26018	chr19	30172412	30173832	-	Gldc	0x0
26019	chr19	30207679	30208805	-	Gldc	0x0
26020	chr19	31158342	31159508	+	Cstf2t	0x0
26021	chr19	31159796	31161455	+	Cstf2t	0x0
26022	chr19	31988651	31989805	+	A1cf	0x0
26023	chr19	32240497	32241682	-	Sgms1	0x0
26024	chr19	32408631	32409796	-	Sgms1	0x0
26025	chr19	32539821	32541321	-	Sgms1	0x0
26026	chr19	32588297	32590380	+	Minpp1	0x0
26027	chr19	32746896	32749050	-	Atad1	0x0
26028	chr19	32769786	32771203	-	Atad1	0x0
26029	chr19	32860820	32861979	+	Pten	0x1
26030	chr19	32894369	32896882	+	Pten	0x1
26031	chr19	32898251	32899372	+	Pten	0x1
26032	chr19	33420864	33422022	-	Rnls	0x0
26033	chr19	33456208	33457396	-	Rnls	0x0
26034	chr19	33628658	33629871	-	Lipo1	0x0
26035	chr19	33655954	33657140	-	Lipo1	0x0
26036	chr19	34566300	34568332	-	Lipa	0x0
26037	chr19	34914837	34916108	-	Pank1	0x0
26038	chr19	34935966	34937161	-	Pank1	0x0
26039	chr19	34949207	34950432	-	Pank1	0x0
26040	chr19	34951864	34953053	-	Pank1	0x0
26041	chr19	35008850	35010027	+	Kif20b	0x0
26042	chr19	35024386	35025585	+	Kif20b	0x0
26043	chr19	35031437	35032525	+	Kif20b	0x0
26044	chr19	36423498	36424607	+	Pcgf5	0x0
26045	chr19	36936094	36937380	+	Tnks2	0x0
26046	chr19	36945569	36946700	+	Tnks2	0x0
26047	chr19	36957982	36959197	+	Tnks2	0x0
26048	chr19	36964915	36967661	+	Tnks2	0x0
26049	chr19	37040723	37041884	+	Btaf1	0x0
26050	chr19	37047841	37048975	+	Btaf1	0x0
26051	chr19	37085827	37087435	+	Btaf1	0x0
26052	chr19	37093331	37094547	-	Cpeb3	0x0
26053	chr19	37094618	37095771	-	Cpeb3	0x0
26054	chr19	37294656	37295756	+	March5	0x0
26055	chr19	37297212	37298549	+	March5	0x0
26056	chr19	37342934	37345126	-	Ide	0x0
26057	chr19	37354558	37355731	-	Ide	0x0
26058	chr19	37361032	37362275	-	Ide	0x0
26059	chr19	37364745	37365869	-	Ide	0x0
26060	chr19	37399144	37400281	-	Ide	0x0
26061	chr19	37409277	37410426	-	Ide	0x0
26062	chr19	37476139	37477307	+	Kif11	0x0
26063	chr19	37494370	37496778	+	Kif11	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26064	chr19	37622170	37623388	+	Exoc6	0x0
26065	chr19	37973496	37974700	-	Myof	0x0
26066	chr19	37990408	37991585	-	Myof	0x0
26067	chr19	37994630	37995767	-	Myof	0x0
26068	chr19	38002067	38003225	-	Myof	0x0
26069	chr19	38017438	38018569	-	Myof	0x0
26070	chr19	38046089	38047265	-	Myof	0x0
26071	chr19	38095903	38097008	-	Myof	0x0
26072	chr19	38134952	38136103	+	Cep55	0x0
26073	chr19	38145789	38146920	+	Cep55	0x0
26074	chr19	38147496	38149203	+	Cep55	0x0
26075	chr19	38374206	38375400	-	Fra10ac1	0x0
26076	chr19	38477161	38480385	+	Slc35g1	0x0
26077	chr19	38610650	38611791	+	Plce1	0x1
26078	chr19	38862437	38863619	-	Noc3l	0x0
26079	chr19	38928645	38929797	+	Tbc1d12	0x0
26080	chr19	39006466	39007600	+	Hells	0x0
26081	chr19	39009340	39010575	+	Hells	0x0
26082	chr19	39027530	39028665	+	Hells	0x0
26083	chr19	39031057	39032208	+	Hells	0x0
26084	chr19	39041957	39046167	+	Hells	0x0
26085	chr19	40296381	40297515	-	Pdlim1	0x0
26086	chr19	40347101	40348214	+	Cyp2c50	0x0
26087	chr19	40366007	40367186	-	Sorbs1	0x0
26088	chr19	40367429	40369332	-	Sorbs1	0x0
26089	chr19	40521152	40522283	-	Sorbs1	0x0
26090	chr19	40523426	40524625	-	Sorbs1	0x0
26091	chr19	40583008	40584242	-	Sorbs1	0x0
26092	chr19	40624367	40625691	-	Aldh18a1	0x0
26093	chr19	40647031	40648203	-	Aldh18a1	0x0
26094	chr19	40988571	40989652	+	Zfp518a	0x2
26095	chr19	40990499	40991696	+	Zfp518a	0x2
26096	chr19	40991698	40992889	+	Zfp518a	0x2
26097	chr19	41285928	41287021	-	Tm9sf3	0x0
26098	chr19	41287702	41289923	-	Tm9sf3	0x0
26099	chr19	41331306	41332457	-	Tm9sf3	0x0
26100	chr19	41534885	41536049	+	Lcor	0x0
26101	chr19	41619803	41620971	+	Lcor	0x0
26102	chr19	41658855	41661134	+	Lcor	0x0
26103	chr19	41664417	41665528	+	Lcor	0x0
26104	chr19	41667683	41668820	+	Lcor	0x0
26105	chr19	41669870	41671014	+	Lcor	0x0
26106	chr19	41840851	41843980	-	Arhgap19	0x0
26107	chr19	41936825	41937954	-	Rrp12	0x0
26108	chr19	41948453	41949646	-	Rrp12	0x0
26109	chr19	41991808	41993212	+	Pgam1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26110	chr19	41996704	41997932	-	Exosc1	0x0
26111	chr19	42019942	42021041	-	Mms19	0x0
26112	chr19	42027623	42028820	-	Mms19	0x0
26113	chr19	42034001	42035138	-	Mms19	0x0
26114	chr19	42148902	42150100	-	Morn4	0x0
26115	chr19	42194609	42195967	+	Pi4k2a	0x0
26116	chr19	42197465	42199570	-	Avpi1	0x2
26117	chr19	42222748	42223900	+	Marveld1	0x0
26118	chr19	42224955	42226502	+	Marveld1	0x0
26119	chr19	42502153	42503377	-	Crtac1	0x0
26120	chr19	42636610	42638795	+	R3hcc1l	0x0
26121	chr19	42664668	42665832	+	R3hcc1l	0x0
26122	chr19	42667200	42668467	-	Loxl4	0x0
26123	chr19	43570631	43571781	+	Cnnm1	0x0
26124	chr19	43573755	43575121	-	Got1	0x0
26125	chr19	43589423	43590618	-	Got1	0x0
26126	chr19	43738628	43739802	-	Slc25a28	0x0
26127	chr19	43778856	43780047	+	Entpd7	0x0
26128	chr19	43805298	43806480	+	Entpd7	0x0
26129	chr19	43807296	43808450	+	Entpd7	0x0
26130	chr19	43809567	43811713	-	Cox15	0x0
26131	chr19	43976891	43978062	-	Dnmbp	0x0
26132	chr19	44109157	44110301	-	Erlin1	0x0
26133	chr19	44147359	44148625	-	Chuk	0x1
26134	chr19	44161925	44163043	-	Chuk	0x1
26135	chr19	44193520	44194750	-	Cwf19l1	0x0
26136	chr19	44221670	44223073	-	Pkd2l1	0x0
26137	chr19	44366239	44367338	-	Pkd2l1	0x0
26138	chr19	44368291	44369390	+	Scd2	0x0
26139	chr19	44377357	44381827	+	Mir5114	0x0
26140	chr19	44377357	44381827	+	Scd2	0x0
26141	chr19	44468724	44471818	-	Scd1	0x0
26142	chr19	44589910	44591059	-	Sec31b	0x0
26143	chr19	44639975	44641032	+	Hif1an	0x0
26144	chr19	44646118	44647631	+	Hif1an	0x0
26145	chr19	44649453	44651352	+	Hif1an	0x0
26146	chr19	45056576	45058151	+	Fam178a	0x0
26147	chr19	45077148	45078308	+	Sema4g	0x0
26148	chr19	45078959	45080142	-	Mrpl43	0x0
26149	chr19	45082024	45083215	+	Peo1	0x2
26150	chr19	45086239	45087722	+	Peo1	0x2
26151	chr19	45128999	45130148	+	Sfxn3	0x0
26152	chr19	45470971	45472075	-	Poll	0x0
26153	chr19	45589649	45590835	+	Btrc	0x0
26154	chr19	45652535	45653716	-	Fbxw4	0x0
26155	chr19	45714366	45715542	-	Fbxw4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26156	chr19	45824318	45825946	-	Mgea5	0x0
26157	chr19	45835971	45837194	-	Mgea5	0x0
26158	chr19	45891372	45893432	-	9130011E15Rik	0x0
26159	chr19	46008490	46009676	-	9130011E15Rik	0x0
26160	chr19	46022477	46023680	-	9130011E15Rik	0x0
26161	chr19	46053541	46054738	-	9130011E15Rik	0x0
26162	chr19	46108797	46111008	-	Ldb1	0x6
26163	chr19	46117559	46118763	-	Ldb1	0x6
26164	chr19	46137181	46138325	+	Pprc1	0x0
26165	chr19	46143275	46144514	+	Pprc1	0x0
26166	chr19	46146512	46147743	+	Pprc1	0x0
26167	chr19	46152925	46154057	+	Nolc1	0x0
26168	chr19	46158218	46160407	+	Nolc1	0x0
26169	chr19	46262184	46263332	+	Gbf1	0x0
26170	chr19	46313923	46315061	+	Gbf1	0x0
26171	chr19	46385836	46386987	+	Nfkb2	0x2
26172	chr19	46432999	46434147	+	Tmem180	0x0
26173	chr19	46448828	46450184	+	Tmem180	0x0
26174	chr19	46451249	46452642	-	Actr1a	0x0
26175	chr19	46562335	46563781	+	Sufu	0x1
26176	chr19	46613372	46614570	-	Arl3	0x0
26177	chr19	46709817	46710970	+	Wbp1l	0x0
26178	chr19	46728387	46732397	+	Wbp1l	0x0
26179	chr19	46775938	46777056	+	2010012O05Rik	0x0
26180	chr19	46837244	46838371	+	Cnnm2	0x0
26181	chr19	46846744	46847892	+	Cnnm2	0x0
26182	chr19	46952537	46953689	+	Cnnm2	0x0
26183	chr19	46954190	46956789	+	Cnnm2	0x0
26184	chr19	46991400	46992599	-	Nt5c2	0x0
26185	chr19	46994749	46995851	-	Nt5c2	0x0
26186	chr19	47024010	47025171	-	Nt5c2	0x0
26187	chr19	47098008	47099664	+	Ina	0x0
26188	chr19	47108253	47109408	-	Pcgf6	0x0
26189	chr19	47114475	47115707	-	Pcgf6	0x0
26190	chr19	47123550	47124747	-	Pcgf6	0x0
26191	chr19	47148833	47150034	+	Taf5	0x0
26192	chr19	47156757	47158145	+	Taf5	0x0
26193	chr19	47180984	47182131	+	Pdcd11	0x2
26194	chr19	47200861	47201944	+	Pdcd11	0x2
26195	chr19	47204164	47205263	+	Pdcd11	0x2
26196	chr19	47227455	47228584	-	Calhm1	0x0
26197	chr19	47252390	47253553	-	Calhm1	0x0
26198	chr19	47259774	47260973	+	Neurl1a	0x0
26199	chr19	47315679	47316808	+	Neurl1a	0x0
26200	chr19	47328755	47329860	+	Neurl1a	0x0
26201	chr19	47332396	47333872	+	Neurl1a	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26202	chr19	47335496	47337738	-	Sh3pxd2a	0x0
26203	chr19	47339162	47340803	-	Sh3pxd2a	0x0
26204	chr19	47379204	47380334	-	Sh3pxd2a	0x0
26205	chr19	47470034	47471266	-	Sh3pxd2a	0x0
26206	chr19	47716274	47719571	+	Slk	0x0
26207	chr19	47808829	47810766	+	Sfr1	0x0
26208	chr19	50104182	50105479	-	Sorcs1	0x2
26209	chr19	53031421	53032616	+	AA387883	0x0
26210	chr19	53065195	53066724	-	Xpnpep1	0x0
26211	chr19	53081976	53083130	-	Xpnpep1	0x0
26212	chr19	53086786	53087896	-	Xpnpep1	0x0
26213	chr19	53088597	53089696	-	Xpnpep1	0x0
26214	chr19	53319666	53321860	+	Add3	0x0
26215	chr19	53403489	53404715	+	Mxi1	0x1
26216	chr19	53446683	53448144	+	Mxi1	0x1
26217	chr19	53454076	53455293	-	Smndc1	0x0
26218	chr19	53712699	53713826	+	Smc3	0x2
26219	chr19	53714795	53715931	+	Smc3	0x2
26220	chr19	54003456	54004717	+	Pdcd4	0x1
26221	chr19	54004413	54005522	-	Bbip1	0x0
26222	chr19	54061509	54062658	+	Shoc2	0x0
26223	chr19	54106464	54107663	+	Shoc2	0x0
26224	chr19	54332546	54333789	-	Bbip1	0x0
26225	chr19	55141628	55144474	-	Gpam	0x2
26226	chr19	55482339	55483483	+	Vti1a	0x2
26227	chr19	55640338	55641451	+	Vti1a	0x2
26228	chr19	55700005	55701201	+	Vti1a	0x2
26229	chr19	55845151	55846353	+	Tcf7l2	0x1
26230	chr19	56674102	56675714	+	Nhlrc2	0x0
26231	chr19	56676052	56678007	+	Nhlrc2	0x0
26232	chr19	56862091	56863348	-	A630007B06Rik	0x0
26233	chr19	56864059	56865188	-	A630007B06Rik	0x0
26234	chr19	57107685	57108806	-	Ablim1	0x0
26235	chr19	57462330	57464603	+	Fam160b1	0x0
26236	chr19	57562535	57563961	+	Trub1	0x0
26237	chr19	57718194	57719526	+	Atrnl1	0x0
26238	chr19	57728810	57730001	+	Atrnl1	0x0
26239	chr19	57736517	57737623	+	Atrnl1	0x0
26240	chr19	57741756	57742993	-	B230217O12Rik	0x0
26241	chr19	57826011	57827233	+	Atrnl1	0x0
26242	chr19	57882738	57883847	+	Atrnl1	0x0
26243	chr19	57907228	57908430	+	Atrnl1	0x0
26244	chr19	58858055	58859256	-	1700019N19Rik	0x0
26245	chr19	58864222	58865505	+	Pnliprp2	0x2
26246	chr19	59003408	59004609	-	Mir3086	0x0
26247	chr19	59162090	59163289	+	Eno4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26248	chr19	59371064	59373690	-	Pdzd8	0x0
26249	chr19	59385169	59386319	-	Pdzd8	0x0
26250	chr19	59775791	59776959	-	Rab11fip2	0x0
26251	chr19	59781324	59782502	+	2700089I24Rik	0x0
26252	chr19	59978423	59979630	-	Rab11fip2	0x0
26253	chr19	60273848	60275032	-	D19Ertd737e	0x0
26254	chr19	60600595	60601741	-	Cacul1	0x0
26255	chr19	60602827	60604012	-	Cacul1	0x0
26256	chr19	60604193	60605351	-	Cacul1	0x0
26257	chr19	60836515	60838167	-	Eif3a	0x2
26258	chr19	60841796	60843183	-	Eif3a	0x2
26259	chr19	60847059	60848159	-	Eif3a	0x2
26260	chr19	60850622	60851795	-	Eif3a	0x2
26261	chr19	60852029	60853240	-	Eif3a	0x2
26262	chr19	60939730	60940857	-	Prdx3	0x0
26263	chr19	61170091	61171789	+	Grk5	0x0
26264	chr19	61185510	61186716	-	Gm7102	0x0
26265	chr19	61192501	61193641	-	Gm7102	0x0
26266	chr19	61243538	61244741	+	Grk5	0x0
26267	chr19	61333044	61334221	-	Csf2ra	0x0
26268	chr2	3143357	3145445	+	Fam171a1	0x0
26269	chr2	3207169	3208274	+	Nmt2	0x0
26270	chr2	3243969	3246624	+	Nmt2	0x0
26271	chr2	3373587	3374698	-	Suv39h2	0x0
26272	chr2	3375129	3376228	-	Suv39h2	0x0
26273	chr2	3429052	3430158	-	Hspa14	0x0
26274	chr2	3697230	3698511	+	Fam107b	0x0
26275	chr2	4489635	4490794	+	Frmd4a	0x0
26276	chr2	4533184	4534378	+	Frmd4a	0x0
26277	chr2	4542903	4544052	-	Prpf18	0x0
26278	chr2	4544069	4545577	-	Prpf18	0x0
26279	chr2	4827558	4829944	+	Sephs1	0x2
26280	chr2	4920856	4922036	-	Mcm10	0x0
26281	chr2	4927632	4928797	-	Mcm10	0x0
26282	chr2	4940900	4942137	-	Optn	0x0
26283	chr2	4942293	4943469	-	Optn	0x0
26284	chr2	5137506	5138721	+	Ccdc3	0x0
26285	chr2	5151253	5152409	+	Ccdc3	0x0
26286	chr2	5215826	5217821	-	Camk1d	0x0
26287	chr2	5243251	5244468	-	Camk1d	0x0
26288	chr2	5291754	5292953	-	Camk1d	0x0
26289	chr2	5340073	5341249	-	Camk1d	0x0
26290	chr2	5455261	5456408	-	Camk1d	0x0
26291	chr2	5509830	5510964	-	Camk1d	0x0
26292	chr2	5549096	5550270	-	Camk1d	0x0
26293	chr2	5615734	5616943	-	Camk1d	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26294	chr2	5790857	5791991	+	Nudt5	0x0
26295	chr2	5791490	5792718	-	Sec61a2	0x0
26296	chr2	5818504	5820019	-	Dhtkd1	0x0
26297	chr2	5844378	5845613	-	Dhtkd1	0x0
26298	chr2	5850357	5851551	-	Dhtkd1	0x0
26299	chr2	5912880	5914072	+	Upf2	0x0
26300	chr2	5976296	5977419	+	Upf2	0x0
26301	chr2	6247411	6248563	+	Usp6nl	0x0
26302	chr2	6362373	6363604	+	Usp6nl	0x0
26303	chr2	6364799	6365899	+	Usp6nl	0x0
26304	chr2	6366625	6367726	+	Usp6nl	0x0
26305	chr2	6463502	6466000	-	Celf2	0x0
26306	chr2	9868681	9869783	-	Taf3	0x0
26307	chr2	9873183	9874375	-	Taf3	0x0
26308	chr2	9950837	9951945	-	Taf3	0x0
26309	chr2	10012785	10014015	+	Kin	0x0
26310	chr2	10175995	10177129	+	Itih5	0x0
26311	chr2	10255886	10257038	-	Itih2	0x0
26312	chr2	10360987	10362171	+	Sfmbt2	0x4
26313	chr2	10370290	10371414	+	Sfmbt2	0x4
26314	chr2	10451604	10452798	+	Sfmbt2	0x4
26315	chr2	10513318	10514793	+	Sfmbt2	0x4
26316	chr2	11460632	11461788	+	Il2ra	0x0
26317	chr2	11511804	11512996	-	Rbm17	0x0
26318	chr2	11702542	11703694	+	Ankrd16	0x0
26319	chr2	11707977	11709175	+	Ankrd16	0x0
26320	chr2	11710838	11711964	+	Ankrd16	0x0
26321	chr2	12332049	12333232	-	Fam188a	0x1
26322	chr2	13033913	13035060	-	Rsu1	0x0
26323	chr2	13122468	13123667	-	Rsu1	0x0
26324	chr2	13495648	13496870	+	Vim	0x0
26325	chr2	13497667	13498860	+	Vim	0x0
26326	chr2	13572565	13573730	-	St8sia6	0x0
26327	chr2	13663232	13664428	-	St8sia6	0x0
26328	chr2	14267221	14268404	-	4921530L18Rik	0x0
26329	chr2	14269328	14271336	-	4921530L18Rik	0x0
26330	chr2	14548164	14549400	-	Nsun6	0x0
26331	chr2	14619007	14620158	+	Gm13315	0x0
26332	chr2	14999782	15010500	+	Arl5b	0x0
26333	chr2	16676798	16677959	+	Plxdc2	0x0
26334	chr2	18043330	18044498	+	Mllt10	0x0
26335	chr2	18073918	18075079	+	Mllt10	0x0
26336	chr2	18083946	18085060	+	Mllt10	0x0
26337	chr2	18094459	18095666	+	Mllt10	0x0
26338	chr2	18101749	18102940	+	Mllt10	0x0
26339	chr2	18106141	18107285	+	Mllt10	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26340	chr2	18110693	18111842	+	Mllt10	0x0
26341	chr2	18115740	18116896	+	Mllt10	0x0
26342	chr2	18127926	18129098	+	Mllt10	0x0
26343	chr2	18131264	18133910	+	Mllt10	0x0
26344	chr2	18192631	18193805	-	Dnajc1	0x0
26345	chr2	18508094	18509307	-	Dnajc1	0x0
26346	chr2	18763883	18765088	-	Pip4k2a	0x0
26347	chr2	20049774	20050941	+	Etl4	0x0
26348	chr2	20469602	20470708	+	Etl4	0x0
26349	chr2	20473325	20474489	+	Etl4	0x0
26350	chr2	20480809	20481906	+	Etl4	0x0
26351	chr2	20492718	20494073	+	Etl4	0x0
26352	chr2	20500964	20502165	+	Etl4	0x0
26353	chr2	20507490	20508605	+	Etl4	0x0
26354	chr2	20517975	20519167	+	Etl4	0x0
26355	chr2	20593230	20594428	+	Etl4	0x0
26356	chr2	20619472	20620572	+	Etl4	0x0
26357	chr2	20656912	20658019	+	Etl4	0x0
26358	chr2	20668485	20670257	+	Etl4	0x0
26359	chr2	20687631	20688826	+	Etl4	0x0
26360	chr2	20698771	20699943	+	Etl4	0x0
26361	chr2	20730506	20732556	+	Etl4	0x0
26362	chr2	20769098	20770408	-	Arhgap21	0x0
26363	chr2	20800703	20801832	-	Arhgap21	0x0
26364	chr2	21135506	21136656	+	Thnsl1	0x0
26365	chr2	22443769	22445464	-	Abi1	0x2
26366	chr2	22750580	22751794	+	Pdss1	0x0
26367	chr2	22795601	22796670	-	Abi1	0x2
26368	chr2	22796755	22797946	-	Abi1	0x2
26369	chr2	22811214	22812381	-	Abi1	0x2
26370	chr2	22968336	22969511	+	Acbd5	0x0
26371	chr2	22972880	22974061	-	Mastl	0x0
26372	chr2	23041214	23042318	+	Yme1l1	0x0
26373	chr2	23047358	23048579	+	Yme1l1	0x0
26374	chr2	23090531	23091643	+	4931423N10Rik	0x0
26375	chr2	23166887	23168061	-	Mastl	0x0
26376	chr2	23203629	23204801	-	Spopl	0x0
26377	chr2	23365818	23367038	-	Spopl	0x0
26378	chr2	23400224	23401317	-	Spopl	0x0
26379	chr2	23450137	23451311	+	Nxph2	0x2
26380	chr2	24447986	24449364	-	Cacna1b	0x0
26381	chr2	24460924	24462095	-	Cacna1b	0x0
26382	chr2	24489860	24490987	-	Cacna1b	0x0
26383	chr2	24656488	24657672	-	Ehmt1	0x0
26384	chr2	24679972	24681138	-	Ehmt1	0x0
26385	chr2	24718276	24719477	-	Ehmt1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26386	chr2	24732393	24733689	-	Ehmt1	0x0
26387	chr2	24735779	24736964	-	Ehmt1	0x0
26388	chr2	24782220	24783372	-	Arrdc1	0x0
26389	chr2	24815308	24817454	+	Zmynd19	0x0
26390	chr2	24912969	24914109	+	Nsmf	0x0
26391	chr2	25054789	25056289	-	Nelfb	0x0
26392	chr2	25077234	25079265	-	Tubb4b	0x0
26393	chr2	25128401	25129606	+	Anapc2	0x0
26394	chr2	25196948	25198868	+	Man1b1	0x0
26395	chr2	25206080	25208062	+	Man1b1	0x0
26396	chr2	25219855	25221043	-	Uap1l1	0x0
26397	chr2	25230710	25232812	+	Sapcd2	0x0
26398	chr2	25300074	25301255	+	Abca2	0x0
26399	chr2	25303127	25304390	+	Abca2	0x0
26400	chr2	25315779	25316989	-	BC029214	0x0
26401	chr2	25360292	25361536	+	Fbxw5	0x0
26402	chr2	25416918	25418149	+	Edf1	0x0
26403	chr2	25438011	25439567	-	Rabl6	0x0
26404	chr2	25439792	25440958	-	Rabl6	0x0
26405	chr2	25442351	25444199	-	Rabl6	0x0
26406	chr2	25769966	25771135	+	Kcnt1	0x2
26407	chr2	25783405	25785464	-	Camsap1	0x0
26408	chr2	25795399	25796545	-	Camsap1	0x0
26409	chr2	25810255	25811474	-	Camsap1	0x0
26410	chr2	25821730	25822962	-	Camsap1	0x0
26411	chr2	25853663	25854919	-	Ubac1	0x0
26412	chr2	25863909	25865040	-	Ubac1	0x0
26413	chr2	25873724	25874869	-	Ubac1	0x0
26414	chr2	25875131	25876289	-	Ubac1	0x0
26415	chr2	25911699	25912845	-	Nacc2	0x0
26416	chr2	25992060	25994221	-	C330006A16Rik	0x0
26417	chr2	26064154	26065759	-	Qsox2	0x0
26418	chr2	26080128	26081312	-	Qsox2	0x0
26419	chr2	26216520	26217750	-	Snapc4	0x0
26420	chr2	26223594	26224784	-	Snapc4	0x0
26421	chr2	26226964	26228102	-	Snapc4	0x0
26422	chr2	26237889	26239538	-	Sdccag3	0x0
26423	chr2	26246048	26247258	+	Pmpca	0x0
26424	chr2	26250601	26252921	+	Pmpca	0x0
26425	chr2	26265078	26266828	-	Sec16a	0x0
26426	chr2	26270255	26271421	-	Sec16a	0x0
26427	chr2	26313262	26314905	-	Notch1	0x1
26428	chr2	26315580	26316710	-	Notch1	0x1
26429	chr2	26331059	26332556	-	Notch1	0x1
26430	chr2	26332835	26333932	-	Notch1	0x1
26431	chr2	26340187	26341425	-	Notch1	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26432	chr2	26452889	26454065	-	Agpat2	0x0
26433	chr2	26492836	26494034	-	Snhg7	0x0
26434	chr2	26492836	26494034	-	Snora43	0x0
26435	chr2	26746708	26747878	-	Surf6	0x0
26436	chr2	26761793	26763078	-	Med22	0x0
26437	chr2	26768386	26769554	-	Surf1	0x0
26438	chr2	26775583	26778095	-	Surf4	0x0
26439	chr2	26808614	26809852	-	Rexo4	0x0
26440	chr2	26815296	26816395	-	Rexo4	0x0
26441	chr2	26875149	26876697	+	Cacfd1	0x0
26442	chr2	26976128	26977551	+	Adamtsl2	0x0
26443	chr2	27136861	27138029	-	Vav2	0x0
26444	chr2	27154706	27156915	-	Vav2	0x0
26445	chr2	27234361	27235520	-	Vav2	0x0
26446	chr2	27301504	27304223	-	Brd3	0x0
26447	chr2	27375343	27376493	+	Wdr5	0x0
26448	chr2	27390530	27392479	+	Wdr5	0x0
26449	chr2	27394793	27395968	-	Brd3	0x0
26450	chr2	27522818	27523909	+	Rxra	0x0
26451	chr2	27559878	27561055	+	Rxra	0x0
26452	chr2	27810688	27811840	+	Col5a1	0x2
26453	chr2	27844523	27845694	+	Col5a1	0x2
26454	chr2	27892938	27895089	+	Col5a1	0x2
26455	chr2	28085243	28086694	+	Olfm1	0x0
26456	chr2	28325439	28327152	+	Mrps2	0x0
26457	chr2	28332622	28333981	+	Mrps2	0x0
26458	chr2	28362140	28363481	+	Gbgt1	0x0
26459	chr2	28407377	28408578	+	Ralgds	0x2
26460	chr2	28421421	28422689	-	Gtf3c5	0x0
26461	chr2	28532342	28533444	+	Tsc1	0x1
26462	chr2	28541048	28542169	+	Tsc1	0x1
26463	chr2	28677391	28681992	-	Gtf3c4	0x0
26464	chr2	28704333	28705499	+	Ddx31	0x0
26465	chr2	28858246	28859379	-	1700101E01Rik	0x0
26466	chr2	28941326	28942981	+	Ttf1	0x0
26467	chr2	28980717	28981830	+	Setx	0x0
26468	chr2	28994204	28995361	+	Setx	0x0
26469	chr2	29002462	29004684	+	Setx	0x0
26470	chr2	29005539	29006773	+	Setx	0x0
26471	chr2	29013139	29014285	+	Setx	0x0
26472	chr2	29035744	29038444	+	Setx	0x0
26473	chr2	29513445	29514634	+	Rapgef1	0x0
26474	chr2	29518771	29519967	+	Rapgef1	0x0
26475	chr2	29520306	29521568	+	Rapgef1	0x0
26476	chr2	29570628	29571731	+	Rapgef1	0x0
26477	chr2	29574648	29575796	+	Rapgef1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26478	chr2	29583890	29584996	+	Rapgef1	0x0
26479	chr2	29593497	29595689	+	Rapgef1	0x0
26480	chr2	29631647	29633199	-	Trub2	0x0
26481	chr2	29665795	29666936	+	Slc27a4	0x0
26482	chr2	29670942	29672473	+	Slc27a4	0x0
26483	chr2	29698639	29699802	+	Urm1	0x0
26484	chr2	29785594	29787640	+	Odf2	0x0
26485	chr2	29813993	29815414	+	Gle1	0x0
26486	chr2	29832501	29833698	+	Sptan1	0x2
26487	chr2	29841809	29843047	+	Sptan1	0x2
26488	chr2	29846860	29847987	+	Sptan1	0x2
26489	chr2	29848610	29849762	+	Sptan1	0x2
26490	chr2	29856264	29857333	+	Sptan1	0x2
26491	chr2	29862852	29863999	+	Sptan1	0x2
26492	chr2	29865942	29867362	+	Sptan1	0x2
26493	chr2	29868729	29869857	+	Sptan1	0x2
26494	chr2	29876188	29877348	+	Sptan1	0x2
26495	chr2	29879905	29881054	+	Sptan1	0x2
26496	chr2	29881591	29883482	+	Sptan1	0x2
26497	chr2	29885461	29887293	+	Sptan1	0x2
26498	chr2	29926509	29928608	+	Set	0x2
26499	chr2	29996230	29997429	+	Tbc1d13	0x0
26500	chr2	30005582	30007989	+	Tbc1d13	0x0
26501	chr2	30029290	30030488	-	D2Wsu81e	0x0
26502	chr2	30118519	30119777	+	Lrrc8a	0x0
26503	chr2	30155795	30158138	+	Nup188	0x0
26504	chr2	30172225	30173339	+	Nup188	0x0
26505	chr2	30187367	30188553	+	Nup188	0x0
26506	chr2	30192055	30193241	+	Nup188	0x0
26507	chr2	30195639	30196800	+	Nup188	0x0
26508	chr2	30202544	30203695	-	Sh3glb2	0x0
26509	chr2	30239403	30241673	+	Fam73b	0x0
26510	chr2	30254423	30255871	+	Dolpp1	0x0
26511	chr2	30293723	30295012	+	Ppp2r4	0x1
26512	chr2	30297861	30299026	+	Ppp2r4	0x1
26513	chr2	30301558	30303676	+	Ppp2r4	0x1
26514	chr2	30327821	30329055	-	Ier5l	0x0
26515	chr2	30663178	30664366	+	Ntmt1	0x0
26516	chr2	30673584	30674739	+	Ntmt1	0x0
26517	chr2	30812524	30815029	+	Tor1b	0x0
26518	chr2	30827962	30829142	-	BC005624	0x0
26519	chr2	30866010	30867191	+	Usp20	0x0
26520	chr2	30877126	30878316	+	Usp20	0x0
26521	chr2	30881639	30882768	-	Fnbp1	0x2
26522	chr2	30885422	30886598	-	Fnbp1	0x2
26523	chr2	30917536	30918684	+	Usp20	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26524	chr2	30919449	30920642	-	Fnbp1	0x2
26525	chr2	31005215	31006370	-	D330023K18Rik	0x0
26526	chr2	31061771	31062944	+	Gpr107	0x0
26527	chr2	31071387	31073707	+	Gpr107	0x0
26528	chr2	31147817	31150979	+	Ncs1	0x0
26529	chr2	31332748	31333932	+	Ass1	0x0
26530	chr2	31375458	31376663	+	Ass1	0x0
26531	chr2	31439818	31440963	+	Fubp3	0x0
26532	chr2	31453546	31454699	+	Fubp3	0x0
26533	chr2	31470046	31471192	+	Fubp3	0x0
26534	chr2	31471706	31473410	+	Fubp3	0x0
26535	chr2	31531385	31532484	+	Exosc2	0x0
26536	chr2	31536079	31537478	+	Exosc2	0x0
26537	chr2	31569582	31570691	+	Abl1	0x2
26538	chr2	31607298	31608443	+	Abl1	0x2
26539	chr2	31628709	31629848	+	Abl1	0x2
26540	chr2	31646477	31647644	+	Abl1	0x2
26541	chr2	31657767	31658879	+	Abl1	0x2
26542	chr2	31820768	31821906	+	Aif1l	0x0
26543	chr2	31842531	31843653	+	Nup214	0x2
26544	chr2	31888344	31889580	+	Nup214	0x2
26545	chr2	31899065	31900258	+	Nup214	0x2
26546	chr2	32018810	32020769	+	Prrc2b	0x0
26547	chr2	32025354	32026459	+	Prrc2b	0x0
26548	chr2	32037478	32038671	+	Prrc2b	0x0
26549	chr2	32049400	32050547	+	Prrc2b	0x0
26550	chr2	32058987	32060135	+	Prrc2b	0x0
26551	chr2	32067054	32068373	+	Prrc2b	0x0
26552	chr2	32069258	32070457	+	Prrc2b	0x0
26553	chr2	32071071	32072164	+	Prrc2b	0x0
26554	chr2	32072267	32073366	+	Prrc2b	0x0
26555	chr2	32078962	32080109	+	Prrc2b	0x0
26556	chr2	32085901	32087613	+	Prrc2b	0x0
26557	chr2	32087898	32090615	+	Prrc2b	0x0
26558	chr2	32098939	32100044	+	Pomt1	0x0
26559	chr2	32103263	32104492	+	Pomt1	0x0
26560	chr2	32134908	32136076	-	Swi5	0x0
26561	chr2	32162155	32163367	+	Golga2	0x0
26562	chr2	32188264	32189448	-	Dnm1	0x0
26563	chr2	32269681	32270878	-	Slc25a25	0x0
26564	chr2	32423699	32424927	+	Fam102a	0x0
26565	chr2	32427854	32428991	+	Dpm2	0x0
26566	chr2	32474738	32476812	+	St6galnac6	0x0
26567	chr2	32486110	32487302	+	Ak1	0x0
26568	chr2	32489362	32490881	+	Ak1	0x0
26569	chr2	32530187	32531343	+	Eng	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26570	chr2	32561192	32562203	-	Cdk9	0x0
26571	chr2	32562633	32563797	-	Cdk9	0x0
26572	chr2	32565073	32566248	-	Cdk9	0x0
26573	chr2	32616854	32618187	+	Tor2a	0x0
26574	chr2	32643325	32645135	-	Stxbp1	0x0
26575	chr2	32779258	32781284	+	Fam129b	0x0
26576	chr2	32781181	32782362	-	Lrsam1	0x0
26577	chr2	32812576	32813748	-	Lrsam1	0x0
26578	chr2	32818254	32819507	+	Rpl12	0x0
26579	chr2	32818254	32819507	+	Snora65	0x0
26580	chr2	32819717	32820864	+	Rpl12	0x0
26581	chr2	32891491	32892690	-	Garnl3	0x0
26582	chr2	32892735	32893903	-	Garnl3	0x0
26583	chr2	33261534	33265631	-	Zbtb34	0x0
26584	chr2	33305855	33307066	-	Zbtb43	0x0
26585	chr2	33307820	33308974	-	Zbtb43	0x0
26586	chr2	33311816	33312953	-	Zbtb43	0x0
26587	chr2	33322787	33323971	-	Zbtb43	0x0
26588	chr2	33422391	33423568	-	Lmx1b	0x4
26589	chr2	33586214	33589109	-	Mvb12b	0x0
26590	chr2	33631876	33633054	-	Mvb12b	0x0
26591	chr2	33646887	33648028	-	Mvb12b	0x0
26592	chr2	34037102	34038284	-	Pbx3	0x0
26593	chr2	34096401	34097637	-	Pbx3	0x0
26594	chr2	34430693	34431825	+	Mapkap1	0x0
26595	chr2	34478985	34480839	+	Mapkap1	0x0
26596	chr2	34532290	34533508	-	Gapvd1	0x0
26597	chr2	34545422	34546618	-	Gapvd1	0x0
26598	chr2	34562793	34563965	-	Gapvd1	0x0
26599	chr2	34627253	34628419	+	Hspa5	0x0
26600	chr2	34629086	34630363	+	Hspa5	0x0
26601	chr2	34630580	34632484	+	Hspa5	0x0
26602	chr2	34681002	34682224	-	Fbxw2	0x0
26603	chr2	34712686	34714236	-	Psmd5	0x0
26604	chr2	34807867	34809018	+	D730039F16Rik	0x0
26605	chr2	34988952	34990151	+	Cep110	0x0
26606	chr2	34998836	35000030	+	Cep110	0x0
26607	chr2	35026830	35028031	+	Cep110	0x0
26608	chr2	35035225	35038058	-	Rab14	0x0
26609	chr2	35138064	35139233	+	Gsn	0x2
26610	chr2	35169476	35170621	-	Stom	0x0
26611	chr2	35195716	35196908	+	Gsn	0x2
26612	chr2	35255948	35257110	-	Ggta1	0x0
26613	chr2	35501943	35503078	+	Dab2ip	0x1
26614	chr2	35585220	35586524	+	Dab2ip	0x1
26615	chr2	35899136	35901051	-	Ndufa8	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26616	chr2	35971575	35973715	-	Rbm18	0x0
26617	chr2	35985239	35986435	-	Rbm18	0x0
26618	chr2	36044317	36045455	+	Mrrf	0x0
26619	chr2	36662840	36664352	-	Olfr3	0x0
26620	chr2	37206101	37207640	-	Pdcl	0x0
26621	chr2	37225582	37226727	-	Rc3h2	0x0
26622	chr2	37227612	37231286	-	Rc3h2	0x0
26623	chr2	37237722	37238924	-	Rc3h2	0x0
26624	chr2	37244528	37245907	-	Rc3h2	0x0
26625	chr2	37255566	37256666	-	Rc3h2	0x0
26626	chr2	37255566	37256666	-	Snord90	0x0
26627	chr2	37269693	37270888	-	Rc3h2	0x0
26628	chr2	37282898	37284132	-	Zbtb6	0x0
26629	chr2	37287764	37288863	-	Zbtb26	0x0
26630	chr2	37324467	37325606	+	Rabgap1	0x0
26631	chr2	37330310	37331536	+	Rabgap1	0x0
26632	chr2	37349609	37350843	+	Rabgap1	0x0
26633	chr2	37399141	37400284	+	Rabgap1	0x0
26634	chr2	37425064	37426247	-	Strbp	0x0
26635	chr2	37426452	37429450	-	Strbp	0x0
26636	chr2	37429799	37441038	-	Strbp	0x0
26637	chr2	37482448	37483553	-	Strbp	0x0
26638	chr2	37655137	37656275	-	Dennd1a	0x0
26639	chr2	37667278	37668452	-	Dennd1a	0x0
26640	chr2	37724588	37725767	-	Dennd1a	0x0
26641	chr2	37749113	37750241	-	Dennd1a	0x0
26642	chr2	37885412	37886612	-	Dennd1a	0x0
26643	chr2	37939229	37940408	-	Dennd1a	0x0
26644	chr2	38441555	38442914	+	Nek6	0x0
26645	chr2	38443086	38444218	-	Psmb7	0x0
26646	chr2	38578446	38581776	-	Nr6a1	0x0
26647	chr2	38581842	38583569	-	Nr6a1	0x0
26648	chr2	38816353	38817488	+	Olfml2a	0x0
26649	chr2	38870365	38871744	+	Arpc5l	0x0
26650	chr2	38871934	38873105	-	Golga1	0x0
26651	chr2	39000361	39001504	-	Gm16523	0x0
26652	chr2	39049527	39052135	-	Ppp6c	0x0
26653	chr2	39069919	39071139	-	Ppp6c	0x0
26654	chr2	39271615	39272795	-	Ppp6c	0x0
26655	chr2	39981965	39983094	-	Lrp1b	0x1
26656	chr2	40410976	40413155	+	Arpc5l	0x0
26657	chr2	41490713	41491910	+	Kynu	0x0
26658	chr2	41627733	41628926	+	Kynu	0x0
26659	chr2	41841676	41843985	-	Lrp1b	0x1
26660	chr2	46719784	46720908	-	Zeb2	0x0
26661	chr2	47477828	47478927	-	Orc4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26662	chr2	48243319	48244433	+	Acvr2a	0x2
26663	chr2	48756607	48757706	+	Acvr2a	0x2
26664	chr2	48757895	48760883	-	Orc4	0x0
26665	chr2	48768018	48769245	-	Orc4	0x0
26666	chr2	48810478	48811672	+	Mbd5	0x0
26667	chr2	48818986	48820128	+	Mbd5	0x0
26668	chr2	49114729	49116184	+	Mbd5	0x0
26669	chr2	49142881	49144001	+	Mbd5	0x0
26670	chr2	49163920	49165082	+	Mbd5	0x0
26671	chr2	49325407	49326537	+	Epc2	0x0
26672	chr2	49343613	49344815	+	Epc2	0x0
26673	chr2	49405658	49407103	+	Epc2	0x0
26674	chr2	49543632	49544782	+	Kif5c	0x0
26675	chr2	49626249	49627441	+	Kif5c	0x0
26676	chr2	49627560	49628686	+	Kif5c	0x0
26677	chr2	49628986	49630731	+	Kif5c	0x0
26678	chr2	51928164	51929345	+	Rif1	0x0
26679	chr2	51932017	51933324	+	Rif1	0x0
26680	chr2	51936589	51937791	+	Rif1	0x0
26681	chr2	51956398	51957544	+	Rif1	0x0
26682	chr2	51958494	51959655	+	Rif1	0x0
26683	chr2	51960508	51961624	+	Rif1	0x0
26684	chr2	51964940	51966039	+	Rif1	0x0
26685	chr2	51976550	51982792	+	Rif1	0x0
26686	chr2	51987060	51988211	+	Rif1	0x0
26687	chr2	51988299	51989394	+	Rif1	0x0
26688	chr2	52254155	52255348	-	Arl5a	0x0
26689	chr2	52255556	52257700	-	Arl5a	0x0
26690	chr2	52549000	52550183	-	Stam2	0x0
26691	chr2	52729015	52730171	+	Fmnl2	0x0
26692	chr2	52741057	52742234	+	Fmnl2	0x0
26693	chr2	52762100	52763289	+	Fmnl2	0x0
26694	chr2	52913040	52914193	+	Fmnl2	0x0
26695	chr2	52991241	52992392	+	Fmnl2	0x0
26696	chr2	52997154	52998400	-	Prpf40a	0x0
26697	chr2	53076224	53077325	+	Arl6ip6	0x0
26698	chr2	57219323	57223505	+	Gpd2	0x0
26699	chr2	58310026	58311228	-	Acvr1	0x0
26700	chr2	58364081	58365271	-	Acvr1	0x0
26701	chr2	58996786	58997914	-	Ccdc148	0x0
26702	chr2	59059721	59060866	+	Pkp4	0x0
26703	chr2	59156235	59157422	+	Pkp4	0x0
26704	chr2	59172357	59173459	+	Pkp4	0x0
26705	chr2	59176298	59177433	+	Pkp4	0x0
26706	chr2	59182045	59183147	+	Pkp4	0x0
26707	chr2	59191917	59193663	+	Pkp4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26708	chr2	59455251	59456435	+	Tanc1	0x0
26709	chr2	59472658	59473807	+	Tanc1	0x0
26710	chr2	59549032	59550182	+	Tanc1	0x0
26711	chr2	59586061	59587276	+	Tanc1	0x0
26712	chr2	59616144	59617244	+	Tanc1	0x0
26713	chr2	59622924	59624131	+	Tanc1	0x0
26714	chr2	59682285	59683383	+	Tanc1	0x0
26715	chr2	59710602	59711808	-	Wdsub1	0x0
26716	chr2	60071556	60072821	+	March7	0x0
26717	chr2	60086403	60087526	+	March7	0x0
26718	chr2	60130086	60131398	-	Ly75	0x0
26719	chr2	60170891	60172068	-	Ly75	0x0
26720	chr2	60588572	60590461	-	Rbms1	0x0
26721	chr2	61433687	61434881	+	Tank	0x0
26722	chr2	61602411	61603589	+	Psmd14	0x0
26723	chr2	61623926	61625084	+	Psmd14	0x0
26724	chr2	62122467	62123568	+	Slc4a10	0x2
26725	chr2	62530888	62531967	+	Gca	0x0
26726	chr2	63727888	63729009	-	Fign	0x0
26727	chr2	64433792	64434921	+	Scn2a1	0x0
26728	chr2	64706145	64707342	-	Grb14	0x0
26729	chr2	65752801	65753997	+	Csrnp3	0x0
26730	chr2	65865369	65866515	+	Csrnp3	0x0
26731	chr2	68048434	68049595	-	Stk39	0x0
26732	chr2	68190248	68191462	-	Stk39	0x0
26733	chr2	68946814	68952808	+	Cers6	0x0
26734	chr2	69031460	69032624	-	Spc25	0x0
26735	chr2	69396109	69397228	-	Lrp2	0x2
26736	chr2	69587489	69589690	+	Ppig	0x0
26737	chr2	69590255	69592376	+	Ppig	0x0
26738	chr2	69699542	69700738	+	Ssb	0x2
26739	chr2	69708944	69710089	+	Ssb	0x2
26740	chr2	69802998	69804097	+	Ubr3	0x2
26741	chr2	69853683	69854879	+	Ubr3	0x2
26742	chr2	69859552	69860656	+	Ubr3	0x2
26743	chr2	69894617	69895846	-	Mettl5	0x0
26744	chr2	70296703	70297962	+	Sp5	0x0
26745	chr2	70528930	70530220	+	Gorasp2	0x0
26746	chr2	70532642	70533804	+	Gorasp2	0x0
26747	chr2	70550203	70551834	-	Tlk1	0x0
26748	chr2	70567436	70568630	-	Tlk1	0x0
26749	chr2	70607376	70608587	-	Tlk1	0x0
26750	chr2	70622137	70623320	-	Tlk1	0x0
26751	chr2	70624391	70625603	-	Tlk1	0x0
26752	chr2	70641424	70642608	-	Tlk1	0x0
26753	chr2	70928132	70929313	+	Dcaf17	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26754	chr2	70929639	70931829	+	Dcaf17	0x0
26755	chr2	71100248	71101855	+	Dync1i2	0x0
26756	chr2	71108756	71109969	-	Slc25a12	0x0
26757	chr2	71242847	71244087	+	Hat1	0x0
26758	chr2	71246819	71247941	+	Hat1	0x0
26759	chr2	71252714	71253914	+	Hat1	0x0
26760	chr2	71258160	71259338	+	Hat1	0x0
26761	chr2	71276238	71277385	+	Hat1	0x0
26762	chr2	71278845	71280117	+	Hat1	0x0
26763	chr2	71654088	71655383	+	Itga6	0x0
26764	chr2	71661991	71663092	+	Itga6	0x0
26765	chr2	71678398	71679540	+	Itga6	0x0
26766	chr2	71684472	71685571	+	Itga6	0x0
26767	chr2	71686695	71687845	+	Itga6	0x0
26768	chr2	71694003	71696698	+	Itga6	0x0
26769	chr2	71723537	71724698	+	Pdk1	0x0
26770	chr2	71726411	71727614	+	Pdk1	0x0
26771	chr2	71737676	71742323	+	Pdk1	0x0
26772	chr2	72147405	72148573	+	B230120H23Rik	0x0
26773	chr2	72235769	72236930	+	B230120H23Rik	0x0
26774	chr2	72241218	72242407	+	B230120H23Rik	0x0
26775	chr2	72242789	72244000	+	B230120H23Rik	0x0
26776	chr2	72319295	72320479	+	Cdca7	0x0
26777	chr2	72323318	72325393	+	Cdca7	0x0
26778	chr2	72472890	72474003	+	8430437L04Rik	0x0
26779	chr2	72781254	72782478	-	Sp3	0x0
26780	chr2	72808391	72809618	-	Sp3	0x0
26781	chr2	72850207	72851427	-	Sp3	0x0
26782	chr2	72930581	72932187	-	Ola1	0x0
26783	chr2	73654285	73657050	-	Atf2	0x0
26784	chr2	73705361	73706672	+	Gm13704	0x0
26785	chr2	73729445	73730668	-	Atf2	0x0
26786	chr2	73745958	73747216	-	Atp5g3	0x0
26787	chr2	74355888	74356987	-	Lnp	0x0
26788	chr2	74358223	74359614	-	Lnp	0x0
26789	chr2	74392351	74393536	-	Lnp	0x0
26790	chr2	74545179	74546343	+	Hoxd8	0x0
26791	chr2	74566527	74567684	+	Hoxd4	0x0
26792	chr2	75028860	75030156	-	9430019J16Rik	0x0
26793	chr2	75499718	75500837	+	Gm6793	0x0
26794	chr2	75499718	75500837	+	Hnrnpa3	0x0
26795	chr2	75503773	75505962	+	Gm6793	0x0
26796	chr2	75503773	75505962	+	Hnrnpa3	0x0
26797	chr2	75513785	75515401	-	Nfe2l2	0x2
26798	chr2	75531938	75533119	-	Nfe2l2	0x2
26799	chr2	75699518	75700608	+	Agps	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26800	chr2	75741274	75742409	+	Agps	0x0
26801	chr2	75764182	75767945	+	Agps	0x0
26802	chr2	76197560	76198755	-	Cyct	0x0
26803	chr2	76205240	76206401	-	Cyct	0x0
26804	chr2	76220340	76221487	+	Rbm45	0x0
26805	chr2	76467517	76468783	-	Prkra	0x0
26806	chr2	76478724	76479925	-	Prkra	0x0
26807	chr2	76533158	76534532	+	Plekha3	0x0
26808	chr2	76562515	76564037	-	Ttn	0x2
26809	chr2	76875351	76876544	-	Ccdc141	0x0
26810	chr2	76967386	76968580	-	Ccdc141	0x0
26811	chr2	77017957	77019679	-	Sestd1	0x0
26812	chr2	77110676	77111900	-	Sestd1	0x0
26813	chr2	77129750	77130907	+	Gm13944	0x0
26814	chr2	77741399	77743245	-	Cwc22	0x0
26815	chr2	78351952	78353166	-	Cwc22	0x0
26816	chr2	79288162	79289348	-	Neurod1	0x0
26817	chr2	79483033	79484224	+	Ssfa2	0x0
26818	chr2	79510377	79511573	+	Ssfa2	0x0
26819	chr2	79511903	79513292	+	Ssfa2	0x0
26820	chr2	80192477	80194427	+	Dnajc10	0x0
26821	chr2	80340158	80341574	-	Nckap1	0x0
26822	chr2	80380160	80381259	-	Nckap1	0x0
26823	chr2	80384319	80385456	-	Nckap1	0x0
26824	chr2	83193065	83194575	-	Zswim2	0x0
26825	chr2	83503826	83505282	+	Zc3h15	0x0
26826	chr2	83508066	83509162	+	Zc3h15	0x0
26827	chr2	83564311	83565448	+	Itgav	0x1
26828	chr2	83641484	83642534	+	Itgav	0x1
26829	chr2	83643095	83644201	+	Itgav	0x1
26830	chr2	83645035	83647494	+	Itgav	0x1
26831	chr2	84281309	84282550	-	Tfpi	0x0
26832	chr2	84427577	84430268	-	Ctnnd1	0x1
26833	chr2	84430770	84431839	-	Ctnnd1	0x1
26834	chr2	84432254	84434217	-	Ctnnd1	0x1
26835	chr2	84434523	84435634	-	Ctnnd1	0x1
26836	chr2	84436334	84437431	-	Ctnnd1	0x1
26837	chr2	84441110	84443130	-	Ctnnd1	0x1
26838	chr2	84459855	84461070	-	Ctnnd1	0x1
26839	chr2	84490167	84491298	-	Ctnnd1	0x1
26840	chr2	84511209	84512572	-	Tmx2	0x0
26841	chr2	84526812	84528456	+	Med19	0x0
26842	chr2	84527812	84529477	-	Zdhhc5	0x0
26843	chr2	84533889	84535102	-	Zdhhc5	0x0
26844	chr2	84565740	84566862	-	Clp1	0x2
26845	chr2	84667296	84668424	+	Timm10	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26846	chr2	84680538	84681720	+	Slc43a1	0x0
26847	chr2	84702943	84704253	+	Slc43a1	0x0
26848	chr2	84797645	84798758	+	Slc43a3	0x0
26849	chr2	84838396	84839537	-	P2rx3	0x0
26850	chr2	84880657	84881812	+	Ssrp1	0x0
26851	chr2	84904072	84905171	+	Tnks1bp1	0x0
26852	chr2	84906048	84907246	+	Tnks1bp1	0x0
26853	chr2	86167076	86168255	-	Olfr1054	0x0
26854	chr2	87349264	87350381	+	Pramel6	0x0
26855	chr2	87403161	87404351	-	Olfr1128	0x0
26856	chr2	89409481	89410652	+	Olfr1255	0x0
26857	chr2	90234719	90235931	-	Ptprj	0x1
26858	chr2	90273903	90275464	-	Ptprj	0x1
26859	chr2	90362045	90363222	-	Ptprj	0x1
26860	chr2	90375650	90376840	-	Ptprj	0x1
26861	chr2	90557827	90559021	+	Nup160	0x0
26862	chr2	90576378	90577762	+	Nup160	0x0
26863	chr2	90577946	90579100	+	Nup160	0x0
26864	chr2	90699160	90700358	+	Mtch2	0x0
26865	chr2	90705159	90706303	+	Mtch2	0x0
26866	chr2	90741494	90742655	-	Ndufs3	0x0
26867	chr2	90750582	90751838	-	Ptpmt1	0x0
26868	chr2	90792454	90793556	+	Celf1	0x0
26869	chr2	90798481	90799643	+	Celf1	0x0
26870	chr2	90844380	90845555	+	Celf1	0x0
26871	chr2	90856409	90860500	+	Celf1	0x0
26872	chr2	90898702	90899820	+	Psmc3	0x0
26873	chr2	90977146	90978329	-	Madd	0x2
26874	chr2	91115523	91116640	+	Arfgap2	0x0
26875	chr2	91223318	91225606	-	1110051M20Rik	0x0
26876	chr2	91334511	91335662	+	Lrp4	0x0
26877	chr2	91352150	91353348	+	Lrp4	0x0
26878	chr2	91412033	91413216	+	Ckap5	0x0
26879	chr2	91435787	91436923	+	Ckap5	0x0
26880	chr2	91435787	91436923	+	Snord67	0x0
26881	chr2	91447084	91448280	+	Ckap5	0x0
26882	chr2	91454589	91455767	+	Ckap5	0x0
26883	chr2	91459898	91461370	+	Ckap5	0x0
26884	chr2	91510700	91512972	+	Arhgap1	0x0
26885	chr2	91514610	91516917	-	Atg13	0x0
26886	chr2	91518420	91519554	-	Atg13	0x0
26887	chr2	91524320	91525490	-	Atg13	0x0
26888	chr2	91548078	91549220	-	Atg13	0x0
26889	chr2	91613159	91614355	+	Ambra1	0x0
26890	chr2	91688459	91689616	+	Ambra1	0x0
26891	chr2	91769538	91770814	-	Mdk	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26892	chr2	91772642	91773949	-	Dgkz	0x0
26893	chr2	92025681	92026863	+	Phf21a	0x0
26894	chr2	92050228	92051343	+	Phf21a	0x0
26895	chr2	92055104	92056239	+	Phf21a	0x0
26896	chr2	92061100	92062311	+	Phf21a	0x0
26897	chr2	92074612	92075793	+	Phf21a	0x0
26898	chr2	92100826	92102004	+	Phf21a	0x0
26899	chr2	92145075	92146223	+	Phf21a	0x0
26900	chr2	92202084	92203662	+	Phf21a	0x0
26901	chr2	92223433	92224622	-	Mapk8ip1	0x0
26902	chr2	92807754	92809642	-	Prdm11	0x0
26903	chr2	93036138	93037291	+	Trp53i11	0x0
26904	chr2	93039808	93042032	+	Trp53i11	0x0
26905	chr2	93042944	93044082	-	Tspan18	0x0
26906	chr2	93454860	93456056	+	Alx4	0x0
26907	chr2	93504142	93505381	-	Ext2	0x1
26908	chr2	93535648	93536892	-	Ext2	0x1
26909	chr2	93872350	93874136	-	Hsd17b12	0x0
26910	chr2	93935545	93936705	-	Hsd17b12	0x0
26911	chr2	94251486	94253684	-	Api5	0x0
26912	chr2	94264933	94266170	-	Api5	0x0
26913	chr2	101537252	101539518	+	Traf6	0x0
26914	chr2	101739186	101740328	+	Commd9	0x0
26915	chr2	101790341	101793426	-	Ldlrad3	0x0
26916	chr2	101834104	101835276	-	Ldlrad3	0x0
26917	chr2	101869600	101870838	-	Ldlrad3	0x0
26918	chr2	101885146	101886373	-	Ldlrad3	0x0
26919	chr2	102005271	102006469	-	Ldlrad3	0x0
26920	chr2	102010023	102011151	-	Ldlrad3	0x0
26921	chr2	102141689	102143770	-	Trim44	0x0
26922	chr2	102289586	102290773	-	Fjx1	0x0
26923	chr2	102668931	102670123	-	Cd44	0x0
26924	chr2	102860779	102862186	-	Pdhx	0x0
26925	chr2	102876228	102877352	-	Pdhx	0x0
26926	chr2	103293675	103294891	-	Cat	0x0
26927	chr2	103583910	103585093	-	Nat10	0x0
26928	chr2	103586478	103587635	-	Nat10	0x0
26929	chr2	103604861	103606918	-	Caprin1	0x0
26930	chr2	103617553	103618753	-	Caprin1	0x0
26931	chr2	103619005	103620158	-	Caprin1	0x0
26932	chr2	103646076	103647219	+	Abtb2	0x0
26933	chr2	103896715	103897871	+	Fbxo3	0x0
26934	chr2	103900049	103901232	+	Fbxo3	0x0
26935	chr2	103986318	103987499	-	D430041D05Rik	0x0
26936	chr2	104084387	104085536	+	A930018P22Rik	0x0
26937	chr2	104115921	104117065	-	D430041D05Rik	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26938	chr2	104310350	104312448	-	Hipk3	0x0
26939	chr2	104405159	104406286	+	4930500J02Rik	0x0
26940	chr2	104407490	104409447	+	4930500J02Rik	0x0
26941	chr2	104514517	104515798	-	Tcp11l1	0x0
26942	chr2	104516737	104517905	-	Tcp11l1	0x0
26943	chr2	104519094	104520254	-	Tcp11l1	0x0
26944	chr2	104595736	104596937	-	Qser1	0x0
26945	chr2	104597551	104598700	-	Qser1	0x0
26946	chr2	104609076	104610532	-	Qser1	0x0
26947	chr2	104612470	104613637	-	Qser1	0x0
26948	chr2	104626831	104628381	-	Qser1	0x0
26949	chr2	104629180	104630312	-	Qser1	0x0
26950	chr2	104667820	104672079	-	Prrg4	0x0
26951	chr2	104847510	104848609	-	Eif3m	0x0
26952	chr2	104853367	104855547	-	Eif3m	0x0
26953	chr2	105208720	105209907	+	0610012H03Rik	0x0
26954	chr2	105226637	105228647	-	Rcn1	0x0
26955	chr2	105234293	105235458	-	Rcn1	0x0
26956	chr2	105524757	105525935	+	Pax6	0x1
26957	chr2	105737321	105738473	-	Elp4	0x2
26958	chr2	106802616	106803758	-	Arl14ep	0x0
26959	chr2	108897190	108898770	-	Mettl15	0x0
26960	chr2	108976936	108978094	-	Mettl15	0x0
26961	chr2	109136003	109137192	+	Kif18a	0x0
26962	chr2	109145025	109146233	+	Kif18a	0x0
26963	chr2	109737921	109739097	+	Lin7c	0x0
26964	chr2	109739370	109741129	+	Lin7c	0x0
26965	chr2	109763072	109764221	+	Lgr4	0x0
26966	chr2	109785503	109786618	+	Lgr4	0x0
26967	chr2	109808001	109809195	+	Lgr4	0x0
26968	chr2	109825833	109826944	+	Lgr4	0x0
26969	chr2	109836052	109837202	+	Lgr4	0x0
26970	chr2	109852819	109854705	+	Lgr4	0x0
26971	chr2	110302414	110303561	-	Fibin	0x0
26972	chr2	111575563	111576911	-	Olfr1303	0x0
26973	chr2	112102122	112103319	+	Nop10	0x0
26974	chr2	112172794	112173893	+	Slc12a6	0x0
26975	chr2	112200482	112203382	+	Slc12a6	0x0
26976	chr2	112235543	112236650	+	Katnbl1	0x0
26977	chr2	112253551	112254897	+	Katnbl1	0x0
26978	chr2	112309109	112310230	+	Emc7	0x0
26979	chr2	113045563	113046713	-	Ryr3	0x2
26980	chr2	113281296	113282443	+	Fmn1	0x0
26981	chr2	113687769	113689084	-	Arhgap11a	0x0
26982	chr2	114000025	114001573	-	Aqr	0x0
26983	chr2	114341683	114343382	-	Atpbd4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
26984	chr2	114434002	114435168	-	Atpbd4	0x0
26985	chr2	115415235	115417219	+	BC052040	0x0
26986	chr2	115476443	115477564	+	BC052040	0x0
26987	chr2	115602301	115603538	+	BC052040	0x0
26988	chr2	115782128	115783302	-	Meis2	0x0
26989	chr2	116946930	116948058	+	Spred1	0x0
26990	chr2	117005093	117007812	+	Spred1	0x0
26991	chr2	117073529	117074721	+	Fam98b	0x0
26992	chr2	117096485	117097745	+	Fam98b	0x0
26993	chr2	117105519	117106638	-	Rasgrp1	0x0
26994	chr2	117951571	117953138	+	Thbs1	0x1
26995	chr2	118301177	118302373	-	Srp14	0x0
26996	chr2	118354267	118356365	-	Bmf	0x0
26997	chr2	118356473	118357950	-	Bmf	0x0
26998	chr2	118406618	118407780	-	Bmf	0x0
26999	chr2	118410797	118411912	-	Bmf	0x0
27000	chr2	118425387	118426557	+	Bub1b	0x1
27001	chr2	118440227	118441340	+	Bub1b	0x1
27002	chr2	118456577	118458156	+	Bub1b	0x1
27003	chr2	118460395	118461499	+	Bub1b	0x1
27004	chr2	118464832	118466025	+	Bub1b	0x1
27005	chr2	118573323	118574901	+	5430417L22Rik	0x0
27006	chr2	118659563	118661736	+	Knstrn	0x0
27007	chr2	118742419	118743546	+	Bahd1	0x0
27008	chr2	118865332	118866431	+	Rpusd2	0x0
27009	chr2	118869959	118871170	+	Casc5	0x2
27010	chr2	118872501	118873646	+	Casc5	0x2
27011	chr2	118882869	118883972	+	Casc5	0x2
27012	chr2	118896893	118898878	+	Casc5	0x2
27013	chr2	118922589	118923802	+	Casc5	0x2
27014	chr2	118929417	118930532	+	Casc5	0x2
27015	chr2	118933387	118934989	+	Casc5	0x2
27016	chr2	118960437	118961706	+	Rad51	0x0
27017	chr2	118962260	118963700	-	Rmdn3	0x0
27018	chr2	118972683	118973908	-	Rmdn3	0x0
27019	chr2	119000941	119002147	-	Dnajc17	0x0
27020	chr2	119074883	119076027	+	Spint1	0x0
27021	chr2	119094713	119095916	-	Rhov	0x0
27022	chr2	119198759	119200231	-	Ino80	0x0
27023	chr2	119201181	119202374	-	Ino80	0x0
27024	chr2	119205168	119206342	-	Ino80	0x0
27025	chr2	119218041	119219214	-	Ino80	0x0
27026	chr2	119232002	119233203	-	Ino80	0x0
27027	chr2	119237741	119238898	-	Ino80	0x0
27028	chr2	119249062	119250228	-	Ino80	0x0
27029	chr2	119410835	119413158	+	Chp1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27030	chr2	119425705	119432884	+	1700020I14Rik	0x0
27031	chr2	119435071	119436437	-	Oip5	0x0
27032	chr2	119456314	119457557	+	Nusap1	0x0
27033	chr2	119474414	119476011	+	Nusap1	0x0
27034	chr2	119485200	119486384	-	Ndufaf1	0x0
27035	chr2	119558901	119561144	+	Rtf1	0x0
27036	chr2	119589272	119591144	-	Rpap1	0x0
27037	chr2	119592724	119593926	-	Rpap1	0x0
27038	chr2	119607642	119608824	-	Rpap1	0x0
27039	chr2	119642027	119644282	+	Tyro3	0x0
27040	chr2	119683623	119684745	+	Mga	0x2
27041	chr2	119710661	119711808	+	Mga	0x2
27042	chr2	119730236	119731352	+	Mga	0x2
27043	chr2	119741759	119743605	+	Mga	0x2
27044	chr2	119766559	119768509	+	Mga	0x2
27045	chr2	119786976	119788111	+	Mga	0x2
27046	chr2	119789265	119793800	+	Mga	0x2
27047	chr2	119840760	119841875	+	Mapkbp1	0x0
27048	chr2	119861978	119863097	+	Pla2g4b	0x0
27049	chr2	119867180	119868373	-	Ehd4	0x0
27050	chr2	119897950	119899127	-	Ehd4	0x0
27051	chr2	119915330	119917236	-	Ehd4	0x0
27052	chr2	120180944	120182434	-	Tmem87a	0x0
27053	chr2	120332570	120335615	-	Zfp106	0x0
27054	chr2	120341134	120342383	-	Zfp106	0x0
27055	chr2	120345664	120346766	-	Zfp106	0x0
27056	chr2	120349196	120350345	-	Zfp106	0x0
27057	chr2	120353683	120354868	-	Zfp106	0x0
27058	chr2	120364608	120365747	-	Zfp106	0x0
27059	chr2	120371124	120372291	-	Zfp106	0x0
27060	chr2	120429926	120431319	-	Lrrc57	0x0
27061	chr2	120445149	120447304	+	Haus2	0x0
27062	chr2	120465852	120467066	-	Lrrc57	0x0
27063	chr2	120546361	120547430	-	Cdan1	0x2
27064	chr2	120562257	120563476	-	Ttbk2	0x2
27065	chr2	120564160	120565295	-	Ttbk2	0x2
27066	chr2	120626137	120627337	+	AV039307	0x0
27067	chr2	120629919	120631154	-	Ttbk2	0x2
27068	chr2	120647624	120648759	-	Ttbk2	0x2
27069	chr2	120686965	120688192	-	Ubr1	0x2
27070	chr2	120760455	120761625	-	Ubr1	0x2
27071	chr2	120772942	120774135	-	Ubr1	0x2
27072	chr2	120829485	120830610	+	Tmem62	0x0
27073	chr2	120965542	120966750	-	Lcmt2	0x0
27074	chr2	120980995	120982492	+	Adal	0x0
27075	chr2	121020150	121022057	-	Trp53bp1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27076	chr2	121022643	121023856	-	Trp53bp1	0x0
27077	chr2	121022711	121024067	+	Tubgcp4	0x0
27078	chr2	121061383	121062785	-	Trp53bp1	0x0
27079	chr2	121074877	121076024	-	Trp53bp1	0x0
27080	chr2	121080792	121081965	-	Trp53bp1	0x0
27081	chr2	121133747	121135182	+	Map1a	0x0
27082	chr2	121239233	121240432	+	Pdia3	0x0
27083	chr2	121263017	121264166	+	Pdia3	0x0
27084	chr2	121283372	121284558	+	Hypk	0x0
27085	chr2	121315796	121316994	-	Mfap1a	0x0
27086	chr2	121351756	121352901	+	Wdr76	0x0
27087	chr2	121368562	121370118	+	Wdr76	0x0
27088	chr2	121479692	121480866	-	Frmd5	0x0
27089	chr2	121594146	121595372	-	Frmd5	0x0
27090	chr2	121758694	121761974	+	Casc4	0x0
27091	chr2	121836102	121838096	+	Ctdspl2	0x0
27092	chr2	121839868	121841102	+	Ctdspl2	0x0
27093	chr2	121877752	121879128	+	Eif3j1	0x0
27094	chr2	121877752	121879128	+	Eif3j2	0x0
27095	chr2	121887536	121888635	-	Spg11	0x0
27096	chr2	121904459	121905558	-	Spg11	0x0
27097	chr2	121936915	121938110	-	Spg11	0x0
27098	chr2	122058979	122060109	-	Duox2	0x0
27099	chr2	122060045	122061268	+	Sord	0x0
27100	chr2	122089538	122091153	+	Sord	0x0
27101	chr2	122200697	122201867	-	Shf	0x0
27102	chr2	122508064	122509216	-	Slc30a4	0x0
27103	chr2	122572400	122574466	+	Bloc1s6	0x0
27104	chr2	124908365	124910811	-	Myef2	0x0
27105	chr2	124913423	124914806	-	Myef2	0x0
27106	chr2	124923203	124924302	-	Myef2	0x0
27107	chr2	124928389	124929563	-	Myef2	0x0
27108	chr2	124936343	124937442	-	Myef2	0x0
27109	chr2	125082288	125084186	+	Dut	0x0
27110	chr2	125126034	125127168	-	Fbn1	0x0
27111	chr2	125499701	125500896	+	Eid1	0x2
27112	chr2	125563240	125564541	-	Secisbp2l	0x0
27113	chr2	125564794	125565908	-	Secisbp2l	0x0
27114	chr2	125655884	125657765	-	Cops2	0x1
27115	chr2	125674991	125676131	-	Cops2	0x1
27116	chr2	125801604	125802704	+	Galk2	0x0
27117	chr2	126104244	126105440	-	Atp8b4	0x0
27118	chr2	126354733	126356556	-	Atp8b4	0x0
27119	chr2	126454120	126455784	-	Gabpb1	0x0
27120	chr2	126475139	126476275	-	Gabpb1	0x0
27121	chr2	126576239	126577436	+	Usp8	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27122	chr2	126584204	126585508	+	Usp8	0x0
27123	chr2	126617204	126619081	-	Trpm7	0x0
27124	chr2	126622960	126624185	-	Trpm7	0x0
27125	chr2	126624323	126625510	-	Trpm7	0x0
27126	chr2	126646956	126648047	-	Trpm7	0x0
27127	chr2	126669441	126670665	-	Trpm7	0x0
27128	chr2	126673751	126674883	-	Trpm7	0x0
27129	chr2	126717626	126718809	-	Sppl2a	0x0
27130	chr2	126744828	126745965	-	Sppl2a	0x0
27131	chr2	127057625	127058802	+	Snrnp200	0x0
27132	chr2	127061998	127063129	+	Snrnp200	0x0
27133	chr2	127065280	127066477	+	Snrnp200	0x0
27134	chr2	127067802	127069024	-	Ciao1	0x0
27135	chr2	127083639	127085573	+	Tmem127	0x1
27136	chr2	127085749	127086958	+	Tmem127	0x1
27137	chr2	127095517	127096702	+	Stard7	0x0
27138	chr2	127122773	127125117	+	Stard7	0x0
27139	chr2	127191520	127192721	+	Adra2b	0x0
27140	chr2	127259097	127260202	+	Gpat2	0x0
27141	chr2	127458880	127460038	-	Mal	0x1
27142	chr2	127530059	127531182	-	Mall	0x0
27143	chr2	127642481	127643639	-	Bub1	0x0
27144	chr2	127976526	127977688	+	Bcl2l11	0x0
27145	chr2	128435034	128436215	-	Anapc1	0x0
27146	chr2	128436224	128437321	-	Anapc1	0x0
27147	chr2	128437415	128438662	-	Anapc1	0x0
27148	chr2	128453734	128455007	-	Anapc1	0x0
27149	chr2	128473580	128474727	-	Anapc1	0x0
27150	chr2	128507588	128508761	-	Anapc1	0x0
27151	chr2	128627691	128628824	+	Mertk	0x0
27152	chr2	128677260	128678817	+	Tmem87b	0x0
27153	chr2	128679019	128680116	+	Tmem87b	0x0
27154	chr2	128919289	128920412	+	Ttl	0x2
27155	chr2	128920772	128921920	+	Ttl	0x2
27156	chr2	128934556	128935656	+	Polr1b	0x0
27157	chr2	128940906	128942058	+	Polr1b	0x0
27158	chr2	128951308	128952569	+	Polr1b	0x0
27159	chr2	128994308	128995418	+	Slc20a1	0x0
27160	chr2	129024988	129026532	+	Slc20a1	0x0
27161	chr2	129029317	129030416	+	Slc20a1	0x0
27162	chr2	129036467	129037859	+	Slc20a1	0x0
27163	chr2	129093862	129095732	-	Ckap2l	0x0
27164	chr2	129097473	129098593	+	Gm14023	0x0
27165	chr2	129203207	129204399	-	Il1b	0x2
27166	chr2	129456560	129458403	+	Sirpa	0x0
27167	chr2	129635789	129637401	+	Stk35	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27168	chr2	129653008	129655340	+	Stk35	0x0
27169	chr2	129655681	129658010	+	Stk35	0x0
27170	chr2	129996934	129998154	-	Snrpb	0x0
27171	chr2	130000566	130001709	-	Snrpb	0x0
27172	chr2	130001971	130003171	-	Snrpb	0x0
27173	chr2	130216997	130218191	-	Cpxm1	0x0
27174	chr2	130220180	130221352	-	Cpxm1	0x0
27175	chr2	130230997	130232177	-	Cpxm1	0x0
27176	chr2	130264446	130265605	+	Vps16	0x0
27177	chr2	130390361	130391566	+	Mrps26	0x0
27178	chr2	130433532	130434638	-	Ubox5	0x0
27179	chr2	130439245	130440427	-	Fastkd5	0x0
27180	chr2	130512400	130513580	-	Slc4a11	0x0
27181	chr2	130631574	130632801	-	4930402H24Rik	0x0
27182	chr2	130852838	130853924	+	Atrn	0x0
27183	chr2	130971533	130972855	-	1700037H04Rik	0x0
27184	chr2	131003203	131005833	-	Cenpb	0x0
27185	chr2	131022735	131023923	+	Cdc25b	0x0
27186	chr2	131072297	131073905	+	Mavs	0x0
27187	chr2	131074441	131075631	+	Mavs	0x0
27188	chr2	131099181	131100397	+	Pank2	0x0
27189	chr2	131121952	131123878	+	Pank2	0x0
27190	chr2	131123926	131125081	+	Pank2	0x0
27191	chr2	131125563	131127177	-	Rnf24	0x0
27192	chr2	131689698	131690862	+	Prnp	0x0
27193	chr2	131763503	131764606	+	Prnp	0x0
27194	chr2	131878044	131882544	-	Slc23a2	0x0
27195	chr2	131909252	131910454	-	Slc23a2	0x0
27196	chr2	131916411	131917635	-	Slc23a2	0x0
27197	chr2	131926204	131927353	+	Prnd	0x0
27198	chr2	131926297	131927455	-	Slc23a2	0x0
27199	chr2	131946366	131947580	-	Slc23a2	0x0
27200	chr2	132064739	132066032	-	Tmem230	0x0
27201	chr2	132103601	132104700	+	Cds2	0x0
27202	chr2	132131448	132133459	+	Cds2	0x0
27203	chr2	132133965	132136521	+	Cds2	0x0
27204	chr2	132136889	132137988	+	Cds2	0x0
27205	chr2	132355297	132356431	-	Gpcpd1	0x2
27206	chr2	132628710	132631514	-	Trmt6	0x0
27207	chr2	132672009	132673159	+	Crls1	0x0
27208	chr2	132694567	132695753	-	Lrrn4	0x0
27209	chr2	134418764	134419984	-	Tmx4	0x0
27210	chr2	134420200	134421948	-	Tmx4	0x0
27211	chr2	134422396	134423460	-	Tmx4	0x0
27212	chr2	135299237	135300433	+	Plcb1	0x0
27213	chr2	135474407	135475572	+	Plcb4	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27214	chr2	135477389	135478531	+	Plcb4	0x2
27215	chr2	135497716	135498817	+	Plcb4	0x2
27216	chr2	135525171	135526373	+	Plcb4	0x2
27217	chr2	135838293	135839762	+	Plcb4	0x2
27218	chr2	136724086	136725270	+	Slx4ip	0x0
27219	chr2	136851370	136852568	+	Slx4ip	0x0
27220	chr2	136906785	136907965	-	Jag1	0x0
27221	chr2	138090338	138091475	+	Btbd3	0x0
27222	chr2	138110740	138112550	+	Btbd3	0x0
27223	chr2	138349008	138350929	+	Btbd3	0x0
27224	chr2	139867250	139868474	-	Tasp1	0x0
27225	chr2	139882587	139883768	-	Tasp1	0x0
27226	chr2	140292041	140293208	-	Sel1l2	0x0
27227	chr2	140326043	140327143	+	Macrod2	0x0
27228	chr2	142386703	142387804	-	Kif16b	0x0
27229	chr2	142574127	142575198	-	Kif16b	0x0
27230	chr2	142652762	142653957	-	Kif16b	0x0
27231	chr2	143743318	143744469	+	Dstn	0x0
27232	chr2	143767661	143769515	+	Dstn	0x0
27233	chr2	143805650	143806824	-	Rrbp1	0x0
27234	chr2	143967723	143968976	-	Gm5535	0x0
27235	chr2	144075443	144077254	-	Snx5	0x0
27236	chr2	144091178	144092498	-	Snord17	0x0
27237	chr2	144097550	144098792	+	Mgme1	0x0
27238	chr2	144101595	144103658	+	Mgme1	0x0
27239	chr2	144105481	144106696	+	Mgme1	0x0
27240	chr2	144364523	144366331	+	Polr3f	0x0
27241	chr2	144368054	144369384	-	Rbbp9	0x0
27242	chr2	144593515	144594768	+	Dtd1	0x0
27243	chr2	145505574	145506774	+	BC039771	0x0
27244	chr2	145712128	145713298	+	Rin2	0x0
27245	chr2	146067227	146068326	-	Ralgapa2	0x0
27246	chr2	146068523	146070471	-	Ralgapa2	0x0
27247	chr2	146140160	146141356	-	Ralgapa2	0x0
27248	chr2	146310868	146312044	-	Ralgapa2	0x0
27249	chr2	146329799	146330927	-	Ralgapa2	0x0
27250	chr2	146895675	146896814	+	Xrn2	0x0
27251	chr2	146902860	146904195	+	Xrn2	0x0
27252	chr2	148497990	148499168	+	Nxt1	0x0
27253	chr2	148516692	148518734	+	Gzf1	0x0
27254	chr2	148557143	148558340	-	Napb	0x0
27255	chr2	148696956	148698237	-	Cst3	0x0
27256	chr2	150068915	150070014	+	Zfp937	0x0
27257	chr2	150094967	150096108	+	Gm14124	0x0
27258	chr2	150097664	150098756	+	Gm14124	0x0
27259	chr2	150151958	150153158	+	Gm14124	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27260	chr2	150230705	150231896	-	Zfp442	0x0
27261	chr2	150294766	150295911	-	Zfp345	0x0
27262	chr2	150408603	150409819	-	Apmap	0x0
27263	chr2	150443326	150444987	-	Acss1	0x0
27264	chr2	150527784	150529551	-	Vsx1	0x0
27265	chr2	150531183	150532288	-	Vsx1	0x0
27266	chr2	150596223	150597524	+	Entpd6	0x0
27267	chr2	150656219	150657467	+	Pygb	0x0
27268	chr2	150659766	150660913	-	Abhd12	0x0
27269	chr2	150702377	150703589	-	Abhd12	0x0
27270	chr2	150756341	150757494	+	Gins1	0x0
27271	chr2	150759079	150760155	+	Gins1	0x0
27272	chr2	150769148	150770256	-	Ninl	0x0
27273	chr2	150780546	150781691	-	Ninl	0x0
27274	chr2	150805592	150806707	-	Ninl	0x0
27275	chr2	151332485	151333626	+	Nsfl1c	0x0
27276	chr2	151337762	151338855	+	Nsfl1c	0x0
27277	chr2	151386188	151387894	+	Fkbp1a	0x0
27278	chr2	151541164	151542258	-	Psmf1	0x0
27279	chr2	151542818	151544616	-	Psmf1	0x0
27280	chr2	151834933	151836065	+	Slc52a3	0x0
27281	chr2	151934641	151936242	+	Srxn1	0x0
27282	chr2	151936319	151937481	+	Srxn1	0x0
27283	chr2	151972241	151973453	+	Tcf15	0x0
27284	chr2	152053952	152055127	+	Csnk2a1	0x0
27285	chr2	152060276	152061431	+	Csnk2a1	0x0
27286	chr2	152104841	152105923	+	Csnk2a1	0x0
27287	chr2	152106180	152108049	+	Csnk2a1	0x0
27288	chr2	152137069	152139055	+	Tbc1d20	0x0
27289	chr2	152141536	152142965	-	Rbck1	0x0
27290	chr2	152162891	152164076	-	Trib3	0x0
27291	chr2	152179090	152180442	+	Gm14164	0x0
27292	chr2	152220113	152223059	-	Sox12	0x0
27293	chr2	152237832	152239375	-	Zcchc3	0x0
27294	chr2	152593059	152594258	-	Bcl2l1	0x0
27295	chr2	152606330	152607953	-	Bcl2l1	0x0
27296	chr2	152689813	152691010	+	Tpx2	0x0
27297	chr2	152719121	152721567	+	Tpx2	0x0
27298	chr2	153015717	153016881	+	Tm9sf4	0x0
27299	chr2	153034009	153035232	+	Tm9sf4	0x0
27300	chr2	153035447	153036553	+	Tm9sf4	0x0
27301	chr2	153092084	153094058	+	Pofut1	0x0
27302	chr2	153156994	153158802	+	Kif3b	0x0
27303	chr2	153182249	153183425	+	Asxl1	0x1
27304	chr2	153204132	153205327	+	Asxl1	0x1
27305	chr2	153206161	153207292	+	Asxl1	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27306	chr2	153222610	153223813	+	Asxl1	0x1
27307	chr2	153226503	153230153	+	Asxl1	0x1
27308	chr2	153234270	153236800	-	8430427H17Rik	0x0
27309	chr2	153344105	153345280	-	8430427H17Rik	0x0
27310	chr2	153349213	153351048	-	8430427H17Rik	0x0
27311	chr2	153512090	153513845	+	Dnmt3b	0x0
27312	chr2	153592609	153595958	+	Mapre1	0x0
27313	chr2	153596951	153598053	+	Mapre1	0x0
27314	chr2	153598277	153599376	+	Mapre1	0x0
27315	chr2	153651482	153653288	+	Efcab8	0x0
27316	chr2	154187581	154188767	-	Cdk5rap1	0x0
27317	chr2	154270972	154272101	+	Cbfa2t2	0x0
27318	chr2	154277350	154278539	+	Cbfa2t2	0x0
27319	chr2	154279771	154280969	+	Cbfa2t2	0x0
27320	chr2	154361226	154363501	+	Cbfa2t2	0x0
27321	chr2	154363836	154364941	+	Cbfa2t2	0x0
27322	chr2	154384890	154390500	-	E2f1	0x1
27323	chr2	154471664	154472846	+	Zfp341	0x0
27324	chr2	154519538	154520971	+	Chmp4b	0x0
27325	chr2	154529076	154530178	+	Chmp4b	0x0
27326	chr2	154623499	154624619	+	Raly	0x0
27327	chr2	154633922	154635021	+	Raly	0x0
27328	chr2	154667513	154668709	+	Raly	0x0
27329	chr2	154682611	154683729	+	Raly	0x0
27330	chr2	154696697	154698637	-	Eif2s2	0x0
27331	chr2	154702880	154704069	-	Eif2s2	0x0
27332	chr2	154891083	154892310	-	Ahcy	0x0
27333	chr2	154894179	154895355	-	Ahcy	0x0
27334	chr2	155024222	155025417	+	Itch	0x2
27335	chr2	155049796	155052447	+	Itch	0x2
27336	chr2	155212052	155216076	+	Trp53inp2	0x0
27337	chr2	155230943	155232119	-	Ncoa6	0x2
27338	chr2	155454778	155455967	+	Myh7b	0x0
27339	chr2	155462967	155464163	-	Trpc4ap	0x0
27340	chr2	155467849	155469027	-	Trpc4ap	0x0
27341	chr2	155481103	155482202	-	Trpc4ap	0x0
27342	chr2	155487010	155488196	-	Trpc4ap	0x0
27343	chr2	155645097	155646256	-	Eif6	0x0
27344	chr2	155651290	155652503	-	Eif6	0x0
27345	chr2	155712395	155713562	-	Uqcc	0x0
27346	chr2	155817598	155818804	+	Cep250	0x0
27347	chr2	155821073	155822257	+	Cep250	0x0
27348	chr2	155823955	155825075	+	Cep250	0x0
27349	chr2	155834047	155835214	+	Ergic3	0x0
27350	chr2	155897551	155899696	-	Cpne1	0x0
27351	chr2	155918915	155920042	-	Rbm12	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27352	chr2	155920146	155921569	-	Rbm12	0x0
27353	chr2	155922133	155923618	-	Rbm12	0x0
27354	chr2	155949081	155950309	-	Nfs1	0x0
27355	chr2	155972566	155974129	-	Rbm39	0x0
27356	chr2	155984262	155985453	-	Rbm39	0x0
27357	chr2	155992508	155993671	-	Rbm39	0x0
27358	chr2	156058818	156059968	+	Phf20	0x0
27359	chr2	156133855	156135999	+	Phf20	0x0
27360	chr2	156137484	156138681	-	Scand1	0x0
27361	chr2	156213769	156216696	-	2900097C17Rik	0x0
27362	chr2	156270715	156272092	+	Epb4.1l1	0x0
27363	chr2	156280585	156281732	+	Epb4.1l1	0x0
27364	chr2	156283800	156284963	+	Epb4.1l1	0x0
27365	chr2	156305598	156306749	+	Epb4.1l1	0x0
27366	chr2	156311013	156312162	+	Epb4.1l1	0x0
27367	chr2	156337704	156338868	+	Epb4.1l1	0x0
27368	chr2	156365367	156366715	+	Epb4.1l1	0x0
27369	chr2	156367110	156368960	+	Epb4.1l1	0x0
27370	chr2	156392639	156393960	+	Aar2	0x0
27371	chr2	156434579	156435724	-	Gm14169	0x0
27372	chr2	156529772	156530871	+	Dlgap4	0x0
27373	chr2	156565551	156566683	+	Dlgap4	0x0
27374	chr2	156574209	156575347	+	Dlgap4	0x0
27375	chr2	156588720	156590482	+	Dlgap4	0x0
27376	chr2	156631712	156632878	-	5430405H02Rik	0x0
27377	chr2	156652366	156653567	-	5430405H02Rik	0x0
27378	chr2	156679809	156681709	+	Tgif2	0x0
27379	chr2	156698422	156699819	+	1110008F13Rik	0x0
27380	chr2	156753311	156754679	-	Ndrg3	0x0
27381	chr2	156819533	156820697	-	Dsn1	0x0
27382	chr2	156821036	156822218	-	Dsn1	0x0
27383	chr2	156838322	156839573	-	9830001H06Rik	0x0
27384	chr2	156862458	156863634	-	9830001H06Rik	0x0
27385	chr2	156875775	156876876	-	9830001H06Rik	0x0
27386	chr2	156883509	156884656	-	9830001H06Rik	0x0
27387	chr2	156894747	156895950	-	9830001H06Rik	0x0
27388	chr2	156922887	156924983	-	Samhd1	0x0
27389	chr2	157108828	157110009	+	Rpn2	0x0
27390	chr2	157115794	157117013	+	Rpn2	0x0
27391	chr2	157120455	157121610	+	Rpn2	0x0
27392	chr2	157137716	157138909	+	Rpn2	0x0
27393	chr2	157139933	157141130	+	Rpn2	0x0
27394	chr2	157150890	157152327	+	Rpn2	0x0
27395	chr2	157221580	157223063	+	Manbal	0x0
27396	chr2	157232400	157233548	-	Ghrh	0x0
27397	chr2	157253217	157254381	+	Src	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27398	chr2	157294337	157295473	+	Src	0x0
27399	chr2	157296044	157298044	+	Src	0x0
27400	chr2	157353770	157354993	-	Blcap	0x5
27401	chr2	157384636	157385853	-	Blcap	0x5
27402	chr2	157388540	157389715	-	Blcap	0x5
27403	chr2	157411804	157412949	+	Nnat	0x4
27404	chr2	157693571	157694711	+	Ctnnbl1	0x0
27405	chr2	157818665	157819881	-	Tti1	0x0
27406	chr2	157834367	157835495	-	Tti1	0x0
27407	chr2	157868607	157869803	+	Rprd1b	0x0
27408	chr2	157900808	157902469	+	Rprd1b	0x0
27409	chr2	157902541	157903714	+	Rprd1b	0x0
27410	chr2	157914420	157915580	+	Rprd1b	0x0
27411	chr2	158175794	158176992	-	9430008C03Rik	0x0
27412	chr2	158183564	158184761	-	9430008C03Rik	0x0
27413	chr2	158206933	158208074	+	Snhg11	0x0
27414	chr2	158209552	158210652	+	Snhg11	0x0
27415	chr2	158210654	158211831	+	Snhg11	0x0
27416	chr2	158266082	158267193	+	Ralgapb	0x0
27417	chr2	158321205	158324301	+	Ralgapb	0x0
27418	chr2	158588827	158590195	+	Ppp1r16b	0x0
27419	chr2	158645537	158646747	+	Dhx35	0x0
27420	chr2	160481087	160482293	+	Top1	0x2
27421	chr2	160491464	160492612	+	Top1	0x2
27422	chr2	160499871	160501020	+	Top1	0x2
27423	chr2	160527763	160528909	+	Top1	0x2
27424	chr2	160537869	160539049	+	Top1	0x2
27425	chr2	160546741	160548186	+	Top1	0x2
27426	chr2	160582185	160583314	+	Plcg1	0x0
27427	chr2	160588163	160589320	+	Plcg1	0x0
27428	chr2	160772497	160775450	-	Chd6	0x2
27429	chr2	160877911	160879020	-	Chd6	0x2
27430	chr2	161590369	161591532	+	C330008G21Rik	0x0
27431	chr2	162461215	162462351	-	Ptprt	0x2
27432	chr2	162759458	162760606	+	Srsf6	0x2
27433	chr2	162760682	162763393	+	Srsf6	0x2
27434	chr2	162861738	162862972	+	Ift52	0x0
27435	chr2	162870905	162872305	+	Ift52	0x0
27436	chr2	162873910	162875106	+	Ift52	0x0
27437	chr2	162880864	162882396	+	Mybl2	0x0
27438	chr2	162886777	162888814	+	Mybl2	0x0
27439	chr2	162889596	162890783	+	Mybl2	0x0
27440	chr2	162893367	162894605	+	Mybl2	0x0
27441	chr2	162898042	162899238	+	Mybl2	0x0
27442	chr2	162899618	162900758	+	Mybl2	0x0
27443	chr2	162907629	162910664	+	Mybl2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27444	chr2	163448651	163451669	-	Serinc3	0x0
27445	chr2	163686572	163688638	-	Rims4	0x0
27446	chr2	163835073	163836172	+	Ywhab	0x2
27447	chr2	163842210	163844612	+	Ywhab	0x2
27448	chr2	163878934	163880346	-	Tomm34	0x0
27449	chr2	163919947	163921166	+	Stk4	0x0
27450	chr2	163945601	163946782	+	Stk4	0x0
27451	chr2	163977513	163981625	+	Stk4	0x0
27452	chr2	164130356	164133103	+	Svs6	0x0
27453	chr2	164249604	164251939	-	Sdc4	0x0
27454	chr2	164289703	164291199	+	Sys1	0x0
27455	chr2	164325190	164326292	+	Pigt	0x0
27456	chr2	164333009	164334225	+	Pigt	0x0
27457	chr2	164393287	164394533	+	Wfdc2	0x0
27458	chr2	164591049	164592287	-	Tnnc2	0x0
27459	chr2	164597658	164598929	+	Ube2c	0x0
27460	chr2	164651240	164652844	+	Zswim1	0x0
27461	chr2	164659232	164660968	+	Ctsa	0x0
27462	chr2	164664211	164665561	+	Ctsa	0x0
27463	chr2	164664542	164665743	-	Pltp	0x0
27464	chr2	164681608	164682800	-	Pltp	0x0
27465	chr2	164716643	164717798	-	Zfp335	0x0
27466	chr2	164716696	164719173	+	Pcif1	0x0
27467	chr2	164825622	164827059	-	Ncoa5	0x0
27468	chr2	165123871	165125093	-	Elmo2	0x0
27469	chr2	165132937	165134155	-	Elmo2	0x0
27470	chr2	165317273	165318410	-	2810408M09Rik	0x0
27471	chr2	165610366	165611490	-	Zmynd8	0x0
27472	chr2	165645455	165646642	+	Eya2	0x0
27473	chr2	165652198	165653399	-	Zmynd8	0x0
27474	chr2	165668415	165669732	-	Zmynd8	0x0
27475	chr2	165828966	165830090	+	Ncoa3	0x2
27476	chr2	165841404	165842616	+	Ncoa3	0x2
27477	chr2	165895511	165896949	+	Ncoa3	0x2
27478	chr2	165897693	165899252	+	Ncoa3	0x2
27479	chr2	165898940	165900706	-	Sulf2	0x2
27480	chr2	165906582	165907781	-	Sulf2	0x2
27481	chr2	165919469	165920655	-	Sulf2	0x2
27482	chr2	165921682	165922830	-	Sulf2	0x2
27483	chr2	166240252	166241404	-	Prex1	0x0
27484	chr2	166408176	166409370	-	Prex1	0x0
27485	chr2	166421244	166422418	-	Prex1	0x0
27486	chr2	166480087	166481207	-	Prex1	0x0
27487	chr2	166501293	166502497	-	Prex1	0x0
27488	chr2	166528345	166529495	-	Prex1	0x0
27489	chr2	166634283	166635385	+	Arfgef2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27490	chr2	166649734	166650883	+	Arfgef2	0x2
27491	chr2	166675121	166676907	+	Arfgef2	0x2
27492	chr2	166718469	166719665	+	Arfgef2	0x2
27493	chr2	166719952	166723565	+	Arfgef2	0x2
27494	chr2	166731068	166732245	+	Cse1l	0x0
27495	chr2	166767854	166769071	-	Stau1	0x0
27496	chr2	166770780	166772564	+	Cse1l	0x0
27497	chr2	166811411	166812615	-	Stau1	0x0
27498	chr2	166821066	166822189	-	Stau1	0x0
27499	chr2	166844885	166846040	+	Ddx27	0x0
27500	chr2	166850795	166851894	+	Ddx27	0x0
27501	chr2	166853190	166854368	+	Ddx27	0x0
27502	chr2	166868311	166869508	-	Znfx1	0x0
27503	chr2	166890215	166891446	+	1500012F01Rik	0x0
27504	chr2	166890215	166891446	+	Snord12	0x0
27505	chr2	166901634	166902845	-	Znfx1	0x0
27506	chr2	166928606	166929752	-	Kcnb1	0x0
27507	chr2	167123676	167125147	-	B4galt5	0x0
27508	chr2	167125374	167127202	-	B4galt5	0x0
27509	chr2	167140282	167141479	-	B4galt5	0x0
27510	chr2	167169385	167170554	-	B4galt5	0x0
27511	chr2	167266503	167267666	+	Slc9a8	0x0
27512	chr2	167269469	167270663	+	Slc9a8	0x0
27513	chr2	167301689	167302901	+	Slc9a8	0x0
27514	chr2	167306796	167308003	-	Spata2	0x0
27515	chr2	167340333	167342013	+	Rnf114	0x0
27516	chr2	167413656	167414855	-	Ube2v1	0x0
27517	chr2	167467587	167469891	-	Tmem189	0x0
27518	chr2	167486185	167487395	-	Tmem189	0x0
27519	chr2	167758863	167760065	+	Ptpn1	0x0
27520	chr2	167786284	167787437	+	Ptpn1	0x0
27521	chr2	167801802	167803025	+	Ptpn1	0x0
27522	chr2	167803214	167804354	+	Ptpn1	0x0
27523	chr2	167925264	167926961	+	Pard6b	0x0
27524	chr2	168006109	168008176	-	Adnp	0x0
27525	chr2	168009504	168010674	-	Adnp	0x0
27526	chr2	168015252	168016378	-	Adnp	0x0
27527	chr2	168024099	168025271	-	Adnp	0x0
27528	chr2	168029893	168031118	-	Adnp	0x0
27529	chr2	168041274	168042463	-	Dpm1	0x0
27530	chr2	168305088	168306285	-	Nfatc2	0x0
27531	chr2	168492671	168493902	-	Atp9a	0x0
27532	chr2	168552851	168554052	-	Atp9a	0x0
27533	chr2	168573376	168575611	-	Sall4	0x0
27534	chr2	168581258	168582452	-	Sall4	0x0
27535	chr2	168780114	168781282	-	Zfp64	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27536	chr2	168843884	168845036	+	1700017J07Rik	0x0
27537	chr2	168848494	168849686	+	1700017J07Rik	0x0
27538	chr2	168891766	168892914	+	1700017J07Rik	0x0
27539	chr2	169934735	169936305	-	Zfp217	0x2
27540	chr2	170288613	170289786	-	Cyp24a1	0x0
27541	chr2	170779506	170780730	-	4930470P17Rik	0x0
27542	chr2	172178528	172179790	+	Fam210b	0x0
27543	chr2	172181297	172182818	-	Aurka	0x2
27544	chr2	172195376	172196513	-	Aurka	0x2
27545	chr2	172334386	172335664	-	Gcnt7	0x0
27546	chr2	172376457	172377672	+	Tfap2c	0x0
27547	chr2	172383375	172384660	+	Tfap2c	0x0
27548	chr2	172429179	172430371	+	Tfap2c	0x0
27549	chr2	172431849	172433062	+	Tfap2c	0x0
27550	chr2	172839143	172840342	+	Rae1	0x0
27551	chr2	172840518	172841673	+	Rae1	0x0
27552	chr2	172859088	172860367	+	Rbm38	0x0
27553	chr2	173051874	173053255	-	Pmepa1	0x0
27554	chr2	173077349	173078566	-	Pmepa1	0x0
27555	chr2	173410353	173411549	-	Ppp4r1l-ps	0x0
27556	chr2	173419296	173420478	-	Ppp4r1l-ps	0x0
27557	chr2	173438004	173439199	-	Ppp4r1l-ps	0x0
27558	chr2	173520257	173521391	+	Rab22a	0x0
27559	chr2	173603424	173605344	+	Vapb	0x0
27560	chr2	173606760	173607915	+	Vapb	0x0
27561	chr2	173915247	173916440	+	Stx16	0x0
27562	chr2	173923203	173925557	+	Stx16	0x0
27563	chr2	173947377	173948569	+	Npepl1	0x0
27564	chr2	174103018	174104117	-	Nespas	0x0
27565	chr2	174110178	174111283	-	Nespas	0x0
27566	chr2	174155313	174156516	+	Gnas	0x6
27567	chr2	174166565	174167799	+	Gnas	0x6
27568	chr2	174168181	174169367	+	Gnas	0x6
27569	chr2	174170051	174172549	+	Gnas	0x6
27570	chr2	174252633	174253831	-	Ctsz	0x0
27571	chr2	174290433	174291888	-	Slmo2	0x0
27572	chr2	174787498	174789900	+	Edn3	0x0
27573	chr2	174844634	174845815	+	Edn3	0x0
27574	chr2	176597012	176598199	+	0610010B08Rik	0x0
27575	chr2	176877809	176878966	+	0610010B08Rik	0x0
27576	chr2	177047844	177048978	-	Gm14405	0x0
27577	chr2	177110786	177111962	-	Gm14405	0x0
27578	chr2	177112534	177113668	-	Gm14405	0x0
27579	chr2	177265678	177266851	+	Gm14420	0x0
27580	chr2	177295099	177296209	+	Gm14403	0x0
27581	chr2	177296237	177297371	+	Gm14403	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27582	chr2	177304134	177305571	+	Gm14403	0x0
27583	chr2	177307970	177309191	-	Gm14325	0x0
27584	chr2	177336295	177337475	-	Gm14325	0x0
27585	chr2	177352876	177354091	-	Gm14325	0x0
27586	chr2	177563275	177565117	-	Gm14325	0x0
27587	chr2	177567076	177568798	-	Gm14325	0x0
27588	chr2	177677650	177678829	-	Gm14326	0x0
27589	chr2	177769700	177771800	+	Etohi1	0x0
27590	chr2	177772012	177773147	+	Etohi1	0x0
27591	chr2	178154868	178156055	+	Fam217b	0x0
27592	chr2	178158108	178159289	+	Fam217b	0x0
27593	chr2	179150923	179152121	+	4930591A17Rik	0x0
27594	chr2	179183945	179185126	+	Cdh4	0x1
27595	chr2	179202803	179204030	+	Cdh4	0x1
27596	chr2	179231917	179233037	+	Cdh4	0x1
27597	chr2	179245309	179246549	+	Cdh4	0x1
27598	chr2	179273773	179274924	+	Cdh4	0x1
27599	chr2	179296969	179298120	+	Cdh4	0x1
27600	chr2	179298344	179299443	+	Cdh4	0x1
27601	chr2	179336325	179337491	+	Cdh4	0x1
27602	chr2	179353107	179354300	+	Cdh4	0x1
27603	chr2	179397522	179398673	+	Cdh4	0x1
27604	chr2	179409311	179410475	+	Cdh4	0x1
27605	chr2	179413292	179414392	+	Cdh4	0x1
27606	chr2	179432704	179433848	+	Cdh4	0x1
27607	chr2	179450420	179451555	+	Cdh4	0x1
27608	chr2	179461428	179462561	+	Cdh4	0x1
27609	chr2	179475506	179476632	+	Cdh4	0x1
27610	chr2	179629875	179631023	+	Cdh4	0x1
27611	chr2	179632641	179633803	+	Cdh4	0x1
27612	chr2	179646528	179648698	-	Taf4a	0x0
27613	chr2	179658189	179659795	-	Taf4a	0x0
27614	chr2	179660432	179661558	-	Taf4a	0x0
27615	chr2	179663741	179664915	-	Taf4a	0x0
27616	chr2	179769061	179770721	+	Lsm14b	0x0
27617	chr2	179772224	179773406	-	Psma7	0x0
27618	chr2	179804008	179805240	+	Ss18l1	0x0
27619	chr2	179819978	179821179	+	Gtpbp5	0x0
27620	chr2	179896064	179897677	+	Osbpl2	0x0
27621	chr2	179902656	179903818	+	Adrm1	0x0
27622	chr2	179914518	179915571	-	Lama5	0x0
27623	chr2	179915724	179916888	-	Lama5	0x0
27624	chr2	179918495	179919726	-	Lama5	0x0
27625	chr2	179924773	179925959	-	Lama5	0x0
27626	chr2	179926234	179927348	-	Lama5	0x0
27627	chr2	179937649	179938748	-	Lama5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27628	chr2	179948816	179950037	-	Lama5	0x0
27629	chr2	179989633	179991886	-	Cables2	0x1
27630	chr2	179991736	179992971	+	Mir3091	0x0
27631	chr2	179991736	179992971	+	Rps21	0x0
27632	chr2	179993481	179994614	-	Cables2	0x1
27633	chr2	180206223	180207419	+	Slco4a1	0x0
27634	chr2	180323643	180324842	+	Ogfr	0x0
27635	chr2	180356684	180358001	-	Tcfl5	0x0
27636	chr2	180392548	180394231	-	Dido1	0x1
27637	chr2	180405560	180406758	-	Dido1	0x1
27638	chr2	180423483	180424710	-	Dido1	0x1
27639	chr2	180440151	180441337	-	Dido1	0x1
27640	chr2	180452771	180453959	+	Gid8	0x0
27641	chr2	180454847	180456292	+	Gid8	0x0
27642	chr2	180457535	180458722	-	Dido1	0x1
27643	chr2	180466037	180467175	+	Slc17a9	0x0
27644	chr2	180475852	180477123	+	Slc17a9	0x0
27645	chr2	180638517	180640807	-	Ythdf1	0x0
27646	chr2	180716518	180717802	+	Arfgap1	0x0
27647	chr2	180784307	180785501	-	Chrna4	0x0
27648	chr2	180812174	180813336	-	Kcnq2	0x0
27649	chr2	180815743	180816965	-	Kcnq2	0x0
27650	chr2	180824691	180825859	-	Kcnq2	0x0
27651	chr2	180924359	180925580	+	Ppdpf	0x0
27652	chr2	180986161	180987572	-	Gmeb2	0x0
27653	chr2	180993217	180994390	-	Gmeb2	0x0
27654	chr2	181012187	181013421	-	Gmeb2	0x0
27655	chr2	181090246	181091869	+	Rtel1	0x0
27656	chr2	181250348	181252769	+	Tpd52l2	0x0
27657	chr2	181283950	181285309	+	Dnajc5	0x0
27658	chr2	181285483	181287929	+	Dnajc5	0x0
27659	chr2	181317376	181319936	-	Znf512b	0x0
27660	chr2	181325556	181326753	-	Znf512b	0x0
27661	chr2	181417078	181418183	+	Tcea2	0x0
27662	chr2	181603510	181604843	+	Polr3k	0x0
27663	chr3	3345870	3346969	+	Hnf4g	0x0
27664	chr3	3791691	3792910	+	Hnf4g	0x0
27665	chr3	4338433	4339708	+	1110015O18Rik	0x0
27666	chr3	4890476	4891726	-	2700069I18Rik	0x0
27667	chr3	7553041	7554211	+	Zc2hc1a	0x0
27668	chr3	8213905	8215023	+	Stmn2	0x0
27669	chr3	8560204	8561964	+	Stmn2	0x0
27670	chr3	8880236	8881439	-	Mrps28	0x0
27671	chr3	8928273	8931066	-	Tpd52	0x0
27672	chr3	8953143	8954363	-	Tpd52	0x0
27673	chr3	8972288	8973483	-	Tpd52	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27674	chr3	9279062	9280205	+	Zbtb10	0x0
27675	chr3	9281307	9282418	+	Zbtb10	0x0
27676	chr3	9282590	9283751	+	Zbtb10	0x0
27677	chr3	9284725	9285798	+	Zbtb10	0x0
27678	chr3	9426680	9430341	-	Zfp704	0x0
27679	chr3	9430648	9431841	-	Zfp704	0x0
27680	chr3	9434359	9436363	-	Zfp704	0x0
27681	chr3	9464990	9466233	-	Zfp704	0x0
27682	chr3	9500335	9501575	-	Zfp704	0x0
27683	chr3	9513665	9514797	-	Zfp704	0x0
27684	chr3	9541739	9543069	-	Zfp704	0x0
27685	chr3	9551278	9553034	-	Zfp704	0x0
27686	chr3	9558460	9559607	-	Zfp704	0x0
27687	chr3	9560080	9561368	-	Zfp704	0x0
27688	chr3	9564578	9565750	-	Zfp704	0x0
27689	chr3	9567683	9568793	-	Zfp704	0x0
27690	chr3	9592273	9593430	-	Zfp704	0x0
27691	chr3	10088586	10089777	+	Gm9833	0x0
27692	chr3	10313589	10315312	-	Impa1	0x0
27693	chr3	10391220	10393554	+	Chmp4c	0x0
27694	chr3	10394044	10395206	+	Chmp4c	0x0
27695	chr3	11552305	11553644	+	Chmp4c	0x0
27696	chr3	12855552	12856759	+	Ralyl	0x0
27697	chr3	12964048	12965206	-	4930539N22Rik	0x0
27698	chr3	13443306	13444478	+	Ralyl	0x0
27699	chr3	14598855	14599980	+	E2f5	0x0
27700	chr3	14603142	14604342	+	E2f5	0x0
27701	chr3	14661310	14663232	+	Car13	0x0
27702	chr3	14897439	14898582	+	Car2	0x0
27703	chr3	15045954	15047166	+	A930001A20Rik	0x0
27704	chr3	15955895	15957682	+	Ythdf3	0x0
27705	chr3	16096371	16098393	+	Ythdf3	0x0
27706	chr3	16101848	16102937	+	Ythdf3	0x0
27707	chr3	16104592	16105747	+	Ythdf3	0x0
27708	chr3	16113768	16114867	+	Ythdf3	0x0
27709	chr3	16115182	16116857	+	Ythdf3	0x0
27710	chr3	17908347	17909562	+	Bhlhe22	0x0
27711	chr3	18051637	18052934	-	Cyp7b1	0x0
27712	chr3	18076865	18078151	-	Cyp7b1	0x0
27713	chr3	19031651	19033908	-	Armc1	0x0
27714	chr3	19118627	19121137	+	Mtfr1	0x0
27715	chr3	19124427	19125567	-	Pde7a	0x0
27716	chr3	19125569	19130500	-	Pde7a	0x0
27717	chr3	19169867	19171045	-	Pde7a	0x0
27718	chr3	19459728	19460964	+	Dnajc5b	0x0
27719	chr3	19527418	19528607	-	Crh	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27720	chr3	19528274	19529434	+	Trim55	0x2
27721	chr3	19902843	19904003	-	Hps3	0x0
27722	chr3	19922456	19923554	-	Hps3	0x0
27723	chr3	19928689	19929872	-	Hps3	0x0
27724	chr3	20016252	20018539	+	Hltf	0x1
27725	chr3	20373189	20374404	-	Agtr1b	0x0
27726	chr3	20948382	20949537	+	Hltf	0x1
27727	chr3	20952663	20953789	+	Hltf	0x1
27728	chr3	21606629	21607842	+	Tbl1xr1	0x2
27729	chr3	21609534	21610762	+	Tbl1xr1	0x2
27730	chr3	21980507	21981666	+	Tbl1xr1	0x2
27731	chr3	22002634	22003741	+	Tbl1xr1	0x2
27732	chr3	22109569	22110661	+	Tbl1xr1	0x2
27733	chr3	22110734	22114150	+	Tbl1xr1	0x2
27734	chr3	22605320	22606508	+	Rprl2	0x0
27735	chr3	23174317	23175857	+	Rprl2	0x0
27736	chr3	24231710	24232817	+	Rprl2	0x0
27737	chr3	25056328	25057540	+	Spata16	0x0
27738	chr3	25630338	25631885	+	Spata16	0x0
27739	chr3	25797975	25799136	-	Nlgn1	0x2
27740	chr3	26912878	26913980	+	Spata16	0x0
27741	chr3	26983933	26985126	-	Ect2	0x0
27742	chr3	26995455	26997913	-	Ect2	0x0
27743	chr3	27000745	27001964	-	Ect2	0x0
27744	chr3	27020408	27021546	-	Ect2	0x0
27745	chr3	27036940	27038127	-	Ect2	0x0
27746	chr3	27124774	27125893	+	Nceh1	0x0
27747	chr3	27142480	27143843	+	Nceh1	0x0
27748	chr3	27315634	27316770	-	Fndc3b	0x0
27749	chr3	27456261	27457415	-	Fndc3b	0x0
27750	chr3	27482544	27483734	-	Mir3092	0x0
27751	chr3	27513732	27514876	-	Fndc3b	0x0
27752	chr3	27594136	27595313	-	Fndc3b	0x0
27753	chr3	28161757	28162953	+	Tnik	0x0
27754	chr3	28200517	28201698	+	Tnik	0x0
27755	chr3	28627129	28628267	-	Tmem212	0x0
27756	chr3	28693857	28695224	+	Eif5a2	0x2
27757	chr3	28705166	28706855	+	Rpl22l1	0x0
27758	chr3	29607101	29608265	+	Egfem1	0x0
27759	chr3	30142839	30144016	-	Mecom	0x0
27760	chr3	30575402	30576653	-	Lrrc34	0x0
27761	chr3	30576695	30577795	-	Lrrc34	0x0
27762	chr3	30594735	30595947	-	Lrrc34	0x0
27763	chr3	30708189	30709390	+	Sec62	0x0
27764	chr3	30717245	30719470	+	Sec62	0x0
27765	chr3	30798768	30799940	-	Phc3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27766	chr3	30801948	30803060	-	Phc3	0x0
27767	chr3	30839525	30840666	-	Phc3	0x0
27768	chr3	30948796	30952052	+	Prkci	0x1
27769	chr3	30994291	30995481	+	Skil	0x0
27770	chr3	30996048	30997204	+	Skil	0x0
27771	chr3	31017232	31022024	+	Skil	0x0
27772	chr3	31901740	31902930	+	Kcnmb2	0x0
27773	chr3	32049893	32051083	-	Zmat3	0x0
27774	chr3	32233328	32236525	-	Zmat3	0x0
27775	chr3	32236795	32237828	-	Zmat3	0x0
27776	chr3	32239037	32240092	-	Zmat3	0x0
27777	chr3	32259280	32260424	-	Zmat3	0x0
27778	chr3	32335586	32337513	+	Pik3ca	0x2
27779	chr3	32341162	32342283	+	Pik3ca	0x2
27780	chr3	32353718	32354836	+	Pik3ca	0x2
27781	chr3	32361711	32362863	+	Pik3ca	0x2
27782	chr3	32454884	32456069	+	Mfn1	0x0
27783	chr3	32624985	32626158	+	Actl6a	0x0
27784	chr3	32646839	32647977	+	Ndufb5	0x0
27785	chr3	32649526	32650758	+	Ndufb5	0x0
27786	chr3	32831737	32832841	+	Usp13	0x0
27787	chr3	32835241	32836405	+	Usp13	0x0
27788	chr3	33927179	33928328	+	Fxr1	0x0
27789	chr3	33935918	33937024	+	Fxr1	0x0
27790	chr3	33947572	33948761	+	Fxr1	0x0
27791	chr3	33950958	33952103	+	Fxr1	0x0
27792	chr3	33962570	33963737	+	Fxr1	0x0
27793	chr3	33968015	33969325	+	Fxr1	0x0
27794	chr3	33969523	33970674	+	Fxr1	0x0
27795	chr3	34549331	34551780	+	Sox2	0x2
27796	chr3	34665751	34667907	+	Sox2ot	0x0
27797	chr3	34674440	34675615	+	Sox2ot	0x0
27798	chr3	35435890	35437065	-	Gm6639	0x0
27799	chr3	35745640	35746932	+	Atp11b	0x0
27800	chr3	35747933	35749082	+	Atp11b	0x0
27801	chr3	35753924	35755733	+	Atp11b	0x0
27802	chr3	35791698	35794041	-	Dcun1d1	0x0
27803	chr3	35966344	35967505	+	Acad9	0x0
27804	chr3	36065504	36066676	+	D3Ertd254e	0x0
27805	chr3	36463321	36464928	-	Ccna2	0x0
27806	chr3	36793709	36794887	+	4932438A13Rik	0x0
27807	chr3	36806518	36807630	+	4932438A13Rik	0x0
27808	chr3	36857850	36858948	+	4932438A13Rik	0x0
27809	chr3	36872600	36873802	+	4932438A13Rik	0x0
27810	chr3	36885560	36886708	+	4932438A13Rik	0x0
27811	chr3	36905542	36906633	+	4932438A13Rik	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27812	chr3	36906805	36907948	+	4932438A13Rik	0x0
27813	chr3	36909936	36911301	+	4932438A13Rik	0x0
27814	chr3	36926450	36927613	+	4932438A13Rik	0x0
27815	chr3	36949145	36950297	+	4932438A13Rik	0x0
27816	chr3	36950834	36951959	+	4932438A13Rik	0x0
27817	chr3	37006937	37008155	+	Adad1	0x0
27818	chr3	37230262	37231421	+	Bbs12	0x0
27819	chr3	37430487	37431616	+	Spata5	0x0
27820	chr3	37538796	37539967	+	Spry1	0x0
27821	chr3	38352045	38353195	-	Ankrd50	0x0
27822	chr3	38354919	38356062	-	Ankrd50	0x0
27823	chr3	39534301	39535536	-	1700017G19Rik	0x0
27824	chr3	39719027	39720171	-	1700017G19Rik	0x0
27825	chr3	40503059	40504231	+	Intu	0x0
27826	chr3	40505812	40506917	+	Intu	0x0
27827	chr3	40597328	40598507	+	Hspa4l	0x0
27828	chr3	40612970	40614118	+	Plk4	0x0
27829	chr3	40626040	40627254	-	Mfsd8	0x0
27830	chr3	40782255	40783403	+	Larp1b	0x0
27831	chr3	40870118	40872514	-	Pgrmc2	0x0
27832	chr3	41227317	41228469	-	C430002E04Rik	0x0
27833	chr3	41230010	41231164	-	C430002E04Rik	0x0
27834	chr3	41307057	41308206	+	Phf17	0x0
27835	chr3	41313048	41314227	-	C430002E04Rik	0x0
27836	chr3	41359136	41361072	+	Phf17	0x0
27837	chr3	41382607	41383758	+	Phf17	0x0
27838	chr3	41395109	41396266	+	Phf17	0x0
27839	chr3	41397229	41398448	+	Phf17	0x0
27840	chr3	41400041	41401283	+	Phf17	0x0
27841	chr3	41417795	41420368	+	Phf17	0x0
27842	chr3	41779617	41780758	-	Sclt1	0x0
27843	chr3	43567147	43568296	-	2610316D01Rik	0x0
27844	chr3	45149505	45150604	+	Pcdh10	0x1
27845	chr3	46246853	46248051	-	Pabpc4l	0x0
27846	chr3	46663558	46664712	-	Pabpc4l	0x0
27847	chr3	47829478	47830623	-	Gm7977	0x0
27848	chr3	48758169	48759338	+	Ccrn4l	0x0
27849	chr3	48945686	48946838	+	Ccrn4l	0x0
27850	chr3	49180887	49182112	-	Pcdh18	0x2
27851	chr3	49184954	49186131	-	Pcdh18	0x2
27852	chr3	51053658	51055836	+	Ccrn4l	0x0
27853	chr3	51058828	51060078	-	Elf2	0x0
27854	chr3	51111396	51112625	-	Elf2	0x0
27855	chr3	51126603	51127939	-	Elf2	0x0
27856	chr3	51221876	51223025	+	Naa15	0x0
27857	chr3	51241725	51242899	+	Naa15	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27858	chr3	51246153	51247269	+	Naa15	0x0
27859	chr3	51251748	51252934	+	Naa15	0x0
27860	chr3	51276584	51278163	+	Naa15	0x0
27861	chr3	51278235	51279726	+	Naa15	0x0
27862	chr3	51321324	51324412	-	Setd7	0x0
27863	chr3	51324589	51325642	-	Setd7	0x0
27864	chr3	51715268	51716447	-	Maml3	0x0
27865	chr3	52075857	52076963	+	Foxo1	0x1
27866	chr3	52141161	52142360	+	Foxo1	0x1
27867	chr3	52150822	52152874	+	Foxo1	0x1
27868	chr3	52153037	52154139	+	Foxo1	0x1
27869	chr3	52499694	52500869	-	Gm20750	0x0
27870	chr3	52957531	52958663	+	Lhfp	0x0
27871	chr3	53284381	53285512	+	Proser1	0x0
27872	chr3	53351087	53352255	-	Frem2	0x2
27873	chr3	53496020	53497257	-	Frem2	0x2
27874	chr3	54508951	54510087	+	Supt20	0x0
27875	chr3	54549945	54551054	+	Alg5	0x0
27876	chr3	54706255	54707438	-	Sertm1	0x0
27877	chr3	54940157	54941315	+	Spg20	0x0
27878	chr3	55012741	55014204	+	Sohlh2	0x0
27879	chr3	55385572	55386671	-	Nbea	0x0
27880	chr3	55540908	55542126	-	Nbea	0x0
27881	chr3	57166378	57167535	+	Tm4sf4	0x0
27882	chr3	57260453	57263303	-	Wwtr1	0x2
27883	chr3	57444661	57445888	-	Commd2	0x0
27884	chr3	57488723	57489891	+	Rnf13	0x0
27885	chr3	57521256	57522691	-	Gm410	0x0
27886	chr3	57607976	57609075	+	Rnf13	0x0
27887	chr3	57612231	57613401	+	Rnf13	0x0
27888	chr3	57637369	57639575	+	Rnf13	0x0
27889	chr3	57645333	57647054	-	Pfn2	0x0
27890	chr3	58220927	58222027	+	Tsc22d2	0x0
27891	chr3	58325757	58327395	-	Serp1	0x0
27892	chr3	58346205	58347430	+	Eif2a	0x0
27893	chr3	58348772	58349991	+	Eif2a	0x0
27894	chr3	58395157	58397342	+	2810407C02Rik	0x0
27895	chr3	58845652	58846840	+	Med12l	0x2
27896	chr3	58896962	58898130	+	Med12l	0x2
27897	chr3	58911837	58912986	+	Med12l	0x2
27898	chr3	58929304	58930439	+	Med12l	0x2
27899	chr3	58935331	58936538	+	Med12l	0x2
27900	chr3	59119009	59120145	+	Med12l	0x2
27901	chr3	59120767	59122203	+	Med12l	0x2
27902	chr3	59235240	59236824	+	Med12l	0x2
27903	chr3	59571880	59572975	+	Gm5538	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27904	chr3	60417177	60418292	+	Mbnl1	0x0
27905	chr3	60664190	60665510	+	P2ry1	0x0
27906	chr3	60812161	60813373	+	P2ry1	0x0
27907	chr3	61962404	61963832	+	Arhgef26	0x0
27908	chr3	62272045	62274716	-	Dhx36	0x0
27909	chr3	63093347	63094506	+	Mme	0x0
27910	chr3	63148546	63149711	+	Mme	0x0
27911	chr3	63183786	63186535	+	Mme	0x0
27912	chr3	63501145	63502306	-	Plch1	0x0
27913	chr3	63619789	63620977	-	Plch1	0x0
27914	chr3	63717841	63718982	-	E130311K13Rik	0x0
27915	chr3	63746724	63747872	-	Slc33a1	0x0
27916	chr3	63785753	63786963	+	Gmps	0x2
27917	chr3	63791011	63792236	+	Gmps	0x2
27918	chr3	63797181	63798281	+	Gmps	0x2
27919	chr3	63800236	63801373	+	Gmps	0x2
27920	chr3	63823309	63824908	+	Gmps	0x2
27921	chr3	65183158	65185698	-	Ssr3	0x0
27922	chr3	65309858	65311086	-	4931440P22Rik	0x0
27923	chr3	65345375	65346528	+	Tiparp	0x0
27924	chr3	65751272	65752465	-	Ccnl1	0x2
27925	chr3	65761818	65762994	+	Lekr1	0x0
27926	chr3	66058303	66059477	-	Veph1	0x0
27927	chr3	66685225	66686332	+	Rsrc1	0x0
27928	chr3	66821138	66822318	+	Rsrc1	0x0
27929	chr3	66902882	66904028	+	Rsrc1	0x0
27930	chr3	66911184	66912292	+	Rsrc1	0x0
27931	chr3	67040364	67041553	+	Rsrc1	0x0
27932	chr3	67160823	67162402	+	Rsrc1	0x0
27933	chr3	67266363	67267527	+	Gfm1	0x0
27934	chr3	67278315	67279455	+	Gfm1	0x0
27935	chr3	67403376	67404476	+	Mfsd1	0x0
27936	chr3	67406170	67408610	+	Mfsd1	0x0
27937	chr3	67654176	67656171	-	Rarres1	0x0
27938	chr3	68298228	68299661	+	Gm21949	0x0
27939	chr3	68298228	68299661	+	Schip1	0x0
27940	chr3	68306070	68307290	+	Gm21949	0x0
27941	chr3	68306070	68307290	+	Schip1	0x0
27942	chr3	68320871	68322024	+	Gm21949	0x0
27943	chr3	68320871	68322024	+	Schip1	0x0
27944	chr3	68353413	68354560	+	Schip1	0x0
27945	chr3	68421095	68422243	+	Gm21949	0x0
27946	chr3	68421095	68422243	+	Schip1	0x0
27947	chr3	68696314	68697640	-	Ift80	0x0
27948	chr3	68706056	68707181	-	Ift80	0x0
27949	chr3	68829251	68830399	+	Smc4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27950	chr3	68839505	68840671	-	Trim59	0x0
27951	chr3	68875856	68878142	-	Kpna4	0x0
27952	chr3	68888589	68889796	-	Kpna4	0x0
27953	chr3	68914096	68915231	-	Kpna4	0x0
27954	chr3	69311179	69312382	+	Ppm1l	0x1
27955	chr3	69356837	69359247	+	Ppm1l	0x1
27956	chr3	69360399	69361505	+	Ppm1l	0x1
27957	chr3	69363453	69364648	+	Ppm1l	0x1
27958	chr3	69377555	69378749	-	B3galnt1	0x0
27959	chr3	69531410	69532600	+	Nmd3	0x0
27960	chr3	69533878	69535000	+	Nmd3	0x0
27961	chr3	69546142	69547957	+	Nmd3	0x0
27962	chr3	69555002	69556215	+	Nmd3	0x0
27963	chr3	69767072	69768244	+	Otol1	0x0
27964	chr3	69768348	69769512	+	Otol1	0x0
27965	chr3	69827068	69828284	+	Otol1	0x0
27966	chr3	71268899	71270094	-	Gm6634	0x0
27967	chr3	75450880	75453411	-	2410007B07Rik	0x0
27968	chr3	75454645	75455833	-	2410007B07Rik	0x0
27969	chr3	77033763	77034883	+	Fstl5	0x0
27970	chr3	78358352	78359472	-	Rapgef2	0x0
27971	chr3	78769816	78771053	-	Rapgef2	0x0
27972	chr3	78885030	78886160	-	Rapgef2	0x0
27973	chr3	78951952	78953130	-	Rapgef2	0x0
27974	chr3	79259752	79263666	-	Fnip2	0x0
27975	chr3	79283973	79285176	-	Fnip2	0x0
27976	chr3	79296236	79297415	-	Fnip2	0x0
27977	chr3	79347791	79348890	-	Fnip2	0x0
27978	chr3	79357694	79358891	-	Fnip2	0x0
27979	chr3	79400267	79401472	+	Ppid	0x0
27980	chr3	79474978	79476128	+	4930579G24Rik	0x0
27981	chr3	80846505	80847629	+	Pdgfc	0x2
27982	chr3	81835850	81836986	-	Gucy1b3	0x0
27983	chr3	82196878	82198396	+	Map9	0x0
27984	chr3	82874607	82875798	+	Plrg1	0x0
27985	chr3	83712579	83713770	-	D930015E06Rik	0x0
27986	chr3	83747281	83748503	-	D930015E06Rik	0x0
27987	chr3	83812926	83814122	-	D930015E06Rik	0x0
27988	chr3	83831287	83832490	-	D930015E06Rik	0x0
27989	chr3	83964871	83966986	-	Trim2	0x0
27990	chr3	83968102	83969238	-	Trim2	0x0
27991	chr3	84085251	84086435	-	Trim2	0x0
27992	chr3	84299669	84301117	-	Arfip1	0x0
27993	chr3	84334582	84335756	-	Arfip1	0x0
27994	chr3	84655221	84656370	+	Fbxw7	0x1
27995	chr3	84676154	84677325	+	Fbxw7	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
27996	chr3	84707144	84708350	+	Fbxw7	0x1
27997	chr3	84781644	84783542	+	Fbxw7	0x1
27998	chr3	85460248	85461378	-	Fam160a1	0x0
27999	chr3	85780812	85781976	+	Sh3d19	0x0
28000	chr3	85888306	85889405	+	Sh3d19	0x0
28001	chr3	85931408	85932679	+	Sh3d19	0x0
28002	chr3	85941327	85943038	-	Rps3a1	0x0
28003	chr3	85941327	85943038	-	Snord73a	0x0
28004	chr3	86210083	86211275	+	Lrba	0x0
28005	chr3	86526261	86527408	+	Lrba	0x0
28006	chr3	86584545	86585701	-	Dclk2	0x0
28007	chr3	86590567	86591772	-	Dclk2	0x0
28008	chr3	86618504	86619682	-	Dclk2	0x0
28009	chr3	86668150	86669701	+	Lrba	0x0
28010	chr3	86673290	86674499	-	Dclk2	0x0
28011	chr3	86702005	86703201	-	Dclk2	0x0
28012	chr3	86717228	86718373	-	Dclk2	0x0
28013	chr3	86802091	86803762	-	Cd1d1	0x0
28014	chr3	86882769	86885116	-	Kirrel	0x0
28015	chr3	86885401	86886519	-	Kirrel	0x0
28016	chr3	86888479	86889656	-	Kirrel	0x0
28017	chr3	86952799	86953964	-	Kirrel	0x0
28018	chr3	86968039	86969186	-	Kirrel	0x0
28019	chr3	87343208	87344356	+	Etv3	0x0
28020	chr3	87541165	87542329	+	Arhgef11	0x0
28021	chr3	87585483	87586617	-	Ntrk1	0x2
28022	chr3	87673443	87674616	-	Prcc	0x0
28023	chr3	87718550	87720624	+	Hdgf	0x0
28024	chr3	87722956	87724188	+	Mrpl24	0x0
28025	chr3	87743698	87744891	+	Isg20l2	0x0
28026	chr3	87776178	87777537	+	Nes	0x0
28027	chr3	87859967	87861115	-	Apoa1bp	0x0
28028	chr3	87892981	87894211	+	Iqgap3	0x0
28029	chr3	87923675	87925435	+	Iqgap3	0x0
28030	chr3	87972477	87974562	+	Mef2d	0x0
28031	chr3	87974901	87976266	+	Mef2d	0x0
28032	chr3	88112682	88113792	+	Cct3	0x0
28033	chr3	88121756	88122929	+	Cct3	0x0
28034	chr3	88123905	88126219	+	Cct3	0x0
28035	chr3	88157286	88159146	+	Smg5	0x2
28036	chr3	88164978	88166645	+	Smg5	0x2
28037	chr3	88197570	88198919	-	Pmf1	0x0
28038	chr3	88339942	88341115	+	Mex3a	0x0
28039	chr3	88341218	88342369	+	Mex3a	0x0
28040	chr3	88342810	88345132	+	Mex3a	0x0
28041	chr3	88368215	88370383	+	Ubqln4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28042	chr3	88371822	88374102	+	Ubqln4	0x0
28043	chr3	88380022	88381342	-	Lamtor2	0x0
28044	chr3	88382482	88385539	+	Ssr2	0x0
28045	chr3	88391394	88392842	+	Ssr2	0x0
28046	chr3	88450947	88452135	+	Arhgef2	0x0
28047	chr3	88515507	88516636	+	2810403A07Rik	0x0
28048	chr3	88548209	88549793	-	Syt11	0x0
28049	chr3	88578834	88579982	+	5830417I10Rik	0x0
28050	chr3	88592807	88593980	+	5830417I10Rik	0x0
28051	chr3	88596562	88597668	+	5830417I10Rik	0x0
28052	chr3	88615465	88616557	+	5830417I10Rik	0x0
28053	chr3	88617073	88618277	+	5830417I10Rik	0x0
28054	chr3	88624650	88625845	+	5830417I10Rik	0x0
28055	chr3	88626392	88627526	+	5830417I10Rik	0x0
28056	chr3	88641599	88642748	+	Gon4l	0x0
28057	chr3	88698805	88700796	+	Gon4l	0x0
28058	chr3	88706188	88707334	+	Gon4l	0x0
28059	chr3	88708869	88710020	-	Msto1	0x0
28060	chr3	88709943	88711118	+	Gon4l	0x0
28061	chr3	88712674	88714483	+	Gon4l	0x0
28062	chr3	88713717	88714883	-	Msto1	0x0
28063	chr3	88866224	88867393	+	Ash1l	0x0
28064	chr3	88953758	88954857	-	Hcn3	0x0
28065	chr3	88973721	88974873	+	Clk2	0x0
28066	chr3	88979128	88980244	+	Clk2	0x0
28067	chr3	88985950	88987101	+	Scamp3	0x0
28068	chr3	88992200	88993400	+	Fam189b	0x0
28069	chr3	89013990	89015828	+	Gba	0x0
28070	chr3	89019660	89020868	+	Thbs3	0x2
28071	chr3	89027404	89028539	+	Thbs3	0x2
28072	chr3	89050185	89051364	+	Krtcap2	0x0
28073	chr3	89070408	89071514	+	Dpm3	0x0
28074	chr3	89143949	89145142	-	Adam15	0x0
28075	chr3	89181057	89182730	-	Zbtb7b	0x0
28076	chr3	89184818	89185919	-	Zbtb7b	0x0
28077	chr3	89205376	89206491	-	Lenep	0x0
28078	chr3	89218932	89220133	-	Cks1b	0x2
28079	chr3	89232763	89234445	+	Shc1	0x2
28080	chr3	89237481	89239102	+	Pygo2	0x0
28081	chr3	89253400	89254594	+	Pbxip1	0x0
28082	chr3	89272084	89273309	+	Pmvk	0x0
28083	chr3	89577957	89579147	+	Ube2q1	0x0
28084	chr3	89582840	89583968	+	Ube2q1	0x0
28085	chr3	89587145	89588386	+	Ube2q1	0x0
28086	chr3	89635394	89636541	+	She	0x0
28087	chr3	89660227	89662358	+	She	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28088	chr3	89672140	89673254	-	Il6ra	0x0
28089	chr3	89742943	89744976	-	Atp8b2	0x0
28090	chr3	89804999	89806214	-	Ubap2l	0x0
28091	chr3	89812521	89813701	-	Ubap2l	0x0
28092	chr3	89824351	89825511	-	Ubap2l	0x0
28093	chr3	89828730	89829874	-	Ubap2l	0x0
28094	chr3	89831671	89832887	-	Ubap2l	0x0
28095	chr3	89851138	89852372	-	Ubap2l	0x0
28096	chr3	89903493	89905334	+	Tpm3	0x2
28097	chr3	89930192	89931467	+	Nup210l	0x0
28098	chr3	89979229	89980384	+	Nup210l	0x0
28099	chr3	90055795	90058007	+	Slc39a1	0x1
28100	chr3	90058618	90059767	+	Crtc2	0x0
28101	chr3	90070443	90071640	+	Dennd4b	0x0
28102	chr3	90077231	90078395	+	Dennd4b	0x0
28103	chr3	90106631	90107780	+	Dennd4b	0x0
28104	chr3	90145100	90146412	+	Gatad2b	0x0
28105	chr3	90162033	90164885	+	Gatad2b	0x0
28106	chr3	90164948	90167016	+	Gatad2b	0x0
28107	chr3	90194829	90196219	-	Ints3	0x0
28108	chr3	90196468	90197663	-	Ints3	0x0
28109	chr3	90198502	90199658	-	Ints3	0x0
28110	chr3	90290867	90292436	+	Ilf2	0x0
28111	chr3	90292535	90293693	-	Snapin	0x0
28112	chr3	90302781	90304237	-	Chtop	0x0
28113	chr3	90310048	90311147	-	Chtop	0x0
28114	chr3	90417578	90418804	+	S100a6	0x0
28115	chr3	90455042	90456226	-	S100a9	0x0
28116	chr3	91085788	91086973	+	4930529C04Rik	0x0
28117	chr3	92232293	92233462	-	Sprr1b	0x0
28118	chr3	92493883	92495049	+	Lce1c	0x0
28119	chr3	93081876	93083181	+	Hrnr	0x2
28120	chr3	93367895	93369065	+	S100a10	0x0
28121	chr3	93389349	93390451	+	S100a10	0x0
28122	chr3	94070577	94071727	+	Them4	0x0
28123	chr3	94247997	94249108	+	Mrpl9	0x0
28124	chr3	94257168	94258316	+	Mrpl9	0x0
28125	chr3	94301580	94305801	-	Snx27	0x0
28126	chr3	94318782	94319887	-	Snx27	0x0
28127	chr3	94327583	94328772	-	Snx27	0x0
28128	chr3	94563584	94564785	-	Cgn	0x0
28129	chr3	94682128	94683895	+	Pogz	0x0
28130	chr3	94687732	94688914	-	Psmb4	0x0
28131	chr3	94763821	94764966	+	Rfx5	0x0
28132	chr3	94774332	94775527	-	Zfp687	0x2
28133	chr3	94787786	94788978	+	Pi4kb	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28134	chr3	94797662	94798810	+	Pi4kb	0x0
28135	chr3	94810104	94811296	-	Zfp687	0x2
28136	chr3	94862394	94863601	-	Pip5k1a	0x0
28137	chr3	94869147	94870248	-	Pip5k1a	0x0
28138	chr3	94893967	94895163	-	Pip5k1a	0x0
28139	chr3	94904136	94905238	-	Pip5k1a	0x0
28140	chr3	94919378	94920556	+	Vps72	0x0
28141	chr3	94947746	94948979	+	Lysmd1	0x0
28142	chr3	94976783	94977953	+	Sema6c	0x0
28143	chr3	94985446	94987257	-	Gabpb2	0x0
28144	chr3	94987529	94988699	-	Gabpb2	0x0
28145	chr3	94989226	94991971	-	Gabpb2	0x0
28146	chr3	95037881	95040363	+	Cdc42se1	0x0
28147	chr3	95057147	95059037	-	Prune	0x0
28148	chr3	95126308	95128025	+	Cers2	0x0
28149	chr3	95127113	95128334	-	Setdb1	0x0
28150	chr3	95130959	95132119	-	Setdb1	0x0
28151	chr3	95141724	95142896	-	Setdb1	0x0
28152	chr3	95213801	95215039	-	4930558C23Rik	0x0
28153	chr3	95277955	95279168	+	Arnt	0x2
28154	chr3	95299057	95301616	+	Arnt	0x2
28155	chr3	95425984	95427276	+	Ensa	0x0
28156	chr3	95432457	95434781	+	Ensa	0x0
28157	chr3	95464472	95467366	+	Mcl1	0x0
28158	chr3	95490242	95491444	+	Mcl1	0x0
28159	chr3	95503619	95504764	+	Mcl1	0x0
28160	chr3	95551716	95552872	-	Tars2	0x0
28161	chr3	95564826	95566928	-	Rprd2	0x0
28162	chr3	95567147	95568312	+	Mcl1	0x0
28163	chr3	95576900	95578055	-	Rprd2	0x0
28164	chr3	95634024	95635243	-	Prpf3	0x0
28165	chr3	95740508	95741665	+	Anp32e	0x0
28166	chr3	95748858	95751790	+	Anp32e	0x0
28167	chr3	95959286	95960420	+	Otud7b	0x0
28168	chr3	95960582	95961768	+	Otud7b	0x0
28169	chr3	95963446	95964589	+	Otud7b	0x0
28170	chr3	95979747	95980978	+	Sf3b4	0x0
28171	chr3	96072237	96074710	+	Hist2h2bb	0x2
28172	chr3	96072237	96074710	+	Hist2h3b	0x0
28173	chr3	96131770	96133086	+	Hist2h2bb	0x2
28174	chr3	96138036	96139166	-	Fcgr1	0x0
28175	chr3	96144518	96145683	-	Fcgr1	0x0
28176	chr3	96163379	96164575	-	Terc	0x0
28177	chr3	96177389	96178676	+	Hist2h2bb	0x2
28178	chr3	96213473	96214571	+	Hfe2	0x0
28179	chr3	96227407	96228616	-	Terc	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28180	chr3	96253938	96255113	+	Hfe2	0x0
28181	chr3	96263391	96264554	-	BC107364	0x0
28182	chr3	96363198	96365997	+	Txnip	0x1
28183	chr3	96428425	96430365	+	Lix1l	0x0
28184	chr3	96433900	96435199	+	Rbm8a	0x0
28185	chr3	96435298	96436719	+	Rbm8a	0x0
28186	chr3	96508305	96509498	+	Pias3	0x0
28187	chr3	96517650	96518825	-	Polr3c	0x0
28188	chr3	96527696	96528874	-	Polr3c	0x0
28189	chr3	96542255	96543615	+	Rnf115	0x0
28190	chr3	96593930	96595281	+	Rnf115	0x0
28191	chr3	96661945	96663427	-	Gpr89	0x0
28192	chr3	96666752	96667966	-	Gpr89	0x0
28193	chr3	96672004	96673660	-	Gpr89	0x0
28194	chr3	96962486	96963665	+	Acp6	0x0
28195	chr3	97007785	97008932	-	Bcl9	0x2
28196	chr3	97356441	97357617	+	Fmo5	0x0
28197	chr3	97383608	97384801	-	Chd1l	0x0
28198	chr3	97390538	97391710	-	Chd1l	0x0
28199	chr3	97474564	97475778	+	Prkab2	0x2
28200	chr3	97732320	97733522	-	Pde4dip	0x2
28201	chr3	97942089	97943295	+	Notch2	0x2
28202	chr3	98143106	98144298	-	Phgdh	0x0
28203	chr3	99023479	99024680	+	Wars2	0x0
28204	chr3	99941657	99943035	-	Wdr3	0x0
28205	chr3	100009528	100010627	+	Gdap2	0x0
28206	chr3	100113095	100114493	+	Gdap2	0x0
28207	chr3	100115494	100116847	+	Gdap2	0x0
28208	chr3	100368044	100370466	-	Man1a2	0x0
28209	chr3	100370841	100372044	-	Man1a2	0x0
28210	chr3	100488147	100489311	-	Man1a2	0x0
28211	chr3	100742306	100744054	-	Ttf2	0x0
28212	chr3	100844619	100847483	-	Ptgfrn	0x0
28213	chr3	100897883	100899034	-	Ptgfrn	0x0
28214	chr3	101037184	101038350	+	Igsf3	0x0
28215	chr3	101110365	101111558	-	Cd2	0x0
28216	chr3	101264074	101265194	+	Igsf3	0x0
28217	chr3	101266329	101267400	+	Igsf3	0x0
28218	chr3	101348861	101350056	-	Atp1a1	0x0
28219	chr3	101379828	101380972	-	Atp1a1	0x0
28220	chr3	101387160	101389263	-	Atp1a1	0x0
28221	chr3	101393205	101394379	-	Atp1a1	0x0
28222	chr3	101394566	101395897	-	Atp1a1	0x0
28223	chr3	101397585	101398751	-	Atp1a1	0x0
28224	chr3	101407847	101409075	-	Atp1a1	0x0
28225	chr3	101955202	101956301	-	Vangl1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28226	chr3	101959022	101960499	-	Vangl1	0x0
28227	chr3	101960829	101962333	-	Vangl1	0x0
28228	chr3	101969869	101971085	-	Vangl1	0x0
28229	chr3	101987677	101988922	-	Vangl1	0x0
28230	chr3	102806850	102808029	+	Sike1	0x0
28231	chr3	102810947	102812142	+	Sike1	0x0
28232	chr3	102842139	102843265	+	Csde1	0x0
28233	chr3	102843358	102844521	+	Csde1	0x0
28234	chr3	102846566	102849264	+	Csde1	0x0
28235	chr3	102850475	102851595	+	Csde1	0x0
28236	chr3	102852993	102855583	+	Csde1	0x0
28237	chr3	102858825	102859924	+	Csde1	0x0
28238	chr3	102861187	102862561	+	Csde1	0x0
28239	chr3	102861187	102862561	+	Nras	0x2
28240	chr3	102869419	102870486	+	Nras	0x2
28241	chr3	102870525	102872279	+	Nras	0x2
28242	chr3	102933501	102934692	+	Dennd2c	0x0
28243	chr3	102969835	102970996	+	Dennd2c	0x0
28244	chr3	102972226	102973393	+	Dennd2c	0x0
28245	chr3	102981749	102983429	+	Bcas2	0x0
28246	chr3	103127972	103129099	+	Trim33	0x2
28247	chr3	103147802	103148947	+	Trim33	0x2
28248	chr3	103157612	103159973	+	Trim33	0x2
28249	chr3	103394849	103396023	+	Syt6	0x0
28250	chr3	103544253	103547066	-	Hipk1	0x0
28251	chr3	103547086	103548162	-	Hipk1	0x0
28252	chr3	103550220	103551445	-	Hipk1	0x0
28253	chr3	103580972	103582170	-	Hipk1	0x0
28254	chr3	103605843	103607081	-	Dclre1b	0x0
28255	chr3	103724195	103725301	+	Rsbn1	0x0
28256	chr3	103748983	103750146	+	Rsbn1	0x0
28257	chr3	103767325	103769490	+	Rsbn1	0x0
28258	chr3	103789231	103790380	+	Phtf1	0x0
28259	chr3	104212946	104214129	-	Lrig2	0x0
28260	chr3	104259502	104260731	-	Lrig2	0x0
28261	chr3	104442072	104443243	+	Slc16a1	0x0
28262	chr3	104456525	104457906	+	Slc16a1	0x0
28263	chr3	104459937	104461619	+	Slc16a1	0x0
28264	chr3	104597246	104599168	-	Mov10	0x0
28265	chr3	104599649	104600832	-	Mov10	0x0
28266	chr3	104606922	104609065	-	Mov10	0x0
28267	chr3	104613718	104614910	-	Mov10	0x0
28268	chr3	104616020	104617119	-	Mov10	0x0
28269	chr3	104731941	104733090	+	St7l	0x0
28270	chr3	104805481	104807906	-	Cttnbp2nl	0x0
28271	chr3	105480771	105481948	-	Ddx20	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28272	chr3	105590334	105591529	-	Rap1a	0x1
28273	chr3	105599506	105600666	-	Rap1a	0x1
28274	chr3	105745130	105747233	-	Atp5f1	0x0
28275	chr3	105764029	105765177	+	Wdr77	0x0
28276	chr3	105769763	105772551	+	Wdr77	0x0
28277	chr3	107092931	107094086	-	Rbm15	0x2
28278	chr3	107113306	107114500	-	Rbm15	0x2
28279	chr3	107128350	107130958	-	Rbm15	0x2
28280	chr3	107133627	107134823	-	Rbm15	0x2
28281	chr3	107258206	107259448	-	Kcnc4	0x0
28282	chr3	107465606	107468264	-	Ahcyl1	0x0
28283	chr3	107469517	107470689	-	Ahcyl1	0x0
28284	chr3	107670403	107671531	-	4933431E20Rik	0x0
28285	chr3	107769907	107771054	+	Gstm5	0x0
28286	chr3	107786276	107787474	-	Gstm2	0x1
28287	chr3	107819361	107820570	-	Gstm1	0x1
28288	chr3	107877062	107878254	-	Ampd2	0x0
28289	chr3	107909866	107912620	-	Gnai3	0x0
28290	chr3	107999692	108000866	-	Cyb561d1	0x0
28291	chr3	108151023	108152218	+	Sort1	0x0
28292	chr3	108159901	108162014	+	Sort1	0x0
28293	chr3	108162142	108163482	+	Sort1	0x0
28294	chr3	108187454	108189142	+	Psrc1	0x0
28295	chr3	108190042	108191518	+	Psrc1	0x0
28296	chr3	108228219	108229353	-	Sars	0x0
28297	chr3	108231760	108232859	-	Sars	0x0
28298	chr3	108235436	108236622	-	Sars	0x0
28299	chr3	108356703	108358173	-	Scarna2	0x0
28300	chr3	108359901	108361294	-	Tmem167b	0x0
28301	chr3	108705510	108707294	-	Prpf38b	0x0
28302	chr3	110049552	110050620	-	Prmt6	0x0
28303	chr3	110051182	110052549	-	Prmt6	0x0
28304	chr3	112856310	112857529	-	Amy2b	0x0
28305	chr3	113308799	113309898	-	Rnpc3	0x0
28306	chr3	114398703	114399877	-	S1pr1	0x0
28307	chr3	115642616	115643772	-	Slc30a7	0x0
28308	chr3	115709476	115710705	-	Slc30a7	0x0
28309	chr3	115730323	115731667	+	Extl2	0x1
28310	chr3	116196495	116197646	-	Rtca	0x0
28311	chr3	116250634	116251738	+	Dbt	0x0
28312	chr3	116252116	116253335	+	Dbt	0x0
28313	chr3	116321238	116322337	+	Sass6	0x0
28314	chr3	116333781	116335527	-	Hiat1	0x0
28315	chr3	116372947	116374501	-	Slc35a3	0x0
28316	chr3	116580761	116581951	+	Frrs1	0x0
28317	chr3	116606499	116608527	+	Frrs1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28318	chr3	116609045	116611143	+	Frrs1	0x0
28319	chr3	119411911	119413240	+	Dpyd	0x2
28320	chr3	119447668	119448779	-	Ptbp2	0x0
28321	chr3	120297970	120299272	+	Alg14	0x0
28322	chr3	121159880	121170500	+	Cnn3	0x0
28323	chr3	121436334	121437496	+	F3	0x0
28324	chr3	121461463	121462927	-	Abcd3	0x0
28325	chr3	121517745	121518967	+	F3	0x0
28326	chr3	121968921	121970708	+	Gclm	0x0
28327	chr3	121971454	121972635	+	Gclm	0x0
28328	chr3	121995272	121996491	-	Mir760	0x0
28329	chr3	122221965	122223148	+	Bcar3	0x0
28330	chr3	122225664	122226764	+	Bcar3	0x0
28331	chr3	122231364	122232463	+	Bcar3	0x0
28332	chr3	122241333	122244410	-	Fnbp1l	0x0
28333	chr3	122627885	122629090	+	1810037I17Rik	0x0
28334	chr3	122659982	122661201	-	Usp53	0x0
28335	chr3	122968339	122970711	+	Sec24d	0x0
28336	chr3	122972157	122973224	+	Sec24d	0x0
28337	chr3	122992816	122993952	+	Sec24d	0x0
28338	chr3	122996032	122997269	+	Sec24d	0x0
28339	chr3	123000717	123001870	+	Sec24d	0x0
28340	chr3	123053122	123054299	+	Sec24d	0x0
28341	chr3	123063230	123064393	+	Sec24d	0x0
28342	chr3	123522346	123523463	+	Prss12	0x0
28343	chr3	124088044	124090129	+	Tram1l1	0x0
28344	chr3	125972565	125973710	+	Arsj	0x0
28345	chr3	126150250	126151481	+	Arsj	0x0
28346	chr3	126437476	126438639	+	Camk2d	0x0
28347	chr3	126508090	126509192	+	Camk2d	0x0
28348	chr3	126546919	126548053	+	Camk2d	0x0
28349	chr3	127265381	127266484	+	4930422G04Rik	0x0
28350	chr3	127394215	127395406	-	Alpk1	0x0
28351	chr3	127509859	127511757	-	Ap1ar	0x0
28352	chr3	128421795	128422940	+	Pitx2	0x0
28353	chr3	128916466	128917627	+	Pitx2	0x0
28354	chr3	128927084	128928234	+	Pitx2	0x0
28355	chr3	129236507	129237719	+	Elovl6	0x2
28356	chr3	129250920	129252051	+	Elovl6	0x2
28357	chr3	129336798	129341780	+	Elovl6	0x2
28358	chr3	129597374	129599198	+	Pla2g12a	0x0
28359	chr3	129687674	129688847	-	Sec24b	0x0
28360	chr3	129695402	129696556	-	Sec24b	0x0
28361	chr3	129735872	129737034	-	Sec24b	0x0
28362	chr3	130398333	130399606	-	Ostc	0x0
28363	chr3	130495617	130496786	-	Rpl34-ps1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28364	chr3	130631560	130632694	-	Rpl34-ps1	0x0
28365	chr3	130804955	130806115	-	Hadh	0x0
28366	chr3	130935923	130937474	-	Hadh	0x0
28367	chr3	130943366	130944508	-	Hadh	0x0
28368	chr3	130949836	130951034	-	Hadh	0x0
28369	chr3	131305567	131306789	+	Papss1	0x0
28370	chr3	132339458	132340608	-	Aimp1	0x1
28371	chr3	132357796	132358993	+	Tbck	0x0
28372	chr3	132545485	132546591	-	Npnt	0x0
28373	chr3	132584031	132585179	-	Npnt	0x0
28374	chr3	132712735	132713930	-	Gstcd	0x0
28375	chr3	132747100	132748200	-	Gstcd	0x0
28376	chr3	133126904	133129944	-	Tet2	0x1
28377	chr3	133142634	133143840	-	Tet2	0x1
28378	chr3	133148035	133149196	-	Tet2	0x1
28379	chr3	133149395	133150542	-	Tet2	0x1
28380	chr3	133179133	133180368	-	Tet2	0x1
28381	chr3	133731458	133732643	-	Mir1895	0x0
28382	chr3	134921085	134922190	+	Cenpe	0x0
28383	chr3	134935843	134936971	+	Cenpe	0x0
28384	chr3	135070888	135072047	-	Cisd2	0x0
28385	chr3	135128139	135131101	+	Ube2d3	0x0
28386	chr3	135153996	135155150	+	Manba	0x0
28387	chr3	135180396	135181500	+	Manba	0x0
28388	chr3	135233181	135234781	+	Manba	0x0
28389	chr3	135323322	135324533	-	Nfkb1	0x1
28390	chr3	135353844	135355035	-	Nfkb1	0x1
28391	chr3	136363226	136365596	+	Ppp3ca	0x0
28392	chr3	136424100	136425298	+	Ppp3ca	0x0
28393	chr3	136473885	136475002	+	Ppp3ca	0x0
28394	chr3	137572613	137574337	+	Dnajb14	0x0
28395	chr3	137575264	137576475	+	Dnajb14	0x0
28396	chr3	137819844	137821058	+	Trmt10a	0x0
28397	chr3	138113686	138114875	+	Adh5	0x0
28398	chr3	138121457	138123412	-	Metap1	0x0
28399	chr3	138201459	138202653	+	Eif4e	0x0
28400	chr3	138219052	138220592	+	Eif4e	0x0
28401	chr3	138220711	138222271	+	Eif4e	0x0
28402	chr3	138450272	138451448	+	Tspan5	0x0
28403	chr3	138455856	138456955	+	Tspan5	0x0
28404	chr3	138495286	138496489	+	Tspan5	0x0
28405	chr3	138507077	138508298	-	Rap1gds1	0x0
28406	chr3	138565244	138566389	+	Tspan5	0x0
28407	chr3	138588384	138590718	-	Rap1gds1	0x0
28408	chr3	139702738	139703837	-	Rap1gds1	0x0
28409	chr3	141902331	141905482	-	Pdlim5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28410	chr3	141966723	141967907	-	Pdlim5	0x0
28411	chr3	141970689	141971861	-	Pdlim5	0x0
28412	chr3	142340210	142341425	-	Pkn2	0x0
28413	chr3	142454055	142456547	-	Pkn2	0x0
28414	chr3	142471999	142473439	-	Pkn2	0x0
28415	chr3	142491385	142492558	-	Pkn2	0x0
28416	chr3	142501618	142502814	-	Pkn2	0x0
28417	chr3	142521047	142522268	-	Pkn2	0x0
28418	chr3	142530390	142531561	-	Pkn2	0x0
28419	chr3	144093105	144095353	-	Hs2st1	0x0
28420	chr3	144145436	144146615	-	Hs2st1	0x0
28421	chr3	144259472	144261125	+	Sep15	0x0
28422	chr3	144349721	144350862	-	Sh3glb1	0x1
28423	chr3	144352238	144353414	-	Sh3glb1	0x1
28424	chr3	144820737	144821880	+	Odf2l	0x0
28425	chr3	145249121	145250234	+	Znhit6	0x0
28426	chr3	145541397	145542764	+	Ddah1	0x0
28427	chr3	145554347	145557540	+	Ddah1	0x0
28428	chr3	145596464	145597664	+	Bcl10	0x1
28429	chr3	145650685	145651833	+	Syde2	0x0
28430	chr3	145661071	145662349	+	Syde2	0x0
28431	chr3	146101858	146103375	+	Ssx2ip	0x0
28432	chr3	146127192	146128710	+	Ctbs	0x0
28433	chr3	146340945	146342137	-	4930503B20Rik	0x0
28434	chr3	146394546	146395753	-	Prkacb	0x0
28435	chr3	146501331	146502530	-	Prkacb	0x0
28436	chr3	148486155	148487342	-	Lphn2	0x2
28437	chr3	149735070	149736835	-	Lphn2	0x2
28438	chr3	151883770	151884868	+	Fubp1	0x2
28439	chr3	151886930	151888069	+	Fubp1	0x2
28440	chr3	151896025	151897192	+	Fubp1	0x2
28441	chr3	151897224	151899285	+	Fubp1	0x2
28442	chr3	151936358	151939533	-	Fam73a	0x0
28443	chr3	151968596	151969752	-	Fam73a	0x0
28444	chr3	151973475	151974588	-	Fam73a	0x0
28445	chr3	152000437	152001614	-	Fam73a	0x0
28446	chr3	152024313	152025513	+	Usp33	0x0
28447	chr3	152090530	152091734	+	Zzz3	0x0
28448	chr3	152120999	152122166	+	Zzz3	0x0
28449	chr3	152124189	152125504	+	Zzz3	0x0
28450	chr3	152449515	152450921	+	Pigk	0x0
28451	chr3	152928445	152929650	-	St6galnac3	0x2
28452	chr3	153010284	153011513	-	St6galnac3	0x2
28453	chr3	153040926	153042025	-	St6galnac3	0x2
28454	chr3	153067319	153068926	-	St6galnac3	0x2
28455	chr3	153218238	153219344	-	St6galnac3	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28456	chr3	153252993	153254112	-	St6galnac3	0x2
28457	chr3	153281569	153282762	-	St6galnac3	0x2
28458	chr3	153301882	153303057	-	St6galnac3	0x2
28459	chr3	153327561	153328669	-	St6galnac3	0x2
28460	chr3	153333117	153334173	-	St6galnac3	0x2
28461	chr3	153336386	153337559	-	St6galnac3	0x2
28462	chr3	153354083	153355282	-	St6galnac3	0x2
28463	chr3	153361244	153362475	-	St6galnac3	0x2
28464	chr3	153373780	153374992	-	St6galnac3	0x2
28465	chr3	153375002	153376187	-	St6galnac3	0x2
28466	chr3	153570527	153571621	-	Rabggtb	0x0
28467	chr3	153571841	153572864	-	Rabggtb	0x0
28468	chr3	153574565	153575721	-	Rabggtb	0x0
28469	chr3	153574565	153575721	-	Snord45c	0x0
28470	chr3	153584941	153586371	-	Acadm	0x2
28471	chr3	154238976	154241062	-	Tyw3	0x0
28472	chr3	154285370	154286544	+	Cryz	0x0
28473	chr3	154755362	154756593	-	Fpgt	0x0
28474	chr3	156320077	156321215	+	Negr1	0x0
28475	chr3	156908310	156909484	-	Cth	0x0
28476	chr3	157201427	157202526	+	Zranb2	0x0
28477	chr3	157203112	157204223	+	Zranb2	0x0
28478	chr3	157205539	157206741	+	Zranb2	0x0
28479	chr3	157209470	157211829	+	Zranb2	0x0
28480	chr3	157609949	157611121	+	Ankrd13c	0x0
28481	chr3	157668988	157671420	+	Ankrd13c	0x0
28482	chr3	157673485	157675487	-	Srsf11	0x2
28483	chr3	157686026	157687173	-	Srsf11	0x2
28484	chr3	157691048	157692221	-	Srsf11	0x2
28485	chr3	157728617	157730457	+	Lrrc40	0x0
28486	chr3	159191941	159193164	+	Depdc1a	0x0
28487	chr3	159200900	159202088	+	Depdc1a	0x0
28488	chr3	159203661	159204757	+	Depdc1a	0x0
28489	chr3	159209414	159210518	+	Depdc1a	0x0
28490	chr3	159503317	159504531	+	Wls	0x0
28491	chr4	3512452	3513580	+	Tgs1	0x0
28492	chr4	3585935	3587077	+	2210414B05Rik	0x0
28493	chr4	3647108	3648341	-	Rps20	0x0
28494	chr4	3761091	3763297	-	Rps20	0x0
28495	chr4	3825801	3826957	-	Plag1	0x2
28496	chr4	3900085	3901318	-	Sdr16c5	0x0
28497	chr4	4689307	4690563	-	Impad1	0x0
28498	chr4	4690916	4692169	-	Impad1	0x0
28499	chr4	4692529	4695014	-	Impad1	0x0
28500	chr4	5622439	5623785	+	Fam110b	0x0
28501	chr4	6135360	6136558	+	Ubxn2b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28502	chr4	6316531	6317688	-	Nsmaf	0x0
28503	chr4	6355012	6356207	-	Nsmaf	0x0
28504	chr4	7318368	7319544	+	8430436N08Rik	0x0
28505	chr4	7967912	7969046	-	Car8	0x0
28506	chr4	8479962	8481114	+	Rab2a	0x0
28507	chr4	8533188	8535056	+	Rab2a	0x0
28508	chr4	8659603	8660774	+	Chd7	0x2
28509	chr4	8779327	8780506	+	Chd7	0x2
28510	chr4	9377509	9378732	-	Asph	0x0
28511	chr4	9379186	9380365	-	Asph	0x0
28512	chr4	9501975	9503561	-	Asph	0x0
28513	chr4	9531163	9532234	-	Asph	0x0
28514	chr4	9565787	9567026	-	Asph	0x0
28515	chr4	10366156	10367320	-	1700123O12Rik	0x0
28516	chr4	10781182	10782350	+	2610301B20Rik	0x0
28517	chr4	10825052	10826243	+	2610301B20Rik	0x0
28518	chr4	10873218	10874541	+	2610301B20Rik	0x0
28519	chr4	10914183	10915415	-	Plekhf2	0x0
28520	chr4	10915454	10918224	-	Plekhf2	0x0
28521	chr4	10960218	10961379	-	Ndufaf6	0x0
28522	chr4	11097710	11101764	+	Trp53inp1	0x1
28523	chr4	11116503	11117685	-	Ints8	0x0
28524	chr4	11130085	11131778	+	Ccne2	0x0
28525	chr4	11189953	11192014	-	Dpy19l4	0x0
28526	chr4	11450507	11451715	+	1110037F02Rik	0x0
28527	chr4	11454380	11455603	+	1110037F02Rik	0x0
28528	chr4	11496485	11497613	+	Rad54b	0x0
28529	chr4	11503342	11504476	+	Fsbp	0x0
28530	chr4	11895676	11896861	-	Pdp1	0x0
28531	chr4	12053323	12054523	+	Rbm12b1	0x0
28532	chr4	12161978	12163331	+	Rbm12b1	0x0
28533	chr4	12163547	12164681	+	Rbm12b1	0x0
28534	chr4	13819503	13820637	+	Runx1t1	0x2
28535	chr4	14158417	14159528	-	Slc26a7	0x0
28536	chr4	14735491	14736641	-	Otud6b	0x0
28537	chr4	14736680	14737934	-	Otud6b	0x0
28538	chr4	14742260	14743397	-	Otud6b	0x0
28539	chr4	14752264	14753448	-	Otud6b	0x0
28540	chr4	14791211	14792375	+	Tmem55a	0x0
28541	chr4	14840652	14842645	+	Tmem55a	0x0
28542	chr4	15192651	15193824	+	Tmem64	0x0
28543	chr4	15207629	15208806	+	Tmem64	0x0
28544	chr4	15210419	15212392	+	Tmem64	0x0
28545	chr4	16925061	16926371	-	Ripk2	0x0
28546	chr4	16962923	16964099	-	Ripk2	0x0
28547	chr4	17352566	17353687	-	Ripk2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28548	chr4	19445955	19448996	-	Cpne3	0x0
28549	chr4	19449184	19450502	-	Cpne3	0x0
28550	chr4	19536091	19537236	-	Wwp1	0x2
28551	chr4	19537440	19538981	-	Wwp1	0x2
28552	chr4	19545777	19546931	-	Wwp1	0x2
28553	chr4	19956885	19958141	+	Ttpa	0x0
28554	chr4	21663560	21664720	+	Ccnc	0x1
28555	chr4	21671427	21672606	+	Ccnc	0x1
28556	chr4	21675684	21677195	+	Ccnc	0x1
28557	chr4	21684302	21685500	-	Tstd3	0x0
28558	chr4	21751285	21752460	+	Usp45	0x0
28559	chr4	21761830	21765495	+	Usp45	0x0
28560	chr4	21800404	21801551	+	Sfrs18	0x0
28561	chr4	21837440	21838590	+	Coq3	0x0
28562	chr4	21922134	21923347	+	Faxc	0x0
28563	chr4	23050546	23051704	+	Fbxl4	0x0
28564	chr4	23156604	23157703	+	Fbxl4	0x0
28565	chr4	23444640	23445939	-	Pou3f2	0x0
28566	chr4	24455736	24456913	+	Mms22l	0x0
28567	chr4	24459553	24460762	+	Mms22l	0x0
28568	chr4	24462989	24464116	+	Mms22l	0x0
28569	chr4	24490323	24491532	+	Mms22l	0x0
28570	chr4	24570260	24571426	+	Mms22l	0x0
28571	chr4	24571797	24572959	+	Mms22l	0x0
28572	chr4	24829263	24830920	+	Ndufaf4	0x0
28573	chr4	24907173	24908350	+	Gpr63	0x0
28574	chr4	25176220	25177400	-	Ufl1	0x1
28575	chr4	25537085	25538953	-	Fut9	0x2
28576	chr4	25543618	25545395	-	Fut9	0x2
28577	chr4	25696627	25697780	-	Fut9	0x2
28578	chr4	26252675	26253824	-	Manea	0x0
28579	chr4	27337358	27338559	-	4930548K13Rik	0x0
28580	chr4	29524693	29525793	+	Epha7	0x2
28581	chr4	32106702	32108549	+	Map3k7	0x0
28582	chr4	32108769	32110018	+	Map3k7	0x0
28583	chr4	32316622	32317855	+	Bach2	0x0
28584	chr4	32577220	32578354	-	BC024582	0x0
28585	chr4	32720604	32721827	+	Casp8ap2	0x0
28586	chr4	32727462	32728701	+	Casp8ap2	0x0
28587	chr4	32730186	32731400	+	Casp8ap2	0x0
28588	chr4	32752866	32754083	+	Mdn1	0x0
28589	chr4	32766829	32767986	+	Mdn1	0x0
28590	chr4	32775948	32777134	+	Mdn1	0x0
28591	chr4	32781834	32783030	+	Mdn1	0x0
28592	chr4	32785910	32787075	+	Mdn1	0x0
28593	chr4	32809993	32811110	+	Mdn1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28594	chr4	32816520	32817612	+	Mdn1	0x0
28595	chr4	32840894	32842110	+	Mdn1	0x0
28596	chr4	32849630	32851472	+	Mdn1	0x0
28597	chr4	32860428	32862572	+	Mdn1	0x0
28598	chr4	32887860	32889171	+	Lyrm2	0x0
28599	chr4	32890552	32892144	-	Ankrd6	0x0
28600	chr4	32992380	32993506	-	Ankrd6	0x0
28601	chr4	33051369	33052826	+	Rragd	0x0
28602	chr4	33106576	33109254	+	Rragd	0x0
28603	chr4	33135531	33136635	+	Ube2j1	0x0
28604	chr4	33257150	33258834	-	Pm20d2	0x0
28605	chr4	33406938	33408113	+	Rngtt	0x0
28606	chr4	33519193	33520393	+	Rngtt	0x0
28607	chr4	33532852	33534051	+	Rngtt	0x0
28608	chr4	33587760	33589519	+	Rngtt	0x0
28609	chr4	34433114	34434303	+	Akirin2	0x0
28610	chr4	34497702	34498909	+	Akirin2	0x0
28611	chr4	34516050	34517149	-	Orc3	0x0
28612	chr4	34525145	34526243	+	Akirin2	0x0
28613	chr4	34541787	34542986	-	Orc3	0x0
28614	chr4	34610057	34611322	-	Slc35a1	0x0
28615	chr4	34749995	34752234	-	Zfp292	0x0
28616	chr4	34754449	34755629	-	Zfp292	0x0
28617	chr4	34758680	34759862	-	Zfp292	0x0
28618	chr4	34763043	34764221	-	Zfp292	0x0
28619	chr4	34786274	34787594	-	Zfp292	0x0
28620	chr4	34794616	34795792	-	Zfp292	0x0
28621	chr4	34849483	34850651	+	Cga	0x0
28622	chr4	34897519	34898651	-	Mob3b	0x0
28623	chr4	35026046	35027196	-	Mob3b	0x0
28624	chr4	35030642	35032070	-	Mob3b	0x0
28625	chr4	35146495	35147738	-	3110043O21Rik	0x0
28626	chr4	35558062	35559195	+	Ifnk	0x0
28627	chr4	37379219	37380492	-	Lingo2	0x0
28628	chr4	40122447	40123656	+	Aco1	0x0
28629	chr4	40135912	40137057	+	Aco1	0x0
28630	chr4	40150866	40153601	-	Ddx58	0x0
28631	chr4	40206111	40207278	-	Topors	0x1
28632	chr4	40208361	40209470	-	Topors	0x1
28633	chr4	40633214	40634497	-	Aptx	0x0
28634	chr4	40680232	40681381	+	Dnaja1	0x0
28635	chr4	40751222	40754436	-	B4galt1	0x0
28636	chr4	40759204	40760420	-	B4galt1	0x0
28637	chr4	40800102	40801296	-	B4galt1	0x0
28638	chr4	40854018	40855179	-	Bag1	0x0
28639	chr4	40859734	40860965	-	Bag1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28640	chr4	40881795	40884100	-	Bag1	0x0
28641	chr4	40911379	40912770	+	Chmp5	0x0
28642	chr4	40958605	40961029	+	Nfx1	0x0
28643	chr4	40971870	40973241	+	Nfx1	0x0
28644	chr4	41039403	41041070	-	Aqp3	0x0
28645	chr4	41061040	41063039	-	Nol6	0x0
28646	chr4	41067919	41069116	-	Nol6	0x0
28647	chr4	41097171	41098332	+	Ube2r2	0x0
28648	chr4	41124961	41126191	+	Ube2r2	0x0
28649	chr4	41137215	41139191	+	Ube2r2	0x0
28650	chr4	41140998	41142494	-	Ubap2	0x0
28651	chr4	41150265	41151402	-	Ubap2	0x0
28652	chr4	41197883	41199263	-	Ubap2	0x0
28653	chr4	41237842	41240293	-	Dcaf12	0x0
28654	chr4	41326004	41327103	+	Ubap1	0x0
28655	chr4	41335383	41336590	+	Ubap1	0x0
28656	chr4	41390631	41391771	-	Kif24	0x0
28657	chr4	41465257	41466492	-	Fam219a	0x0
28658	chr4	41625066	41626195	-	Cntfr	0x0
28659	chr4	41627451	41628647	-	Cntfr	0x0
28660	chr4	41657675	41658883	-	Rpp25l	0x0
28661	chr4	41661459	41662633	-	Dctn3	0x0
28662	chr4	41684841	41686870	-	Sigmar1	0x0
28663	chr4	41703001	41704171	+	Galt	0x0
28664	chr4	42092143	42093242	-	Gm2002	0x0
28665	chr4	42092143	42093242	-	Il11ra2	0x0
28666	chr4	42097928	42100052	-	Gm2002	0x0
28667	chr4	42097928	42100052	-	Il11ra2	0x0
28668	chr4	42101174	42102503	-	Gm2002	0x0
28669	chr4	42101174	42102503	-	Il11ra2	0x0
28670	chr4	42785469	42786574	+	Ccl27b	0x0
28671	chr4	42785469	42786574	+	Gm13306	0x0
28672	chr4	42785469	42786574	+	Gm2506	0x0
28673	chr4	42785469	42786574	+	LOC100861978	0x0
28674	chr4	42995300	42996536	-	Vcp	0x0
28675	chr4	43005371	43006505	-	Vcp	0x0
28676	chr4	43013467	43014632	-	Vcp	0x0
28677	chr4	43014909	43016098	-	Fancg	0x1
28678	chr4	43505099	43506504	-	Rmrp	0x0
28679	chr4	43545731	43546941	-	Tln1	0x2
28680	chr4	43550566	43551744	-	Tln1	0x2
28681	chr4	43596474	43597576	+	Rgp1	0x0
28682	chr4	43597684	43599541	+	Rgp1	0x0
28683	chr4	43656280	43657405	+	Npr2	0x0
28684	chr4	43810532	43811673	-	Olfr29-ps1	0x0
28685	chr4	43955614	43956821	+	Reck	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28686	chr4	43990448	43992495	+	Glipr2	0x0
28687	chr4	44025266	44026477	+	Clta	0x0
28688	chr4	44044994	44046213	+	Clta	0x0
28689	chr4	44070716	44071912	-	Gne	0x0
28690	chr4	44136252	44137475	+	Gm12504	0x0
28691	chr4	44140431	44142870	-	Rnf38	0x0
28692	chr4	44322053	44324376	+	Melk	0x0
28693	chr4	44357280	44358381	+	Melk	0x0
28694	chr4	44891500	44892676	+	Zcchc7	0x0
28695	chr4	44944037	44945273	+	Zcchc7	0x0
28696	chr4	45117698	45118968	-	Tomm5	0x0
28697	chr4	45329991	45331212	-	Exosc3	0x0
28698	chr4	45368069	45369242	+	Dcaf10	0x0
28699	chr4	45387396	45388515	+	Dcaf10	0x0
28700	chr4	45389181	45390280	+	Dcaf10	0x0
28701	chr4	45390297	45392814	+	Dcaf10	0x0
28702	chr4	45397328	45398514	-	Slc25a51	0x0
28703	chr4	45408499	45410843	-	Slc25a51	0x0
28704	chr4	45410982	45412175	-	Slc25a51	0x0
28705	chr4	45470528	45471730	-	Shb	0x0
28706	chr4	45534970	45536161	-	Shb	0x0
28707	chr4	45545447	45546579	+	Gm829	0x0
28708	chr4	45927965	45929141	+	E230008N13Rik	0x0
28709	chr4	46127792	46128974	-	Tstd2	0x0
28710	chr4	46184302	46185795	+	Ncbp1	0x0
28711	chr4	46458742	46459935	+	Anp32b	0x0
28712	chr4	46464723	46465915	-	Hemgn	0x0
28713	chr4	46472900	46474053	+	Anp32b	0x0
28714	chr4	46476150	46477362	+	Anp32b	0x0
28715	chr4	46480945	46482188	+	Anp32b	0x0
28716	chr4	46484678	46486090	+	Anp32b	0x0
28717	chr4	46505105	46506188	+	Nans	0x0
28718	chr4	46507505	46508718	+	Nans	0x0
28719	chr4	46515821	46517015	+	Nans	0x0
28720	chr4	46677245	46678450	+	Nans	0x0
28721	chr4	47056498	47057679	-	Anks6	0x0
28722	chr4	47375491	47376699	+	Tgfbr1	0x0
28723	chr4	47425560	47427614	+	Tgfbr1	0x0
28724	chr4	47466628	47467826	+	Sec61b	0x0
28725	chr4	47483019	47485629	-	Alg2	0x0
28726	chr4	47495370	47496474	+	Sec61b	0x0
28727	chr4	48172516	48173684	+	Stx17	0x0
28728	chr4	48206869	48208092	-	Erp44	0x0
28729	chr4	48291749	48292926	-	Erp44	0x0
28730	chr4	48442774	48443976	-	Tex10	0x0
28731	chr4	48480943	48482064	-	Tex10	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28732	chr4	48577308	48578420	+	Msantd3	0x0
28733	chr4	48633890	48635002	+	Tmeff1	0x1
28734	chr4	48637769	48638916	+	Tmeff1	0x1
28735	chr4	48662710	48663855	+	Tmeff1	0x1
28736	chr4	48674519	48676355	+	Tmeff1	0x1
28737	chr4	48699147	48700369	-	Tex10	0x0
28738	chr4	49525383	49526737	-	Mrpl50	0x0
28739	chr4	49650349	49651521	+	Rnf20	0x0
28740	chr4	49660702	49661911	+	Rnf20	0x0
28741	chr4	49759226	49760395	-	Grin3a	0x0
28742	chr4	51426624	51427778	+	Cylc2	0x0
28743	chr4	51824910	51826060	-	C630028M04Rik	0x0
28744	chr4	52025542	52026701	-	C630028M04Rik	0x0
28745	chr4	52468304	52469405	+	Smc2	0x2
28746	chr4	52472534	52473655	+	Smc2	0x2
28747	chr4	52499506	52501336	+	Smc2	0x2
28748	chr4	53043795	53044946	-	Abca1	0x2
28749	chr4	53045000	53047124	-	Abca1	0x2
28750	chr4	53370464	53371669	+	Slc44a1	0x2
28751	chr4	53476725	53477908	+	Slc44a1	0x2
28752	chr4	53478467	53479697	+	Slc44a1	0x2
28753	chr4	53554354	53555526	+	Slc44a1	0x2
28754	chr4	53578025	53581063	+	Slc44a1	0x2
28755	chr4	53634436	53635625	+	Slc44a1	0x2
28756	chr4	53715436	53717335	+	Fsd1l	0x0
28757	chr4	53747243	53748404	+	Fktn	0x0
28758	chr4	53775944	53777226	+	Fktn	0x0
28759	chr4	53777256	53779028	+	Fktn	0x0
28760	chr4	53872973	53874239	+	Tmem38b	0x0
28761	chr4	54480759	54481985	+	Zfp462	0x0
28762	chr4	55020037	55021150	+	Zfp462	0x0
28763	chr4	55021859	55023628	+	Zfp462	0x0
28764	chr4	55040376	55041489	+	Zfp462	0x0
28765	chr4	55093796	55096824	+	Zfp462	0x0
28766	chr4	55382698	55383870	+	Rad23b	0x0
28767	chr4	55384124	55385223	+	Rad23b	0x0
28768	chr4	55388973	55390120	+	Rad23b	0x0
28769	chr4	55402724	55404846	+	Rad23b	0x0
28770	chr4	55538542	55539722	-	Klf4	0x1
28771	chr4	55539725	55541707	-	Klf4	0x1
28772	chr4	56823471	56825416	-	Ctnnal1	0x0
28773	chr4	56880242	56881394	-	Ctnnal1	0x0
28774	chr4	56889094	56890466	-	Tmem245	0x0
28775	chr4	56891009	56892140	-	Tmem245	0x0
28776	chr4	56900885	56902079	-	Tmem245	0x0
28777	chr4	56919442	56920617	-	Tmem245	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28778	chr4	56931080	56932273	-	Tmem245	0x0
28779	chr4	56948673	56949915	-	Tmem245	0x0
28780	chr4	56959164	56960268	-	Tmem245	0x0
28781	chr4	57074608	57076214	-	Epb4.1l4b	0x0
28782	chr4	57089232	57090439	-	Epb4.1l4b	0x0
28783	chr4	57205829	57207594	-	Ptpn3	0x0
28784	chr4	57298310	57299494	-	Ptpn3	0x0
28785	chr4	57839455	57840651	+	Akap2	0x0
28786	chr4	57867721	57868834	+	Akap2	0x0
28787	chr4	57906819	57907931	+	Akap2	0x0
28788	chr4	57908541	57910070	+	Akap2	0x0
28789	chr4	57956159	57957364	-	Txn1	0x0
28790	chr4	58057016	58058223	-	Svep1	0x0
28791	chr4	58447633	58450495	-	Lpar1	0x0
28792	chr4	58455345	58456551	-	Mir3095	0x0
28793	chr4	58498913	58500051	-	Lpar1	0x0
28794	chr4	58838695	58839882	-	AI314180	0x0
28795	chr4	58848434	58849607	-	AI314180	0x0
28796	chr4	59174763	59176404	-	Susd1	0x0
28797	chr4	59233051	59236149	+	Ugcg	0x0
28798	chr4	59484726	59487827	-	Ptbp3	0x0
28799	chr4	59487839	59489000	-	Ptbp3	0x0
28800	chr4	59489113	59490132	-	Ptbp3	0x0
28801	chr4	59712175	59713341	+	E130308A19Rik	0x0
28802	chr4	59738340	59740026	+	E130308A19Rik	0x0
28803	chr4	59768865	59770050	+	E130308A19Rik	0x0
28804	chr4	59783187	59784339	-	Inip	0x0
28805	chr4	59879838	59881028	+	Snx30	0x0
28806	chr4	59888794	59890015	+	Snx30	0x0
28807	chr4	59914361	59916991	+	Snx30	0x0
28808	chr4	61895061	61896202	+	Slc31a2	0x0
28809	chr4	61958053	61959400	+	Slc31a2	0x0
28810	chr4	61979899	61981225	-	Fkbp15	0x0
28811	chr4	61990374	61991540	-	Fkbp15	0x0
28812	chr4	62050275	62053276	+	Slc31a1	0x0
28813	chr4	62069051	62070179	-	Cdc26	0x0
28814	chr4	62084653	62085841	+	Prpf4	0x0
28815	chr4	62086436	62087614	+	Prpf4	0x0
28816	chr4	62119740	62120899	-	Wdr31	0x0
28817	chr4	62157486	62158767	+	Bspry	0x0
28818	chr4	62184052	62185161	-	Pole3	0x0
28819	chr4	62264129	62265264	+	Rgs3	0x0
28820	chr4	62643656	62644765	-	Ambp	0x0
28821	chr4	62765805	62766994	+	Zfp618	0x0
28822	chr4	62920755	62921903	+	Col27a1	0x0
28823	chr4	63079374	63080578	-	Whrn	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28824	chr4	63088673	63090106	-	Whrn	0x0
28825	chr4	63130654	63132934	-	Whrn	0x0
28826	chr4	63152202	63153399	-	Whrn	0x0
28827	chr4	63244887	63246928	+	6330416G13Rik	0x0
28828	chr4	63627018	63628891	-	Tnc	0x0
28829	chr4	63675576	63676783	-	Tnc	0x0
28830	chr4	64088111	64089306	-	Tnc	0x0
28831	chr4	64093258	64094423	-	Tnc	0x0
28832	chr4	66565645	66569068	+	Tlr4	0x2
28833	chr4	69585765	69587594	-	Cdk5rap2	0x0
28834	chr4	69879471	69880642	-	Cdk5rap2	0x0
28835	chr4	69893373	69894476	-	Cdk5rap2	0x0
28836	chr4	69927076	69928428	-	Cdk5rap2	0x0
28837	chr4	69950364	69951513	-	Cdk5rap2	0x0
28838	chr4	69959162	69960294	-	Cdk5rap2	0x0
28839	chr4	69997844	69999053	-	Cdk5rap2	0x0
28840	chr4	70007022	70008216	-	Cdk5rap2	0x0
28841	chr4	70091334	70092523	-	Megf9	0x0
28842	chr4	71031452	71032676	-	Tle1	0x0
28843	chr4	71418381	71419480	-	Tle1	0x0
28844	chr4	71688443	71689694	-	Tle1	0x0
28845	chr4	71784323	71785487	-	Tle1	0x0
28846	chr4	71818345	71819516	-	Tle1	0x0
28847	chr4	72203514	72204613	+	C630043F03Rik	0x0
28848	chr4	73930885	73932078	+	Kdm4c	0x0
28849	chr4	73943846	73945095	+	Kdm4c	0x0
28850	chr4	73956955	73958165	+	Kdm4c	0x0
28851	chr4	74004829	74005967	+	Kdm4c	0x0
28852	chr4	74048106	74049266	+	Kdm4c	0x0
28853	chr4	74050583	74052093	+	Kdm4c	0x0
28854	chr4	74715425	74717732	+	Kdm4c	0x0
28855	chr4	74794275	74795431	+	Kdm4c	0x0
28856	chr4	74923439	74924612	-	3110001D03Rik	0x0
28857	chr4	77224243	77225377	+	Kdm4c	0x0
28858	chr4	78419154	78420574	+	Tyrp1	0x0
28859	chr4	81935673	81936897	-	Nfib	0x2
28860	chr4	81937438	81938647	-	Nfib	0x2
28861	chr4	81941362	81942519	-	Nfib	0x2
28862	chr4	81966108	81967213	-	Nfib	0x2
28863	chr4	82444522	82445556	-	Zdhhc21	0x0
28864	chr4	82446102	82447996	-	Zdhhc21	0x0
28865	chr4	82449567	82451954	-	Zdhhc21	0x0
28866	chr4	82465711	82466845	-	Zdhhc21	0x0
28867	chr4	82854594	82855813	-	Ttc39b	0x0
28868	chr4	82866724	82867847	-	Ttc39b	0x0
28869	chr4	82868530	82870764	-	Ttc39b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28870	chr4	82870953	82873159	-	Ttc39b	0x0
28871	chr4	82882574	82883760	-	Ttc39b	0x0
28872	chr4	82906250	82908395	-	Ttc39b	0x0
28873	chr4	82917288	82918488	-	Ttc39b	0x0
28874	chr4	82962723	82963855	-	Ttc39b	0x0
28875	chr4	83064497	83065902	+	Snapc3	0x0
28876	chr4	83099976	83102479	-	Psip1	0x2
28877	chr4	83130960	83132155	-	Psip1	0x2
28878	chr4	83205354	83206467	+	Ccdc171	0x0
28879	chr4	83207979	83209095	+	Ccdc171	0x0
28880	chr4	83915184	83916374	-	Bnc2	0x0
28881	chr4	83916843	83917945	-	Bnc2	0x0
28882	chr4	83937261	83939988	-	Bnc2	0x0
28883	chr4	84031127	84032338	-	Bnc2	0x0
28884	chr4	84191568	84192810	-	Bnc2	0x0
28885	chr4	84899058	84900253	+	Sh3gl2	0x0
28886	chr4	85034053	85035231	+	Sh3gl2	0x0
28887	chr4	85942285	85943522	-	Fam154a	0x0
28888	chr4	85952822	85953966	+	Adamtsl1	0x0
28889	chr4	86123937	86125112	+	Adamtsl1	0x0
28890	chr4	86225107	86226319	-	Haus6	0x0
28891	chr4	86238815	86239968	+	Rraga	0x0
28892	chr4	86256039	86257236	-	Haus6	0x0
28893	chr4	86470469	86472198	+	Dennd4c	0x0
28894	chr4	86501524	86502724	-	Rps6	0x0
28895	chr4	86858029	86859212	-	Slc24a2	0x0
28896	chr4	87419321	87420499	-	Mllt3	0x2
28897	chr4	87774306	87775443	+	Focad	0x0
28898	chr4	87886474	87887625	+	Focad	0x0
28899	chr4	87948742	87949941	+	Focad	0x0
28900	chr4	87992509	87993658	+	Focad	0x0
28901	chr4	88000844	88001980	+	Focad	0x0
28902	chr4	88056139	88057308	+	Focad	0x0
28903	chr4	88064956	88066099	+	Focad	0x0
28904	chr4	88570261	88571426	-	Mir31	0x0
28905	chr4	88825791	88827433	+	Mtap	0x1
28906	chr4	88941042	88942142	+	Mtap	0x1
28907	chr4	89180177	89181396	+	Dmrta1	0x2
28908	chr4	90916863	90918494	-	Elavl2	0x2
28909	chr4	90996532	90997729	-	Elavl2	0x2
28910	chr4	91471685	91473034	-	Izumo3	0x0
28911	chr4	93211110	93212306	-	Tusc1	0x0
28912	chr4	94233487	94235147	-	Plaa	0x0
28913	chr4	94235266	94236887	-	Plaa	0x0
28914	chr4	94256162	94257289	-	Plaa	0x0
28915	chr4	94259127	94260278	-	Plaa	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28916	chr4	94260882	94262019	-	Plaa	0x0
28917	chr4	94608547	94613052	-	Mysm1	0x0
28918	chr4	94624541	94625739	-	Mysm1	0x0
28919	chr4	94645128	94646298	-	Mysm1	0x0
28920	chr4	95240712	95241899	+	Fggy	0x0
28921	chr4	95689120	95692473	+	Hook1	0x0
28922	chr4	97188108	97189332	-	E130114P18Rik	0x0
28923	chr4	98394975	98396125	+	L1td1	0x0
28924	chr4	98397988	98399094	+	L1td1	0x0
28925	chr4	98403740	98405698	+	L1td1	0x0
28926	chr4	98406791	98408208	+	L1td1	0x0
28927	chr4	98421589	98423079	-	Kank4	0x0
28928	chr4	98601166	98602765	+	Usp1	0x0
28929	chr4	98860598	98861792	+	Atg4c	0x0
28930	chr4	98884216	98885402	+	Atg4c	0x0
28931	chr4	99324307	99325690	+	Foxd3	0x0
28932	chr4	99419187	99420349	+	Alg6	0x0
28933	chr4	99428913	99430657	+	Alg6	0x0
28934	chr4	99603462	99605425	+	Pgm2	0x0
28935	chr4	99883924	99885121	+	Ror1	0x0
28936	chr4	99929726	99930835	+	Ror1	0x0
28937	chr4	100113514	100114621	+	Ror1	0x0
28938	chr4	100675640	100676837	+	Cachd1	0x0
28939	chr4	100824101	100825293	+	Raver2	0x0
28940	chr4	100824925	100826187	-	Jak1	0x2
28941	chr4	100929453	100930648	-	Jak1	0x2
28942	chr4	101137115	101139990	+	Ak4	0x0
28943	chr4	101192372	101193521	+	Dnajc6	0x0
28944	chr4	101225398	101227180	+	Dnajc6	0x0
28945	chr4	101313383	101315789	+	Dnajc6	0x0
28946	chr4	101319202	101320394	+	Leprot	0x0
28947	chr4	101330081	101332372	+	Leprot	0x0
28948	chr4	101545299	101546398	-	B020004J07Rik	0x0
28949	chr4	101716064	101717239	-	B020004J07Rik	0x0
28950	chr4	101718922	101720142	-	B020004J07Rik	0x0
28951	chr4	102815041	102816284	+	Mier1	0x0
28952	chr4	102835518	102838492	+	Mier1	0x0
28953	chr4	102844252	102846085	-	Slc35d1	0x0
28954	chr4	102888606	102889803	+	Mier1	0x0
28955	chr4	102991230	102992572	+	Oma1	0x0
28956	chr4	102997088	102998541	+	Oma1	0x0
28957	chr4	103235434	103238031	+	Gm12718	0x0
28958	chr4	104095236	104096387	+	Dab1	0x0
28959	chr4	104174735	104175895	+	Dab1	0x0
28960	chr4	104408103	104409209	+	Dab1	0x0
28961	chr4	104702382	104703503	-	Prkaa2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
28962	chr4	104704428	104707559	-	Prkaa2	0x0
28963	chr4	105309881	105311065	+	Ppap2b	0x0
28964	chr4	106032935	106034123	+	Usp24	0x0
28965	chr4	106083351	106084556	+	Usp24	0x0
28966	chr4	106111384	106113953	+	Usp24	0x0
28967	chr4	106246013	106247176	+	Dhcr24	0x0
28968	chr4	106258825	106262157	+	Dhcr24	0x0
28969	chr4	106513118	106514311	-	Acot11	0x0
28970	chr4	106521323	106522507	-	Acot11	0x0
28971	chr4	106704842	106706082	+	Ssbp3	0x0
28972	chr4	106721283	106722616	+	Ssbp3	0x0
28973	chr4	106736658	106737818	-	Mrpl37	0x0
28974	chr4	106809523	106810719	-	Tceanc2	0x0
28975	chr4	106862544	106863740	+	Tmem59	0x0
28976	chr4	106869516	106870737	+	Tmem59	0x0
28977	chr4	106873005	106874104	+	Tmem59	0x0
28978	chr4	106905613	106906797	-	Lrrc42	0x0
28979	chr4	106919530	106920694	-	Lrrc42	0x0
28980	chr4	107011149	107012286	+	Yipf1	0x0
28981	chr4	107042340	107043474	+	Tmem48	0x0
28982	chr4	107062133	107063607	+	Tmem48	0x0
28983	chr4	107086720	107088963	+	Tmem48	0x0
28984	chr4	107108090	107109238	+	Glis1	0x0
28985	chr4	107132788	107134002	+	Glis1	0x0
28986	chr4	107159165	107160322	+	Glis1	0x0
28987	chr4	107431626	107432819	-	Dmrtb1	0x0
28988	chr4	107545033	107546829	+	Lrp8	0x0
28989	chr4	107579355	107580562	-	Cpt2	0x0
28990	chr4	107584719	107585916	-	Cpt2	0x0
28991	chr4	107719573	107720696	-	Scp2	0x0
28992	chr4	107741346	107742540	-	Scp2	0x0
28993	chr4	107847412	107850038	-	Zyg11a	0x0
28994	chr4	107850170	107852874	-	Zyg11a	0x0
28995	chr4	107853273	107854380	-	Zyg11a	0x0
28996	chr4	107902207	107903310	-	Zyg11b	0x0
28997	chr4	107903750	107905459	-	Zyg11b	0x0
28998	chr4	107905499	107907609	-	Zyg11b	0x0
28999	chr4	108039897	108041031	-	Fam159a	0x0
29000	chr4	108144253	108145411	+	Zcchc11	0x0
29001	chr4	108180123	108181460	+	Zcchc11	0x0
29002	chr4	108192239	108193395	+	Zcchc11	0x0
29003	chr4	108202848	108204066	+	Zcchc11	0x0
29004	chr4	108214395	108215497	+	Zcchc11	0x0
29005	chr4	108220159	108221284	+	Zcchc11	0x0
29006	chr4	108231058	108232364	+	Zcchc11	0x0
29007	chr4	108237102	108238201	-	Prpf38a	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29008	chr4	108305893	108307682	+	Cc2d1b	0x0
29009	chr4	108309526	108310720	-	Zfyve9	0x0
29010	chr4	108354274	108355409	-	Zfyve9	0x0
29011	chr4	108391365	108392549	-	Zfyve9	0x0
29012	chr4	108487523	108488713	-	Btf3l4	0x0
29013	chr4	108533670	108535152	+	Txndc12	0x0
29014	chr4	108729157	108730381	+	Nrd1	0x0
29015	chr4	108835466	108836600	-	Osbpl9	0x0
29016	chr4	109038244	109039680	+	Eps15	0x2
29017	chr4	109057897	109060228	+	Eps15	0x2
29018	chr4	109125051	109126237	-	Rnf11	0x0
29019	chr4	109388319	109389427	+	Faf1	0x0
29020	chr4	109524440	109525609	+	Faf1	0x0
29021	chr4	109555725	109556867	+	Faf1	0x0
29022	chr4	109612819	109614040	+	Faf1	0x0
29023	chr4	109655544	109656686	+	Dmrta2	0x0
29024	chr4	109876271	109877420	-	Elavl4	0x0
29025	chr4	114286697	114287806	+	Trabd2b	0x0
29026	chr4	114633007	114634465	-	Cmpk1	0x0
29027	chr4	114682972	114684080	+	Stil	0x0
29028	chr4	115037383	115038502	+	Cyp4a12a	0x0
29029	chr4	115430947	115432129	+	Efcab14	0x0
29030	chr4	115446597	115449940	+	Efcab14	0x0
29031	chr4	115485664	115487326	+	Atpaf1	0x0
29032	chr4	115505224	115506347	+	Mob3c	0x0
29033	chr4	115507293	115508434	+	Mob3c	0x0
29034	chr4	115551016	115552314	+	Mknk1	0x0
29035	chr4	115669695	115670838	-	Faah	0x0
29036	chr4	115725749	115726925	-	Nsun4	0x0
29037	chr4	115739016	115740286	-	Uqcrh	0x0
29038	chr4	115756758	115757904	+	Lrrc41	0x0
29039	chr4	115767375	115768931	-	Rad54l	0x0
29040	chr4	115831615	115832894	+	Pomgnt1	0x0
29041	chr4	115980131	115981282	-	Mast2	0x0
29042	chr4	115986901	115987997	-	Mast2	0x0
29043	chr4	115998651	115999843	-	Mast2	0x0
29044	chr4	116211749	116212929	+	Ipp	0x0
29045	chr4	116224459	116225667	-	Tmem69	0x0
29046	chr4	116242208	116243316	+	Gpbp1l1	0x0
29047	chr4	116258204	116259438	+	Gpbp1l1	0x0
29048	chr4	116265004	116266848	+	Gpbp1l1	0x0
29049	chr4	116273241	116274582	-	Nasp	0x0
29050	chr4	116275922	116277118	-	Nasp	0x0
29051	chr4	116282533	116285205	-	Nasp	0x0
29052	chr4	116294804	116295971	-	Nasp	0x0
29053	chr4	116311131	116314278	-	Akr1a1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29054	chr4	116363894	116364993	+	Prdx1	0x0
29055	chr4	116371350	116372786	+	Prdx1	0x0
29056	chr4	116374921	116376441	-	Mmachc	0x0
29057	chr4	116386975	116388199	+	Ccdc163	0x0
29058	chr4	116414536	116415664	+	Tesk2	0x0
29059	chr4	116426377	116427512	+	Tesk2	0x0
29060	chr4	116474914	116476087	+	Tesk2	0x0
29061	chr4	116479288	116480486	-	Toe1	0x0
29062	chr4	116731573	116732722	+	Eif2b3	0x0
29063	chr4	116775148	116776342	+	Ptch2	0x1
29064	chr4	116791438	116792577	-	Btbd19	0x0
29065	chr4	116802190	116803365	-	Plk3	0x0
29066	chr4	116827845	116829016	-	Rps8	0x0
29067	chr4	116827845	116829016	-	Snord55	0x0
29068	chr4	116831946	116833131	-	Kif2c	0x0
29069	chr4	116851992	116853209	-	Kif2c	0x0
29070	chr4	116862047	116863250	+	Tctex1d4	0x0
29071	chr4	116943579	116946421	-	Rnf220	0x0
29072	chr4	117083266	117084451	-	Rnf220	0x0
29073	chr4	117549212	117550359	-	B4galt2	0x0
29074	chr4	117556442	117559498	-	Atp6v0b	0x0
29075	chr4	117562162	117563363	-	Dph2	0x0
29076	chr4	117584123	117585295	-	Ipo13	0x0
29077	chr4	117680291	117681488	-	St3gal3	0x0
29078	chr4	117832293	117833545	-	Kdm4a	0x0
29079	chr4	117880163	117882908	-	Ptprf	0x0
29080	chr4	117895828	117897045	-	Ptprf	0x0
29081	chr4	117917009	117918188	-	Ptprf	0x0
29082	chr4	117924696	117925801	-	Ptprf	0x0
29083	chr4	118034925	118036143	-	Szt2	0x0
29084	chr4	118048682	118049885	-	Szt2	0x0
29085	chr4	118057990	118059106	-	Szt2	0x0
29086	chr4	118109276	118110438	-	Cdc20	0x0
29087	chr4	118194479	118195662	+	2610528J11Rik	0x0
29088	chr4	118299132	118300400	+	D4Ertd617e	0x0
29089	chr4	118299132	118300400	+	Ebna1bp2	0x0
29090	chr4	118654597	118655793	-	Olfr1328	0x0
29091	chr4	118722841	118724064	-	Olfr1328	0x0
29092	chr4	118780865	118782075	+	Slc2a1	0x0
29093	chr4	118792438	118793645	+	Slc2a1	0x0
29094	chr4	118797796	118798907	+	Slc2a1	0x0
29095	chr4	118808781	118810432	+	Slc2a1	0x0
29096	chr4	118811766	118812919	+	Slc2a1	0x0
29097	chr4	118891966	118893072	-	4930538K18Rik	0x0
29098	chr4	118894347	118895894	-	AU022252	0x0
29099	chr4	118904154	118905320	-	AU022252	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29100	chr4	118905371	118906519	+	Lepre1	0x2
29101	chr4	118919499	118921471	+	Lepre1	0x2
29102	chr4	118950173	118951499	-	Ybx1	0x0
29103	chr4	119007293	119008530	-	Ccdc30	0x0
29104	chr4	119090839	119092077	-	Ppcs	0x0
29105	chr4	119200053	119201225	+	Foxj3	0x0
29106	chr4	119298709	119300424	+	Foxj3	0x0
29107	chr4	120081264	120082434	+	Scmh1	0x0
29108	chr4	120098175	120099371	+	Scmh1	0x0
29109	chr4	120140438	120141629	+	Scmh1	0x0
29110	chr4	120190731	120191830	+	Scmh1	0x0
29111	chr4	120194042	120195236	+	Scmh1	0x0
29112	chr4	120201906	120203229	+	Scmh1	0x0
29113	chr4	120212237	120213588	-	Ctps	0x0
29114	chr4	120226013	120227257	-	Ctps	0x0
29115	chr4	120234371	120236039	-	Ctps	0x0
29116	chr4	120242199	120243403	-	Ctps	0x0
29117	chr4	120368517	120369711	-	Kcnq4	0x0
29118	chr4	120429497	120430681	-	Nfyc	0x0
29119	chr4	120540413	120541549	+	Rims3	0x0
29120	chr4	120542944	120544095	+	Rims3	0x0
29121	chr4	120564742	120567286	+	Rims3	0x0
29122	chr4	120568334	120569557	+	Rims3	0x0
29123	chr4	120593901	120595129	-	Exo5	0x0
29124	chr4	120640603	120642015	-	Smap2	0x0
29125	chr4	120718385	120719585	+	Col9a2	0x0
29126	chr4	120727238	120728345	+	Col9a2	0x0
29127	chr4	120731564	120733484	-	Zmpste24	0x0
29128	chr4	120737958	120739057	-	Zmpste24	0x0
29129	chr4	120782864	120784103	+	Col9a2	0x0
29130	chr4	120854133	120855309	-	Rlf	0x0
29131	chr4	120865074	120866275	-	Rlf	0x0
29132	chr4	122534731	122537204	-	Cap1	0x0
29133	chr4	122534758	122536616	+	Ppt1	0x0
29134	chr4	122678852	122679976	+	Mycl1	0x0
29135	chr4	122731410	122732618	+	Trit1	0x0
29136	chr4	122795902	122797087	+	Oxct2b	0x0
29137	chr4	122804105	122805235	+	Bmp8b	0x4
29138	chr4	122960383	122961482	+	Pabpc4	0x0
29139	chr4	122963457	122964617	+	Pabpc4	0x0
29140	chr4	122968095	122969271	+	Pabpc4	0x0
29141	chr4	122969624	122971123	+	Pabpc4	0x0
29142	chr4	122974030	122975129	+	Pabpc4	0x0
29143	chr4	122989114	122990342	-	Bmp8a	0x4
29144	chr4	123026463	123028770	-	Macf1	0x2
29145	chr4	123037606	123038828	-	Macf1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29146	chr4	123041984	123043153	-	Macf1	0x2
29147	chr4	123047313	123048506	-	Macf1	0x2
29148	chr4	123053184	123054291	-	Macf1	0x2
29149	chr4	123054868	123055942	-	Macf1	0x2
29150	chr4	123057962	123060535	-	Macf1	0x2
29151	chr4	123061482	123062616	-	Macf1	0x2
29152	chr4	123067220	123068389	-	Macf1	0x2
29153	chr4	123070791	123072066	-	Macf1	0x2
29154	chr4	123077506	123078613	-	Macf1	0x2
29155	chr4	123086248	123087395	-	D830031N03Rik	0x0
29156	chr4	123108837	123111105	-	Macf1	0x2
29157	chr4	123111573	123112868	-	Macf1	0x2
29158	chr4	123117360	123118530	-	Macf1	0x2
29159	chr4	123121618	123122746	-	Macf1	0x2
29160	chr4	123129632	123130852	-	Macf1	0x2
29161	chr4	123135899	123137114	-	Macf1	0x2
29162	chr4	123156863	123158035	-	Macf1	0x2
29163	chr4	123161666	123162865	-	Macf1	0x2
29164	chr4	123163114	123164238	-	Macf1	0x2
29165	chr4	123165971	123167165	-	Macf1	0x2
29166	chr4	123170658	123171891	-	Macf1	0x2
29167	chr4	123181163	123182327	-	Macf1	0x2
29168	chr4	123186519	123187666	-	Macf1	0x2
29169	chr4	123253950	123255146	-	Macf1	0x2
29170	chr4	123269852	123271055	-	Macf1	0x2
29171	chr4	123288171	123289313	-	Macf1	0x2
29172	chr4	123307893	123308992	-	Macf1	0x2
29173	chr4	123333255	123334435	-	Macf1	0x2
29174	chr4	123337052	123338169	-	Macf1	0x2
29175	chr4	123339966	123341159	-	Macf1	0x2
29176	chr4	123385977	123387470	-	BC002163	0x0
29177	chr4	123385977	123387470	-	Ndufs5	0x0
29178	chr4	123411989	123414080	-	Akirin1	0x0
29179	chr4	123590665	123591791	+	Mycbp	0x0
29180	chr4	123613556	123614759	+	Rragc	0x0
29181	chr4	124384920	124386021	+	Fhl3	0x0
29182	chr4	124478029	124479242	+	Inpp5b	0x0
29183	chr4	124494110	124495212	+	Mtf1	0x0
29184	chr4	124521632	124522781	+	Mtf1	0x0
29185	chr4	124531245	124532444	+	Yrdc	0x0
29186	chr4	124532170	124533400	-	Maneal	0x0
29187	chr4	124595354	124596663	-	Cdca8	0x0
29188	chr4	124706717	124707915	+	Gnl2	0x0
29189	chr4	124847295	124848442	+	Meaf6	0x0
29190	chr4	124850410	124851556	+	Meaf6	0x0
29191	chr4	125170085	125171249	+	Grik3	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29192	chr4	125181263	125182513	+	Grik3	0x2
29193	chr4	125214909	125216041	+	Grik3	0x2
29194	chr4	125226605	125227741	+	Grik3	0x2
29195	chr4	125236929	125238109	+	Grik3	0x2
29196	chr4	125239995	125241104	+	Grik3	0x2
29197	chr4	125295657	125296852	+	Grik3	0x2
29198	chr4	125385448	125386749	+	Grik3	0x2
29199	chr4	125387638	125391580	+	Grik3	0x2
29200	chr4	125746690	125747796	-	Sh3d21	0x0
29201	chr4	125816159	125818344	+	Stk40	0x0
29202	chr4	125840963	125843184	-	Thrap3	0x2
29203	chr4	125844249	125845376	-	Thrap3	0x2
29204	chr4	125846169	125847930	-	Thrap3	0x2
29205	chr4	125854807	125855973	-	Thrap3	0x2
29206	chr4	125856927	125858129	-	Thrap3	0x2
29207	chr4	125908856	125910397	-	Map7d1	0x0
29208	chr4	125913356	125914575	-	Map7d1	0x0
29209	chr4	125990729	125991828	+	Col8a2	0x0
29210	chr4	125993192	125994371	-	Adprhl2	0x0
29211	chr4	126011605	126012916	-	Eif2c3	0x0
29212	chr4	126013775	126014945	-	Eif2c3	0x0
29213	chr4	126018644	126019751	-	Eif2c3	0x0
29214	chr4	126021308	126022450	-	Eif2c3	0x0
29215	chr4	126112164	126116540	-	Eif2c1	0x0
29216	chr4	126138447	126139598	-	Eif2c1	0x0
29217	chr4	126153854	126155040	-	Eif2c1	0x0
29218	chr4	126269887	126271344	+	Clspn	0x2
29219	chr4	126342567	126343757	+	Psmb2	0x0
29220	chr4	126539170	126541938	-	Zmym4	0x0
29221	chr4	126545459	126546558	-	Zmym4	0x0
29222	chr4	126556841	126558067	-	Zmym4	0x0
29223	chr4	126559129	126560353	-	Zmym4	0x0
29224	chr4	126566192	126567382	-	Zmym4	0x0
29225	chr4	126580709	126583157	-	Zmym4	0x0
29226	chr4	126625069	126626254	-	Zmym4	0x0
29227	chr4	126705834	126707054	+	Sfpq	0x2
29228	chr4	126707078	126708823	+	Sfpq	0x2
29229	chr4	126710214	126711905	+	Sfpq	0x2
29230	chr4	126725733	126727371	-	Zmym1	0x0
29231	chr4	126754145	126755323	+	Zmym6	0x0
29232	chr4	126803019	126804216	+	Gm12942	0x0
29233	chr4	126871902	126873072	+	Dlgap3	0x0
29234	chr4	126881248	126882396	+	Dlgap3	0x0
29235	chr4	126913147	126914655	+	Dlgap3	0x0
29236	chr4	127001961	127003627	-	Gjb3	0x0
29237	chr4	127024337	127025532	-	Gjb4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29238	chr4	127032949	127034049	-	Gjb5	0x0
29239	chr4	127038968	127040144	-	Gjb5	0x0
29240	chr4	127302612	127303734	-	Gjb5	0x0
29241	chr4	128429019	128430467	+	Phc2	0x0
29242	chr4	128587641	128588790	+	Trim62	0x0
29243	chr4	128635350	128636510	-	Adc	0x0
29244	chr4	128687456	128689235	+	Ak2	0x0
29245	chr4	128750257	128751441	+	Rnf19b	0x0
29246	chr4	128821645	128822827	+	Fndc5	0x0
29247	chr4	128825170	128827924	-	S100pbp	0x0
29248	chr4	128858511	128860209	-	S100pbp	0x0
29249	chr4	128867540	128868711	+	Yars	0x0
29250	chr4	128891952	128893098	+	Yars	0x0
29251	chr4	128895216	128897012	+	Yars	0x0
29252	chr4	128896542	128898187	-	C77080	0x0
29253	chr4	128898750	128899928	-	C77080	0x0
29254	chr4	128900584	128901739	-	C77080	0x0
29255	chr4	128902022	128903123	-	C77080	0x0
29256	chr4	128985494	128987716	-	Rbbp4	0x0
29257	chr4	128998795	129000672	-	Rbbp4	0x0
29258	chr4	129023594	129024704	+	Zbtb8os	0x0
29259	chr4	129038635	129039775	-	Zbtb8a	0x0
29260	chr4	129163789	129165034	+	Bsdc1	0x0
29261	chr4	129190322	129191596	+	Marcksl1	0x0
29262	chr4	129192078	129193582	+	Marcksl1	0x0
29263	chr4	129193022	129194172	-	Hdac1	0x0
29264	chr4	129213740	129214928	-	Hdac1	0x0
29265	chr4	129225304	129226498	-	Lck	0x2
29266	chr4	129270073	129271250	-	Eif3i	0x0
29267	chr4	129275663	129276839	-	Eif3i	0x0
29268	chr4	129284525	129286220	+	Tmem234	0x0
29269	chr4	129303234	129305342	-	Txlna	0x0
29270	chr4	129321167	129324907	-	Kpna6	0x0
29271	chr4	129515698	129516927	+	Ptp4a2	0x0
29272	chr4	129524516	129527665	+	Ptp4a2	0x0
29273	chr4	129575895	129577017	+	E330017L17Rik	0x0
29274	chr4	129688538	129689689	+	Bai2	0x1
29275	chr4	129804625	129805788	+	Pef1	0x0
29276	chr4	129985429	129986631	+	Fabp3	0x1
29277	chr4	129992879	129994285	-	Zcchc17	0x0
29278	chr4	130041761	130042954	+	Snrnp40	0x0
29279	chr4	130059162	130060359	+	Snrnp40	0x0
29280	chr4	130135371	130136576	+	Nkain1	0x0
29281	chr4	130137607	130139631	+	Nkain1	0x0
29282	chr4	130147931	130149083	+	Nkain1	0x0
29283	chr4	130167467	130169782	+	Nkain1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29284	chr4	130225658	130226830	+	Pum1	0x0
29285	chr4	130256451	130257556	+	Pum1	0x0
29286	chr4	130283427	130284507	+	Pum1	0x0
29287	chr4	130285696	130287006	+	Pum1	0x0
29288	chr4	130293505	130294667	+	Pum1	0x0
29289	chr4	130298902	130300667	+	Pum1	0x0
29290	chr4	130305057	130306171	+	Pum1	0x0
29291	chr4	130305057	130306171	+	Snord85	0x0
29292	chr4	130309412	130310512	+	Pum1	0x0
29293	chr4	130315858	130317020	+	Pum1	0x0
29294	chr4	130317597	130318752	+	Pum1	0x0
29295	chr4	130323572	130325114	+	Pum1	0x0
29296	chr4	130328080	130329181	+	Pum1	0x0
29297	chr4	130335973	130337558	+	Pum1	0x0
29298	chr4	130372892	130374081	+	Sdc3	0x0
29299	chr4	130378814	130381942	+	Sdc3	0x0
29300	chr4	130490219	130492555	+	Laptm5	0x0
29301	chr4	131402133	131403300	+	Mecr	0x0
29302	chr4	131453111	131454275	+	Srsf4	0x0
29303	chr4	131456886	131458038	+	Srsf4	0x0
29304	chr4	131478862	131481099	-	Epb4.1	0x1
29305	chr4	131479214	131480328	+	Tmem200b	0x0
29306	chr4	131556386	131557594	-	Epb4.1	0x1
29307	chr4	131562566	131563725	-	Epb4.1	0x1
29308	chr4	131591276	131592454	-	Epb4.1	0x1
29309	chr4	131739951	131741139	-	Ythdf2	0x0
29310	chr4	131741190	131742829	-	Ythdf2	0x0
29311	chr4	131775785	131776953	-	Gmeb1	0x0
29312	chr4	131775785	131776953	-	Rps15a-ps4	0x0
29313	chr4	131778775	131782136	-	Gmeb1	0x0
29314	chr4	131825419	131826709	-	Rnu11	0x0
29315	chr4	131887532	131889407	-	Rcc1	0x0
29316	chr4	131911552	131912741	-	Phactr4	0x0
29317	chr4	131932759	131933954	-	Phactr4	0x0
29318	chr4	132014642	132015821	-	Med18	0x0
29319	chr4	132019071	132020203	-	Med18	0x0
29320	chr4	132048298	132049532	-	Sesn2	0x0
29321	chr4	132084784	132087159	-	Atpif1	0x0
29322	chr4	132087303	132088526	-	Atpif1	0x0
29323	chr4	132108695	132110037	+	Dnajc8	0x0
29324	chr4	132194614	132195812	+	Eya3	0x0
29325	chr4	132277117	132278258	+	Eya3	0x0
29326	chr4	132279318	132280431	+	Eya3	0x0
29327	chr4	132333347	132334811	+	Rpa2	0x0
29328	chr4	132382589	132383915	-	Ppp1r8	0x0
29329	chr4	132408877	132411472	-	Stx12	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29330	chr4	132455444	132457000	-	Fam76a	0x0
29331	chr4	132476075	132477255	-	Fam76a	0x0
29332	chr4	132617049	132618672	+	Ahdc1	0x0
29333	chr4	132619523	132621107	+	Ahdc1	0x0
29334	chr4	132625993	132628024	+	Ahdc1	0x0
29335	chr4	132641507	132642630	+	Ahdc1	0x0
29336	chr4	132741104	132742222	+	Wasf2	0x0
29337	chr4	132753209	132755760	+	Wasf2	0x0
29338	chr4	132821727	132822935	-	Tmem222	0x0
29339	chr4	132847943	132850774	-	Wdtc1	0x0
29340	chr4	132867061	132868253	-	Wdtc1	0x0
29341	chr4	132879232	132880443	-	Wdtc1	0x0
29342	chr4	132935792	132936978	+	Slc9a1	0x0
29343	chr4	132965970	132967116	+	Slc9a1	0x0
29344	chr4	132978155	132979790	+	Slc9a1	0x0
29345	chr4	133162543	133164862	-	Zdhhc18	0x0
29346	chr4	133168562	133169698	-	Zdhhc18	0x0
29347	chr4	133174261	133175362	-	Zdhhc18	0x0
29348	chr4	133182650	133183831	-	Zdhhc18	0x0
29349	chr4	133216907	133218048	-	Pigv	0x0
29350	chr4	133219318	133220472	-	Pigv	0x0
29351	chr4	133234884	133236352	-	Arid1a	0x1
29352	chr4	133236566	133238189	-	Arid1a	0x1
29353	chr4	133240282	133241426	-	Arid1a	0x1
29354	chr4	133251447	133252591	-	Arid1a	0x1
29355	chr4	133296410	133297640	-	Arid1a	0x1
29356	chr4	133300118	133301338	-	Arid1a	0x1
29357	chr4	133402932	133404454	-	Rps6ka1	0x0
29358	chr4	133424865	133426072	-	Rps6ka1	0x0
29359	chr4	133435504	133436717	-	Rps6ka1	0x0
29360	chr4	133441726	133442952	-	Rps6ka1	0x0
29361	chr4	133514268	133515327	+	Aim1l	0x0
29362	chr4	133519308	133520447	+	Aim1l	0x0
29363	chr4	133537187	133538372	-	Dhdds	0x0
29364	chr4	133558740	133562254	-	Lin28a	0x0
29365	chr4	133682876	133684085	-	Sh3bgrl3	0x0
29366	chr4	133685793	133686947	-	Cep85	0x0
29367	chr4	133726932	133728042	-	Cep85	0x0
29368	chr4	133736827	133738058	-	Cep85	0x0
29369	chr4	133907980	133910523	+	Slc30a2	0x0
29370	chr4	133960466	133961569	+	Pafah2	0x0
29371	chr4	134118797	134119953	-	Man1c1	0x0
29372	chr4	134200135	134201235	-	Man1c1	0x0
29373	chr4	134214742	134215919	-	Man1c1	0x0
29374	chr4	134297588	134298785	-	Ldlrap1	0x0
29375	chr4	134301641	134302728	-	Ldlrap1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29376	chr4	134358419	134360247	-	Tmem57	0x0
29377	chr4	134383403	134384585	-	Tmem57	0x0
29378	chr4	134453753	134454962	-	Tmem50a	0x0
29379	chr4	134481492	134482621	+	D4Wsu53e	0x0
29380	chr4	134492705	134493868	+	Syf2	0x0
29381	chr4	134594856	134596098	-	Tmem50a	0x0
29382	chr4	134769891	134772977	-	Clic4	0x0
29383	chr4	134875906	134877425	-	Srrm1	0x2
29384	chr4	134899929	134903616	-	Srrm1	0x2
29385	chr4	134908428	134909624	-	Srrm1	0x2
29386	chr4	134968357	134969504	-	Rcan3	0x0
29387	chr4	134969904	134971732	-	Rcan3	0x0
29388	chr4	135004401	135005541	-	Nipal3	0x0
29389	chr4	135006306	135008404	-	Nipal3	0x0
29390	chr4	135045130	135046324	-	Nipal3	0x0
29391	chr4	135097636	135098842	-	Grhl3	0x0
29392	chr4	135271187	135272370	-	Grhl3	0x0
29393	chr4	135420276	135421749	+	Srsf10	0x0
29394	chr4	135426528	135427740	-	Pnrc2	0x0
29395	chr4	135443697	135444819	-	Pnrc2	0x0
29396	chr4	135558836	135561174	-	Tceb3	0x4
29397	chr4	135606557	135607757	-	Rpl11	0x0
29398	chr4	135747301	135748450	+	E2f2	0x0
29399	chr4	135816296	135817781	+	Tcea3	0x0
29400	chr4	135820502	135821609	+	Tcea3	0x0
29401	chr4	135822894	135824194	+	Tcea3	0x0
29402	chr4	135878787	135879941	+	Hnrnpr	0x0
29403	chr4	135885266	135886465	+	Hnrnpr	0x0
29404	chr4	135895698	135897110	+	Hnrnpr	0x0
29405	chr4	135904340	135905444	+	Hnrnpr	0x0
29406	chr4	136039409	136040533	+	Luzp1	0x0
29407	chr4	136093568	136094816	-	Kdm1a	0x0
29408	chr4	136097964	136099644	+	Luzp1	0x0
29409	chr4	136100646	136101745	+	Luzp1	0x0
29410	chr4	136102647	136105087	+	Luzp1	0x0
29411	chr4	136105276	136107549	-	Kdm1a	0x0
29412	chr4	136147476	136148668	-	Kdm1a	0x0
29413	chr4	136261260	136262458	-	Ephb2	0x1
29414	chr4	136299772	136300910	-	Ephb2	0x1
29415	chr4	136383892	136385083	-	Ephb2	0x1
29416	chr4	136387176	136388353	-	Ephb2	0x1
29417	chr4	136557051	136558227	-	Zbtb40	0x0
29418	chr4	136875136	136877251	-	Cdc42	0x2
29419	chr4	136884061	136885256	-	Cdc42	0x2
29420	chr4	137039733	137040854	+	Hspg2	0x0
29421	chr4	137063719	137064854	+	Hspg2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29422	chr4	137074071	137075235	+	Hspg2	0x0
29423	chr4	137084768	137085880	+	Hspg2	0x0
29424	chr4	137088873	137089995	+	Hspg2	0x0
29425	chr4	137091368	137092528	+	Hspg2	0x0
29426	chr4	137093998	137095097	+	Hspg2	0x0
29427	chr4	137097085	137098188	+	Hspg2	0x0
29428	chr4	137103459	137104850	+	Hspg2	0x0
29429	chr4	137106175	137107315	+	Hspg2	0x0
29430	chr4	137107541	137108780	+	Hspg2	0x0
29431	chr4	137112584	137113754	+	Hspg2	0x0
29432	chr4	137115750	137116943	+	Hspg2	0x0
29433	chr4	137125254	137127046	+	Hspg2	0x0
29434	chr4	137157283	137158419	+	Usp48	0x0
29435	chr4	137163436	137164650	+	Usp48	0x0
29436	chr4	137167088	137168254	+	Usp48	0x0
29437	chr4	137169213	137170291	+	Usp48	0x0
29438	chr4	137171771	137172911	+	Usp48	0x0
29439	chr4	137194487	137195818	+	Usp48	0x0
29440	chr4	137212332	137214731	+	Usp48	0x0
29441	chr4	137297233	137298656	-	Alpl	0x0
29442	chr4	137299012	137300189	-	Alpl	0x0
29443	chr4	137367219	137368347	+	Ece1	0x0
29444	chr4	137432884	137434072	+	Ece1	0x0
29445	chr4	137519062	137520797	+	Ece1	0x0
29446	chr4	137686876	137688026	+	Eif4g3	0x0
29447	chr4	137798331	137799526	+	Hp1bp3	0x0
29448	chr4	137867123	137868905	+	Ddost	0x0
29449	chr4	137996271	137997415	+	Mul1	0x0
29450	chr4	138010600	138011767	+	Camk2n1	0x0
29451	chr4	138354973	138356072	-	Pla2g5	0x0
29452	chr4	138381470	138382645	-	Pla2g5	0x0
29453	chr4	138447230	138448410	-	Otud3	0x0
29454	chr4	138657703	138658865	-	Minos1	0x0
29455	chr4	138659283	138660386	-	Minos1	0x0
29456	chr4	138663743	138664938	-	Minos1	0x0
29457	chr4	138678601	138679771	-	Minos1	0x0
29458	chr4	138752814	138754039	+	Capzb	0x0
29459	chr4	138767525	138768717	+	Capzb	0x0
29460	chr4	138843797	138844912	+	Capzb	0x0
29461	chr4	138846625	138848015	+	Capzb	0x0
29462	chr4	138893459	138894918	+	Emc1	0x0
29463	chr4	138921342	138922666	+	Emc1	0x0
29464	chr4	138931446	138934718	+	Emc1	0x0
29465	chr4	138947113	138948552	+	Ubr4	0x0
29466	chr4	138963118	138964329	+	Ubr4	0x0
29467	chr4	138965828	138966927	+	Ubr4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29468	chr4	138973630	138974736	+	Ubr4	0x0
29469	chr4	138975914	138977014	+	Ubr4	0x0
29470	chr4	138979241	138981415	+	Ubr4	0x0
29471	chr4	138984931	138986089	+	Ubr4	0x0
29472	chr4	138992466	138993666	+	Ubr4	0x0
29473	chr4	138995754	138996945	+	Ubr4	0x0
29474	chr4	139000676	139003429	+	Ubr4	0x0
29475	chr4	139013100	139014656	+	Ubr4	0x0
29476	chr4	139015513	139016572	+	Ubr4	0x0
29477	chr4	139017843	139018988	+	Ubr4	0x0
29478	chr4	139020337	139021485	+	Ubr4	0x0
29479	chr4	139027952	139029053	+	Ubr4	0x0
29480	chr4	139031540	139032752	+	Ubr4	0x0
29481	chr4	139044587	139045994	+	Ubr4	0x0
29482	chr4	139172345	139173459	+	Iffo2	0x0
29483	chr4	139204854	139206016	+	Aldh4a1	0x0
29484	chr4	139778101	139779303	-	Igsf21	0x0
29485	chr4	140100015	140101148	-	Arhgef10l	0x0
29486	chr4	140123597	140124777	-	Arhgef10l	0x0
29487	chr4	140151176	140152349	-	Arhgef10l	0x0
29488	chr4	140259961	140261029	+	Rcc2	0x0
29489	chr4	140268815	140270471	+	Rcc2	0x0
29490	chr4	140273074	140274173	+	Rcc2	0x0
29491	chr4	140277236	140279576	+	Rcc2	0x0
29492	chr4	140507462	140508712	+	Padi2	0x0
29493	chr4	140521941	140523125	+	Sdhb	0x1
29494	chr4	140562420	140563615	+	Atp13a2	0x0
29495	chr4	140621941	140623428	-	Necap2	0x0
29496	chr4	140640478	140641705	+	Spata21	0x0
29497	chr4	140669260	140671959	-	Szrd1	0x0
29498	chr4	140678381	140679499	-	Szrd1	0x0
29499	chr4	140723135	140724353	+	Fbxo42	0x0
29500	chr4	140726372	140727511	+	Fbxo42	0x0
29501	chr4	140756737	140759913	+	Fbxo42	0x0
29502	chr4	140872283	140873486	+	Epha2	0x0
29503	chr4	140873835	140875034	+	Epha2	0x0
29504	chr4	140883939	140885654	+	Epha2	0x0
29505	chr4	141023379	141024952	-	Spen	0x0
29506	chr4	141025210	141026441	-	Spen	0x0
29507	chr4	141028322	141029346	-	Spen	0x0
29508	chr4	141030927	141033717	-	Spen	0x0
29509	chr4	141034467	141035698	-	Spen	0x0
29510	chr4	141040545	141041704	-	Spen	0x0
29511	chr4	141043405	141044578	-	Spen	0x0
29512	chr4	141072532	141073786	-	Spen	0x0
29513	chr4	141076591	141078812	-	Spen	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29514	chr4	141131710	141134051	-	Fblim1	0x0
29515	chr4	141144699	141145874	-	Fblim1	0x0
29516	chr4	141233501	141234783	-	Ddi2	0x0
29517	chr4	141233501	141234783	-	Rsc1a1	0x0
29518	chr4	141238479	141239675	-	Ddi2	0x0
29519	chr4	141238479	141239675	-	Rsc1a1	0x0
29520	chr4	141239692	141241360	-	Ddi2	0x0
29521	chr4	141239692	141241360	-	Rsc1a1	0x0
29522	chr4	141254038	141255267	-	Ddi2	0x0
29523	chr4	141277516	141278686	-	Ddi2	0x0
29524	chr4	141317833	141319161	-	Dnajc16	0x0
29525	chr4	141369117	141371812	+	Casp9	0x0
29526	chr4	141414106	141415294	-	Efhd2	0x0
29527	chr4	141584092	141585237	-	Tmem51	0x0
29528	chr4	141658831	141660011	-	Kazn	0x2
29529	chr4	141695351	141697044	-	Kazn	0x2
29530	chr4	141758817	141759976	-	Kazn	0x2
29531	chr4	141763764	141764882	-	Kazn	0x2
29532	chr4	141787142	141788359	-	Kazn	0x2
29533	chr4	142697336	142698554	-	Prdm2	0x1
29534	chr4	142717278	142719438	-	Prdm2	0x1
29535	chr4	142721976	142723106	-	Prdm2	0x1
29536	chr4	142723714	142724943	-	Prdm2	0x1
29537	chr4	142724956	142726086	-	Prdm2	0x1
29538	chr4	142759447	142760645	-	Prdm2	0x1
29539	chr4	142831854	142833754	-	Pdpn	0x0
29540	chr4	142856812	142858332	-	Pdpn	0x0
29541	chr4	142979292	142980639	+	Pramel1	0x0
29542	chr4	143009248	143010394	+	Pramef8	0x0
29543	chr4	143010401	143011503	+	Pramef8	0x0
29544	chr4	143574089	143575241	-	Pramef17	0x0
29545	chr4	143981105	143982668	-	Pramef12	0x0
29546	chr4	144177483	144178630	+	Gm13177	0x0
29547	chr4	144609546	144610725	-	Vps13d	0x0
29548	chr4	144631307	144632508	-	Vps13d	0x0
29549	chr4	144803483	144804678	-	Tnfrsf1b	0x0
29550	chr4	144805051	144806221	-	Tnfrsf1b	0x0
29551	chr4	145020698	145021836	+	Smarca5-ps	0x0
29552	chr4	145025323	145026445	+	Smarca5-ps	0x0
29553	chr4	145029158	145030284	+	Smarca5-ps	0x0
29554	chr4	145039077	145040251	+	Smarca5-ps	0x0
29555	chr4	145041832	145044216	+	Smarca5-ps	0x0
29556	chr4	145126143	145127415	+	Smarca5-ps	0x0
29557	chr4	145127855	145129141	+	Smarca5-ps	0x0
29558	chr4	145130198	145132788	+	Smarca5-ps	0x0
29559	chr4	145132997	145136118	+	Gm13212	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29560	chr4	145150811	145151962	+	Gm13212	0x0
29561	chr4	145214967	145216099	+	Gm13212	0x0
29562	chr4	145290938	145292205	+	Gm13242	0x0
29563	chr4	145420642	145421850	+	Gm13238	0x0
29564	chr4	145658284	145660487	-	Gm13247	0x0
29565	chr4	145660650	145661835	-	Gm13247	0x0
29566	chr4	145681004	145682174	-	Gm13247	0x0
29567	chr4	145701064	145702248	-	Gm13247	0x0
29568	chr4	145728155	145729357	-	Gm13251	0x0
29569	chr4	145730452	145731661	-	Gm13251	0x0
29570	chr4	145756935	145758116	-	Gm13251	0x0
29571	chr4	146019535	146020677	+	Gm13034	0x0
29572	chr4	146030123	146031226	+	Gm13034	0x0
29573	chr4	146068717	146069862	+	Gm13051	0x0
29574	chr4	146095371	146097329	+	Gm13051	0x0
29575	chr4	146152152	146153315	+	Zfp600	0x0
29576	chr4	146163486	146164652	+	Zfp600	0x0
29577	chr4	146522720	146523869	+	Gm13139	0x0
29578	chr4	146522720	146523869	+	Znf41-ps	0x0
29579	chr4	146554968	146556193	+	Znf41-ps	0x0
29580	chr4	146606016	146607173	+	Znf41-ps	0x0
29581	chr4	146632352	146634382	+	Znf41-ps	0x0
29582	chr4	146706930	146712563	+	Znf41-ps	0x0
29583	chr4	146712674	146713771	+	Znf41-ps	0x0
29584	chr4	146717081	146718166	+	Znf41-ps	0x0
29585	chr4	146766200	146767280	+	Gm13152	0x0
29586	chr4	146826662	146827858	+	Gm13152	0x0
29587	chr4	146860760	146862257	-	2610305D13Rik	0x0
29588	chr4	146881801	146882986	+	Gm13152	0x0
29589	chr4	146889191	146890741	+	Gm13152	0x0
29590	chr4	146892150	146894024	+	Gm13152	0x0
29591	chr4	146894063	146895187	+	Gm13152	0x0
29592	chr4	146916563	146917686	+	Gm13154	0x0
29593	chr4	146920835	146921936	+	Gm13154	0x0
29594	chr4	146958218	146959850	+	Gm13154	0x0
29595	chr4	146960672	146961884	+	Gm13154	0x0
29596	chr4	146987406	146988579	-	2610305D13Rik	0x0
29597	chr4	147047477	147048682	-	Zfp534	0x0
29598	chr4	147119964	147121142	-	Gm13157	0x0
29599	chr4	147129718	147131561	-	Gm13157	0x0
29600	chr4	147135329	147136488	-	Gm13157	0x0
29601	chr4	147138242	147139378	-	Gm13157	0x0
29602	chr4	147148682	147150026	-	Gm13157	0x0
29603	chr4	147153941	147155110	-	Gm13157	0x0
29604	chr4	147157911	147159203	-	Gm13157	0x0
29605	chr4	147163878	147164978	-	Gm13157	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29606	chr4	147165125	147166258	-	Gm13157	0x0
29607	chr4	147248127	147249318	-	Mfn2	0x0
29608	chr4	147250554	147251729	-	Mfn2	0x0
29609	chr4	147316848	147317947	+	2510039O18Rik	0x0
29610	chr4	147318223	147319582	+	2510039O18Rik	0x0
29611	chr4	147320456	147321886	+	2510039O18Rik	0x0
29612	chr4	147378082	147381256	-	Clcn6	0x0
29613	chr4	147430650	147431813	+	Mthfr	0x0
29614	chr4	147432713	147433871	+	Mthfr	0x0
29615	chr4	147451188	147452954	-	Agtrap	0x0
29616	chr4	147453366	147454489	-	Agtrap	0x0
29617	chr4	147523153	147524330	-	Fbxo6	0x0
29618	chr4	147660952	147662135	-	Ptchd2	0x0
29619	chr4	147809212	147810321	-	Ubiad1	0x0
29620	chr4	147839464	147840660	+	Mtor	0x0
29621	chr4	147859611	147860830	+	Mtor	0x0
29622	chr4	147938298	147939437	+	Exosc10	0x0
29623	chr4	147950461	147951581	+	Exosc10	0x0
29624	chr4	147966099	147967248	+	Srm	0x0
29625	chr4	147967448	147969246	+	Srm	0x0
29626	chr4	147987902	147989775	-	Tardbp	0x2
29627	chr4	147990588	147992228	-	Tardbp	0x2
29628	chr4	148106145	148107277	+	Gm572	0x0
29629	chr4	148197421	148198629	+	Casz1	0x0
29630	chr4	148204009	148205163	+	Casz1	0x0
29631	chr4	148301147	148302342	-	Pex14	0x0
29632	chr4	148516258	148517930	-	Apitd1	0x0
29633	chr4	148523638	148525207	-	Pgd	0x0
29634	chr4	148527408	148528594	-	Pgd	0x0
29635	chr4	148549994	148553284	-	Kif1b	0x1
29636	chr4	148587689	148588789	-	Kif1b	0x1
29637	chr4	148596854	148598045	-	Kif1b	0x1
29638	chr4	148605201	148606438	-	Kif1b	0x1
29639	chr4	148607757	148609128	-	Kif1b	0x1
29640	chr4	148702931	148704126	-	Ube4b	0x1
29641	chr4	148721608	148722823	-	Ube4b	0x1
29642	chr4	148746417	148747590	-	Ube4b	0x1
29643	chr4	148758674	148759861	-	Ube4b	0x1
29644	chr4	148799575	148800680	-	Ube4b	0x1
29645	chr4	148869971	148871123	+	Lzic	0x0
29646	chr4	148873267	148874356	+	Lzic	0x0
29647	chr4	148938208	148939453	+	Ctnnbip1	0x0
29648	chr4	148939537	148940762	+	Ctnnbip1	0x0
29649	chr4	149005827	149006933	+	Clstn1	0x0
29650	chr4	149008438	149009537	+	Clstn1	0x0
29651	chr4	149021235	149023453	+	Clstn1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29652	chr4	149054057	149055178	-	Pik3cd	0x0
29653	chr4	149089685	149090840	-	Tmem201	0x0
29654	chr4	149098815	149101313	-	Tmem201	0x0
29655	chr4	149118259	149119406	-	Slc25a33	0x0
29656	chr4	149127343	149128509	-	Slc25a33	0x0
29657	chr4	149343144	149344339	-	H6pd	0x2
29658	chr4	149350823	149351937	-	H6pd	0x2
29659	chr4	149354817	149355921	-	H6pd	0x2
29660	chr4	149357626	149358776	-	H6pd	0x2
29661	chr4	149369579	149370803	-	H6pd	0x2
29662	chr4	149434350	149435451	+	Mir34a	0x1
29663	chr4	149610980	149612189	+	Eno1	0x0
29664	chr4	149610980	149612189	+	Gm5506	0x0
29665	chr4	149619978	149621375	+	Eno1	0x0
29666	chr4	149619978	149621375	+	Gm5506	0x0
29667	chr4	149686288	149687430	+	Rere	0x0
29668	chr4	149758519	149759683	+	Rere	0x0
29669	chr4	149993689	149996473	+	Rere	0x0
29670	chr4	150270724	150271925	-	Park7	0x1
29671	chr4	150281911	150283948	-	Park7	0x1
29672	chr4	150420963	150423418	-	Vamp3	0x0
29673	chr4	150433842	150435135	-	Camta1	0x1
29674	chr4	150520816	150521977	-	Camta1	0x1
29675	chr4	150695899	150697074	-	Camta1	0x1
29676	chr4	150760630	150761745	-	Camta1	0x1
29677	chr4	150927311	150928502	-	Camta1	0x1
29678	chr4	151027521	151028702	-	Camta1	0x1
29679	chr4	151105335	151106481	-	Camta1	0x1
29680	chr4	151147734	151148969	-	Camta1	0x1
29681	chr4	151184878	151186003	-	Camta1	0x1
29682	chr4	151203949	151205429	-	Camta1	0x1
29683	chr4	151349397	151350506	+	Dnajc11	0x1
29684	chr4	151354437	151355881	+	Dnajc11	0x1
29685	chr4	151363442	151364862	-	Phf13	0x0
29686	chr4	151390261	151392251	+	Klhl21	0x0
29687	chr4	151419287	151420456	+	Nol9	0x0
29688	chr4	151424104	151425292	+	Nol9	0x0
29689	chr4	151430194	151431322	+	Nol9	0x0
29690	chr4	151432114	151434265	+	Nol9	0x0
29691	chr4	151580288	151581490	+	Acot7	0x0
29692	chr4	151622918	151624052	+	Acot7	0x0
29693	chr4	151634474	151635666	+	Acot7	0x0
29694	chr4	151657617	151659639	+	Gpr153	0x0
29695	chr4	151677801	151681404	+	Icmt	0x0
29696	chr4	151705971	151708606	+	Rpl22	0x6
29697	chr4	151745678	151746859	+	Chd5	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29698	chr4	151762418	151763617	+	Chd5	0x1
29699	chr4	151855806	151856905	+	Nphp4	0x2
29700	chr4	153331311	153332460	+	A430005L14Rik	0x0
29701	chr4	153335142	153336302	+	A430005L14Rik	0x0
29702	chr4	153338180	153339428	-	Dffb	0x0
29703	chr4	153385756	153386806	+	Lrrc47	0x0
29704	chr4	153393678	153395888	+	Lrrc47	0x0
29705	chr4	153458670	153459873	-	Trp73	0x5
29706	chr4	153531146	153532511	-	Tprgl	0x0
29707	chr4	153651624	153652724	+	Megf6	0x0
29708	chr4	153758174	153759316	-	Prdm16	0x6
29709	chr4	153978615	153979735	+	Ttc34	0x0
29710	chr4	154211011	154212208	-	Fam213b	0x0
29711	chr4	154447773	154449577	-	Rer1	0x0
29712	chr4	154451589	154452794	-	Rer1	0x0
29713	chr4	154528301	154531639	-	Ski	0x0
29714	chr4	154544399	154545641	-	Ski	0x0
29715	chr4	154566026	154567150	-	Ski	0x0
29716	chr4	154567196	154568341	-	Ski	0x0
29717	chr4	154568932	154570031	-	Ski	0x0
29718	chr4	154629787	154630993	+	2610002J02Rik	0x0
29719	chr4	154749258	154750453	-	Gabrd	0x0
29720	chr4	154794461	154795656	+	2010015L04Rik	0x0
29721	chr4	154873968	154875068	+	Gnb1	0x0
29722	chr4	154892686	154893870	+	Gnb1	0x0
29723	chr4	154901012	154902198	+	Gnb1	0x0
29724	chr4	154908974	154910072	+	Gnb1	0x0
29725	chr4	154920043	154921237	+	Gnb1	0x0
29726	chr4	154931566	154933881	+	Gnb1	0x0
29727	chr4	154963729	154965504	+	Nadk	0x0
29728	chr4	154993701	154995627	+	Slc35e2	0x0
29729	chr4	154996122	154997555	+	Slc35e2	0x0
29730	chr4	155031190	155033427	-	Mib2	0x0
29731	chr4	155069545	155071011	+	B930041F14Rik	0x0
29732	chr4	155090163	155091363	+	Ssu72	0x0
29733	chr4	155181241	155183418	+	Mrpl20	0x0
29734	chr4	155194341	155195482	+	Ccnl2	0x0
29735	chr4	155206562	155207695	+	Aurkaip1	0x0
29736	chr4	155216339	155217508	+	Mxra8	0x0
29737	chr4	155221139	155222264	+	Dvl1	0x4
29738	chr4	155229793	155230895	+	Dvl1	0x4
29739	chr4	155232444	155233766	+	Dvl1	0x4
29740	chr4	155294995	155296185	+	Acap3	0x0
29741	chr4	155323101	155324294	+	Gm5801	0x0
29742	chr4	155323101	155324294	+	Ube2j2	0x0
29743	chr4	155376105	155377261	+	Sdf4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29744	chr4	155383346	155386161	+	Sdf4	0x0
29745	chr4	155394360	155396738	-	Gm10560	0x0
29746	chr4	155469262	155470418	-	Mir200b	0x0
29747	chr4	155500183	155501871	+	9430015G10Rik	0x0
29748	chr4	155524030	155525353	+	Rnf223	0x0
29749	chr4	155525511	155526734	+	Rnf223	0x0
29750	chr4	155538916	155540994	-	Agrn	0x0
29751	chr4	155544877	155546051	-	Agrn	0x0
29752	chr4	155548160	155549316	-	Agrn	0x0
29753	chr4	155550015	155551168	-	Agrn	0x0
29754	chr4	155568811	155569893	-	Agrn	0x0
29755	chr4	155603434	155604556	-	Klhl17	0x0
29756	chr4	155604789	155605957	-	Klhl17	0x0
29757	chr5	3523221	3524418	+	Cdk6	0x2
29758	chr5	3559060	3560171	+	Fam133b	0x0
29759	chr5	3569256	3570412	+	Fam133b	0x0
29760	chr5	3635057	3636167	-	Gatad1	0x0
29761	chr5	3639564	3641331	-	Gatad1	0x0
29762	chr5	3673735	3674918	-	Ankib1	0x0
29763	chr5	3690792	3692974	-	Ankib1	0x0
29764	chr5	3691605	3692800	+	4930511M11Rik	0x0
29765	chr5	3769025	3770159	-	Ankib1	0x0
29766	chr5	3822566	3823735	+	Krit1	0x1
29767	chr5	3875004	3876216	+	Lrrd1	0x0
29768	chr5	3961669	3962862	+	Akap9	0x2
29769	chr5	4008512	4009655	+	Akap9	0x2
29770	chr5	4059847	4060993	+	Akap9	0x2
29771	chr5	4080623	4083601	-	Cyp51	0x0
29772	chr5	5305243	5306407	-	Cdk14	0x0
29773	chr5	5504675	5506001	-	Cldn12	0x0
29774	chr5	5506041	5507216	-	Cldn12	0x0
29775	chr5	5537159	5538364	-	Gtpbp10	0x0
29776	chr5	5743007	5744144	-	Steap1	0x0
29777	chr5	5775796	5776932	-	Steap1	0x0
29778	chr5	5782118	5783994	-	Steap1	0x0
29779	chr5	7177164	7178359	-	Zfp804b	0x0
29780	chr5	7178958	7181218	+	4921511H03Rik	0x0
29781	chr5	7433033	7434227	-	Zfp804b	0x0
29782	chr5	8073708	8075235	-	Adam22	0x2
29783	chr5	8075849	8078385	-	Adam22	0x2
29784	chr5	8117115	8118302	-	Adam22	0x2
29785	chr5	8392070	8393216	-	Dbf4	0x0
29786	chr5	8396664	8398073	-	Dbf4	0x0
29787	chr5	8411577	8412777	-	Dbf4	0x0
29788	chr5	8453880	8455033	+	Slc25a40	0x0
29789	chr5	8490038	8491952	-	Rundc3b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29790	chr5	8726267	8727472	+	Abcb1a	0x0
29791	chr5	8824096	8825271	+	Abcb1b	0x0
29792	chr5	8837124	8838253	+	Abcb1b	0x0
29793	chr5	9107788	9108976	+	Tmem243	0x0
29794	chr5	9112328	9113476	+	Tmem243	0x0
29795	chr5	9118074	9119216	+	Tmem243	0x0
29796	chr5	9119287	9120471	-	Dmtf1	0x1
29797	chr5	9131955	9133132	-	Dmtf1	0x1
29798	chr5	9140573	9141773	-	Dmtf1	0x1
29799	chr5	9161817	9163003	+	Tmem243	0x0
29800	chr5	9164307	9165538	-	Dmtf1	0x1
29801	chr5	10117429	10118583	+	9330182L06Rik	0x0
29802	chr5	14222992	14224135	+	Sema3e	0x2
29803	chr5	15410022	15411215	-	4930519H02Rik	0x0
29804	chr5	16181076	16182259	-	4930519H02Rik	0x0
29805	chr5	17070697	17071815	-	Mir5109	0x0
29806	chr5	20264143	20266984	-	Phtf2	0x0
29807	chr5	20281199	20282369	-	Phtf2	0x0
29808	chr5	20299579	20300796	-	Phtf2	0x0
29809	chr5	20303959	20305197	-	Phtf2	0x0
29810	chr5	20398693	20402180	-	Rsbn1l	0x0
29811	chr5	20498467	20499666	-	Ptpn12	0x1
29812	chr5	20507737	20508948	-	Ptpn12	0x1
29813	chr5	20514869	20516079	-	Ptpn12	0x1
29814	chr5	20524064	20525295	-	Ptpn12	0x1
29815	chr5	20541311	20542535	-	Ptpn12	0x1
29816	chr5	20930344	20931486	+	Fam185a	0x0
29817	chr5	20938984	20940135	+	Fam185a	0x0
29818	chr5	20943688	20945175	+	Fam185a	0x0
29819	chr5	20964505	20965636	+	Fam185a	0x0
29820	chr5	20986385	20987458	+	Fam185a	0x0
29821	chr5	21151413	21152562	+	Armc10	0x1
29822	chr5	21167025	21168929	+	Armc10	0x1
29823	chr5	21244184	21245352	+	Pmpcb	0x0
29824	chr5	21262133	21263232	+	Pmpcb	0x0
29825	chr5	21307849	21308955	+	Psmc2	0x0
29826	chr5	21992073	21993270	-	Orc5	0x0
29827	chr5	22061707	22062903	+	Lhfpl3	0x0
29828	chr5	22198827	22200032	-	A930003O13Rik	0x0
29829	chr5	22229327	22230793	-	A930003O13Rik	0x0
29830	chr5	22230906	22232296	-	A930003O13Rik	0x0
29831	chr5	22870520	22872804	-	5031425E22Rik	0x0
29832	chr5	22873913	22876144	-	5031425E22Rik	0x0
29833	chr5	22927894	22929059	-	5031425E22Rik	0x0
29834	chr5	22941412	22942561	+	Mll5	0x0
29835	chr5	23008043	23009682	+	Mll5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29836	chr5	23018100	23019243	-	Srpk2	0x0
29837	chr5	23182217	23183363	+	Rint1	0x1
29838	chr5	23204142	23205425	-	AI506816	0x0
29839	chr5	23246579	23247844	-	Pus7	0x0
29840	chr5	23273082	23274208	-	Pus7	0x0
29841	chr5	23357458	23358669	+	2700038G22Rik	0x0
29842	chr5	23357458	23358669	+	Mir3096b	0x0
29843	chr5	23357458	23358669	+	Snord93	0x0
29844	chr5	23361695	23362864	+	2700038G22Rik	0x0
29845	chr5	23466457	23468765	-	Fam126a	0x0
29846	chr5	23468912	23471184	-	Fam126a	0x0
29847	chr5	23492031	23493135	-	Fam126a	0x0
29848	chr5	23688441	23690160	+	Nupl2	0x0
29849	chr5	23824907	23826115	-	Kcnh2	0x0
29850	chr5	23826562	23827684	-	Kcnh2	0x0
29851	chr5	23945052	23946255	+	Slc4a2	0x4
29852	chr5	23946638	23947756	-	Fastk	0x4
29853	chr5	23948563	23949721	-	Fastk	0x4
29854	chr5	23968330	23969535	+	Agap3	0x0
29855	chr5	23988337	23989560	+	Agap3	0x0
29856	chr5	23998211	23999430	+	Agap3	0x0
29857	chr5	24000032	24001191	+	Agap3	0x0
29858	chr5	24005368	24006588	+	Agap3	0x0
29859	chr5	24023259	24024454	-	Gbx1	0x0
29860	chr5	24069701	24070826	-	Abcf2	0x0
29861	chr5	24077278	24078493	-	Abcf2	0x0
29862	chr5	24078743	24080042	-	Abcf2	0x0
29863	chr5	24369111	24370299	-	Prkag2	0x0
29864	chr5	24777332	24779283	-	Mll3	0x0
29865	chr5	24789993	24791127	-	Mll3	0x0
29866	chr5	24792928	24794124	-	Mll3	0x0
29867	chr5	24798398	24799497	-	Mll3	0x0
29868	chr5	24811313	24812505	-	Mll3	0x0
29869	chr5	24857522	24858684	-	Mll3	0x0
29870	chr5	24859661	24860795	-	Mll3	0x0
29871	chr5	25034684	25035830	-	Mll3	0x0
29872	chr5	25169500	25170731	-	Xrcc2	0x2
29873	chr5	25195232	25196387	-	Xrcc2	0x2
29874	chr5	25196655	25197775	-	Xrcc2	0x2
29875	chr5	25296447	25297567	+	Actr3b	0x0
29876	chr5	25355475	25356637	+	Actr3b	0x0
29877	chr5	27531837	27532970	+	Dpp6	0x2
29878	chr5	27966672	27967819	+	Dpp6	0x2
29879	chr5	28087710	28088858	-	Paxip1	0x0
29880	chr5	28098071	28099738	-	Paxip1	0x0
29881	chr5	28109421	28110616	-	Paxip1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29882	chr5	28399624	28400683	+	Insig1	0x0
29883	chr5	28402921	28405647	+	Insig1	0x0
29884	chr5	28496872	28498078	+	En2	0x0
29885	chr5	28684327	28685490	+	Rbm33	0x0
29886	chr5	28713688	28714860	+	Rbm33	0x0
29887	chr5	28736545	28737759	+	Rbm33	0x0
29888	chr5	28740486	28742885	+	Rbm33	0x0
29889	chr5	29556783	29557882	-	Lmbr1	0x0
29890	chr5	29560857	29562128	-	Lmbr1	0x0
29891	chr5	29595216	29596442	-	Lmbr1	0x0
29892	chr5	29604315	29605439	-	Lmbr1	0x0
29893	chr5	29618115	29619315	-	Lmbr1	0x0
29894	chr5	29767194	29768392	+	Nom1	0x0
29895	chr5	29775597	29777425	+	Nom1	0x0
29896	chr5	29780377	29781603	+	Nom1	0x0
29897	chr5	29783097	29784213	+	Nom1	0x0
29898	chr5	29864197	29865605	+	Ube3c	0x0
29899	chr5	29978989	29980088	+	Ube3c	0x0
29900	chr5	30000776	30002368	+	Ube3c	0x0
29901	chr5	30092649	30093895	+	Dnajb6	0x0
29902	chr5	30443820	30445015	+	Garem1	0x0
29903	chr5	30487011	30488158	+	Hadhb	0x0
29904	chr5	30546968	30548328	-	Gpr113	0x0
29905	chr5	30583203	30584394	+	Ept1	0x0
29906	chr5	30597556	30598653	+	Ept1	0x0
29907	chr5	30969171	30970391	+	Cenpa	0x0
29908	chr5	30974122	30977520	+	Cenpa	0x0
29909	chr5	31033021	31034225	+	Dpysl5	0x0
29910	chr5	31098878	31101131	+	Dpysl5	0x0
29911	chr5	31167487	31168787	+	Mapre3	0x0
29912	chr5	31189947	31191142	+	Agbl5	0x0
29913	chr5	31194283	31195476	+	Agbl5	0x0
29914	chr5	31203981	31207179	-	Ost4	0x0
29915	chr5	31206561	31207763	+	Agbl5	0x0
29916	chr5	31360482	31361965	+	Cad	0x0
29917	chr5	31363023	31364122	+	Cad	0x0
29918	chr5	31369229	31370382	+	Cad	0x0
29919	chr5	31370931	31372599	+	Cad	0x0
29920	chr5	31374716	31375833	+	Cad	0x0
29921	chr5	31380215	31381368	+	Cad	0x0
29922	chr5	31442602	31444004	-	Mpv17	0x0
29923	chr5	31458123	31460186	-	Gtf3c2	0x0
29924	chr5	31469858	31470957	-	Gtf3c2	0x0
29925	chr5	31495296	31496434	+	Snx17	0x0
29926	chr5	31500519	31501789	+	Snx17	0x0
29927	chr5	31504508	31506831	-	Ppm1g	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29928	chr5	31504508	31506831	-	Zfp513	0x0
29929	chr5	31556940	31558138	+	Krtcap3	0x0
29930	chr5	31585496	31586703	-	Ift172	0x0
29931	chr5	31778656	31779757	+	Zfp512	0x0
29932	chr5	31799259	31800443	+	Gpn1	0x0
29933	chr5	31801027	31802176	+	Gpn1	0x0
29934	chr5	31810143	31811294	+	Gpn1	0x0
29935	chr5	31812775	31814165	+	Gpn1	0x0
29936	chr5	31816903	31818114	-	Supt7l	0x0
29937	chr5	31859660	31860811	+	Slc4a1ap	0x0
29938	chr5	31924301	31925498	+	Mrpl33	0x0
29939	chr5	32222715	32223893	+	Bre	0x2
29940	chr5	32268430	32269555	+	Bre	0x2
29941	chr5	32386627	32387791	+	Bre	0x2
29942	chr5	32787740	32788930	+	Ppp1cb	0x0
29943	chr5	32793017	32795505	+	Ppp1cb	0x0
29944	chr5	32808569	32809760	+	Ppp1cb	0x0
29945	chr5	32879428	32880592	+	Yes1	0x0
29946	chr5	32925251	32926415	+	Yes1	0x0
29947	chr5	32940513	32941672	+	Yes1	0x0
29948	chr5	32954856	32955958	+	Yes1	0x0
29949	chr5	32957014	32958163	+	Yes1	0x0
29950	chr5	32962612	32963812	+	Yes1	0x0
29951	chr5	32984489	32985585	+	Yes1	0x0
29952	chr5	32986669	32990026	+	Yes1	0x0
29953	chr5	33078497	33080112	-	Pisd	0x0
29954	chr5	33080121	33081312	-	Pisd	0x0
29955	chr5	33133309	33135343	-	Prr14l	0x0
29956	chr5	33140757	33141904	-	Prr14l	0x0
29957	chr5	33169174	33171476	-	Prr14l	0x0
29958	chr5	33173067	33174492	-	Prr14l	0x0
29959	chr5	33177690	33178783	-	Prr14l	0x0
29960	chr5	33253756	33254923	+	Depdc5	0x0
29961	chr5	33265039	33266234	+	Depdc5	0x0
29962	chr5	33331105	33332257	+	Depdc5	0x0
29963	chr5	33334296	33335438	+	Depdc5	0x0
29964	chr5	33335793	33337132	+	Depdc5	0x0
29965	chr5	33369911	33371088	+	Ywhah	0x0
29966	chr5	33399346	33400513	-	Spon2	0x4
29967	chr5	33585764	33586955	-	Ctbp1	0x1
29968	chr5	33589852	33591751	-	Ctbp1	0x1
29969	chr5	33714802	33716116	+	Maea	0x0
29970	chr5	33849234	33850469	-	Fam53a	0x0
29971	chr5	33851047	33853088	-	Fam53a	0x0
29972	chr5	33859957	33861568	-	Fam53a	0x0
29973	chr5	33864617	33865800	-	Fam53a	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
29974	chr5	33870021	33871388	-	Fam53a	0x0
29975	chr5	33875072	33876746	-	Fam53a	0x0
29976	chr5	33942654	33943803	-	Fam53a	0x0
29977	chr5	33958652	33959824	-	Fam53a	0x0
29978	chr5	33966333	33967574	-	Fam53a	0x0
29979	chr5	34021361	34022489	+	Tacc3	0x0
29980	chr5	34185377	34186883	+	Whsc1	0x2
29981	chr5	34188215	34189438	+	Whsc1	0x2
29982	chr5	34210926	34212033	+	Whsc1	0x2
29983	chr5	34217646	34218782	+	Whsc1	0x2
29984	chr5	34218894	34220067	+	Whsc1	0x2
29985	chr5	34224978	34226096	+	Whsc1	0x2
29986	chr5	34227761	34228849	+	Whsc1	0x2
29987	chr5	34237149	34238529	+	Whsc1	0x2
29988	chr5	34240536	34241714	-	Nelfa	0x0
29989	chr5	34264004	34265179	-	Nelfa	0x0
29990	chr5	34268975	34270179	-	Nelfa	0x0
29991	chr5	34344038	34345991	+	Nat8l	0x0
29992	chr5	34508244	34509457	-	Haus3	0x0
29993	chr5	34518489	34519604	-	Mxd4	0x0
29994	chr5	34688888	34690105	+	Rnf4	0x0
29995	chr5	34693554	34696299	+	Rnf4	0x0
29996	chr5	34752818	34754004	+	Fam193a	0x0
29997	chr5	34783457	34784568	+	Fam193a	0x0
29998	chr5	34803418	34804520	+	Fam193a	0x0
29999	chr5	34808799	34809892	+	Fam193a	0x0
30000	chr5	34814786	34815999	+	Fam193a	0x0
30001	chr5	34828040	34829236	+	Fam193a	0x0
30002	chr5	34843418	34844623	-	Tnip2	0x0
30003	chr5	34951272	34952430	+	Add1	0x0
30004	chr5	34955974	34957159	-	Mfsd10	0x0
30005	chr5	34973161	34975097	+	Add1	0x0
30006	chr5	34977282	34978473	-	Mfsd10	0x0
30007	chr5	35124657	35125865	+	Htt	0x0
30008	chr5	35145819	35147013	+	Htt	0x0
30009	chr5	35150008	35151124	+	Htt	0x0
30010	chr5	35220931	35222080	+	Htt	0x0
30011	chr5	35252497	35253646	+	Htt	0x0
30012	chr5	35253737	35254787	+	Htt	0x0
30013	chr5	35317129	35318280	+	Rgs12	0x2
30014	chr5	35374754	35375900	+	Rgs12	0x2
30015	chr5	35434212	35436354	-	Lrpap1	0x0
30016	chr5	36066030	36067226	-	Sh3tc1	0x0
30017	chr5	36084207	36085424	+	Ablim2	0x2
30018	chr5	36106366	36107516	+	Ablim2	0x2
30019	chr5	36123422	36124619	+	Ablim2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30020	chr5	36203500	36204684	+	Ablim2	0x2
30021	chr5	36343523	36345544	+	Afap1	0x0
30022	chr5	36528045	36529240	-	Sorcs2	0x0
30023	chr5	36682455	36683572	-	Sorcs2	0x0
30024	chr5	36701804	36702986	-	Sorcs2	0x0
30025	chr5	36813586	36814819	+	Grpel1	0x0
30026	chr5	36816338	36817938	-	Tada2b	0x0
30027	chr5	36833162	36835614	-	Tbc1d14	0x0
30028	chr5	36862570	36863756	-	Tbc1d14	0x0
30029	chr5	36943485	36944835	-	D5Ertd579e	0x0
30030	chr5	37185675	37187589	-	Mrfap1	0x0
30031	chr5	37221205	37222324	-	Man2b2	0x0
30032	chr5	37268909	37270008	+	Ppp2r2c	0x0
30033	chr5	37275686	37276887	+	Ppp2r2c	0x0
30034	chr5	37292351	37293522	-	4933401P06Rik	0x0
30035	chr5	37322127	37323352	+	Ppp2r2c	0x0
30036	chr5	37343768	37346745	+	Ppp2r2c	0x0
30037	chr5	37356940	37358174	-	Wfs1	0x0
30038	chr5	37359330	37360551	-	Wfs1	0x0
30039	chr5	37490185	37491372	+	Jakmip1	0x0
30040	chr5	37690115	37691644	-	Evc	0x0
30041	chr5	37762902	37764142	+	Evc2	0x0
30042	chr5	37783812	37785002	+	Evc2	0x0
30043	chr5	38549310	38550419	+	Stx18	0x0
30044	chr5	38600529	38601770	-	Zbtb49	0x0
30045	chr5	38618581	38619728	+	Lyar	0x0
30046	chr5	38624704	38625969	+	Lyar	0x0
30047	chr5	38659845	38661073	+	Tmem128	0x0
30048	chr5	38692048	38693256	+	Otop1	0x2
30049	chr5	38898150	38899461	+	4930487D11Rik	0x0
30050	chr5	38917574	38919073	-	Wdr1	0x0
30051	chr5	39061120	39062280	-	Zfp518b	0x0
30052	chr5	39102861	39104011	+	4930487D11Rik	0x0
30053	chr5	42015725	42017412	-	Rab28	0x0
30054	chr5	42081245	42082422	-	Rab28	0x0
30055	chr5	42086785	42087975	-	Rab28	0x0
30056	chr5	42179250	42180384	-	Bod1l	0x0
30057	chr5	42207839	42209140	-	Bod1l	0x0
30058	chr5	42209716	42211540	-	Bod1l	0x0
30059	chr5	42212351	42213529	-	Bod1l	0x0
30060	chr5	44149027	44150482	-	Fbxl5	0x0
30061	chr5	44153599	44154705	-	Fbxl5	0x0
30062	chr5	44156029	44157161	-	Fbxl5	0x0
30063	chr5	44164150	44165364	-	Fbxl5	0x0
30064	chr5	44301370	44302518	+	Cd38	0x0
30065	chr5	44334639	44335833	-	Fgfbp1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30066	chr5	44565991	44567183	-	Tapt1	0x0
30067	chr5	45838908	45840146	-	Qdpr	0x0
30068	chr5	45885901	45887031	+	Lap3	0x0
30069	chr5	45915874	45917376	+	Med28	0x0
30070	chr5	46069364	46070561	+	Ncapg	0x0
30071	chr5	48776818	48777976	+	Pacrgl	0x0
30072	chr5	48786451	48787591	+	5730480H06Rik	0x0
30073	chr5	48794749	48795919	+	5730480H06Rik	0x0
30074	chr5	50350862	50352058	-	Gpr125	0x0
30075	chr5	50412062	50413227	-	Gpr125	0x0
30076	chr5	50740132	50741278	+	4930448I18Rik	0x0
30077	chr5	52537516	52538714	-	Dhx15	0x0
30078	chr5	52540961	52542285	-	Dhx15	0x0
30079	chr5	52574633	52576670	-	Dhx15	0x0
30080	chr5	52594464	52595607	+	9230114K14Rik	0x0
30081	chr5	52925777	52928463	-	Lgi2	0x0
30082	chr5	53031333	53032430	-	Sepsecs	0x0
30083	chr5	53032802	53034166	-	Sepsecs	0x0
30084	chr5	53159442	53160743	+	Pi4k2b	0x0
30085	chr5	53257299	53258500	+	Anapc4	0x0
30086	chr5	53659848	53660999	+	1810013D10Rik	0x0
30087	chr5	53668945	53670142	+	1810013D10Rik	0x0
30088	chr5	53962076	53963189	+	Rbpj	0x0
30089	chr5	53981452	53982593	+	Rbpj	0x0
30090	chr5	54045967	54049021	+	Rbpj	0x0
30091	chr5	54509951	54511514	+	Stim2	0x0
30092	chr5	55042597	55043835	-	Cckar	0x2
30093	chr5	57025311	57026574	-	4932441J04Rik	0x0
30094	chr5	60509000	60510169	+	G6pd2	0x0
30095	chr5	64300508	64302599	-	Rell1	0x0
30096	chr5	64494375	64495590	+	Pgm1	0x0
30097	chr5	64631496	64632675	+	Tbc1d1	0x0
30098	chr5	64687558	64688675	+	Tbc1d1	0x0
30099	chr5	64716684	64717835	+	Tbc1d1	0x0
30100	chr5	64741263	64743142	+	Tbc1d1	0x0
30101	chr5	64984871	64986053	-	Gm3716	0x0
30102	chr5	65219802	65222841	+	Klf3	0x0
30103	chr5	65223496	65224629	+	Klf3	0x0
30104	chr5	65516835	65517995	+	Klhl5	0x0
30105	chr5	65553534	65554736	+	Klhl5	0x0
30106	chr5	65615365	65616538	+	Wdr19	0x0
30107	chr5	65652645	65653976	-	Rfc1	0x0
30108	chr5	65656925	65658080	-	Rfc1	0x0
30109	chr5	65678600	65679813	-	Rfc1	0x0
30110	chr5	65691800	65693614	-	Rfc1	0x0
30111	chr5	65779235	65780478	-	Rpl9	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30112	chr5	65781822	65782980	-	Rpl9	0x0
30113	chr5	65960458	65961630	+	Ube2k	0x0
30114	chr5	65972108	65973298	+	Ube2k	0x0
30115	chr5	65985744	65987166	+	Ube2k	0x0
30116	chr5	65987734	65989780	+	Ube2k	0x0
30117	chr5	65998608	66001816	-	Pds5a	0x0
30118	chr5	66011272	66012407	-	Pds5a	0x0
30119	chr5	66028279	66029443	-	Pds5a	0x0
30120	chr5	66038641	66039836	-	Pds5a	0x0
30121	chr5	66041902	66043127	-	Pds5a	0x0
30122	chr5	66053533	66054642	-	Pds5a	0x0
30123	chr5	66217877	66221549	+	N4bp2	0x0
30124	chr5	66384513	66385683	+	Chrna9	0x2
30125	chr5	66407669	66409698	-	Rbm47	0x0
30126	chr5	66433401	66434595	-	Rbm47	0x0
30127	chr5	66698259	66699398	-	Apbb2	0x0
30128	chr5	66699789	66700906	-	Apbb2	0x0
30129	chr5	66876687	66877883	-	Apbb2	0x0
30130	chr5	67067212	67068553	+	Uchl1	0x1
30131	chr5	67077766	67078963	+	Uchl1	0x1
30132	chr5	67677458	67679736	+	Tmem33	0x0
30133	chr5	67736614	67737756	+	Slc30a9	0x0
30134	chr5	67746119	67747449	+	Slc30a9	0x0
30135	chr5	67785996	67787226	-	Bend4	0x0
30136	chr5	67787978	67789035	-	Bend4	0x0
30137	chr5	67808182	67809394	-	Bend4	0x0
30138	chr5	68010367	68011881	-	Atp8a1	0x0
30139	chr5	68012098	68013244	-	Atp8a1	0x0
30140	chr5	68176234	68177470	-	Atp8a1	0x0
30141	chr5	68185366	68186518	-	Atp8a1	0x0
30142	chr5	72549768	72551512	-	Commd8	0x0
30143	chr5	72688463	72690459	+	Atp10d	0x0
30144	chr5	72904133	72905281	-	Nfxl1	0x0
30145	chr5	72905410	72906642	-	Nfxl1	0x0
30146	chr5	73017563	73018770	-	Cnga1	0x0
30147	chr5	73367730	73369996	+	Slain2	0x0
30148	chr5	73411812	73413246	-	Fryl	0x0
30149	chr5	73417748	73418915	-	Fryl	0x0
30150	chr5	73425682	73426868	-	Fryl	0x0
30151	chr5	73441514	73442716	-	Fryl	0x0
30152	chr5	73489962	73491136	-	Fryl	0x0
30153	chr5	73643959	73645147	-	Fryl	0x0
30154	chr5	73701439	73702540	+	Ociad1	0x0
30155	chr5	73702856	73703972	+	Ociad1	0x0
30156	chr5	73704291	73705532	+	Ociad1	0x0
30157	chr5	73949120	73952080	+	Dcun1d4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30158	chr5	74025566	74026669	-	Sgcb	0x0
30159	chr5	74396480	74397995	-	Usp46	0x0
30160	chr5	74446940	74448142	-	Usp46	0x0
30161	chr5	74488658	74490216	+	Dancr	0x0
30162	chr5	74488658	74490216	+	Snora26	0x0
30163	chr5	74931116	74932329	+	Fip1l1	0x2
30164	chr5	75395515	75397638	-	Chic2	0x0
30165	chr5	75563291	75564504	+	Pdgfra	0x2
30166	chr5	75993109	75994271	+	Kit	0x2
30167	chr5	76004947	76006091	+	Kit	0x2
30168	chr5	76006324	76007511	+	Kit	0x2
30169	chr5	76050587	76052936	+	Kit	0x2
30170	chr5	76578375	76579533	+	Srd5a3	0x0
30171	chr5	76612644	76613858	+	Tmem165	0x0
30172	chr5	76632679	76633818	+	Tmem165	0x0
30173	chr5	76636305	76637404	+	Tmem165	0x0
30174	chr5	76642449	76644117	-	Clock	0x0
30175	chr5	76644382	76645533	-	Clock	0x0
30176	chr5	76660403	76661576	-	Clock	0x0
30177	chr5	77073803	77075003	+	Cep135	0x0
30178	chr5	77233553	77234740	+	C530008M17Rik	0x0
30179	chr5	77330558	77331710	-	Aasdh	0x0
30180	chr5	77340653	77341690	-	Ppat	0x0
30181	chr5	77342832	77344584	-	Ppat	0x0
30182	chr5	77378039	77379173	-	Ppat	0x0
30183	chr5	77379409	77380624	-	Ppat	0x0
30184	chr5	77395484	77396955	+	Paics	0x0
30185	chr5	77427355	77429237	+	Srp72	0x0
30186	chr5	77694189	77695393	+	Rest	0x2
30187	chr5	77696536	77698108	+	Rest	0x2
30188	chr5	77703667	77704862	+	Rest	0x2
30189	chr5	77706806	77707951	+	Rest	0x2
30190	chr5	77712605	77715656	+	Rest	0x2
30191	chr5	77755016	77756214	+	Polr2b	0x0
30192	chr5	77771140	77772253	+	Polr2b	0x0
30193	chr5	80066650	80067953	-	Pea15b	0x0
30194	chr5	82058305	82059506	-	Mir1187	0x0
30195	chr5	82765909	82767084	+	Lphn3	0x2
30196	chr5	86367754	86368949	-	Cenpc1	0x0
30197	chr5	86539020	86541186	-	Uba6	0x0
30198	chr5	86549082	86550214	-	Uba6	0x0
30199	chr5	87239480	87240603	+	Ythdc1	0x0
30200	chr5	87259991	87261144	+	Ythdc1	0x0
30201	chr5	87264216	87265429	+	Ythdc1	0x0
30202	chr5	87426293	87427847	+	Ugt2b35	0x2
30203	chr5	88983096	88985109	+	Utp3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30204	chr5	89087849	89089379	-	Grsf1	0x0
30205	chr5	89099683	89100897	-	Grsf1	0x0
30206	chr5	89104406	89105608	-	Grsf1	0x0
30207	chr5	89185092	89186191	+	Mob1b	0x0
30208	chr5	89187601	89188920	+	Mob1b	0x0
30209	chr5	89190068	89191295	+	Mob1b	0x0
30210	chr5	89210605	89211803	+	Dck	0x0
30211	chr5	89629402	89630546	+	Slc4a4	0x0
30212	chr5	89666516	89667636	+	Slc4a4	0x0
30213	chr5	90118260	90119434	-	Adamts3	0x0
30214	chr5	90561030	90562441	+	Gm9958	0x0
30215	chr5	90656951	90658860	-	Ankrd17	0x0
30216	chr5	90677166	90678265	+	Gm9958	0x0
30217	chr5	90682368	90683563	-	Ankrd17	0x0
30218	chr5	90697090	90698284	-	Ankrd17	0x0
30219	chr5	92054637	92055790	+	Parm1	0x0
30220	chr5	92377969	92379223	-	Rchy1	0x0
30221	chr5	92391276	92392468	-	Rchy1	0x0
30222	chr5	92481285	92484136	-	G3bp2	0x0
30223	chr5	92484585	92485768	-	G3bp2	0x0
30224	chr5	92492699	92494076	-	G3bp2	0x0
30225	chr5	92512002	92513182	-	G3bp2	0x0
30226	chr5	92568874	92570058	-	G3bp2	0x0
30227	chr5	92630560	92632097	+	Uso1	0x0
30228	chr5	92713088	92715719	-	Sdad1	0x0
30229	chr5	92844369	92845513	-	Nup54	0x0
30230	chr5	92859273	92860479	-	Nup54	0x0
30231	chr5	92862380	92863545	-	Nup54	0x0
30232	chr5	92869892	92873589	-	Scarb2	0x0
30233	chr5	92928449	92929646	-	Scarb2	0x0
30234	chr5	93082070	93084198	-	Ccdc158	0x0
30235	chr5	93236066	93237235	+	Shroom3	0x2
30236	chr5	93541458	93542604	+	Sept11	0x0
30237	chr5	93590628	93591827	+	Sept11	0x0
30238	chr5	93600116	93603713	+	Sept11	0x0
30239	chr5	93610464	93612676	-	Ccni	0x0
30240	chr5	93696679	93697878	+	Ccng2	0x0
30241	chr5	93703902	93705111	+	Ccng2	0x0
30242	chr5	96403276	96404437	+	Cxcl13	0x0
30243	chr5	96501925	96503009	-	Cnot6l	0x0
30244	chr5	96566088	96567309	-	Cnot6l	0x0
30245	chr5	96694606	96696013	+	Mrpl1	0x0
30246	chr5	97522121	97524675	-	Paqr3	0x0
30247	chr5	97694015	97695389	+	4930467D21Rik	0x0
30248	chr5	97811224	97812649	-	Naa11	0x0
30249	chr5	97820425	97821627	-	Naa11	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30250	chr5	98435996	98437379	+	Prdm8	0x0
30251	chr5	98904036	98905209	-	Mir703	0x0
30252	chr5	100385639	100387304	-	Hnrnpd	0x0
30253	chr5	100389481	100390814	-	Hnrnpd	0x0
30254	chr5	100394630	100397063	-	Hnrnpd	0x0
30255	chr5	100462223	100464522	-	Hnrpdl	0x0
30256	chr5	100794378	100795577	-	Sec31a	0x0
30257	chr5	100811276	100812423	-	Sec31a	0x0
30258	chr5	100821376	100822556	-	Sec31a	0x0
30259	chr5	100824264	100825503	-	Sec31a	0x0
30260	chr5	100853593	100854747	-	5430416N02Rik	0x0
30261	chr5	100855330	100856550	-	5430416N02Rik	0x0
30262	chr5	100857131	100858308	-	5430416N02Rik	0x0
30263	chr5	100870765	100873645	-	Lin54	0x0
30264	chr5	100914188	100915342	-	Lin54	0x0
30265	chr5	101083227	101084670	-	Coq2	0x0
30266	chr5	101092172	101093349	-	Coq2	0x0
30267	chr5	101096073	101097233	-	Coq2	0x0
30268	chr5	101232875	101234065	+	Mrps18c	0x0
30269	chr5	102250223	102251390	+	Cds1	0x0
30270	chr5	102251709	102252862	+	Cds1	0x0
30271	chr5	102262877	102263989	-	Wdfy3	0x0
30272	chr5	102264405	102265474	-	Wdfy3	0x0
30273	chr5	102296008	102297202	-	Wdfy3	0x0
30274	chr5	102358366	102360604	-	Wdfy3	0x0
30275	chr5	102449553	102450726	-	Wdfy3	0x0
30276	chr5	102473743	102474901	-	Wdfy3	0x0
30277	chr5	102481384	102482500	-	Wdfy3	0x0
30278	chr5	102496563	102497788	-	Wdfy3	0x0
30279	chr5	102861886	102863061	+	Arhgap24	0x0
30280	chr5	103929990	103931293	+	Ptpn13	0x0
30281	chr5	104212469	104213796	+	Aff1	0x0
30282	chr5	104279599	104280720	+	Aff1	0x0
30283	chr5	104280815	104281887	+	Aff1	0x0
30284	chr5	104282019	104284089	+	Aff1	0x0
30285	chr5	104297638	104298877	-	Klhl8	0x0
30286	chr5	104314407	104315637	-	Klhl8	0x0
30287	chr5	104418318	104419452	-	Hsd17b11	0x0
30288	chr5	104479207	104480355	+	Nudt9	0x0
30289	chr5	104863611	104864789	+	Spp1	0x0
30290	chr5	104869198	104870659	+	Spp1	0x0
30291	chr5	104884451	104885659	-	Sparcl1	0x0
30292	chr5	104921145	104922301	+	Pkd2	0x0
30293	chr5	104932657	104934576	+	Pkd2	0x0
30294	chr5	105016729	105017861	+	D930016D06Rik	0x0
30295	chr5	105072535	105073640	+	D930016D06Rik	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30296	chr5	105200990	105202220	+	D930016D06Rik	0x0
30297	chr5	105241678	105242892	-	Zfp951	0x0
30298	chr5	105252233	105253470	-	Zfp951	0x0
30299	chr5	105909354	105910558	+	Lrrc8b	0x0
30300	chr5	105915076	105918859	+	Lrrc8b	0x0
30301	chr5	106037965	106039092	+	Lrrc8c	0x0
30302	chr5	106039216	106040308	+	Lrrc8c	0x0
30303	chr5	106186000	106187159	+	Lrrc8d	0x0
30304	chr5	106215438	106216538	+	Lrrc8d	0x0
30305	chr5	106225896	106227095	-	Gbp11	0x0
30306	chr5	106241394	106243245	+	Lrrc8d	0x0
30307	chr5	106243301	106244600	+	Lrrc8d	0x0
30308	chr5	107045551	107046748	-	Zfp644	0x0
30309	chr5	107065503	107066821	-	Zfp644	0x0
30310	chr5	107115592	107116724	-	Zfp644	0x0
30311	chr5	107402843	107404047	+	Cdc7	0x0
30312	chr5	107535443	107536719	-	Tgfbr3	0x1
30313	chr5	107899645	107900765	+	Btbd8	0x0
30314	chr5	108048990	108050089	+	Rpap2	0x0
30315	chr5	108174329	108177293	-	Evi5	0x0
30316	chr5	108224197	108225371	-	Evi5	0x0
30317	chr5	108229833	108231008	-	Evi5	0x0
30318	chr5	108250205	108251377	-	Evi5	0x0
30319	chr5	108336833	108338078	+	Rpl5	0x0
30320	chr5	108502425	108503617	+	Mtf2	0x0
30321	chr5	108504655	108505795	+	Mtf2	0x0
30322	chr5	108509623	108510779	+	Mtf2	0x0
30323	chr5	108515814	108516918	+	Mtf2	0x0
30324	chr5	108525808	108526909	+	Mtf2	0x0
30325	chr5	108535406	108538499	+	Mtf2	0x0
30326	chr5	108550433	108552014	-	Tmed5	0x0
30327	chr5	108552137	108553304	-	Tmed5	0x0
30328	chr5	108597906	108599006	+	Ccdc18	0x0
30329	chr5	108707249	108708939	+	Dr1	0x0
30330	chr5	108889791	108890932	+	Pcgf3	0x0
30331	chr5	108916314	108917472	+	Pcgf3	0x0
30332	chr5	108922346	108923449	+	Pcgf3	0x0
30333	chr5	108929411	108930649	+	Pcgf3	0x0
30334	chr5	108930672	108933719	+	Pcgf3	0x0
30335	chr5	108997965	108999325	-	Gak	0x0
30336	chr5	109135278	109136450	+	Fgfrl1	0x4
30337	chr5	109980478	109981662	-	Crlf2	0x2
30338	chr5	110195470	110196663	-	Gm10416	0x0
30339	chr5	110237793	110239036	-	Gm10416	0x0
30340	chr5	110261082	110262459	-	Gm10416	0x0
30341	chr5	110270478	110271624	-	Gm10416	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30342	chr5	110504865	110506076	-	Gtpbp6	0x0
30343	chr5	110535628	110536804	-	Gtpbp6	0x0
30344	chr5	110546988	110548290	-	Gtpbp6	0x0
30345	chr5	110662801	110664001	+	Ankle2	0x0
30346	chr5	110683665	110686157	+	Ankle2	0x0
30347	chr5	110687840	110689949	-	Pgam5	0x0
30348	chr5	110694019	110695224	-	Pgam5	0x0
30349	chr5	110702860	110704001	-	Pxmp2	0x0
30350	chr5	110741827	110742929	+	Pole	0x0
30351	chr5	110752438	110753585	+	Pole	0x0
30352	chr5	110790334	110792262	-	Fbrsl1	0x4
30353	chr5	110806732	110807908	-	Fbrsl1	0x4
30354	chr5	110843707	110844808	-	Fbrsl1	0x4
30355	chr5	110858429	110860191	-	Fbrsl1	0x4
30356	chr5	110883839	110884966	-	Fbrsl1	0x4
30357	chr5	110948078	110949236	+	Galnt9	0x0
30358	chr5	111093144	111095135	-	Ep400	0x0
30359	chr5	111095973	111097093	-	Ep400	0x0
30360	chr5	111101223	111102417	-	Ep400	0x0
30361	chr5	111103809	111105020	-	Ep400	0x0
30362	chr5	111116355	111117500	-	Ep400	0x0
30363	chr5	111125760	111126945	-	Ep400	0x0
30364	chr5	111131996	111133130	-	Ep400	0x0
30365	chr5	111157691	111158868	-	Ep400	0x0
30366	chr5	111167825	111169051	-	Ep400	0x0
30367	chr5	111183945	111185488	-	Ep400	0x0
30368	chr5	111201651	111202782	-	Pus1	0x0
30369	chr5	111213087	111215312	-	Ulk1	0x0
30370	chr5	111217489	111218603	-	Ulk1	0x0
30371	chr5	111220591	111221770	-	Ulk1	0x0
30372	chr5	111224804	111226178	-	Ulk1	0x0
30373	chr5	111333826	111335019	+	Ttc28	0x0
30374	chr5	111364739	111365960	+	Ttc28	0x0
30375	chr5	111457923	111459122	+	Mir701	0x0
30376	chr5	111565240	111566445	+	Ttc28	0x0
30377	chr5	111585596	111586773	+	Ttc28	0x0
30378	chr5	111815396	111818389	+	Pitpnb	0x0
30379	chr5	112644947	112646119	-	Miat	0x0
30380	chr5	112713118	112714310	+	Tpst2	0x0
30381	chr5	112754939	112756048	+	Tfip11	0x0
30382	chr5	112766001	112767152	+	Tfip11	0x0
30383	chr5	113515007	113516343	-	2900026A02Rik	0x0
30384	chr5	113517145	113519607	-	2900026A02Rik	0x0
30385	chr5	113749994	113751168	-	Sgsm1	0x0
30386	chr5	113767331	113768517	-	Sgsm1	0x0
30387	chr5	114020414	114021628	-	Cmklr1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30388	chr5	114022799	114024041	-	Cmklr1	0x2
30389	chr5	114036985	114038120	-	Cmklr1	0x2
30390	chr5	114038890	114040041	+	Wscd2	0x0
30391	chr5	114056341	114057478	-	Cmklr1	0x2
30392	chr5	114061912	114063744	-	Cmklr1	0x2
30393	chr5	114188964	114190198	+	Ficd	0x0
30394	chr5	114191980	114193191	-	Sart3	0x0
30395	chr5	114195075	114196288	-	Sart3	0x0
30396	chr5	114204026	114205225	-	Sart3	0x0
30397	chr5	114225873	114227006	+	Iscu	0x0
30398	chr5	114280820	114281992	-	Selplg	0x0
30399	chr5	114292038	114294398	-	Coro1c	0x0
30400	chr5	114311210	114312372	-	Coro1c	0x0
30401	chr5	114330213	114331418	-	Coro1c	0x0
30402	chr5	114387397	114392430	-	Ssh1	0x0
30403	chr5	114408591	114409825	-	Ssh1	0x0
30404	chr5	114436190	114437399	-	Ssh1	0x0
30405	chr5	114477663	114478858	-	Svop	0x0
30406	chr5	114587949	114589743	+	Ung	0x0
30407	chr5	114813084	114814302	-	Kctd10	0x0
30408	chr5	114814690	114816283	-	Kctd10	0x0
30409	chr5	114817250	114818349	-	Kctd10	0x0
30410	chr5	114852330	114853483	+	Ube3b	0x0
30411	chr5	114868002	114869150	+	Ube3b	0x0
30412	chr5	114869711	114871713	+	Ube3b	0x0
30413	chr5	114909922	114911120	+	Mvk	0x0
30414	chr5	115025465	115026581	+	Fam222a	0x0
30415	chr5	115118957	115120695	-	Gltp	0x0
30416	chr5	115136045	115137185	-	Gltp	0x0
30417	chr5	115158363	115160428	+	Tchp	0x1
30418	chr5	115177229	115178444	-	Git2	0x0
30419	chr5	115254777	115255862	+	Ankrd13a	0x0
30420	chr5	115396861	115398039	-	Hnf1a	0x2
30421	chr5	115510049	115511150	+	Sppl3	0x0
30422	chr5	115546967	115548775	+	Sppl3	0x0
30423	chr5	115552733	115553959	-	Gm13826	0x0
30424	chr5	115561359	115562496	-	Acads	0x0
30425	chr5	115572310	115575975	-	Unc119b	0x0
30426	chr5	115593294	115600500	-	Mlec	0x0
30427	chr5	115637395	115639635	-	Cabp1	0x0
30428	chr5	115691926	115693066	-	Rnf10	0x0
30429	chr5	115695388	115696470	-	Rnf10	0x0
30430	chr5	115696677	115697806	-	Rnf10	0x0
30431	chr5	115698398	115699695	-	Rnf10	0x0
30432	chr5	115700809	115701958	-	Rnf10	0x0
30433	chr5	115706555	115707700	-	Rnf10	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30434	chr5	115722010	115723238	-	Rnf10	0x0
30435	chr5	115750046	115751220	-	Dynll1	0x0
30436	chr5	115781696	115783556	+	Srsf9	0x0
30437	chr5	115784378	115785478	+	Srsf9	0x0
30438	chr5	115795132	115796377	-	Cox6a1	0x0
30439	chr5	115880323	115881468	+	Msi1	0x0
30440	chr5	115884948	115886101	+	Msi1	0x0
30441	chr5	115904035	115906064	+	Msi1	0x0
30442	chr5	115914574	115915686	+	Pla2g1b	0x0
30443	chr5	115938937	115940938	+	Pla2g1b	0x0
30444	chr5	116004175	116005826	+	Pxn	0x0
30445	chr5	116010255	116014061	+	Rplp0	0x0
30446	chr5	116038671	116039821	+	Gcn1l1	0x0
30447	chr5	116051870	116053854	+	Gcn1l1	0x0
30448	chr5	116058986	116060112	+	Gcn1l1	0x0
30449	chr5	116061512	116062680	+	Gcn1l1	0x0
30450	chr5	116064345	116065537	+	Gcn1l1	0x0
30451	chr5	116095925	116098199	+	Rab35	0x0
30452	chr5	116348408	116349548	+	Cit	0x2
30453	chr5	116376250	116377415	+	Cit	0x2
30454	chr5	116417455	116418604	+	Cit	0x2
30455	chr5	116457623	116458993	+	Cit	0x2
30456	chr5	116463587	116464766	-	Prkab1	0x0
30457	chr5	116574702	116575827	+	Cit	0x2
30458	chr5	116574799	116575994	-	Ccdc60	0x0
30459	chr5	116614541	116615727	-	Ccdc60	0x0
30460	chr5	116858335	116859555	-	Hspb8	0x0
30461	chr5	117541600	117543436	-	Suds3	0x0
30462	chr5	117699671	117700849	+	Taok3	0x0
30463	chr5	117732170	117733659	-	Pebp1	0x0
30464	chr5	117827437	117828876	+	Wsb2	0x0
30465	chr5	117828628	117830150	-	Rfc5	0x0
30466	chr5	117831462	117832606	-	Rfc5	0x0
30467	chr5	118406077	118407175	+	Nos1	0x0
30468	chr5	118407292	118408787	+	Nos1	0x0
30469	chr5	118459285	118460439	+	Fbxo21	0x0
30470	chr5	118516436	118517636	-	Fbxw8	0x0
30471	chr5	118520880	118522073	-	Fbxw8	0x0
30472	chr5	118527051	118528150	-	Fbxw8	0x0
30473	chr5	118636087	118637235	+	Hrk	0x0
30474	chr5	118671637	118672831	-	Rnft2	0x0
30475	chr5	118715362	118716461	+	2410131K14Rik	0x0
30476	chr5	119010665	119011833	+	Med13l	0x0
30477	chr5	119042763	119044146	+	Med13l	0x0
30478	chr5	119067775	119068920	+	Med13l	0x0
30479	chr5	119078355	119079454	+	Med13l	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30480	chr5	119080550	119081649	+	Med13l	0x0
30481	chr5	119095324	119096512	+	Med13l	0x0
30482	chr5	119099315	119100512	+	Med13l	0x0
30483	chr5	119120469	119121677	+	Med13l	0x0
30484	chr5	119180858	119182037	+	Med13l	0x0
30485	chr5	119188284	119189488	+	Med13l	0x0
30486	chr5	119191716	119193260	+	Med13l	0x0
30487	chr5	119198254	119199574	+	Med13l	0x0
30488	chr5	119212523	119215649	+	Med13l	0x0
30489	chr5	120132776	120134565	+	Tbx3	0x2
30490	chr5	120586986	120588133	+	Rbm19	0x0
30491	chr5	120647714	120649410	+	Rbm19	0x0
30492	chr5	120933628	120936233	-	Plbd2	0x0
30493	chr5	120962642	120963788	+	Slc24a6	0x0
30494	chr5	120967822	120968973	+	Slc24a6	0x0
30495	chr5	120982735	120983932	+	Slc24a6	0x0
30496	chr5	120985249	120986395	-	Tpcn1	0x0
30497	chr5	121070847	121071978	+	Ddx54	0x0
30498	chr5	121076821	121078068	+	Ddx54	0x0
30499	chr5	121129868	121131179	-	Dtx1	0x0
30500	chr5	121172950	121174100	+	Rasal1	0x1
30501	chr5	121180263	121181392	-	Oas2	0x0
30502	chr5	121335704	121337530	-	Oas1g	0x0
30503	chr5	121343832	121344993	-	Oas1a	0x0
30504	chr5	121345757	121346947	-	Oas1a	0x0
30505	chr5	121355101	121356200	-	Oas1a	0x0
30506	chr5	121356444	121357559	-	Oas1a	0x0
30507	chr5	121580626	121583844	-	Ptpn11	0x2
30508	chr5	121749072	121750220	+	Gm15800	0x0
30509	chr5	121761081	121762280	+	Gm15800	0x0
30510	chr5	121814150	121815248	+	Gm15800	0x0
30511	chr5	121816973	121818825	+	Gm15800	0x0
30512	chr5	121866903	121868010	+	Naa25	0x0
30513	chr5	121870040	121871578	+	Naa25	0x0
30514	chr5	121890370	121892801	+	Naa25	0x0
30515	chr5	121894230	121895568	-	Erp29	0x0
30516	chr5	121901745	121902920	-	Erp29	0x0
30517	chr5	121976298	121977459	-	Mapkapk5	0x1
30518	chr5	121992363	121993462	-	Mapkapk5	0x1
30519	chr5	122022247	122023446	-	Aldh2	0x2
30520	chr5	122048441	122049614	-	Acad12	0x0
30521	chr5	122070525	122071699	-	Acad10	0x0
30522	chr5	122135862	122137350	+	Brap	0x0
30523	chr5	122249192	122250385	+	Atxn2	0x0
30524	chr5	122261939	122265124	+	Atxn2	0x0
30525	chr5	122265587	122267782	-	Sh2b3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30526	chr5	122609943	122611127	+	Ppp1cc	0x0
30527	chr5	122613490	122614638	+	Ppp1cc	0x0
30528	chr5	122621798	122622926	+	Ppp1cc	0x0
30529	chr5	122624228	122625385	+	Ppp1cc	0x0
30530	chr5	122762579	122763678	+	Pptc7	0x0
30531	chr5	122770664	122773234	+	Pptc7	0x0
30532	chr5	122814239	122815392	+	Vps29	0x0
30533	chr5	122817054	122818293	-	Fam216a	0x0
30534	chr5	122846321	122847426	+	Arpc3	0x0
30535	chr5	122872675	122873871	+	Anapc7	0x0
30536	chr5	122898124	122899252	+	Anapc7	0x0
30537	chr5	122901249	122902430	-	Atp2a2	0x2
30538	chr5	122903067	122904229	+	Anapc7	0x0
30539	chr5	122905977	122907616	-	Atp2a2	0x2
30540	chr5	122910279	122911414	-	Atp2a2	0x2
30541	chr5	122915452	122916662	-	Atp2a2	0x2
30542	chr5	122919209	122920267	-	Atp2a2	0x2
30543	chr5	122920611	122921841	-	Atp2a2	0x2
30544	chr5	122938749	122939920	-	Atp2a2	0x2
30545	chr5	123132038	123133824	+	P2rx7	0x2
30546	chr5	123180811	123182613	-	Camkk2	0x0
30547	chr5	123182721	123183870	-	Camkk2	0x0
30548	chr5	123237129	123238994	-	Anapc5	0x0
30549	chr5	123241049	123242439	-	Anapc5	0x0
30550	chr5	123242940	123244086	-	Anapc5	0x0
30551	chr5	123246783	123247882	-	Anapc5	0x0
30552	chr5	123248809	123251278	-	Anapc5	0x0
30553	chr5	123256740	123257855	-	Anapc5	0x0
30554	chr5	123267267	123269514	-	Anapc5	0x0
30555	chr5	123316486	123317607	-	Kdm2b	0x2
30556	chr5	123316666	123317854	+	Rnf34	0x0
30557	chr5	123345645	123346772	-	Kdm2b	0x2
30558	chr5	123347690	123348865	-	Kdm2b	0x2
30559	chr5	123516003	123517211	+	Tmem120b	0x0
30560	chr5	123566823	123567950	+	Tmem120b	0x0
30561	chr5	123584036	123585564	-	Rhof	0x0
30562	chr5	123609883	123611036	+	Setd1b	0x0
30563	chr5	123616721	123618610	+	Setd1b	0x0
30564	chr5	123896751	123897850	+	Mlxip	0x0
30565	chr5	123904587	123908035	+	Mlxip	0x0
30566	chr5	123965572	123966751	-	Diablo	0x0
30567	chr5	123978523	123980575	-	Vps33a	0x0
30568	chr5	124014209	124015385	-	Vps33a	0x0
30569	chr5	124156760	124157939	-	Zcchc8	0x0
30570	chr5	124213529	124214773	+	Kntc1	0x0
30571	chr5	124216049	124217330	-	Rsrc2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30572	chr5	124236949	124238178	+	Kntc1	0x0
30573	chr5	124238452	124239648	+	Kntc1	0x0
30574	chr5	124251383	124252595	+	Kntc1	0x0
30575	chr5	124253113	124254261	+	Kntc1	0x0
30576	chr5	124362013	124363114	+	Denr	0x0
30577	chr5	124454571	124455787	-	Vps37b	0x0
30578	chr5	124479274	124480454	-	Vps37b	0x0
30579	chr5	124570373	124571505	-	Pitpnm2	0x0
30580	chr5	124794891	124796179	-	Cdk2ap1	0x1
30581	chr5	124800044	124803347	-	Cdk2ap1	0x1
30582	chr5	124818468	124820807	-	Sbno1	0x0
30583	chr5	124820976	124830500	-	Sbno1	0x0
30584	chr5	124833967	124835080	-	Sbno1	0x0
30585	chr5	124849115	124851548	-	Sbno1	0x0
30586	chr5	124853448	124854547	-	Sbno1	0x0
30587	chr5	124874948	124876131	-	Sbno1	0x0
30588	chr5	124909338	124912707	+	Setd8	0x0
30589	chr5	124999114	125000517	+	Tmed2	0x0
30590	chr5	125020438	125021809	-	Eif2b1	0x0
30591	chr5	125045801	125047051	+	Gtf2h3	0x0
30592	chr5	125076788	125077982	+	Tctn2	0x0
30593	chr5	125202426	125205092	+	Atp6v0a2	0x0
30594	chr5	125366282	125368971	+	Zfp664	0x0
30595	chr5	125497209	125498694	-	Ncor2	0x0
30596	chr5	125503983	125505192	-	Ncor2	0x0
30597	chr5	125525215	125526401	-	Ncor2	0x0
30598	chr5	125560554	125561654	-	Ncor2	0x0
30599	chr5	125568636	125569812	-	Ncor2	0x0
30600	chr5	125589254	125590475	-	Ncor2	0x0
30601	chr5	125647962	125649187	-	Ncor2	0x0
30602	chr5	125757066	125758568	-	Scarb1	0x0
30603	chr5	125766362	125767426	-	Scarb1	0x0
30604	chr5	125769491	125770611	-	Scarb1	0x0
30605	chr5	125772265	125773450	-	Scarb1	0x0
30606	chr5	125868035	125869222	-	Ubc	0x0
30607	chr5	125869481	125870689	-	Ubc	0x0
30608	chr5	125888788	125889984	-	Dhx37	0x0
30609	chr5	125894568	125895728	-	Dhx37	0x0
30610	chr5	125903625	125905003	-	Dhx37	0x0
30611	chr5	125931593	125932686	+	Bri3bp	0x0
30612	chr5	125934198	125935396	+	Bri3bp	0x0
30613	chr5	125936169	125937281	+	Bri3bp	0x0
30614	chr5	125939401	125941273	+	Bri3bp	0x0
30615	chr5	125965702	125966792	+	Aacs	0x2
30616	chr5	125976122	125977329	+	Aacs	0x2
30617	chr5	125995971	125997070	+	Aacs	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30618	chr5	126269988	126271047	+	Tmem132b	0x0
30619	chr5	128080254	128081453	-	Slc15a4	0x0
30620	chr5	128093956	128095151	-	Slc15a4	0x0
30621	chr5	128114708	128115880	+	Glt1d1	0x0
30622	chr5	128171175	128172497	+	Glt1d1	0x0
30623	chr5	128366042	128367236	+	Glt1d1	0x0
30624	chr5	128504148	128505343	-	Tmem132d	0x0
30625	chr5	128521823	128522980	-	Tmem132d	0x0
30626	chr5	128748771	128749920	-	Tmem132d	0x0
30627	chr5	128925380	128926526	-	Tmem132d	0x0
30628	chr5	129107978	129109162	+	Fzd10	0x0
30629	chr5	129490676	129491775	-	Stx2	0x0
30630	chr5	129528230	129530700	+	Ran	0x0
30631	chr5	129633458	129634979	-	Stx2	0x0
30632	chr5	129677466	129678625	+	Gpr133	0x2
30633	chr5	129708602	129710244	+	Gpr133	0x2
30634	chr5	129861064	129862277	+	Sfswap	0x0
30635	chr5	130022813	130023966	+	Sfswap	0x0
30636	chr5	130059899	130061086	+	Sfswap	0x0
30637	chr5	130062647	130063755	+	Sfswap	0x0
30638	chr5	130112698	130114185	+	Mmp17	0x0
30639	chr5	130128757	130130031	-	Zfp11	0x0
30640	chr5	130154674	130155799	+	Mmp17	0x0
30641	chr5	130223683	130224814	+	Mrps17	0x0
30642	chr5	130241646	130242854	+	Gbas	0x0
30643	chr5	130262787	130264616	+	Gbas	0x0
30644	chr5	130297409	130298508	+	Cct6a	0x0
30645	chr5	130320974	130322682	+	Cct6a	0x0
30646	chr5	130338416	130339631	+	Sumf2	0x0
30647	chr5	130356471	130357758	-	Chchd2	0x0
30648	chr5	130440181	130441414	+	Vkorc1l1	0x0
30649	chr5	130458310	130462622	+	Vkorc1l1	0x0
30650	chr5	130506739	130508127	+	Crcp	0x2
30651	chr5	130577312	130578686	+	Tpst1	0x0
30652	chr5	130587560	130588666	+	Tpst1	0x0
30653	chr5	130610904	130612124	+	Tpst1	0x0
30654	chr5	130688760	130690486	+	Rabgef1	0x0
30655	chr5	130717000	130718102	+	Tmem248	0x0
30656	chr5	130718145	130719410	+	Tmem248	0x0
30657	chr5	131913503	131914917	-	Auts2	0x0
30658	chr5	132296419	132297562	-	Auts2	0x0
30659	chr5	132314598	132315833	-	Auts2	0x0
30660	chr5	132318092	132319297	-	Auts2	0x0
30661	chr5	132339225	132340395	-	Auts2	0x0
30662	chr5	132497815	132498964	-	Auts2	0x0
30663	chr5	132499713	132500882	-	Auts2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30664	chr5	132503495	132504658	-	Auts2	0x0
30665	chr5	132568523	132569643	-	Auts2	0x0
30666	chr5	132895899	132897052	-	Auts2	0x0
30667	chr5	132927192	132928330	-	Auts2	0x0
30668	chr5	132929811	132930959	-	Auts2	0x0
30669	chr5	132942524	132943710	-	Auts2	0x0
30670	chr5	132958077	132959241	-	Auts2	0x0
30671	chr5	132986498	132987692	-	Auts2	0x0
30672	chr5	134616418	134617596	+	Gatsl2	0x0
30673	chr5	134624035	134625192	-	Wbscr16	0x0
30674	chr5	134713296	134715156	-	Gtf2i	0x0
30675	chr5	134754705	134755862	-	Gtf2i	0x0
30676	chr5	134757219	134758393	-	Gtf2i	0x0
30677	chr5	134779338	134780548	-	Gtf2i	0x0
30678	chr5	134848319	134849464	-	Gtf2ird1	0x0
30679	chr5	134869505	134870653	-	Gtf2ird1	0x0
30680	chr5	134871018	134872196	-	Gtf2ird1	0x0
30681	chr5	134884728	134885904	-	Gtf2ird1	0x0
30682	chr5	134896921	134898060	-	Gtf2ird1	0x0
30683	chr5	134903889	134905185	-	Gtf2ird1	0x0
30684	chr5	134913730	134914869	-	Gtf2ird1	0x0
30685	chr5	135073383	135074730	+	Rfc2	0x2
30686	chr5	135095264	135097492	-	Eif4h	0x0
30687	chr5	135099805	135102032	-	Eif4h	0x0
30688	chr5	135131736	135133962	-	Limk1	0x0
30689	chr5	135135152	135136340	-	Limk1	0x0
30690	chr5	135420560	135422624	-	Cldn4	0x0
30691	chr5	135532234	135533357	-	Wbscr22	0x0
30692	chr5	135636942	135638989	+	Tbl2	0x0
30693	chr5	135664161	135665300	+	Baz1b	0x0
30694	chr5	135713204	135714350	+	Baz1b	0x0
30695	chr5	135720376	135721459	+	Baz1b	0x0
30696	chr5	135851509	135853742	-	Pom121	0x0
30697	chr5	135869754	135870923	-	Pom121	0x0
30698	chr5	135882864	135884115	-	Hip1	0x2
30699	chr5	135884948	135886136	-	Hip1	0x2
30700	chr5	136118983	136120504	+	Rhbdd2	0x0
30701	chr5	136120657	136121861	+	Rhbdd2	0x0
30702	chr5	136166325	136167426	+	Por	0x0
30703	chr5	136173555	136174744	-	Tmem120a	0x0
30704	chr5	136209721	136211571	+	Por	0x0
30705	chr5	136265530	136266815	+	Mdh2	0x0
30706	chr5	136358893	136359996	-	Ywhag	0x0
30707	chr5	136379282	136380512	-	Ywhag	0x0
30708	chr5	136384245	136387156	-	Ywhag	0x0
30709	chr5	136391906	136393063	-	Ywhag	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30710	chr5	136433527	136434724	+	Zp3	0x0
30711	chr5	136616369	136617552	+	Alkbh4	0x0
30712	chr5	136658777	136659933	-	Prkrip1	0x0
30713	chr5	136723737	136724959	-	Cux1	0x2
30714	chr5	136828213	136829435	-	Cux1	0x2
30715	chr5	136930999	136932195	-	Cux1	0x2
30716	chr5	136983429	136984620	-	Cux1	0x2
30717	chr5	137032358	137033515	-	Cux1	0x2
30718	chr5	137316574	137317705	-	Col26a1	0x0
30719	chr5	137411339	137413520	+	4933404O12Rik	0x0
30720	chr5	137418322	137419445	+	4933404O12Rik	0x0
30721	chr5	137421640	137422743	+	Fis1	0x0
30722	chr5	137423820	137425004	+	Fis1	0x0
30723	chr5	137439861	137440964	+	Fis1	0x0
30724	chr5	137472959	137474198	-	Znhit1	0x0
30725	chr5	137510562	137511740	-	Ap1s1	0x0
30726	chr5	137583412	137584537	-	Trim56	0x0
30727	chr5	137584754	137585938	-	Trim56	0x0
30728	chr5	137586934	137588005	-	Trim56	0x0
30729	chr5	137738034	137739231	-	Srrt	0x0
30730	chr5	137740631	137741791	-	Srrt	0x0
30731	chr5	137814373	137815547	+	Ephb4	0x1
30732	chr5	137954025	137955177	+	Gigyf1	0x0
30733	chr5	137965370	137966547	+	Gigyf1	0x0
30734	chr5	137967210	137969282	+	Gigyf1	0x0
30735	chr5	137968966	137970285	-	Gnb2	0x0
30736	chr5	138037351	138038835	-	Mospd3	0x0
30737	chr5	138081624	138082774	+	Gm20605	0x0
30738	chr5	138081624	138082774	+	Lrch4	0x0
30739	chr5	138081624	138082774	+	Sap25	0x0
30740	chr5	138091485	138092600	-	Agfg2	0x0
30741	chr5	138220684	138221906	+	Ppp1r35	0x0
30742	chr5	138222825	138223959	-	Mepce	0x0
30743	chr5	138369061	138370227	+	Azgp1	0x0
30744	chr5	138544471	138545900	+	Zkscan1	0x0
30745	chr5	138548808	138550040	+	Zkscan1	0x0
30746	chr5	138584361	138585570	-	Zfp113	0x0
30747	chr5	138604473	138605689	+	Cops6	0x0
30748	chr5	138605520	138606637	-	Mcm7	0x0
30749	chr5	138605520	138606637	-	Mir25	0x0
30750	chr5	138606710	138611493	-	Mcm7	0x0
30751	chr5	138606710	138611493	-	Mir106b	0x0
30752	chr5	138606710	138611493	-	Mir93	0x0
30753	chr5	138613549	138614705	+	Ap4m1	0x0
30754	chr5	138804292	138805909	-	Gpc2	0x0
30755	chr5	139452383	139453622	-	Pdgfa	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30756	chr5	139637290	139638408	+	Heatr2	0x0
30757	chr5	139649580	139650777	+	Heatr2	0x0
30758	chr5	139661479	139662634	+	Heatr2	0x0
30759	chr5	139690630	139691778	+	Sun1	0x0
30760	chr5	139702161	139703369	+	Sun1	0x0
30761	chr5	139724135	139726190	+	Sun1	0x0
30762	chr5	139738924	139740066	+	Get4	0x0
30763	chr5	139741030	139742260	+	Get4	0x0
30764	chr5	139747628	139749244	-	Adap1	0x0
30765	chr5	139875563	139876745	-	Mir339	0x0
30766	chr5	139914193	139915394	-	3110082I17Rik	0x0
30767	chr5	139925311	139926521	-	3110082I17Rik	0x0
30768	chr5	140189947	140191182	-	Micall2	0x0
30769	chr5	140234750	140235892	-	Ints1	0x0
30770	chr5	140237547	140238646	-	Ints1	0x0
30771	chr5	140246963	140248146	-	Ints1	0x0
30772	chr5	140320352	140321533	+	Mafk	0x0
30773	chr5	140484206	140485413	-	Mad1l1	0x1
30774	chr5	140578212	140579419	-	Mad1l1	0x1
30775	chr5	140615505	140616677	-	Mad1l1	0x1
30776	chr5	140644284	140645490	-	Mad1l1	0x1
30777	chr5	140673277	140674416	-	Mad1l1	0x1
30778	chr5	140676977	140678154	-	Mad1l1	0x1
30779	chr5	140815772	140817091	-	Snx8	0x0
30780	chr5	140820064	140821262	-	Snx8	0x0
30781	chr5	140833048	140834285	-	Snx8	0x0
30782	chr5	140897215	140898339	+	Eif3b	0x0
30783	chr5	140900685	140901869	+	Eif3b	0x0
30784	chr5	140901967	140903109	+	Eif3b	0x0
30785	chr5	140918355	140919827	+	Eif3b	0x0
30786	chr5	141090323	141091467	+	Lfng	0x0
30787	chr5	141096227	141099431	-	Ttyh3	0x0
30788	chr5	141192633	141194615	+	Baat1	0x0
30789	chr5	141192633	141194615	+	Brat1	0x0
30790	chr5	141234062	141237420	-	Gna12	0x0
30791	chr5	141743279	141744413	-	Card11	0x2
30792	chr5	141899725	141900904	+	Sdk1	0x0
30793	chr5	142167003	142168164	+	Sdk1	0x0
30794	chr5	142834660	142835872	-	Radil	0x2
30795	chr5	142932292	142933377	+	Foxk1	0x0
30796	chr5	142933603	142935481	+	Foxk1	0x0
30797	chr5	142935891	142937069	+	Foxk1	0x0
30798	chr5	142947306	142948458	+	Ap5z1	0x0
30799	chr5	143105092	143106244	+	Wipi2	0x0
30800	chr5	143131355	143132485	+	Wipi2	0x0
30801	chr5	143143635	143145472	+	Wipi2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30802	chr5	143183525	143184724	+	Slc29a4	0x0
30803	chr5	143197445	143198950	+	Slc29a4	0x0
30804	chr5	143537441	143538629	-	Tnrc18	0x0
30805	chr5	143628162	143631404	-	Fbxl18	0x0
30806	chr5	143631535	143634225	-	Fbxl18	0x0
30807	chr5	143649189	143650376	-	Fbxl18	0x0
30808	chr5	143664323	143665421	-	Actb	0x2
30809	chr5	143665659	143667591	-	Actb	0x2
30810	chr5	143733438	143735379	+	Fscn1	0x0
30811	chr5	143752894	143754182	-	Rnf216	0x0
30812	chr5	143777580	143778730	-	Rnf216	0x0
30813	chr5	143797921	143799079	-	Rnf216	0x0
30814	chr5	143806217	143807418	-	Rnf216	0x0
30815	chr5	143833815	143835008	-	Rnf216	0x0
30816	chr5	144008816	144009994	+	Zfp12	0x0
30817	chr5	144081356	144082612	-	Zdhhc4	0x0
30818	chr5	144089577	144090690	-	Zdhhc4	0x0
30819	chr5	144180782	144183304	+	Kdelr2	0x0
30820	chr5	144264344	144265498	+	Daglb	0x2
30821	chr5	144265881	144268407	-	Rac1	0x0
30822	chr5	144318295	144319467	+	Fam220a	0x0
30823	chr5	144324541	144325677	+	Fam220a	0x0
30824	chr5	144468666	144469785	+	Cyth3	0x0
30825	chr5	144469815	144470999	+	Cyth3	0x0
30826	chr5	144644946	144646063	+	Eif2ak1	0x0
30827	chr5	144662715	144663854	+	Eif2ak1	0x0
30828	chr5	144664171	144665306	+	Eif2ak1	0x0
30829	chr5	144668438	144669645	-	Aimp2	0x0
30830	chr5	144685745	144687093	+	Pms2	0x1
30831	chr5	144748401	144749657	-	Ccz1	0x0
30832	chr5	144935706	144937074	+	Lmtk2	0x0
30833	chr5	144939092	144940191	+	Lmtk2	0x0
30834	chr5	144945351	144949317	+	Lmtk2	0x0
30835	chr5	145018737	145019838	+	Bri3	0x0
30836	chr5	145308394	145309585	+	Nptx2	0x0
30837	chr5	145317125	145318906	+	Nptx2	0x0
30838	chr5	145531671	145532908	+	Trrap	0x2
30839	chr5	145552109	145553336	+	Trrap	0x2
30840	chr5	145563297	145564439	+	Trrap	0x2
30841	chr5	145564903	145566003	+	Trrap	0x2
30842	chr5	145619441	145620988	+	Trrap	0x2
30843	chr5	145641473	145642639	-	Smurf1	0x2
30844	chr5	145663637	145664873	-	Smurf1	0x2
30845	chr5	145702630	145703817	-	Smurf1	0x2
30846	chr5	145856395	145857602	+	Arpc1a	0x2
30847	chr5	145861442	145862580	+	Arpc1a	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30848	chr5	145865049	145866200	+	Arpc1a	0x2
30849	chr5	145868722	145869992	+	Arpc1a	0x2
30850	chr5	145884853	145885974	-	Pdap1	0x0
30851	chr5	145887191	145888364	+	Arpc1b	0x0
30852	chr5	145889692	145890887	+	Arpc1b	0x0
30853	chr5	145890545	145891776	-	Pdap1	0x0
30854	chr5	145896732	145897922	-	Pdap1	0x0
30855	chr5	145902824	145903951	+	Bud31	0x0
30856	chr5	145935917	145937068	+	Cpsf4	0x0
30857	chr5	145941950	145943129	+	Cpsf4	0x0
30858	chr5	145942593	145943746	-	Atp5j2	0x0
30859	chr5	145943993	145945248	-	Atp5j2	0x0
30860	chr5	146006299	146008069	+	Zfp655	0x0
30861	chr5	147062267	147063360	+	Cdk8	0x0
30862	chr5	147072048	147073449	+	Cdk8	0x0
30863	chr5	147113047	147114702	+	Cdk8	0x0
30864	chr5	147220866	147222035	+	Wasf3	0x0
30865	chr5	147244864	147245989	+	Wasf3	0x0
30866	chr5	147272017	147273122	+	Wasf3	0x0
30867	chr5	147282264	147284504	+	Wasf3	0x0
30868	chr5	147546681	147548473	-	Usp12	0x0
30869	chr5	147586107	147587299	-	Usp12	0x0
30870	chr5	147604510	147605692	-	Usp12	0x0
30871	chr5	147645828	147647783	+	Rpl21	0x0
30872	chr5	147829449	147830670	-	Lnx2	0x0
30873	chr5	147889907	147891170	+	Polr1d	0x0
30874	chr5	148294592	148295733	+	Pan3	0x0
30875	chr5	148316177	148317325	+	Pan3	0x0
30876	chr5	148357665	148360349	+	Pan3	0x0
30877	chr5	148686690	148687859	+	Pomp	0x0
30878	chr5	148690003	148691172	-	Slc46a3	0x0
30879	chr5	148705764	148706930	-	Slc46a3	0x0
30880	chr5	148994545	148995651	-	Slc7a1	0x0
30881	chr5	149126969	149128152	+	Mtus2	0x0
30882	chr5	149138495	149140504	-	Slc7a1	0x0
30883	chr5	149141408	149142910	-	Slc7a1	0x0
30884	chr5	149154985	149156433	-	Slc7a1	0x0
30885	chr5	149315745	149317911	-	Ubl3	0x0
30886	chr5	149686593	149687821	-	Katnal1	0x0
30887	chr5	149858677	149859879	-	Hmgb1	0x2
30888	chr5	149998779	149999887	+	Uspl1	0x0
30889	chr5	150058990	150060324	-	5730422E09Rik	0x0
30890	chr5	150418999	150420496	-	Hsph1	0x0
30891	chr5	151003059	151004260	+	Fry	0x0
30892	chr5	151239179	151240339	+	Fry	0x0
30893	chr5	151303917	151305088	-	Gm5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30894	chr5	151341030	151342161	+	Brca2	0x1
30895	chr5	151343436	151344906	+	Brca2	0x1
30896	chr5	151371654	151373040	+	Brca2	0x1
30897	chr5	151436293	151437529	-	N4bp2l2	0x0
30898	chr5	151443699	151445427	-	N4bp2l2	0x0
30899	chr5	151463363	151464496	-	N4bp2l2	0x0
30900	chr5	151505633	151506814	+	Pds5b	0x1
30901	chr5	151530964	151532102	+	Pds5b	0x1
30902	chr5	151548442	151549550	+	Pds5b	0x1
30903	chr5	151561301	151562479	+	Pds5b	0x1
30904	chr5	151609829	151611011	+	Pds5b	0x1
30905	chr5	151612239	151613516	+	Pds5b	0x1
30906	chr5	152269179	152270358	+	1700028E10Rik	0x0
30907	chr5	152446834	152448029	-	Rfc3	0x0
30908	chr6	3482908	3484086	+	Ccdc132	0x0
30909	chr6	3506724	3507930	+	Ccdc132	0x0
30910	chr6	4026924	4028372	-	Bet1	0x0
30911	chr6	4591924	4593099	+	Casd1	0x0
30912	chr6	4707232	4710752	+	Peg10	0x4
30913	chr6	4871614	4872774	+	Ppp1r9a	0x6
30914	chr6	4880233	4881383	+	Ppp1r9a	0x6
30915	chr6	4904053	4905215	+	Ppp1r9a	0x6
30916	chr6	4913092	4914292	+	Ppp1r9a	0x6
30917	chr6	4922845	4923994	+	Ppp1r9a	0x6
30918	chr6	5045267	5046419	+	Ppp1r9a	0x6
30919	chr6	5049923	5051089	+	Ppp1r9a	0x6
30920	chr6	5087348	5088496	+	Ppp1r9a	0x6
30921	chr6	5111742	5113388	+	Ppp1r9a	0x6
30922	chr6	5113852	5115913	+	Ppp1r9a	0x6
30923	chr6	5990721	5993387	-	Slc25a13	0x0
30924	chr6	6017952	6019101	-	Slc25a13	0x0
30925	chr6	6022911	6024083	-	Slc25a13	0x0
30926	chr6	6027641	6028788	-	Slc25a13	0x0
30927	chr6	6038255	6039425	-	Slc25a13	0x0
30928	chr6	6058660	6060596	-	Slc25a13	0x0
30929	chr6	6064411	6065620	-	Slc25a13	0x0
30930	chr6	6066625	6067818	-	Slc25a13	0x0
30931	chr6	6101868	6103087	-	Slc25a13	0x0
30932	chr6	6127163	6128379	-	Slc25a13	0x0
30933	chr6	6300186	6301625	-	Slc25a13	0x0
30934	chr6	6509897	6511040	-	Shfm1	0x0
30935	chr6	6873556	6874733	-	Dlx5	0x4
30936	chr6	7624691	7626047	-	Asns	0x0
30937	chr6	7627190	7628567	-	Asns	0x0
30938	chr6	7631806	7632937	-	Asns	0x0
30939	chr6	7634688	7635833	-	Asns	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30940	chr6	7638860	7640090	-	Asns	0x0
30941	chr6	7641992	7643751	-	Asns	0x0
30942	chr6	7674724	7675900	+	C1galt1	0x0
30943	chr6	7676046	7677266	+	C1galt1	0x0
30944	chr6	7799090	7800221	+	C1galt1	0x0
30945	chr6	7813543	7814650	+	C1galt1	0x0
30946	chr6	7815857	7817320	+	C1galt1	0x0
30947	chr6	7822610	7825848	+	C1galt1	0x0
30948	chr6	7931728	7933387	-	Col28a1	0x0
30949	chr6	8171978	8173142	+	Mios	0x0
30950	chr6	8185051	8186863	+	Mios	0x0
30951	chr6	8377185	8378411	+	Gm16039	0x0
30952	chr6	8414126	8415231	+	Gm16039	0x0
30953	chr6	8545503	8547242	+	Glcci1	0x0
30954	chr6	11849841	11851125	-	Ndufa4	0x0
30955	chr6	11886965	11888099	-	Ndufa4	0x0
30956	chr6	11922654	11923868	+	Phf14	0x0
30957	chr6	11957244	11958399	+	Phf14	0x0
30958	chr6	12066889	12068067	-	Gm6578	0x0
30959	chr6	13035137	13036247	+	Tmem106b	0x0
30960	chr6	13037543	13038862	+	Tmem106b	0x0
30961	chr6	13531186	13533155	-	Tmem168	0x0
30962	chr6	13578062	13579167	-	B630005N14Rik	0x0
30963	chr6	13802974	13804150	+	1110019D14Rik	0x0
30964	chr6	13821145	13822300	+	1110019D14Rik	0x0
30965	chr6	15750016	15751763	+	Mdfic	0x0
30966	chr6	15821425	15822547	+	Mdfic	0x0
30967	chr6	16521428	16522577	+	Tes	0x1
30968	chr6	17045646	17046796	+	Tes	0x1
30969	chr6	17054921	17056240	+	Tes	0x1
30970	chr6	17615003	17617195	+	Capza2	0x0
30971	chr6	17641480	17642639	-	Wnt2	0x0
30972	chr6	18588137	18589385	+	Naa38	0x0
30973	chr6	18803381	18804613	+	Naa38	0x0
30974	chr6	21915189	21916389	+	Ing3	0x1
30975	chr6	22256169	22258657	-	Fam3c	0x0
30976	chr6	22278022	22279200	-	Fam3c	0x0
30977	chr6	24563755	24566180	-	Wasl	0x0
30978	chr6	25400831	25401981	+	Gm20756	0x0
30979	chr6	28170400	28171575	-	Zfp800	0x0
30980	chr6	28173830	28174960	-	Zfp800	0x0
30981	chr6	28193881	28195070	-	Zfp800	0x0
30982	chr6	28366575	28367800	-	Gcc1	0x0
30983	chr6	28375744	28377152	+	Arf5	0x0
30984	chr6	28437137	28438299	+	Snd1	0x0
30985	chr6	28440464	28441657	+	Snd1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
30986	chr6	28477100	28478250	+	Snd1	0x0
30987	chr6	28482490	28483661	+	Snd1	0x0
30988	chr6	28494895	28496131	+	Snd1	0x0
30989	chr6	28504329	28505476	+	Snd1	0x0
30990	chr6	28515553	28516703	+	Snd1	0x0
30991	chr6	28591343	28592538	+	Snd1	0x0
30992	chr6	28613963	28615096	+	Snd1	0x0
30993	chr6	28700352	28701498	+	Snd1	0x0
30994	chr6	28763837	28765055	+	Snd1	0x0
30995	chr6	28767410	28768641	+	Snd1	0x0
30996	chr6	28777114	28778342	+	Snd1	0x0
30997	chr6	28785677	28786867	+	Snd1	0x0
30998	chr6	28824424	28825578	+	Snd1	0x0
30999	chr6	28826093	28827318	+	Snd1	0x0
31000	chr6	28829658	28830858	+	Snd1	0x0
31001	chr6	28835980	28837162	+	Snd1	0x0
31002	chr6	28837797	28839303	+	Snd1	0x0
31003	chr6	29073481	29075052	-	Rbm28	0x0
31004	chr6	29150092	29151490	-	Impdh1	0x0
31005	chr6	29156223	29157388	-	Impdh1	0x0
31006	chr6	29224547	29225913	+	Hilpda	0x0
31007	chr6	29315506	29316699	+	Calu	0x0
31008	chr6	29324167	29327118	+	Calu	0x0
31009	chr6	29371760	29372888	+	Ccdc136	0x1
31010	chr6	29485119	29486324	-	Tnpo3	0x0
31011	chr6	29490623	29492247	-	Tnpo3	0x0
31012	chr6	29493541	29494714	-	Tnpo3	0x0
31013	chr6	29495561	29496660	-	Tnpo3	0x0
31014	chr6	29501219	29502354	-	Tnpo3	0x0
31015	chr6	29504334	29505507	-	Tnpo3	0x0
31016	chr6	29510728	29511970	-	Tnpo3	0x0
31017	chr6	29528956	29530163	-	Tnpo3	0x0
31018	chr6	29531594	29532820	-	Tnpo3	0x0
31019	chr6	29703835	29705026	+	Smo	0x1
31020	chr6	29709727	29711895	+	Smo	0x1
31021	chr6	29770003	29771148	+	Ahcyl2	0x0
31022	chr6	29858683	29862469	+	Ahcyl2	0x0
31023	chr6	30003556	30004704	+	Nrf1	0x0
31024	chr6	30051884	30053047	+	Nrf1	0x0
31025	chr6	30065602	30066763	+	Nrf1	0x0
31026	chr6	30076315	30077515	+	Nrf1	0x0
31027	chr6	30102011	30103577	+	Nrf1	0x0
31028	chr6	30110805	30112016	-	Mir182	0x0
31029	chr6	30161309	30163249	-	Ube2h	0x0
31030	chr6	30163662	30164761	-	Ube2h	0x0
31031	chr6	30186596	30187755	-	Ube2h	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31032	chr6	30220768	30221978	-	Ube2h	0x0
31033	chr6	30233994	30235189	-	Ube2h	0x0
31034	chr6	30316026	30317218	-	Zc3hc1	0x0
31035	chr6	30328588	30329686	+	Klhdc10	0x0
31036	chr6	30400926	30402078	+	Klhdc10	0x0
31037	chr6	30402125	30404704	+	Klhdc10	0x0
31038	chr6	30430880	30433441	-	Tmem209	0x0
31039	chr6	30604111	30605402	-	Tsga14	0x0
31040	chr6	30605745	30606919	-	Tsga14	0x0
31041	chr6	30691578	30692677	+	Mest	0x4
31042	chr6	30696827	30698862	+	Mest	0x4
31043	chr6	30765426	30766748	-	Copg2	0x4
31044	chr6	30775057	30776284	-	Copg2	0x4
31045	chr6	30815755	30816944	+	Mest	0x4
31046	chr6	31091891	31093128	-	Mir29b-1	0x0
31047	chr6	31348605	31349768	+	Mkln1	0x0
31048	chr6	31446169	31447318	+	Mkln1	0x0
31049	chr6	31457492	31458773	+	Mkln1	0x0
31050	chr6	31459566	31462006	+	Mkln1	0x0
31051	chr6	31462845	31464022	+	Mkln1	0x0
31052	chr6	31464268	31465495	+	Mkln1	0x0
31053	chr6	31469109	31472516	-	Podxl	0x0
31054	chr6	32274813	32275992	+	B230378P21Rik	0x0
31055	chr6	32741814	32743219	-	Chchd3	0x0
31056	chr6	32839256	32840796	-	Chchd3	0x0
31057	chr6	32915367	32917039	-	Chchd3	0x0
31058	chr6	32956901	32958133	-	Chchd3	0x0
31059	chr6	32979002	32980163	-	Chchd3	0x0
31060	chr6	33002714	33003910	-	Chchd3	0x0
31061	chr6	33235715	33236840	+	Exoc4	0x2
31062	chr6	33281675	33282936	+	Exoc4	0x2
31063	chr6	33297786	33298984	+	Exoc4	0x2
31064	chr6	33387846	33389005	+	Exoc4	0x2
31065	chr6	33402520	33403731	+	Exoc4	0x2
31066	chr6	33414919	33416075	+	Exoc4	0x2
31067	chr6	33435113	33436250	+	Exoc4	0x2
31068	chr6	33457642	33458740	+	Exoc4	0x2
31069	chr6	33459423	33460490	+	Exoc4	0x2
31070	chr6	33479190	33480289	+	Exoc4	0x2
31071	chr6	33498032	33499162	+	Exoc4	0x2
31072	chr6	33562269	33564540	+	Exoc4	0x2
31073	chr6	33587149	33588285	+	Exoc4	0x2
31074	chr6	33590971	33592154	+	Exoc4	0x2
31075	chr6	33602771	33603986	+	Exoc4	0x2
31076	chr6	33627795	33628950	+	Exoc4	0x2
31077	chr6	33644210	33645395	+	Exoc4	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31078	chr6	33678788	33679916	+	Exoc4	0x2
31079	chr6	33707306	33708563	+	Exoc4	0x2
31080	chr6	33819461	33820667	+	Exoc4	0x2
31081	chr6	33894003	33895167	+	Exoc4	0x2
31082	chr6	33922004	33924498	+	Exoc4	0x2
31083	chr6	34023704	34024864	+	Lrguk	0x0
31084	chr6	34058357	34059552	+	Lrguk	0x0
31085	chr6	34105759	34108453	-	Slc35b4	0x0
31086	chr6	34256545	34257704	-	Akr1b3	0x1
31087	chr6	34256545	34257704	-	Gm6644	0x0
31088	chr6	34258627	34259729	-	Akr1b3	0x1
31089	chr6	34258627	34259729	-	Gm6644	0x0
31090	chr6	34579259	34580474	-	3110062M04Rik	0x0
31091	chr6	34722905	34724070	+	Cald1	0x0
31092	chr6	34724501	34725853	+	Cald1	0x0
31093	chr6	34827721	34828904	-	3110062M04Rik	0x0
31094	chr6	34829369	34830545	-	Wdr91	0x0
31095	chr6	34971973	34973309	-	Cnot4	0x0
31096	chr6	34976419	34977516	-	Cnot4	0x0
31097	chr6	34980487	34981635	-	Cnot4	0x0
31098	chr6	35018082	35019203	-	Cnot4	0x0
31099	chr6	35026868	35027983	-	Cnot4	0x0
31100	chr6	35079695	35080855	-	Cnot4	0x0
31101	chr6	35136159	35137390	+	Nup205	0x0
31102	chr6	35141368	35142545	+	Nup205	0x0
31103	chr6	35151445	35152625	+	Nup205	0x0
31104	chr6	35163803	35164902	+	Nup205	0x0
31105	chr6	35176968	35178139	+	Nup205	0x0
31106	chr6	35180043	35181082	+	Nup205	0x0
31107	chr6	35181900	35183119	+	Nup205	0x0
31108	chr6	35188379	35189561	+	Nup205	0x0
31109	chr6	35193398	35194519	+	Nup205	0x0
31110	chr6	35196834	35198179	+	Nup205	0x0
31111	chr6	35210938	35212090	+	1810058I24Rik	0x0
31112	chr6	35285815	35286926	+	1700065J11Rik	0x0
31113	chr6	35459670	35462072	-	Mtpn	0x0
31114	chr6	36908576	36909739	+	Chrm2	0x0
31115	chr6	37049277	37050454	-	Dgki	0x0
31116	chr6	37083699	37084896	-	Dgki	0x0
31117	chr6	37102773	37103962	-	Dgki	0x0
31118	chr6	37180777	37181955	-	Dgki	0x0
31119	chr6	37277294	37278564	-	Creb3l2	0x2
31120	chr6	37280338	37281546	-	Creb3l2	0x2
31121	chr6	37347935	37349035	-	Creb3l2	0x2
31122	chr6	37756476	37757702	+	Trim24	0x1
31123	chr6	37887738	37888882	+	Trim24	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31124	chr6	37902487	37903709	+	Trim24	0x1
31125	chr6	37908021	37909159	+	Trim24	0x1
31126	chr6	37915412	37916584	+	Trim24	0x1
31127	chr6	37917073	37918246	+	Trim24	0x1
31128	chr6	37998257	37999389	-	Atp6v0a4	0x0
31129	chr6	38072965	38074741	-	Atp6v0a4	0x0
31130	chr6	38072965	38074741	-	D630045J12Rik	0x0
31131	chr6	38076648	38078336	-	D630045J12Rik	0x0
31132	chr6	38130845	38132178	-	D630045J12Rik	0x0
31133	chr6	38141126	38142321	-	D630045J12Rik	0x0
31134	chr6	38236910	38242950	-	Zc3hav1l	0x0
31135	chr6	38254889	38257236	-	Zc3hav1	0x0
31136	chr6	38282063	38283212	-	Zc3hav1	0x0
31137	chr6	38303569	38304735	-	Zc3hav1	0x0
31138	chr6	38375897	38377822	+	Ttc26	0x0
31139	chr6	38413354	38414520	+	Ubn2	0x0
31140	chr6	38440133	38441409	+	Ubn2	0x0
31141	chr6	38448279	38449478	+	Ubn2	0x0
31142	chr6	38454113	38455215	+	Ubn2	0x0
31143	chr6	38455655	38457032	+	Ubn2	0x0
31144	chr6	38457324	38458525	+	Ubn2	0x0
31145	chr6	38459696	38462433	+	Ubn2	0x0
31146	chr6	38484408	38485538	+	1110001J03Rik	0x0
31147	chr6	38518568	38519652	+	Luc7l2	0x0
31148	chr6	38533476	38534683	+	Luc7l2	0x0
31149	chr6	38542148	38543307	+	Luc7l2	0x0
31150	chr6	38553937	38555026	+	Luc7l2	0x0
31151	chr6	38555368	38556541	+	Luc7l2	0x0
31152	chr6	38564490	38565619	+	Luc7l2	0x0
31153	chr6	38637526	38640933	-	Hipk2	0x1
31154	chr6	38642102	38643917	-	Hipk2	0x1
31155	chr6	38645207	38646427	-	Hipk2	0x1
31156	chr6	38825434	38826549	-	Hipk2	0x1
31157	chr6	38856798	38857921	+	Tbxas1	0x0
31158	chr6	38887342	38888555	-	Hipk2	0x1
31159	chr6	39036792	39037899	-	Parp12	0x0
31160	chr6	39086455	39089585	-	Jhdm1d	0x0
31161	chr6	39089953	39092427	-	Jhdm1d	0x0
31162	chr6	39248238	39249469	-	Slc37a3	0x0
31163	chr6	39268621	39269797	-	Slc37a3	0x0
31164	chr6	39280686	39281833	-	Slc37a3	0x0
31165	chr6	39282178	39283277	-	Slc37a3	0x0
31166	chr6	39284710	39287384	-	Slc37a3	0x0
31167	chr6	39321398	39322498	-	Slc37a3	0x0
31168	chr6	39347335	39349838	-	Mkrn1	0x0
31169	chr6	39350424	39351950	-	Mkrn1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31170	chr6	39354167	39356429	-	Mkrn1	0x0
31171	chr6	39359569	39360803	-	Mkrn1	0x0
31172	chr6	39367066	39368410	-	Mkrn1	0x0
31173	chr6	39412055	39413428	-	Dennd2a	0x0
31174	chr6	39419653	39420868	-	Dennd2a	0x0
31175	chr6	39432439	39433543	-	Dennd2a	0x0
31176	chr6	39451478	39452641	-	Dennd2a	0x0
31177	chr6	39472508	39473921	-	Dennd2a	0x0
31178	chr6	39533317	39534553	+	Adck2	0x0
31179	chr6	39547745	39548913	+	Ndufb2	0x0
31180	chr6	39554125	39557341	-	Braf	0x2
31181	chr6	39560092	39561257	-	Braf	0x2
31182	chr6	40290475	40291707	+	Agk	0x0
31183	chr6	40301925	40303119	+	Agk	0x0
31184	chr6	40305472	40306583	+	Agk	0x0
31185	chr6	40351360	40352696	-	E330009J07Rik	0x0
31186	chr6	40355245	40356498	-	E330009J07Rik	0x0
31187	chr6	42244200	42245379	+	Clcn1	0x0
31188	chr6	42267919	42269034	+	Clcn1	0x0
31189	chr6	43295509	43296880	-	Tpk1	0x0
31190	chr6	43418402	43419591	-	Tpk1	0x0
31191	chr6	43596069	43597256	-	Tpk1	0x0
31192	chr6	46476957	46478295	-	Ezh2	0x2
31193	chr6	47136750	47139315	-	Ezh2	0x2
31194	chr6	47248855	47250028	+	Cntnap2	0x1
31195	chr6	47434284	47435499	+	Cul1	0x1
31196	chr6	47444602	47445724	+	Cul1	0x1
31197	chr6	47495199	47496363	+	Cul1	0x1
31198	chr6	47527006	47528155	-	Ezh2	0x2
31199	chr6	47689351	47690507	-	Rn4.5s	0x0
31200	chr6	47731060	47732311	+	Zfp398	0x0
31201	chr6	47745734	47747153	-	Pdia4	0x2
31202	chr6	47748681	47749856	-	Pdia4	0x2
31203	chr6	47755997	47757195	-	Pdia4	0x2
31204	chr6	47770078	47771277	-	Zfp786	0x2
31205	chr6	47854839	47856042	+	Zfp282	0x0
31206	chr6	47898731	47899848	+	Zfp783	0x0
31207	chr6	47926609	47927812	-	Zfp777	0x0
31208	chr6	47966361	47967536	-	Zfp777	0x0
31209	chr6	47974981	47976158	-	Zfp777	0x0
31210	chr6	47993731	47994898	-	Zfp777	0x0
31211	chr6	48012362	48013511	-	Zfp746	0x0
31212	chr6	48030136	48031284	+	Zfp956	0x0
31213	chr6	48347317	48348463	+	Krba1	0x0
31214	chr6	48349990	48351163	+	Krba1	0x0
31215	chr6	48351433	48352694	+	Krba1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31216	chr6	48362528	48363688	+	Krba1	0x0
31217	chr6	48365672	48366863	+	Krba1	0x0
31218	chr6	48449850	48450981	+	Sspo	0x0
31219	chr6	48463530	48464740	+	Zfp862	0x0
31220	chr6	48470661	48471818	+	Zfp862	0x0
31221	chr6	48472542	48474666	-	Rarres2	0x0
31222	chr6	48472887	48474083	+	Zfp862	0x0
31223	chr6	48474833	48476062	+	Zfp862	0x0
31224	chr6	48490226	48492101	+	Atp6v0e2	0x0
31225	chr6	48519853	48521070	+	Lrrc61	0x0
31226	chr6	48547933	48549036	+	Repin1	0x0
31227	chr6	48570285	48571629	+	Zfp775	0x0
31228	chr6	49023493	49025769	+	Malsu1	0x0
31229	chr6	49034804	49037431	-	Igf2bp3	0x0
31230	chr6	49040433	49041650	-	Igf2bp3	0x0
31231	chr6	49055007	49056241	-	Igf2bp3	0x0
31232	chr6	49064148	49065289	-	Igf2bp3	0x0
31233	chr6	49095400	49096586	-	Igf2bp3	0x0
31234	chr6	49098092	49099191	-	Igf2bp3	0x0
31235	chr6	49193674	49195145	-	Tra2a	0x0
31236	chr6	49209252	49210419	-	Tra2a	0x0
31237	chr6	49211742	49214585	-	Tra2a	0x0
31238	chr6	49373934	49375033	-	Tra2a	0x0
31239	chr6	49429183	49430408	+	Stk31	0x0
31240	chr6	50075800	50076960	+	Mpp6	0x0
31241	chr6	50148990	50150432	+	Mpp6	0x0
31242	chr6	50150501	50151639	+	Mpp6	0x0
31243	chr6	50859788	50860920	+	C530044C16Rik	0x0
31244	chr6	51410782	51413692	-	Hnrnpa2b1	0x2
31245	chr6	51480902	51482085	+	Snx10	0x0
31246	chr6	51492840	51493989	+	Snx10	0x0
31247	chr6	51538795	51540032	+	Snx10	0x0
31248	chr6	51808673	51809873	-	Skap2	0x0
31249	chr6	52063568	52064868	+	2700086A05Rik	0x0
31250	chr6	52206797	52207978	-	Hoxa13	0x2
31251	chr6	52496054	52497215	-	Hibadh	0x0
31252	chr6	52498305	52499507	-	Hibadh	0x0
31253	chr6	52505838	52507042	-	Hibadh	0x0
31254	chr6	52513518	52514714	-	Hibadh	0x0
31255	chr6	52519969	52521069	-	Hibadh	0x0
31256	chr6	52528490	52529664	-	Hibadh	0x0
31257	chr6	52569446	52570647	-	Hibadh	0x0
31258	chr6	52571869	52572999	-	Hibadh	0x0
31259	chr6	52579687	52580865	-	Hibadh	0x0
31260	chr6	52588705	52589829	-	Hibadh	0x0
31261	chr6	52702743	52703928	+	Tax1bp1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31262	chr6	52715707	52717261	+	Tax1bp1	0x0
31263	chr6	52719718	52720916	+	Tax1bp1	0x0
31264	chr6	52916519	52917615	-	Jazf1	0x2
31265	chr6	53008637	53010724	-	Jazf1	0x2
31266	chr6	53733120	53734295	-	Tril	0x0
31267	chr6	53811162	53812298	+	Creb5	0x0
31268	chr6	53821168	53822319	+	Chn2	0x0
31269	chr6	54456519	54457688	-	Scrn1	0x0
31270	chr6	54580186	54581315	+	Plekha8	0x2
31271	chr6	54590907	54591971	+	Plekha8	0x2
31272	chr6	54592630	54593681	+	Plekha8	0x2
31273	chr6	54593852	54595946	+	Plekha8	0x2
31274	chr6	54651162	54652355	+	2410066E13Rik	0x0
31275	chr6	54800028	54801251	+	Znrf2	0x0
31276	chr6	54827787	54828933	+	Znrf2	0x0
31277	chr6	54837982	54841194	+	Znrf2	0x0
31278	chr6	54841358	54842989	+	Znrf2	0x0
31279	chr6	54995850	54997081	+	Gars	0x2
31280	chr6	54997545	54998700	+	Gars	0x2
31281	chr6	55005188	55006401	+	Gars	0x2
31282	chr6	55012602	55013799	+	Gars	0x2
31283	chr6	55018848	55019967	+	Gars	0x2
31284	chr6	55026451	55027507	+	Gars	0x2
31285	chr6	55028748	55029892	+	Gars	0x2
31286	chr6	55455816	55456993	+	Adcyap1r1	0x0
31287	chr6	56708718	56710948	+	Avl9	0x0
31288	chr6	56727256	56728690	-	Kbtbd2	0x0
31289	chr6	56738982	56740149	-	Kbtbd2	0x0
31290	chr6	56746536	56747738	-	Kbtbd2	0x0
31291	chr6	56786163	56787339	-	Kbtbd2	0x0
31292	chr6	56798308	56799532	+	Fkbp9	0x0
31293	chr6	56800879	56802052	+	Fkbp9	0x0
31294	chr6	56805816	56806968	+	Fkbp9	0x0
31295	chr6	56810108	56811221	+	Fkbp9	0x0
31296	chr6	56827533	56829785	+	Fkbp9	0x0
31297	chr6	56830838	56831967	+	Fkbp9	0x0
31298	chr6	56832144	56833326	-	Nt5c3	0x0
31299	chr6	56897308	56898543	+	Vmn1r4	0x0
31300	chr6	57624797	57626004	+	Herc6	0x0
31301	chr6	57639081	57640256	-	Pyurf	0x0
31302	chr6	57687750	57688868	+	Lancl2	0x0
31303	chr6	57966977	57968222	+	Vmn1r28	0x0
31304	chr6	58596129	58597327	+	Abcg2	0x0
31305	chr6	58616434	58617570	+	Abcg2	0x0
31306	chr6	58767355	58768548	-	Nap1l5	0x4
31307	chr6	58792432	58793531	+	Herc3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31308	chr6	58808418	58809653	+	Herc3	0x0
31309	chr6	58819643	58820760	+	Herc3	0x0
31310	chr6	58846051	58847209	+	Herc3	0x0
31311	chr6	59161381	59162533	+	Tigd2	0x0
31312	chr6	60200263	60201443	+	Mmrn1	0x0
31313	chr6	60277902	60279037	+	Mmrn1	0x0
31314	chr6	61261142	61262305	+	Ccser1	0x0
31315	chr6	62517463	62518608	-	A730020E08Rik	0x0
31316	chr6	64912330	64913504	-	Hpgds	0x0
31317	chr6	64987314	64988425	+	Smarcad1	0x2
31318	chr6	64998079	64999384	+	Smarcad1	0x2
31319	chr6	65024452	65025551	+	Smarcad1	0x2
31320	chr6	65030129	65031321	+	Smarcad1	0x2
31321	chr6	65039585	65040736	+	Smarcad1	0x2
31322	chr6	65064324	65066528	+	Smarcad1	0x2
31323	chr6	65085425	65086622	+	Smarcad1	0x2
31324	chr6	65751919	65753118	+	Prdm5	0x0
31325	chr6	65765639	65766740	+	Prdm5	0x0
31326	chr6	65777044	65778184	+	Prdm5	0x0
31327	chr6	65785395	65786502	+	Prdm5	0x0
31328	chr6	65805437	65806654	+	Prdm5	0x0
31329	chr6	65807151	65808250	+	Prdm5	0x0
31330	chr6	65812391	65813527	+	Prdm5	0x0
31331	chr6	65818606	65820970	+	Prdm5	0x0
31332	chr6	65851221	65852416	+	Prdm5	0x0
31333	chr6	65877501	65878718	+	Prdm5	0x0
31334	chr6	66484879	66486394	+	Mad2l1	0x0
31335	chr6	66489832	66491433	+	Mad2l1	0x0
31336	chr6	66661280	66662415	+	Vmn1r37	0x0
31337	chr6	66824898	66826299	-	Vmn1r39	0x0
31338	chr6	66870286	66871421	+	Gng12	0x0
31339	chr6	66886749	66887942	+	Gng12	0x0
31340	chr6	66925581	66926729	+	Gng12	0x0
31341	chr6	66927906	66929009	+	Gng12	0x0
31342	chr6	66947525	66950396	-	Gadd45a	0x0
31343	chr6	66968525	66970211	+	Gng12	0x0
31344	chr6	66988731	66989912	+	E230016M11Rik	0x0
31345	chr6	67023424	67024537	+	E230016M11Rik	0x0
31346	chr6	67099018	67100176	-	Gadd45a	0x0
31347	chr6	67140722	67141856	-	Il12rb2	0x0
31348	chr6	67155292	67156590	+	Serbp1	0x0
31349	chr6	67179585	67180744	-	Il12rb2	0x0
31350	chr6	67218469	67219611	+	Serbp1	0x0
31351	chr6	67219832	67221030	+	Serbp1	0x0
31352	chr6	67221303	67223400	+	Serbp1	0x0
31353	chr6	67231228	67232304	+	Serbp1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31354	chr6	67233539	67236755	+	Serbp1	0x0
31355	chr6	67238658	67240916	+	Serbp1	0x0
31356	chr6	67241629	67243207	+	Serbp1	0x0
31357	chr6	67604952	67606647	-	4930515G16Rik	0x0
31358	chr6	67886988	67888122	-	4930515G16Rik	0x0
31359	chr6	68766102	68767347	-	Rprl1	0x0
31360	chr6	69276511	69277677	-	Rprl1	0x0
31361	chr6	69335921	69337104	-	Rprl1	0x0
31362	chr6	69465844	69467021	+	Eif2ak3	0x0
31363	chr6	70715436	70716791	-	Rpia	0x0
31364	chr6	70824816	70826015	+	Eif2ak3	0x0
31365	chr6	70830928	70832127	+	Eif2ak3	0x0
31366	chr6	70853702	70854918	+	Eif2ak3	0x0
31367	chr6	71074287	71075448	+	Fabp1	0x0
31368	chr6	71233425	71235582	+	Krcc1	0x0
31369	chr6	71252007	71253106	+	Krcc1	0x0
31370	chr6	71338653	71343136	-	Rmnd5a	0x0
31371	chr6	71363600	71364840	-	Rmnd5a	0x0
31372	chr6	71411794	71413022	-	Rmnd5a	0x0
31373	chr6	71495449	71496657	+	Chmp3	0x0
31374	chr6	71529543	71532035	+	Chmp3	0x0
31375	chr6	71538552	71540180	-	Kdm3a	0x2
31376	chr6	71553427	71554627	-	Kdm3a	0x2
31377	chr6	71757493	71761077	+	Reep1	0x0
31378	chr6	71762496	71763695	-	Mrpl35	0x0
31379	chr6	71765276	71766526	-	Mrpl35	0x0
31380	chr6	71818019	71819218	+	Immt	0x0
31381	chr6	71824054	71825651	+	Immt	0x0
31382	chr6	71842093	71843192	-	Ptcd3	0x0
31383	chr6	71844136	71845277	-	Ptcd3	0x0
31384	chr6	71850631	71851836	-	Ptcd3	0x0
31385	chr6	71890908	71892050	+	Polr1a	0x0
31386	chr6	71910379	71911453	+	Polr1a	0x0
31387	chr6	71915081	71917065	+	Polr1a	0x0
31388	chr6	71927834	71929883	+	Polr1a	0x0
31389	chr6	72052768	72053965	+	St3gal5	0x0
31390	chr6	72060147	72061340	+	St3gal5	0x0
31391	chr6	72268286	72269725	-	Usp39	0x0
31392	chr6	72299181	72300461	+	0610030E20Rik	0x0
31393	chr6	72300860	72301998	+	0610030E20Rik	0x0
31394	chr6	72302449	72303611	+	0610030E20Rik	0x0
31395	chr6	72308072	72309204	+	Tmem150a	0x0
31396	chr6	72309231	72311017	-	Rnf181	0x0
31397	chr6	72334687	72335912	-	Vamp8	0x0
31398	chr6	72382464	72384492	-	Mat2a	0x0
31399	chr6	72558499	72562591	-	Tgoln1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31400	chr6	72558499	72562591	-	Tgoln2	0x0
31401	chr6	72593270	72594437	-	Tcf7l1	0x0
31402	chr6	72621307	72622482	-	Tcf7l1	0x0
31403	chr6	72628203	72629400	-	Tcf7l1	0x0
31404	chr6	72632501	72633695	-	Tcf7l1	0x0
31405	chr6	72643015	72644140	-	Tcf7l1	0x0
31406	chr6	72669323	72670454	-	Tcf7l1	0x0
31407	chr6	72674834	72676046	-	Tcf7l1	0x0
31408	chr6	72681277	72682470	-	Tcf7l1	0x0
31409	chr6	72691835	72692967	-	Tcf7l1	0x0
31410	chr6	72720820	72722169	-	Tcf7l1	0x0
31411	chr6	72723265	72724371	-	Tcf7l1	0x0
31412	chr6	72790950	72793222	-	Kcmf1	0x0
31413	chr6	72795052	72796156	-	Kcmf1	0x0
31414	chr6	72798938	72800105	-	Kcmf1	0x0
31415	chr6	72808252	72809331	-	Kcmf1	0x0
31416	chr6	72824665	72825842	-	Kcmf1	0x0
31417	chr6	72834024	72835123	-	Kcmf1	0x0
31418	chr6	72835701	72836877	-	Kcmf1	0x0
31419	chr6	72837022	72838194	-	Kcmf1	0x0
31420	chr6	72906271	72907419	+	Suclg1	0x0
31421	chr6	72907380	72908542	-	Tmsb10	0x0
31422	chr6	73226209	73227337	+	Suclg1	0x0
31423	chr6	74401232	74402404	-	4931417E11Rik	0x0
31424	chr6	75246179	75247278	-	Ctnna2	0x0
31425	chr6	76233917	76235273	+	Lrrtm1	0x4
31426	chr6	76445243	76446453	-	Ctnna2	0x0
31427	chr6	78982035	78984142	+	Gm20362	0x0
31428	chr6	81876556	81877675	+	Gcfc2	0x0
31429	chr6	81910319	81911912	-	Mrpl19	0x0
31430	chr6	81961684	81962834	+	Eva1a	0x0
31431	chr6	82403435	82404586	+	Tacr1	0x0
31432	chr6	82573880	82575089	-	Pole4	0x0
31433	chr6	82588706	82590351	-	Pole4	0x0
31434	chr6	82590466	82591643	-	Pole4	0x0
31435	chr6	82597175	82598377	-	Pole4	0x0
31436	chr6	82601072	82602221	-	Pole4	0x0
31437	chr6	82645186	82646395	-	Hk2	0x0
31438	chr6	82674556	82677573	-	Hk2	0x0
31439	chr6	82690667	82691768	-	Hk2	0x0
31440	chr6	82709484	82710687	-	Hk2	0x0
31441	chr6	83000859	83002034	-	Htra2	0x1
31442	chr6	83004375	83006168	+	Aup1	0x0
31443	chr6	83085378	83086606	-	Ino80b	0x0
31444	chr6	83238709	83239880	+	Slc4a5	0x0
31445	chr6	83255274	83257041	-	Mthfd2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31446	chr6	83259859	83261050	-	Mthfd2	0x0
31447	chr6	83290935	83294019	+	Mob1a	0x1
31448	chr6	83313517	83320500	-	Tet3	0x0
31449	chr6	83354053	83355252	-	Tet3	0x0
31450	chr6	83448816	83450045	-	Dguok	0x2
31451	chr6	83550748	83551916	-	Stambp	0x0
31452	chr6	83712551	83713739	-	Tex261	0x0
31453	chr6	83718526	83721314	-	Tex261	0x0
31454	chr6	83755817	83758818	-	Paip2b	0x0
31455	chr6	83882718	83883866	+	Zfml	0x2
31456	chr6	83894063	83895203	+	Zfml	0x2
31457	chr6	83903033	83904179	+	Zfml	0x2
31458	chr6	83922862	83923961	+	Zfml	0x2
31459	chr6	83924134	83925232	+	Zfml	0x2
31460	chr6	83928908	83931064	+	Zfml	0x2
31461	chr6	83933406	83934620	+	Zfml	0x2
31462	chr6	84017337	84018558	+	Dysf	0x0
31463	chr6	84115170	84116317	+	Dysf	0x0
31464	chr6	84475455	84476648	-	Cyp26b1	0x0
31465	chr6	84568569	84571005	-	Exoc6b	0x0
31466	chr6	84695978	84697110	-	Exoc6b	0x0
31467	chr6	84774583	84775785	-	Exoc6b	0x0
31468	chr6	84901184	84902378	-	Exoc6b	0x0
31469	chr6	84906157	84907318	-	Exoc6b	0x0
31470	chr6	84907795	84908969	-	Exoc6b	0x0
31471	chr6	85001579	85002746	-	Exoc6b	0x0
31472	chr6	85083266	85084554	-	Spr	0x0
31473	chr6	85170060	85171159	-	Sfxn5	0x0
31474	chr6	85186795	85187992	-	Sfxn5	0x0
31475	chr6	85246985	85248119	+	Emx1	0x0
31476	chr6	85284775	85290500	-	Mir705	0x0
31477	chr6	85284775	85290500	-	Rab11fip5	0x0
31478	chr6	85311770	85312948	-	Rab11fip5	0x0
31479	chr6	85323464	85324658	-	Rab11fip5	0x0
31480	chr6	85391535	85392634	-	Pradc1	0x0
31481	chr6	85395210	85396558	+	Smyd5	0x0
31482	chr6	85396374	85397496	-	Pradc1	0x0
31483	chr6	85411534	85412619	+	Cct7	0x0
31484	chr6	85415479	85416652	+	Cct7	0x0
31485	chr6	85417618	85418950	+	Cct7	0x0
31486	chr6	85432321	85433442	-	Fbxo41	0x0
31487	chr6	85550676	85551806	+	Alms1	0x2
31488	chr6	85558460	85560355	+	Alms1	0x2
31489	chr6	85564890	85566040	+	Alms1	0x2
31490	chr6	85570203	85571310	+	Alms1	0x2
31491	chr6	85571780	85573051	+	Alms1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31492	chr6	85586239	85587421	+	Alms1	0x2
31493	chr6	85590870	85592035	+	Alms1	0x2
31494	chr6	85600715	85601891	+	Alms1	0x2
31495	chr6	85627793	85628999	+	Alms1	0x2
31496	chr6	85629664	85630840	+	Alms1	0x2
31497	chr6	85646003	85647234	+	Alms1	0x2
31498	chr6	85731836	85732991	+	Alms1-ps2	0x0
31499	chr6	85793835	85795247	+	Alms1-ps2	0x0
31500	chr6	85878940	85880813	+	Tprkb	0x0
31501	chr6	85892032	85893887	-	Dusp11	0x0
31502	chr6	85894379	85896966	-	Dusp11	0x0
31503	chr6	86283646	86284869	+	Fam136a	0x0
31504	chr6	86318551	86320144	+	Fam136a	0x0
31505	chr6	86336930	86338518	-	Pcyox1	0x0
31506	chr6	86380943	86383104	+	Tia1	0x0
31507	chr6	86474094	86475947	-	Pcbp1	0x0
31508	chr6	86482534	86483668	+	1600020E01Rik	0x0
31509	chr6	86641360	86643292	-	Gmcl1	0x0
31510	chr6	86659942	86661117	-	Gmcl1	0x0
31511	chr6	86677353	86678530	-	Gmcl1	0x0
31512	chr6	86810756	86811858	+	Aak1	0x0
31513	chr6	86814265	86815365	+	Aak1	0x0
31514	chr6	86893446	86894564	+	Aak1	0x0
31515	chr6	86947229	86953312	+	Aak1	0x0
31516	chr6	86970179	86971369	+	Nfu1	0x0
31517	chr6	86977769	86978979	+	Nfu1	0x0
31518	chr6	86994845	86996012	+	Gfpt1	0x0
31519	chr6	86996027	86997126	+	Gfpt1	0x0
31520	chr6	87000423	87001567	+	Gfpt1	0x0
31521	chr6	87009632	87010777	+	Gfpt1	0x0
31522	chr6	87038245	87042647	+	Gfpt1	0x0
31523	chr6	87179100	87180299	-	Antxr1	0x0
31524	chr6	87738676	87739824	-	Rab43	0x0
31525	chr6	87740125	87741322	-	Rab43	0x0
31526	chr6	87768154	87769610	-	Isy1	0x0
31527	chr6	87774480	87775674	-	Isy1	0x0
31528	chr6	87776999	87778190	-	Isy1	0x0
31529	chr6	87792819	87794544	-	Cnbp	0x2
31530	chr6	87795118	87796305	-	Cnbp	0x2
31531	chr6	87851673	87852822	+	Copg1	0x0
31532	chr6	87861957	87863847	+	Copg1	0x0
31533	chr6	87870867	87872107	+	8430410A17Rik	0x0
31534	chr6	87876337	87877477	+	8430410A17Rik	0x0
31535	chr6	87935415	87936612	+	Gm5577	0x0
31536	chr6	87948580	87950637	-	Rab7	0x0
31537	chr6	87965560	87966790	-	Rab7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31538	chr6	87988995	87990147	-	Rab7	0x0
31539	chr6	88034004	88035213	+	Rpn1	0x2
31540	chr6	88039442	88040669	+	Rpn1	0x2
31541	chr6	88050077	88051226	+	Rpn1	0x2
31542	chr6	88051583	88052720	+	Rpn1	0x2
31543	chr6	88052854	88054503	+	Rpn1	0x2
31544	chr6	88304941	88306187	-	Eefsec	0x0
31545	chr6	88307985	88309155	-	Eefsec	0x0
31546	chr6	88382485	88383681	-	Eefsec	0x0
31547	chr6	88453069	88455289	-	Sec61a1	0x0
31548	chr6	88461596	88463113	-	Sec61a1	0x0
31549	chr6	88463794	88464929	-	Sec61a1	0x0
31550	chr6	88777183	88778535	+	Mgll	0x0
31551	chr6	88790353	88791553	-	Abtb1	0x0
31552	chr6	88832437	88834396	-	Mcm2	0x0
31553	chr6	88832457	88833636	+	Tpra1	0x0
31554	chr6	88837223	88838324	-	Mcm2	0x0
31555	chr6	88842580	88843686	-	Mcm2	0x0
31556	chr6	88844267	88845465	-	Mcm2	0x0
31557	chr6	88854495	88855686	+	Tpra1	0x0
31558	chr6	89266222	89268925	-	Plxna1	0x0
31559	chr6	89273034	89274160	-	Plxna1	0x0
31560	chr6	89284328	89285545	-	Plxna1	0x0
31561	chr6	89624603	89625784	+	Txnrd3	0x0
31562	chr6	90332389	90333520	+	Zxdc	0x0
31563	chr6	90333546	90334656	+	Zxdc	0x0
31564	chr6	90342159	90343316	+	Zxdc	0x0
31565	chr6	90352327	90353716	+	Zxdc	0x0
31566	chr6	90609810	90612405	-	Iqsec1	0x0
31567	chr6	90615148	90616248	-	Iqsec1	0x0
31568	chr6	90616343	90617520	-	Iqsec1	0x0
31569	chr6	90660265	90661468	-	Iqsec1	0x0
31570	chr6	90676022	90677310	-	Iqsec1	0x0
31571	chr6	90678100	90679233	-	Iqsec1	0x0
31572	chr6	90680001	90681138	-	Iqsec1	0x0
31573	chr6	90699701	90700876	-	Iqsec1	0x0
31574	chr6	90900267	90901426	-	Nup210	0x2
31575	chr6	90903235	90904408	-	Nup210	0x2
31576	chr6	90936650	90937784	-	Nup210	0x2
31577	chr6	90962581	90964522	-	Nup210	0x2
31578	chr6	90970823	90972012	-	Nup210	0x2
31579	chr6	90974747	90975846	-	Nup210	0x2
31580	chr6	90978484	90979965	-	Nup210	0x2
31581	chr6	90989977	90991166	-	Nup210	0x2
31582	chr6	91003520	91004665	-	Nup210	0x2
31583	chr6	91035335	91036512	-	Nup210	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31584	chr6	91041105	91042228	-	Nup210	0x2
31585	chr6	91200369	91201521	+	Fbln2	0x0
31586	chr6	91209976	91211179	+	Fbln2	0x0
31587	chr6	91414008	91415418	-	Chchd4	0x0
31588	chr6	91436257	91438333	+	Tmem43	0x0
31589	chr6	91442361	91443580	-	Xpc	0x2
31590	chr6	91471712	91473068	+	Lsm3	0x0
31591	chr6	91611808	91612981	-	Grip2	0x0
31592	chr6	91634726	91635919	+	Slc6a6	0x0
31593	chr6	91661520	91662677	+	Slc6a6	0x0
31594	chr6	91675469	91676568	+	Slc6a6	0x0
31595	chr6	91684611	91685772	+	Slc6a6	0x0
31596	chr6	91686593	91687728	+	Slc6a6	0x0
31597	chr6	91690427	91692512	+	Slc6a6	0x0
31598	chr6	91693181	91694366	+	Slc6a6	0x0
31599	chr6	91705080	91707761	+	Slc6a6	0x0
31600	chr6	91775634	91776870	-	Grip2	0x0
31601	chr6	91789896	91791050	-	Grip2	0x0
31602	chr6	92016857	92017994	+	Fgd5	0x2
31603	chr6	92051623	92052738	+	Nr2c2	0x0
31604	chr6	92085539	92086738	+	Nr2c2	0x0
31605	chr6	92106813	92107925	+	Nr2c2	0x0
31606	chr6	92117416	92119182	+	Nr2c2	0x0
31607	chr6	92119412	92122375	+	Nr2c2	0x0
31608	chr6	92123594	92125536	-	Mrps25	0x0
31609	chr6	92136295	92139190	-	Zfyve20	0x0
31610	chr6	92191588	92193059	-	Trh	0x0
31611	chr6	92324352	92325985	-	Prickle2	0x0
31612	chr6	92478418	92479523	-	Prickle2	0x0
31613	chr6	92574567	92575768	-	Prickle2	0x0
31614	chr6	92607872	92609091	-	Prickle2	0x0
31615	chr6	92722687	92724044	-	Adamts9	0x1
31616	chr6	92797629	92798852	-	Adamts9	0x1
31617	chr6	92960462	92961581	+	9530026P05Rik	0x0
31618	chr6	92995377	92996541	+	9530026P05Rik	0x0
31619	chr6	93188499	93189648	+	9530026P05Rik	0x0
31620	chr6	93190678	93191809	+	9530026P05Rik	0x0
31621	chr6	93211822	93213037	-	Adamts9	0x1
31622	chr6	93626381	93627590	-	Magi1	0x0
31623	chr6	93765166	93766361	-	Magi1	0x0
31624	chr6	93822753	93823866	-	Magi1	0x0
31625	chr6	93832635	93833816	-	Magi1	0x0
31626	chr6	93841203	93842361	-	Magi1	0x0
31627	chr6	93842650	93843806	-	Magi1	0x0
31628	chr6	93968205	93969411	-	Magi1	0x0
31629	chr6	93996930	93998129	-	Magi1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31630	chr6	94022564	94023805	-	Magi1	0x0
31631	chr6	94056768	94057963	-	Magi1	0x0
31632	chr6	94070268	94071507	-	Magi1	0x0
31633	chr6	94077162	94078281	-	Magi1	0x0
31634	chr6	94092552	94093718	-	Magi1	0x0
31635	chr6	94095560	94096770	-	Magi1	0x0
31636	chr6	94121442	94122639	-	Magi1	0x0
31637	chr6	94145743	94146904	-	Magi1	0x0
31638	chr6	94149581	94150762	-	Magi1	0x0
31639	chr6	94153670	94154847	-	Magi1	0x0
31640	chr6	94166565	94171564	-	Magi1	0x0
31641	chr6	94187471	94188593	-	Magi1	0x0
31642	chr6	94190350	94191455	-	Magi1	0x0
31643	chr6	94193737	94194905	-	Magi1	0x0
31644	chr6	94197097	94198299	-	Magi1	0x0
31645	chr6	94202051	94203231	-	Magi1	0x0
31646	chr6	94218487	94219696	-	Magi1	0x0
31647	chr6	94480953	94482096	+	Slc25a26	0x0
31648	chr6	94554539	94555980	-	Lrig1	0x0
31649	chr6	94598994	94600123	-	Lrig1	0x0
31650	chr6	94609405	94610524	-	Lrig1	0x0
31651	chr6	94628240	94629412	-	Lrig1	0x0
31652	chr6	94647503	94648672	-	Lrig1	0x0
31653	chr6	94776274	94777453	-	Lrig1	0x0
31654	chr6	95072179	95073241	+	Kbtbd8	0x0
31655	chr6	95075967	95077117	+	Kbtbd8	0x0
31656	chr6	95077249	95079564	+	Kbtbd8	0x0
31657	chr6	95423936	95425472	-	Suclg2	0x0
31658	chr6	95585349	95586471	-	Suclg2	0x0
31659	chr6	95663846	95665000	-	Suclg2	0x0
31660	chr6	95982664	95983841	-	1700123L14Rik	0x0
31661	chr6	97060800	97062203	-	Eogt	0x0
31662	chr6	97102966	97104199	-	Tmf1	0x0
31663	chr6	97125312	97126952	-	Tmf1	0x0
31664	chr6	97133741	97135148	-	Uba3	0x0
31665	chr6	97151388	97152487	-	Uba3	0x0
31666	chr6	97182253	97183675	+	Arl6ip5	0x0
31667	chr6	97509550	97510732	-	Frmd4b	0x0
31668	chr6	97599750	97600906	-	Frmd4b	0x0
31669	chr6	97839772	97840954	-	Frmd4b	0x0
31670	chr6	97969281	97971800	+	Mitf	0x2
31671	chr6	98877253	98879136	-	Foxp1	0x1
31672	chr6	98879142	98880458	-	Foxp1	0x1
31673	chr6	99035254	99036426	-	Foxp1	0x1
31674	chr6	99643998	99645100	+	Gpr27	0x0
31675	chr6	99827316	99828871	-	Prok2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31676	chr6	100177314	100178519	-	Rybp	0x0
31677	chr6	100179412	100182038	-	Rybp	0x0
31678	chr6	100223131	100224335	-	Rybp	0x0
31679	chr6	100280207	100281416	-	Rybp	0x0
31680	chr6	100580331	100581518	-	Shq1	0x0
31681	chr6	100817366	100819629	+	Ppp4r2	0x0
31682	chr6	101099161	101100351	-	Pdzrn3	0x0
31683	chr6	101216252	101217399	-	Pdzrn3	0x0
31684	chr6	103982811	103984000	-	Gm19757	0x0
31685	chr6	106728784	106730854	-	Crbn	0x0
31686	chr6	108057743	108058947	-	Sumf1	0x0
31687	chr6	108191507	108192629	+	Itpr1	0x0
31688	chr6	108222651	108223811	+	Itpr1	0x0
31689	chr6	108228819	108229963	+	Itpr1	0x0
31690	chr6	108237029	108238128	+	Itpr1	0x0
31691	chr6	108320718	108321913	+	Itpr1	0x0
31692	chr6	108345466	108346605	+	Itpr1	0x0
31693	chr6	108363218	108364367	+	Itpr1	0x0
31694	chr6	108463422	108464525	+	Itpr1	0x0
31695	chr6	108499881	108501539	+	Itpr1	0x0
31696	chr6	108560804	108561978	-	0610040F04Rik	0x0
31697	chr6	108615347	108616779	+	Bhlhe40	0x0
31698	chr6	108771056	108774080	+	Arl8b	0x0
31699	chr6	108794554	108795734	+	Edem1	0x0
31700	chr6	108798222	108799385	+	Edem1	0x0
31701	chr6	108807031	108809445	+	Edem1	0x0
31702	chr6	108810135	108811895	+	Edem1	0x0
31703	chr6	109075742	109076891	+	Edem1	0x0
31704	chr6	109164040	109165189	+	Edem1	0x0
31705	chr6	112557816	112558983	+	Cav3	0x0
31706	chr6	112558791	112559967	-	Rad18	0x0
31707	chr6	112566081	112567221	-	Rad18	0x0
31708	chr6	112576531	112577687	-	Rad18	0x0
31709	chr6	112625255	112626489	-	Rad18	0x0
31710	chr6	112667720	112671144	-	Srgap3	0x2
31711	chr6	112671490	112672844	-	Srgap3	0x2
31712	chr6	112681208	112682425	-	Srgap3	0x2
31713	chr6	112837167	112838388	-	Srgap3	0x2
31714	chr6	113005540	113006638	+	Thumpd3	0x0
31715	chr6	113022553	113023693	-	Gt(ROSA)26Sor	0x0
31716	chr6	113028079	113029234	+	Setd5	0x0
31717	chr6	113033776	113034949	+	Setd5	0x0
31718	chr6	113045129	113046293	+	Setd5	0x0
31719	chr6	113049815	113050964	+	Setd5	0x0
31720	chr6	113069025	113070199	+	Setd5	0x0
31721	chr6	113071102	113072245	+	Setd5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31722	chr6	113077925	113079056	+	Setd5	0x0
31723	chr6	113093394	113094514	+	Setd5	0x0
31724	chr6	113101329	113103504	+	Setd5	0x0
31725	chr6	113215760	113216892	+	Mtmr14	0x0
31726	chr6	113283401	113284549	+	Ogg1	0x0
31727	chr6	113286651	113287819	-	Camk1	0x0
31728	chr6	113321937	113323113	-	Tada3	0x0
31729	chr6	113338462	113340180	+	Arpc4	0x0
31730	chr6	113338462	113340180	+	Ttll3	0x0
31731	chr6	113397206	113398529	+	Jagn1	0x0
31732	chr6	113423897	113425082	+	Il17rc	0x0
31733	chr6	113425741	113427018	+	Il17rc	0x0
31734	chr6	113451285	113452475	-	Prrt3	0x0
31735	chr6	113464360	113466217	-	Emc3	0x0
31736	chr6	113527833	113528987	+	Fancd2	0x2
31737	chr6	113545616	113548052	+	Fancd2	0x2
31738	chr6	113565697	113567319	+	Brk1	0x0
31739	chr6	113660883	113662063	+	Tatdn2	0x0
31740	chr6	113663551	113664709	+	Tatdn2	0x0
31741	chr6	113671703	113672868	+	Tatdn2	0x0
31742	chr6	113679860	113681069	-	Sec13	0x0
31743	chr6	113688527	113689704	-	Sec13	0x0
31744	chr6	114265157	114266320	+	Slc6a1	0x0
31745	chr6	114358869	114360073	+	Hrh1	0x0
31746	chr6	114390070	114391221	+	Hrh1	0x0
31747	chr6	114873339	114874537	-	Vgll4	0x0
31748	chr6	114955903	114957099	-	Tamm41	0x0
31749	chr6	114963516	114964697	-	Tamm41	0x0
31750	chr6	114981681	114982883	-	Tamm41	0x0
31751	chr6	115509198	115510299	+	Tsen2	0x0
31752	chr6	115567641	115569053	+	Mkrn2	0x0
31753	chr6	115568287	115569660	-	Raf1	0x2
31754	chr6	115584026	115585620	-	Raf1	0x2
31755	chr6	115587094	115588289	-	Raf1	0x2
31756	chr6	115593849	115595135	-	Raf1	0x2
31757	chr6	115753193	115754950	+	Cand2	0x0
31758	chr6	115969126	115970293	-	Tmcc1	0x0
31759	chr6	116123273	116124689	+	Fam21	0x0
31760	chr6	116130279	116131454	-	Tmcc1	0x0
31761	chr6	116176929	116178046	+	Fam21	0x0
31762	chr6	116190946	116192108	+	Fam21	0x0
31763	chr6	116357804	116359635	+	March8	0x0
31764	chr6	116575487	116576660	-	Zfp422	0x0
31765	chr6	116585511	116586705	-	Rassf4	0x1
31766	chr6	116617654	116618758	-	Rassf4	0x1
31767	chr6	117821656	117822900	+	Zfp239	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31768	chr6	117858432	117859937	+	Hnrnpf	0x0
31769	chr6	117865974	117867214	+	Hnrnpf	0x0
31770	chr6	117869507	117871464	+	Hnrnpf	0x0
31771	chr6	118057812	118059025	-	Csgalnact2	0x0
31772	chr6	118354560	118355755	-	Bms1	0x0
31773	chr6	118476027	118477179	-	Ankrd26	0x0
31774	chr6	118551520	118552743	-	Cacna1c	0x0
31775	chr6	119302843	119305471	-	Adipor2	0x0
31776	chr6	119429670	119433001	+	Fbxl14	0x0
31777	chr6	119520868	119521967	-	Erc1	0x2
31778	chr6	119522226	119524666	-	Erc1	0x2
31779	chr6	119548216	119549375	-	Erc1	0x2
31780	chr6	119598426	119599615	-	Erc1	0x2
31781	chr6	119621542	119622690	-	Erc1	0x2
31782	chr6	119658185	119659388	-	Erc1	0x2
31783	chr6	119774020	119775171	-	Erc1	0x2
31784	chr6	119796993	119798170	-	Erc1	0x2
31785	chr6	119863588	119864720	+	Rad52	0x0
31786	chr6	119864750	119865850	+	Rad52	0x0
31787	chr6	119873514	119876317	-	Wnk1	0x0
31788	chr6	119886632	119888295	-	Wnk1	0x0
31789	chr6	119897465	119899967	-	Wnk1	0x0
31790	chr6	119924620	119925801	-	Wnk1	0x0
31791	chr6	119944704	119945803	-	Wnk1	0x0
31792	chr6	120151169	120153247	-	B4galnt3	0x0
31793	chr6	120162071	120163189	-	B4galnt3	0x0
31794	chr6	120164775	120165938	-	B4galnt3	0x0
31795	chr6	120218226	120219422	-	B4galnt3	0x0
31796	chr6	120222984	120224169	-	B4galnt3	0x0
31797	chr6	120225739	120226888	-	B4galnt3	0x0
31798	chr6	120274393	120275539	-	Ccdc77	0x0
31799	chr6	120361873	120363093	+	Kdm5a	0x2
31800	chr6	120389298	120392391	+	Kdm5a	0x2
31801	chr6	120432160	120434145	+	Il17ra	0x0
31802	chr6	120459214	120460515	-	Cecr5	0x0
31803	chr6	120459819	120460989	+	Il17ra	0x0
31804	chr6	120465106	120466259	-	Cecr5	0x0
31805	chr6	120636051	120637245	+	Cecr2	0x0
31806	chr6	120640805	120641960	+	Cecr2	0x0
31807	chr6	120666123	120667252	+	Cecr2	0x0
31808	chr6	120681133	120682368	+	Cecr2	0x0
31809	chr6	120710877	120711921	+	Cecr2	0x0
31810	chr6	120716660	120721761	+	Cecr2	0x0
31811	chr6	120735580	120736749	+	Slc25a18	0x0
31812	chr6	120743434	120744646	-	Atp6v1e1	0x0
31813	chr6	120744870	120746244	-	Atp6v1e1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31814	chr6	120837346	120839252	+	Bcl2l13	0x0
31815	chr6	120839377	120842569	+	Bcl2l13	0x0
31816	chr6	120843430	120844588	-	Bid	0x0
31817	chr6	120882151	120883658	-	Mical3	0x0
31818	chr6	120903988	120905145	-	Mical3	0x0
31819	chr6	120908669	120909864	-	Mical3	0x0
31820	chr6	120929650	120930795	-	Mical3	0x0
31821	chr6	120947520	120949874	-	Mical3	0x0
31822	chr6	121047656	121048853	-	Mical3	0x0
31823	chr6	121052979	121054160	-	Mical3	0x0
31824	chr6	121093192	121094559	+	Pex26	0x0
31825	chr6	121121814	121122926	+	Pex26	0x0
31826	chr6	121145150	121146356	+	Pex26	0x0
31827	chr6	122266637	122268086	+	M6pr	0x0
31828	chr6	122267303	122269995	-	Phc1	0x0
31829	chr6	122270401	122271588	-	Phc1	0x0
31830	chr6	122271720	122272824	-	Phc1	0x0
31831	chr6	122287935	122289104	-	Phc1	0x0
31832	chr6	122422023	122423287	-	Rimklb	0x0
31833	chr6	122548346	122549498	+	Dppa3	0x0
31834	chr6	122555528	122556815	-	Gdf3	0x0
31835	chr6	122593764	122595004	+	Dppa3	0x0
31836	chr6	122645960	122647328	+	Nanog	0x0
31837	chr6	122655639	122656813	-	Slc2a3	0x0
31838	chr6	122657141	122658760	+	Nanog	0x0
31839	chr6	122663230	122665199	+	Nanog	0x0
31840	chr6	122677387	122679867	-	Slc2a3	0x0
31841	chr6	122680926	122682110	-	Slc2a3	0x0
31842	chr6	122682261	122683299	-	Slc2a3	0x0
31843	chr6	122687109	122688211	-	Slc2a3	0x0
31844	chr6	122689411	122691070	-	Slc2a3	0x0
31845	chr6	122691897	122693082	-	Slc2a3	0x0
31846	chr6	122705174	122706319	-	Slc2a3	0x0
31847	chr6	122714237	122715479	-	Slc2a3	0x0
31848	chr6	122793812	122795058	+	Foxj2	0x0
31849	chr6	122837495	122839080	+	Necap1	0x0
31850	chr6	123752923	123754074	+	Vmn2r24	0x0
31851	chr6	124346485	124348259	-	Pex5	0x0
31852	chr6	124380662	124381865	-	Clstn3	0x0
31853	chr6	124654979	124656159	-	Emg1	0x0
31854	chr6	124661394	124662631	-	Emg1	0x0
31855	chr6	124664837	124666178	+	Phb2	0x0
31856	chr6	124666223	124667403	+	Phb2	0x0
31857	chr6	124670817	124672019	+	Phb2	0x0
31858	chr6	124690651	124691885	-	Grcc10	0x0
31859	chr6	124760306	124761765	-	Tpi1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31860	chr6	124764538	124765866	-	Usp5	0x0
31861	chr6	124782474	124783938	+	Cdca3	0x0
31862	chr6	124810296	124811461	+	Cdca3	0x0
31863	chr6	124860866	124862015	-	Lag3	0x0
31864	chr6	124884133	124886537	+	Mlf2	0x0
31865	chr6	124908541	124909998	-	Cops7a	0x0
31866	chr6	124911348	124912475	-	Cops7a	0x0
31867	chr6	124952137	124953366	+	Pianp	0x0
31868	chr6	125032264	125033416	+	Lpar5	0x0
31869	chr6	125050429	125052531	+	Chd4	0x2
31870	chr6	125054750	125055853	+	Chd4	0x2
31871	chr6	125058746	125059874	+	Chd4	0x2
31872	chr6	125063375	125064559	+	Chd4	0x2
31873	chr6	125067674	125068867	+	Chd4	0x2
31874	chr6	125069759	125070953	+	Chd4	0x2
31875	chr6	125072839	125073979	+	Chd4	0x2
31876	chr6	125079658	125081092	+	Chd4	0x2
31877	chr6	125087350	125088454	+	Nop2	0x0
31878	chr6	125093751	125094977	+	Nop2	0x0
31879	chr6	125113989	125115111	-	Gapdh	0x0
31880	chr6	125117496	125118871	-	Ncapd2	0x0
31881	chr6	125120438	125122519	-	Ncapd2	0x0
31882	chr6	125122878	125123941	-	Ncapd2	0x0
31883	chr6	125127311	125128501	-	Ncapd2	0x0
31884	chr6	125133735	125135757	-	Ncapd2	0x0
31885	chr6	125143261	125145076	+	Mrpl51	0x0
31886	chr6	125263187	125264386	-	Ltbr	0x0
31887	chr6	125409865	125411101	-	Cd9	0x0
31888	chr6	125437494	125438695	-	Cd9	0x0
31889	chr6	125443506	125444700	-	Cd9	0x0
31890	chr6	126873120	126874698	-	Rad51ap1	0x0
31891	chr6	126876998	126878343	-	Rad51ap1	0x0
31892	chr6	127036756	127037991	-	9630033F20Rik	0x0
31893	chr6	127132476	127134103	-	Ccnd2	0x2
31894	chr6	127231742	127232889	-	D130058E03	0x0
31895	chr6	127911358	127914753	-	Tspan9	0x0
31896	chr6	127973727	127974916	-	Tspan9	0x0
31897	chr6	128023176	128024366	-	Tspan9	0x0
31898	chr6	128121303	128122459	-	Tspan9	0x0
31899	chr6	128134673	128135832	-	Tspan9	0x0
31900	chr6	128174021	128175437	-	Tead4	0x0
31901	chr6	128175740	128176863	-	Tead4	0x0
31902	chr6	128194648	128195857	-	Tead4	0x0
31903	chr6	128263069	128264304	+	Foxm1	0x0
31904	chr6	128270835	128273180	-	Tulp3	0x0
31905	chr6	128287404	128288606	-	Tulp3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31906	chr6	128309284	128310667	-	Rhno1	0x0
31907	chr6	128311012	128312207	-	Rhno1	0x0
31908	chr6	128323941	128326066	+	4933413G19Rik	0x0
31909	chr6	128323941	128326066	+	Foxm1	0x0
31910	chr6	128373438	128374632	-	Itfg2	0x0
31911	chr6	128379690	128381331	-	Fkbp4	0x0
31912	chr6	128396837	128399356	+	Gm10069	0x0
31913	chr6	128459043	128460195	+	Gm10069	0x0
31914	chr6	128471972	128473100	+	Gm10069	0x0
31915	chr6	128748887	128750108	-	Klrb1c	0x0
31916	chr6	128752510	128753677	-	Klrb1b	0x0
31917	chr6	128788524	128789730	+	Clec2i	0x0
31918	chr6	128888460	128889667	-	Gm15987	0x0
31919	chr6	131314421	131315816	-	Csda	0x0
31920	chr6	131317329	131319140	-	Csda	0x0
31921	chr6	131319918	131321095	-	Csda	0x0
31922	chr6	131328820	131331542	-	Csda	0x0
31923	chr6	131830212	131831631	+	5430401F13Rik	0x0
31924	chr6	132378132	132379333	-	Gm4736	0x0
31925	chr6	132408500	132409699	+	Prh1	0x0
31926	chr6	132470961	132472090	-	A630073D07Rik	0x0
31927	chr6	133054994	133056154	+	2700089E24Rik	0x0
31928	chr6	133710599	133711831	-	Gm5886	0x0
31929	chr6	134116682	134117786	-	Lrp6	0x0
31930	chr6	134216630	134220470	+	Etv6	0x1
31931	chr6	134290822	134292020	-	Lrp6	0x0
31932	chr6	134396259	134401025	-	Lrp6	0x0
31933	chr6	134413891	134415103	-	Lrp6	0x0
31934	chr6	134416971	134418220	-	Lrp6	0x0
31935	chr6	134429955	134431132	-	Lrp6	0x0
31936	chr6	134455753	134458223	-	Lrp6	0x0
31937	chr6	134462757	134463927	-	Lrp6	0x0
31938	chr6	134491256	134492576	-	Lrp6	0x0
31939	chr6	134620147	134621358	+	Loh12cr1	0x0
31940	chr6	134659979	134661185	+	Loh12cr1	0x0
31941	chr6	134665207	134667396	-	Dusp16	0x0
31942	chr6	134710520	134711680	-	Dusp16	0x0
31943	chr6	134806279	134808719	+	Crebl2	0x1
31944	chr6	134872180	134874217	+	Cdkn1b	0x2
31945	chr6	134874614	134875866	+	Cdkn1b	0x2
31946	chr6	134967642	134968881	+	Ddx47	0x0
31947	chr6	134972876	134974176	+	Ddx47	0x0
31948	chr6	135087080	135088345	-	Hebp1	0x0
31949	chr6	135156642	135158480	+	8430419L09Rik	0x0
31950	chr6	135183798	135186179	+	8430419L09Rik	0x0
31951	chr6	135331265	135333621	+	Emp1	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31952	chr6	135666845	135667944	+	Emp1	0x1
31953	chr6	136436691	136438232	+	Atf7ip	0x0
31954	chr6	136508138	136509815	+	Atf7ip	0x0
31955	chr6	136513042	136514146	+	Atf7ip	0x0
31956	chr6	136554811	136555916	+	Atf7ip	0x0
31957	chr6	136556552	136559408	+	Atf7ip	0x0
31958	chr6	136756458	136757697	+	H2afj	0x0
31959	chr6	136761730	136762997	-	Wbp11	0x2
31960	chr6	136772372	136773490	-	Wbp11	0x2
31961	chr6	137421065	137422240	-	Eps8	0x0
31962	chr6	137426194	137427676	-	Eps8	0x0
31963	chr6	137529515	137530758	-	Eps8	0x0
31964	chr6	137560475	137561620	-	Eps8	0x0
31965	chr6	137587445	137588664	-	Eps8	0x0
31966	chr6	137598496	137599693	-	Eps8	0x0
31967	chr6	137657134	137658233	+	Strap	0x0
31968	chr6	137683205	137684398	+	Strap	0x0
31969	chr6	137692914	137694013	+	Strap	0x0
31970	chr6	137698726	137700538	+	Strap	0x0
31971	chr6	137702851	137704010	+	Dera	0x0
31972	chr6	137785413	137786901	+	Dera	0x0
31973	chr6	140398476	140399675	+	Plekha5	0x0
31974	chr6	140430749	140431957	+	Plekha5	0x0
31975	chr6	140496836	140497993	+	Plekha5	0x0
31976	chr6	140542229	140543387	+	Plekha5	0x0
31977	chr6	140544632	140545952	+	Plekha5	0x0
31978	chr6	140581690	140582901	+	Aebp2	0x0
31979	chr6	140590276	140591365	+	Aebp2	0x0
31980	chr6	140599365	140601961	+	Aebp2	0x0
31981	chr6	140602101	140603469	+	Aebp2	0x0
31982	chr6	142310399	142311562	-	Recql	0x0
31983	chr6	142324876	142325977	-	Recql	0x0
31984	chr6	142326181	142327383	-	Recql	0x0
31985	chr6	142342026	142343140	+	Golt1b	0x0
31986	chr6	142350228	142352884	+	Golt1b	0x0
31987	chr6	142438318	142439596	-	Ldhb	0x0
31988	chr6	142720885	142722041	+	Cmas	0x0
31989	chr6	142771649	142772748	-	St8sia1	0x0
31990	chr6	142895570	142896722	-	St8sia1	0x0
31991	chr6	142959837	142960940	-	C2cd5	0x0
31992	chr6	142965998	142967165	-	C2cd5	0x0
31993	chr6	142969183	142970296	+	Etnk1	0x0
31994	chr6	142989314	142990552	-	C2cd5	0x0
31995	chr6	142992437	142993551	-	C2cd5	0x0
31996	chr6	143016179	143017356	-	C2cd5	0x0
31997	chr6	143128342	143129909	+	Etnk1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
31998	chr6	143136596	143137708	+	Etnk1	0x0
31999	chr6	143140435	143141534	+	Etnk1	0x0
32000	chr6	143145406	143147167	+	Etnk1	0x0
32001	chr6	143147193	143148390	+	Etnk1	0x0
32002	chr6	143153048	143156869	+	Etnk1	0x0
32003	chr6	143835593	143836768	-	Sox5	0x2
32004	chr6	143917813	143918960	+	D6Ertd474e	0x0
32005	chr6	144825214	144826383	-	Bcat1	0x0
32006	chr6	144841779	144842977	-	Bcat1	0x0
32007	chr6	144942781	144943886	-	Bcat1	0x0
32008	chr6	144945697	144946787	-	Bcat1	0x0
32009	chr6	144947335	144949191	-	Bcat1	0x0
32010	chr6	144960907	144962073	-	Bcat1	0x0
32011	chr6	144963511	144964610	-	Bcat1	0x0
32012	chr6	144967133	144968326	-	Bcat1	0x0
32013	chr6	144980769	144981954	-	Bcat1	0x0
32014	chr6	144982516	144983689	-	Bcat1	0x0
32015	chr6	144987437	144988655	-	Bcat1	0x0
32016	chr6	144994366	144995496	-	Bcat1	0x0
32017	chr6	145023906	145025121	-	Bcat1	0x0
32018	chr6	145027836	145029002	+	Lrmp	0x0
32019	chr6	145164281	145165471	+	Lyrm5	0x0
32020	chr6	145164738	145165944	-	Kras	0x2
32021	chr6	145167517	145170500	-	Kras	0x2
32022	chr6	145214682	145215886	+	Gm15706	0x0
32023	chr6	145566418	145567517	+	Tuba3b	0x0
32024	chr6	145726259	145727374	+	Rassf8	0x1
32025	chr6	145763145	145764256	+	Rassf8	0x1
32026	chr6	145765850	145767151	+	Rassf8	0x1
32027	chr6	145767211	145768311	+	Rassf8	0x1
32028	chr6	146545678	146547545	+	Fgfr1op2	0x0
32029	chr6	146550486	146552458	-	Tm7sf3	0x0
32030	chr6	146566563	146567762	-	Tm7sf3	0x0
32031	chr6	146724138	146726119	+	Stk38l	0x0
32032	chr6	146730653	146731879	+	Stk38l	0x0
32033	chr6	146926093	146927252	+	Ppfibp1	0x0
32034	chr6	146979507	146980705	+	Ppfibp1	0x0
32035	chr6	147041598	147042774	+	Klhdc5	0x0
32036	chr6	147059059	147060344	+	Klhdc5	0x0
32037	chr6	148111757	148112926	-	Ergic2	0x0
32038	chr6	148128682	148130476	-	Ergic2	0x0
32039	chr6	148130917	148132082	-	Ergic2	0x0
32040	chr6	148143720	148144942	-	Ergic2	0x0
32041	chr6	148146192	148147375	-	Ergic2	0x0
32042	chr6	148151036	148152135	-	Ergic2	0x0
32043	chr6	148171584	148172754	+	4732416N19Rik	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32044	chr6	148302718	148303891	+	Rps4y2	0x0
32045	chr6	148391514	148392617	-	Tmtc1	0x0
32046	chr6	148719159	148720776	-	Ipo8	0x0
32047	chr6	148888605	148889764	-	Fam60a	0x0
32048	chr6	148936130	148937234	-	Dennd5b	0x0
32049	chr6	148939082	148941048	-	Dennd5b	0x0
32050	chr6	148948587	148949733	-	Dennd5b	0x0
32051	chr6	149099661	149100827	-	Amn1	0x0
32052	chr6	149232678	149233827	-	Amn1	0x0
32053	chr6	149257490	149258671	+	2810474O19Rik	0x0
32054	chr6	149266394	149267574	+	2810474O19Rik	0x0
32055	chr6	149274961	149276229	+	2810474O19Rik	0x0
32056	chr6	149276899	149278051	+	2810474O19Rik	0x0
32057	chr6	149282912	149284313	+	2810474O19Rik	0x0
32058	chr6	149309358	149310498	-	Amn1	0x0
32059	chr6	149311855	149314206	+	2810474O19Rik	0x0
32060	chr7	3154121	3156420	-	AU018091	0x0
32061	chr7	3160332	3161535	-	AU018091	0x0
32062	chr7	3163615	3164793	-	AU018091	0x0
32063	chr7	3218104	3219401	+	D7Ertd143e	0x0
32064	chr7	3218104	3219401	+	Mir290	0x0
32065	chr7	3218104	3219401	+	Mir291a	0x4
32066	chr7	3218104	3219401	+	Mir292	0x4
32067	chr7	3219804	3221162	+	D7Ertd143e	0x0
32068	chr7	3219804	3221162	+	Mir293	0x4
32069	chr7	3219804	3221162	+	Mir294	0x4
32070	chr7	3219804	3221162	+	Mir295	0x0
32071	chr7	3297900	3299785	+	Myadm	0x0
32072	chr7	3513337	3514477	+	Ndufa3	0x0
32073	chr7	3521194	3522394	-	Tarm1	0x0
32074	chr7	3571141	3572301	+	Ndufa3	0x0
32075	chr7	3596900	3598071	+	Cnot3	0x2
32076	chr7	3604369	3605483	+	Cnot3	0x2
32077	chr7	3611881	3613030	+	Cnot3	0x2
32078	chr7	3629158	3630804	-	Mboat7	0x0
32079	chr7	3655704	3659037	+	Rps9	0x0
32080	chr7	4086289	4087448	+	Ttyh1	0x0
32081	chr7	4095235	4096414	+	Leng8	0x0
32082	chr7	4098472	4099940	+	Leng8	0x0
32083	chr7	4256909	4258088	+	Pira6	0x0
32084	chr7	4377289	4378416	-	Rdh13	0x0
32085	chr7	4378419	4379626	-	Rdh13	0x0
32086	chr7	4432690	4434082	-	Ppp1r12c	0x0
32087	chr7	4439021	4440175	-	Ppp1r12c	0x0
32088	chr7	4444652	4445788	-	Ppp1r12c	0x0
32089	chr7	4582193	4583610	-	Ppp6r1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32090	chr7	4585923	4587047	-	Ppp6r1	0x0
32091	chr7	4661726	4662962	+	Brsk1	0x2
32092	chr7	4663485	4664606	+	Brsk1	0x2
32093	chr7	4696920	4699675	+	Suv420h2	0x0
32094	chr7	4744192	4745473	+	Rpl28	0x0
32095	chr7	4787303	4788506	-	Shisa7	0x0
32096	chr7	4830266	4831439	+	Isoc2a	0x0
32097	chr7	4850327	4852596	+	Isoc2a	0x0
32098	chr7	4958354	4959500	-	Fiz1	0x0
32099	chr7	4977043	4978201	+	Zfp865	0x0
32100	chr7	4977454	4978580	-	Zfp784	0x0
32101	chr7	4984203	4985371	+	Zfp865	0x0
32102	chr7	5008592	5009734	+	Ccdc106	0x0
32103	chr7	5015832	5017016	+	U2af2	0x2
32104	chr7	5020470	5021624	+	U2af2	0x2
32105	chr7	5030856	5032046	+	Epn1	0x0
32106	chr7	5030856	5032046	+	U2af2	0x2
32107	chr7	5048327	5050214	+	Epn1	0x0
32108	chr7	5648384	5649570	-	Vmn1r61	0x0
32109	chr7	6141315	6142508	+	Zfp444	0x0
32110	chr7	6214879	6216069	+	Gm6792	0x0
32111	chr7	6219053	6220201	+	Gm6792	0x0
32112	chr7	6513949	6515152	+	Olfr1350	0x0
32113	chr7	6528376	6529767	-	Olfr1349	0x0
32114	chr7	6542403	6543637	-	Olfr1349	0x0
32115	chr7	6551906	6553349	-	Zim1	0x0
32116	chr7	6556882	6558000	-	Zim1	0x0
32117	chr7	6561201	6562375	-	Zim1	0x0
32118	chr7	6569866	6571076	-	Zim1	0x0
32119	chr7	6577264	6578463	-	Zim1	0x0
32120	chr7	6580811	6581910	-	Zim1	0x0
32121	chr7	6583535	6585578	-	Zim1	0x0
32122	chr7	6589202	6590342	-	Zim1	0x0
32123	chr7	6594417	6595481	-	Zim1	0x0
32124	chr7	6596014	6597153	-	Zim1	0x0
32125	chr7	6600753	6601930	-	Zim1	0x0
32126	chr7	6656192	6657588	-	Peg3	0x7
32127	chr7	6658003	6660321	-	Peg3	0x7
32128	chr7	6666969	6668129	-	Peg3	0x7
32129	chr7	6937859	6939056	+	Aurkc	0x0
32130	chr7	9681406	9682652	+	Vmn2r45	0x0
32131	chr7	10457502	10458701	-	Vmn2r47	0x0
32132	chr7	11241195	11242410	-	Vmn1r69	0x0
32133	chr7	11650974	11652127	-	Zscan4d	0x0
32134	chr7	12412926	12414121	-	Vmn1r76	0x0
32135	chr7	12452166	12453357	+	Vmn1r75	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32136	chr7	12590700	12591908	-	Vmn1r76	0x0
32137	chr7	13353040	13354240	-	Zscan18	0x0
32138	chr7	13361637	13362811	-	Zscan18	0x0
32139	chr7	13394093	13395246	-	Zfp329	0x0
32140	chr7	13434995	13436419	+	Zfp110	0x0
32141	chr7	13507808	13509009	+	Rps5	0x0
32142	chr7	13509995	13512552	+	Rps5	0x0
32143	chr7	13563077	13564240	+	Zfp446	0x0
32144	chr7	13589508	13590690	-	Zbtb45	0x0
32145	chr7	13610478	13611662	+	Trim28	0x0
32146	chr7	13612477	13613580	+	Trim28	0x0
32147	chr7	13614193	13616893	+	Trim28	0x0
32148	chr7	13621370	13622548	-	Ube2m	0x0
32149	chr7	13885104	13886297	+	Lig1	0x0
32150	chr7	13890745	13891921	+	Lig1	0x0
32151	chr7	13896114	13897255	+	Lig1	0x0
32152	chr7	14343349	14344575	-	Sult2a1	0x0
32153	chr7	15165745	15167031	-	Nlrp5-ps	0x0
32154	chr7	15192044	15193198	-	Nlrp5-ps	0x0
32155	chr7	15857975	15859135	-	Obox3	0x0
32156	chr7	16523546	16524833	-	Gltscr2	0x1
32157	chr7	16523546	16524833	-	Snord23	0x0
32158	chr7	16573960	16575171	-	Gltscr1	0x1
32159	chr7	16596468	16597659	-	Gltscr1	0x1
32160	chr7	16683431	16684607	+	Napa	0x0
32161	chr7	16701411	16702877	+	Napa	0x0
32162	chr7	16712014	16713183	+	Kptn	0x0
32163	chr7	16717378	16718576	+	Slc8a2	0x2
32164	chr7	16720622	16721772	+	Slc8a2	0x2
32165	chr7	16911990	16913771	-	Sae1	0x0
32166	chr7	16932663	16933892	-	Sae1	0x0
32167	chr7	16950340	16951521	-	Sae1	0x0
32168	chr7	17006112	17007307	+	Zc3h4	0x0
32169	chr7	17014612	17015796	+	Zc3h4	0x0
32170	chr7	17019360	17020459	+	Zc3h4	0x0
32171	chr7	17020797	17023503	+	Zc3h4	0x0
32172	chr7	17040133	17043846	+	Tmem160	0x0
32173	chr7	17056615	17057867	+	Tmem160	0x0
32174	chr7	17080323	17082496	-	Grlf1	0x1
32175	chr7	17132876	17134059	-	Grlf1	0x1
32176	chr7	17148570	17150443	-	Grlf1	0x1
32177	chr7	17278663	17279938	-	Ceacam15	0x0
32178	chr7	17299486	17300661	-	Ceacam15	0x0
32179	chr7	17366792	17368288	+	Slc1a5	0x0
32180	chr7	17370447	17371673	+	Slc1a5	0x0
32181	chr7	17382308	17383835	+	Slc1a5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32182	chr7	17394211	17395342	-	Fkrp	0x0
32183	chr7	17425157	17426610	+	Strn4	0x0
32184	chr7	17472011	17473144	+	Dact3	0x0
32185	chr7	17500332	17502744	-	Calm3	0x0
32186	chr7	17532798	17533897	+	Pnmal2	0x0
32187	chr7	17589699	17590895	-	Ppp5c	0x0
32188	chr7	17619451	17620681	-	Hif3a	0x0
32189	chr7	19288195	19289461	+	Psg22	0x0
32190	chr7	19488666	19489835	-	Ccdc61	0x0
32191	chr7	19544427	19550500	+	Nova2	0x0
32192	chr7	19589744	19590967	+	Irf2bp1	0x0
32193	chr7	19598594	19599778	-	Foxa3	0x0
32194	chr7	19626773	19627884	+	Sympk	0x0
32195	chr7	19629874	19631080	+	Sympk	0x0
32196	chr7	19667364	19668476	+	Dmwd	0x0
32197	chr7	19678125	19679305	-	Qpctl	0x0
32198	chr7	19736093	19737468	+	Snrpd2	0x0
32199	chr7	19818126	19819302	+	Opa3	0x0
32200	chr7	19831019	19833447	+	Opa3	0x0
32201	chr7	19856425	19857559	-	Vasp	0x0
32202	chr7	19871765	19873095	+	Rtn2	0x0
32203	chr7	19880828	19881994	+	Rtn2	0x0
32204	chr7	19886040	19887245	+	Rtn2	0x0
32205	chr7	19941192	19942389	-	Cd3eap	0x0
32206	chr7	19958019	19959187	+	Ppp1r13l	0x0
32207	chr7	19966899	19968070	+	Ercc2	0x2
32208	chr7	19979865	19981163	+	Ercc2	0x2
32209	chr7	20043044	20044226	-	Mark4	0x0
32210	chr7	20091028	20092391	-	Bloc1s3	0x0
32211	chr7	20096408	20097555	+	Trappc6a	0x0
32212	chr7	20171664	20172831	-	Clasrp	0x0
32213	chr7	20180632	20181791	-	Clasrp	0x0
32214	chr7	20205555	20206724	-	Relb	0x0
32215	chr7	20218223	20219407	-	Clptm1	0x0
32216	chr7	20219731	20220898	-	Clptm1	0x0
32217	chr7	20281036	20282267	-	Apoe	0x0
32218	chr7	20294242	20295436	-	Tomm40	0x0
32219	chr7	20297757	20298950	-	Tomm40	0x0
32220	chr7	20299883	20301072	-	Tomm40	0x0
32221	chr7	20301506	20303536	-	Pvrl2	0x0
32222	chr7	20396408	20397586	-	Bcl3	0x2
32223	chr7	20488601	20491066	-	Pvr	0x0
32224	chr7	20505790	20506998	-	Pvr	0x0
32225	chr7	24979248	24980455	-	Zfp111	0x6
32226	chr7	24982271	24983439	-	Zfp111	0x6
32227	chr7	25054710	25055823	+	Zfp93	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32228	chr7	25206954	25208173	+	Smg9	0x0
32229	chr7	25321612	25324126	+	Irgq	0x0
32230	chr7	25646930	25648159	+	Dmrtc2	0x0
32231	chr7	25671567	25674549	+	Rps19	0x0
32232	chr7	25703118	25704323	+	Arhgef1	0x0
32233	chr7	25708318	25709417	+	Arhgef1	0x0
32234	chr7	25754285	25755468	-	Rabac1	0x0
32235	chr7	25794568	25795803	-	Grik5	0x0
32236	chr7	25806992	25808953	-	Grik5	0x0
32237	chr7	25865983	25867100	+	Zfp574	0x0
32238	chr7	25872120	25874343	-	Pou2f2	0x2
32239	chr7	25875935	25877071	-	Pou2f2	0x2
32240	chr7	25985838	25988162	-	Dedd2	0x0
32241	chr7	26015237	26017246	-	Gsk3a	0x0
32242	chr7	26029061	26030941	-	Erf	0x1
32243	chr7	26031353	26032539	-	Erf	0x1
32244	chr7	26056880	26058061	+	Cic	0x2
32245	chr7	26075381	26076537	+	Cic	0x2
32246	chr7	26076763	26077827	+	Cic	0x2
32247	chr7	26078179	26079414	+	Cic	0x2
32248	chr7	26079596	26080740	-	Pafah1b3	0x0
32249	chr7	26081599	26082795	-	Pafah1b3	0x0
32250	chr7	26138330	26139485	+	Megf8	0x0
32251	chr7	26143520	26144713	+	Megf8	0x0
32252	chr7	26148455	26151380	+	Megf8	0x0
32253	chr7	26248913	26250108	-	Ceacam1	0x1
32254	chr7	26443823	26444963	+	Exosc5	0x0
32255	chr7	26495722	26497357	-	Ccdc97	0x0
32256	chr7	26505921	26507309	-	Hnrnpul1	0x0
32257	chr7	26527373	26528574	-	Hnrnpul1	0x0
32258	chr7	27032164	27033334	+	Vmn1r184	0x0
32259	chr7	27481327	27482515	-	Cyp2b23	0x0
32260	chr7	27491752	27492986	-	Cyp2b23	0x0
32261	chr7	27669351	27670560	-	Cyp2a22	0x0
32262	chr7	27793997	27795204	+	Cyp2a12	0x0
32263	chr7	27943468	27944666	-	Egln2	0x0
32264	chr7	27953071	27954178	-	Rab4b	0x0
32265	chr7	27956216	27957430	-	Rab4b	0x0
32266	chr7	27989035	27990369	+	BC024978	0x0
32267	chr7	27990377	27991533	+	BC024978	0x0
32268	chr7	28092285	28093465	-	Ltbp4	0x0
32269	chr7	28106580	28108782	-	Ltbp4	0x0
32270	chr7	28253600	28255701	-	Sptbn4	0x2
32271	chr7	28261447	28262601	+	Sertad3	0x0
32272	chr7	28302239	28303424	+	Prx	0x0
32273	chr7	28303879	28304992	+	Prx	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32274	chr7	28316586	28317796	-	Pld3	0x0
32275	chr7	28340783	28341932	+	2310022A10Rik	0x0
32276	chr7	28347857	28349072	+	2310022A10Rik	0x0
32277	chr7	28364866	28367498	+	2310022A10Rik	0x0
32278	chr7	28423470	28425176	+	Akt2	0x2
32279	chr7	28442326	28443522	-	Map3k10	0x0
32280	chr7	28457271	28458464	-	Map3k10	0x0
32281	chr7	28494193	28495430	+	C030039L03Rik	0x2
32282	chr7	28641058	28642210	+	Zfp59	0x0
32283	chr7	28664749	28665904	+	Zfp607	0x0
32284	chr7	28691475	28692644	-	1700049G17Rik	0x0
32285	chr7	28771136	28773804	-	Gm4636	0x0
32286	chr7	28833564	28834747	-	Psmc4	0x0
32287	chr7	28973624	28974681	+	Dyrk1b	0x0
32288	chr7	28976251	28978056	+	Dyrk1b	0x0
32289	chr7	28978478	28979764	+	Dyrk1b	0x0
32290	chr7	28980812	28981934	+	Dyrk1b	0x0
32291	chr7	29009297	29010413	+	Dyrk1b	0x0
32292	chr7	29010607	29011820	+	Dyrk1b	0x0
32293	chr7	29053356	29054597	+	Eid2	0x0
32294	chr7	29065065	29066180	+	Eid2b	0x0
32295	chr7	29091041	29092439	-	Timm50	0x0
32296	chr7	29099631	29101425	-	Supt5	0x0
32297	chr7	29136673	29138055	+	Rps16	0x0
32298	chr7	29143021	29144212	-	Plekhg2	0x1
32299	chr7	29157531	29158679	+	Paf1	0x1
32300	chr7	29163054	29164226	-	Zfp36	0x1
32301	chr7	29177352	29178582	+	Paf1	0x1
32302	chr7	29184076	29186964	-	Samd4b	0x0
32303	chr7	29192429	29193708	-	Samd4b	0x0
32304	chr7	29343402	29344548	-	Pak4	0x0
32305	chr7	29524163	29525359	-	Mrps12	0x0
32306	chr7	29534679	29535853	+	Sars2	0x0
32307	chr7	29598195	29599696	+	Hnrnpl	0x0
32308	chr7	29605025	29607727	+	Hnrnpl	0x0
32309	chr7	29677817	29679696	-	Actn4	0x0
32310	chr7	29682292	29684589	-	Actn4	0x0
32311	chr7	29686539	29687698	-	Actn4	0x0
32312	chr7	29689810	29690909	-	Actn4	0x0
32313	chr7	29700643	29701822	-	Actn4	0x0
32314	chr7	29714861	29716029	-	Actn4	0x0
32315	chr7	29757050	29758249	-	Eif3k	0x0
32316	chr7	29758587	29760225	-	Eif3k	0x0
32317	chr7	29801143	29802337	-	Ryr1	0x2
32318	chr7	29848997	29850178	-	Ryr1	0x2
32319	chr7	30094069	30095309	+	Dpf1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32320	chr7	30101547	30102754	+	Dpf1	0x0
32321	chr7	30104909	30106851	-	Sipa1l3	0x0
32322	chr7	30116159	30117289	-	Sipa1l3	0x0
32323	chr7	30184345	30185524	-	Sipa1l3	0x0
32324	chr7	30230920	30232164	-	Sipa1l3	0x0
32325	chr7	30267179	30268356	-	Sipa1l3	0x0
32326	chr7	30548738	30549939	-	Catsperg2	0x0
32327	chr7	30563489	30564601	+	Zfp84	0x0
32328	chr7	30582714	30583935	-	Zfp940	0x0
32329	chr7	30657614	30658749	+	Zfp420	0x0
32330	chr7	30661722	30662823	+	Zfp420	0x0
32331	chr7	30707111	30709339	-	Zfp74	0x2
32332	chr7	30709942	30711041	-	Zfp74	0x2
32333	chr7	30716208	30717398	-	Zfp74	0x2
32334	chr7	30808750	30813152	+	Zfp568	0x0
32335	chr7	30890906	30892513	+	Zfp260	0x0
32336	chr7	30920974	30922132	+	Zfp382	0x1
32337	chr7	30971522	30972940	-	Capns1	0x0
32338	chr7	30978422	30979525	-	Capns1	0x0
32339	chr7	31025042	31026179	-	Wdr62	0x0
32340	chr7	31045818	31047022	-	Wdr62	0x0
32341	chr7	31058984	31061154	-	Wdr62	0x0
32342	chr7	31097093	31098211	+	Alkbh6	0x0
32343	chr7	31213068	31214285	+	Nfkbid	0x0
32344	chr7	31251302	31252518	+	Nphs1	0x0
32345	chr7	31263614	31264762	+	Nphs1	0x0
32346	chr7	31266722	31268084	+	Nphs1	0x0
32347	chr7	31343065	31344307	-	Lin37	0x0
32348	chr7	31353836	31355033	-	Wbp7	0x0
32349	chr7	31358553	31359686	-	Wbp7	0x0
32350	chr7	31366633	31367838	-	Wbp7	0x0
32351	chr7	31368613	31369752	-	Wbp7	0x0
32352	chr7	31369859	31371085	-	Wbp7	0x0
32353	chr7	31401600	31402702	-	Cox6b1	0x0
32354	chr7	31408947	31410154	-	Cox6b1	0x0
32355	chr7	31512517	31513673	-	Tmem147	0x0
32356	chr7	31618460	31619621	+	Krtdap	0x0
32357	chr7	31641676	31642862	-	Ffar3	0x0
32358	chr7	31654922	31656142	+	Krtdap	0x0
32359	chr7	31729998	31731831	-	Usf2	0x0
32360	chr7	31739623	31740723	-	Usf2	0x0
32361	chr7	31741587	31742689	-	Usf2	0x0
32362	chr7	31901648	31902808	-	Scn1b	0x0
32363	chr7	31930573	31931742	-	Gramd1a	0x0
32364	chr7	31933341	31934521	-	Gramd1a	0x0
32365	chr7	32751729	32752912	-	Scgb2b7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32366	chr7	34894190	34895783	-	Wtip	0x0
32367	chr7	34895865	34897066	-	Wtip	0x0
32368	chr7	34903148	34904715	-	Wtip	0x0
32369	chr7	34917536	34918714	-	Wtip	0x0
32370	chr7	34925378	34926793	-	Uba2	0x0
32371	chr7	34927293	34928434	-	Uba2	0x0
32372	chr7	34940364	34941541	-	Uba2	0x0
32373	chr7	34943297	34944528	-	Uba2	0x0
32374	chr7	34946014	34947186	-	Uba2	0x0
32375	chr7	34992123	34993299	-	Gpi1	0x0
32376	chr7	34994290	34995518	-	Gpi1	0x0
32377	chr7	35005254	35006475	-	Gpi1	0x0
32378	chr7	35013724	35014921	-	Gpi1	0x0
32379	chr7	35021249	35022847	-	4931406P16Rik	0x0
32380	chr7	35129216	35131248	-	Lsm14a	0x0
32381	chr7	35424050	35425149	-	Kctd15	0x0
32382	chr7	35502181	35503385	-	Chst8	0x4
32383	chr7	35832220	35835067	-	Cebpg	0x0
32384	chr7	36076240	36077417	-	Gpatch1	0x0
32385	chr7	36179700	36180896	-	C230052I12Rik	0x0
32386	chr7	36251460	36252698	-	Tdrd12	0x0
32387	chr7	36278238	36279420	-	Tdrd12	0x0
32388	chr7	36391869	36393016	+	Ankrd27	0x0
32389	chr7	36399755	36400893	+	Ankrd27	0x0
32390	chr7	36417431	36418626	+	Ankrd27	0x0
32391	chr7	36557127	36558753	-	Zfp507	0x0
32392	chr7	36580039	36581183	-	Zfp507	0x0
32393	chr7	38257409	38258646	-	Zfp536	0x2
32394	chr7	38278157	38279386	-	Zfp536	0x2
32395	chr7	38744507	38747574	-	Uri1	0x0
32396	chr7	38749837	38751003	-	Uri1	0x0
32397	chr7	38751754	38752988	-	Uri1	0x0
32398	chr7	38775825	38776975	-	Uri1	0x0
32399	chr7	38784617	38785719	-	Uri1	0x0
32400	chr7	38788632	38789696	-	Uri1	0x0
32401	chr7	38882568	38884963	-	Ccne1	0x2
32402	chr7	38891076	38892256	-	Ccne1	0x2
32403	chr7	46846336	46847549	+	Zfp619	0x0
32404	chr7	48157894	48159113	+	Vstm2b	0x0
32405	chr7	48405235	48406410	-	AI987944	0x0
32406	chr7	48734237	48735390	-	AW146154	0x0
32407	chr7	48796692	48798585	-	AW146154	0x0
32408	chr7	48801132	48802266	-	AW146154	0x0
32409	chr7	48855903	48857080	+	Zfp788	0x0
32410	chr7	48860324	48861501	+	Zfp788	0x0
32411	chr7	48867237	48868394	+	Zfp788	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32412	chr7	48882681	48884605	+	Zfp788	0x0
32413	chr7	49728984	49730511	-	4933421I07Rik	0x0
32414	chr7	49832978	49834257	-	9830147E19Rik	0x0
32415	chr7	49835113	49836212	-	9830147E19Rik	0x0
32416	chr7	49847282	49848438	-	9830147E19Rik	0x0
32417	chr7	49865424	49866931	-	9830147E19Rik	0x0
32418	chr7	49915441	49916743	-	Gm5595	0x0
32419	chr7	49959055	49962241	-	Gm5595	0x0
32420	chr7	49989968	49991087	-	Vmn2r62	0x0
32421	chr7	50070398	50071728	-	Gm2381	0x0
32422	chr7	50072348	50073543	-	Gm2381	0x0
32423	chr7	50086849	50087977	-	Gm2381	0x0
32424	chr7	50208383	50210148	-	Vmn2r63	0x0
32425	chr7	50354288	50357330	+	Gm9268	0x0
32426	chr7	50440831	50442012	+	Zfp936	0x0
32427	chr7	50443118	50444238	+	Zfp936	0x0
32428	chr7	50447235	50449020	+	Zfp936	0x0
32429	chr7	50476728	50477886	+	EU599041	0x2
32430	chr7	50510514	50511631	+	EU599041	0x2
32431	chr7	50512023	50513124	+	EU599041	0x2
32432	chr7	50522385	50524113	+	EU599041	0x2
32433	chr7	50616898	50618101	+	Siglec5	0x0
32434	chr7	50716359	50717456	-	Iglon5	0x0
32435	chr7	50851145	50852244	+	Zfp719	0x0
32436	chr7	50927889	50929054	+	Ctu1	0x0
32437	chr7	50929898	50931109	+	Ctu1	0x0
32438	chr7	50932094	50933301	+	Ctu1	0x0
32439	chr7	50939851	50941047	-	Siglece	0x0
32440	chr7	51059802	51060978	+	Klk8	0x0
32441	chr7	51504709	51506140	+	2410002F23Rik	0x0
32442	chr7	51504709	51506140	+	Snord88a	0x0
32443	chr7	51504709	51506140	+	Snord88c	0x0
32444	chr7	51506966	51508155	+	2410002F23Rik	0x0
32445	chr7	51581894	51583058	+	Shank1	0x2
32446	chr7	51645269	51646472	+	Syt3	0x0
32447	chr7	51744993	51746467	-	Emc10	0x0
32448	chr7	51788955	51790128	-	Pold1	0x0
32449	chr7	51790580	51791765	-	Pold1	0x0
32450	chr7	51841529	51842708	-	Myh14	0x0
32451	chr7	51857882	51858981	+	Kcnc3	0x0
32452	chr7	52067171	52068749	-	Atf5	0x0
32453	chr7	52072519	52073614	+	Nup62	0x0
32454	chr7	52072519	52073614	+	Nup62-il4i1	0x0
32455	chr7	52077626	52078749	+	Nup62	0x0
32456	chr7	52085263	52086701	+	Nup62	0x0
32457	chr7	52107504	52108616	+	Akt1s1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32458	chr7	52109953	52111113	+	Akt1s1	0x0
32459	chr7	52156451	52157681	-	Ap2a1	0x0
32460	chr7	52163888	52165081	-	Ap2a1	0x0
32461	chr7	52214269	52215464	-	Cpt1c	0x0
32462	chr7	52231267	52233482	-	Prmt1	0x0
32463	chr7	52238320	52239454	-	Prmt1	0x0
32464	chr7	52261666	52262769	-	Scaf1	0x2
32465	chr7	52273722	52274871	+	Rras	0x0
32466	chr7	52285547	52286890	-	Prr12	0x0
32467	chr7	52301671	52303473	-	Prr12	0x0
32468	chr7	52304640	52305774	-	Prr12	0x0
32469	chr7	52306767	52307923	-	Prr12	0x0
32470	chr7	52332271	52333544	+	Nosip	0x0
32471	chr7	52337726	52338921	-	Rcn3	0x0
32472	chr7	52358477	52359680	-	Fcgrt	0x0
32473	chr7	52377610	52379391	-	Rps11	0x0
32474	chr7	52377610	52379391	-	Snord35b	0x0
32475	chr7	52380504	52382849	-	Mir5121	0x0
32476	chr7	52380504	52382849	-	Rpl13a	0x0
32477	chr7	52380504	52382849	-	Snord32a	0x0
32478	chr7	52380504	52382849	-	Snord33	0x0
32479	chr7	52380504	52382849	-	Snord34	0x0
32480	chr7	52380504	52382849	-	Snord35a	0x0
32481	chr7	52441557	52442729	-	Ccdc155	0x0
32482	chr7	52483541	52484689	+	Tead2	0x0
32483	chr7	52487094	52489448	+	Tead2	0x0
32484	chr7	52488796	52490513	-	Cd37	0x0
32485	chr7	52579849	52581299	+	Hrc	0x2
32486	chr7	52631436	52632720	-	Snrnp70	0x0
32487	chr7	52632922	52634064	-	Snrnp70	0x0
32488	chr7	52635630	52636811	-	Snrnp70	0x0
32489	chr7	52642651	52643820	-	Snrnp70	0x0
32490	chr7	52665634	52666814	+	Kcna7	0x0
32491	chr7	52692924	52694124	+	Gys1	0x0
32492	chr7	52699201	52700251	+	Gys1	0x0
32493	chr7	52703078	52704272	+	Gys1	0x0
32494	chr7	52710477	52711904	+	Gys1	0x0
32495	chr7	52712840	52715576	-	Ftl1	0x0
32496	chr7	52727846	52729013	-	Dhdh	0x0
32497	chr7	52729997	52731154	-	Dhdh	0x0
32498	chr7	52732158	52733346	-	Dhdh	0x0
32499	chr7	52747980	52749441	-	Nucb1	0x0
32500	chr7	52750062	52751171	-	Nucb1	0x0
32501	chr7	52813437	52814558	+	Hsd17b14	0x0
32502	chr7	52819984	52821094	+	Hsd17b14	0x0
32503	chr7	52821726	52822880	+	Hsd17b14	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32504	chr7	52973064	52974203	+	Rpl18	0x0
32505	chr7	52974759	52975967	+	Rpl18	0x0
32506	chr7	53075517	53076612	-	Kcnj14	0x0
32507	chr7	53080306	53081647	-	Grwd1	0x0
32508	chr7	53084840	53086057	-	Grwd1	0x0
32509	chr7	53138066	53139633	+	Kdelr1	0x0
32510	chr7	53171897	53173121	+	Tmem143	0x0
32511	chr7	53225243	53226382	-	Abcc6	0x0
32512	chr7	53313260	53314461	+	Nomo1	0x0
32513	chr7	53336118	53337330	+	Nomo1	0x0
32514	chr7	53338714	53340103	+	Nomo1	0x0
32515	chr7	53876955	53878087	-	Sergef	0x0
32516	chr7	53881047	53882227	-	Sergef	0x0
32517	chr7	54015887	54017109	-	Hps5	0x0
32518	chr7	54055118	54056262	+	Gtf2h1	0x0
32519	chr7	54105763	54106968	+	Ldha	0x0
32520	chr7	54110140	54111561	+	Ldha	0x0
32521	chr7	54144178	54145363	-	Tsg101	0x1
32522	chr7	54145707	54146938	-	Tsg101	0x1
32523	chr7	54189427	54190623	-	Uevld	0x0
32524	chr7	56082046	56083198	+	Zdhhc13	0x0
32525	chr7	56125535	56126733	-	E2f8	0x0
32526	chr7	56612887	56615094	+	Nav2	0x0
32527	chr7	56662966	56664143	+	Nav2	0x0
32528	chr7	56862735	56863826	+	Nav2	0x0
32529	chr7	56864218	56865429	+	Nav2	0x0
32530	chr7	57035171	57036271	+	Prmt3	0x0
32531	chr7	57040948	57042140	+	Prmt3	0x0
32532	chr7	57072804	57074034	+	Prmt3	0x0
32533	chr7	57101552	57102752	+	Prmt3	0x0
32534	chr7	57108133	57109296	+	Prmt3	0x0
32535	chr7	57112873	57114073	+	Prmt3	0x0
32536	chr7	57114659	57115904	+	Prmt3	0x0
32537	chr7	57469348	57470475	+	Nell1	0x0
32538	chr7	59581505	59582734	-	1700015G11Rik	0x0
32539	chr7	61142823	61144026	+	Luzp2	0x0
32540	chr7	63064396	63065558	+	Tubgcp5	0x0
32541	chr7	63160163	63161311	+	Cyfip1	0x2
32542	chr7	63199364	63200572	-	Nipa2	0x0
32543	chr7	63361343	63362447	+	Herc2	0x2
32544	chr7	63376407	63377570	+	Herc2	0x2
32545	chr7	63423694	63424859	+	Herc2	0x2
32546	chr7	63439274	63440395	+	Herc2	0x2
32547	chr7	63486097	63487290	+	Herc2	0x2
32548	chr7	64857322	64858473	+	Gabrb3	0x6
32549	chr7	64868058	64869161	+	Gabrb3	0x6

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32550	chr7	65082973	65084249	+	Gabrb3	0x6
32551	chr7	65949833	65951009	+	Atp10a	0x6
32552	chr7	66082680	66084667	+	Atp10a	0x6
32553	chr7	66486750	66487962	+	Ube3a	0x4
32554	chr7	66498183	66499319	+	Ube3a	0x4
32555	chr7	66531098	66532286	+	Ube3a	0x4
32556	chr7	66543576	66544711	+	Ube3a	0x4
32557	chr7	66562941	66567224	+	Ube3a	0x4
32558	chr7	67114452	67115654	-	D7Ertd715e	0x0
32559	chr7	67116231	67117392	-	D7Ertd715e	0x0
32560	chr7	67117667	67118890	-	D7Ertd715e	0x0
32561	chr7	67120553	67121833	-	D7Ertd715e	0x0
32562	chr7	67122562	67124415	-	Snord64	0x4
32563	chr7	67137159	67138369	-	Snrpn	0x4
32564	chr7	67137159	67138369	-	Snurf	0x4
32565	chr7	67142085	67143185	-	Snrpn	0x4
32566	chr7	67142085	67143185	-	Snurf	0x4
32567	chr7	67300959	67302203	+	Ube3a	0x4
32568	chr7	68379050	68380167	+	Ndn	0x5
32569	chr7	69060946	69062085	-	A230057D06Rik	0x0
32570	chr7	69493797	69495228	+	Ndn	0x5
32571	chr7	69606319	69607670	-	Peg12	0x0
32572	chr7	70773923	70775076	+	Otud7a	0x0
32573	chr7	71031258	71033307	-	Klf13	0x0
32574	chr7	71033907	71036460	-	Klf13	0x0
32575	chr7	71104345	71105498	+	E030018B13Rik	0x0
32576	chr7	71506103	71507229	-	Fan1	0x0
32577	chr7	71527222	71528427	-	Mphosph10	0x0
32578	chr7	71533802	71534984	-	Mphosph10	0x0
32579	chr7	72016078	72017339	-	Ndnl2	0x0
32580	chr7	72441029	72442996	-	Tjp1	0x0
32581	chr7	72456810	72458663	-	Tjp1	0x0
32582	chr7	72467358	72468554	-	Tjp1	0x0
32583	chr7	72480404	72482054	-	Tjp1	0x0
32584	chr7	72561574	72562751	-	Tjp1	0x0
32585	chr7	72836150	72837436	+	Tarsl2	0x0
32586	chr7	72839608	72840760	+	Tm2d3	0x0
32587	chr7	72845377	72846553	+	Tm2d3	0x0
32588	chr7	73016705	73017805	+	Pcsk6	0x2
32589	chr7	73193661	73195698	+	Pcsk6	0x2
32590	chr7	73218779	73220021	+	Snrpa1	0x0
32591	chr7	73225996	73227192	+	Vimp	0x0
32592	chr7	73233251	73234843	+	Vimp	0x0
32593	chr7	73269915	73271076	+	Chsy1	0x0
32594	chr7	73316934	73319212	+	Chsy1	0x0
32595	chr7	73788993	73790218	-	Asb7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32596	chr7	73821208	73822323	-	Asb7	0x0
32597	chr7	73859004	73860156	+	Lins	0x0
32598	chr7	74376639	74377861	-	Mef2a	0x0
32599	chr7	74704220	74705443	-	Lrrc28	0x0
32600	chr7	74827405	74828569	+	Ttc23	0x0
32601	chr7	74870685	74871846	+	Ttc23	0x0
32602	chr7	74874968	74876827	-	Synm	0x1
32603	chr7	75157746	75158932	+	Igf1r	0x0
32604	chr7	75168049	75169283	+	Igf1r	0x0
32605	chr7	75251249	75253593	+	Igf1r	0x0
32606	chr7	75351644	75352818	+	Igf1r	0x0
32607	chr7	75372168	75373297	+	Igf1r	0x0
32608	chr7	75374301	75375409	+	Igf1r	0x0
32609	chr7	75376067	75377187	+	Igf1r	0x0
32610	chr7	75474304	75475493	+	Fam169b	0x0
32611	chr7	75881677	75884178	-	Arrdc4	0x0
32612	chr7	79304062	79305237	-	Mctp2	0x0
32613	chr7	79509795	79510949	+	Rgma	0x0
32614	chr7	79819064	79820293	+	Rgma	0x0
32615	chr7	80571121	80573343	-	Chd2	0x2
32616	chr7	80647758	80649143	-	Chd2	0x2
32617	chr7	80658387	80660246	-	Chd2	0x2
32618	chr7	80920916	80922039	+	Fam174b	0x0
32619	chr7	81426499	81427754	-	Slco3a1	0x0
32620	chr7	82896809	82898011	+	Akap13	0x2
32621	chr7	82898419	82899730	+	Akap13	0x2
32622	chr7	82913968	82917342	-	Sv2b	0x0
32623	chr7	82919553	82923999	-	Sv2b	0x0
32624	chr7	83017312	83018501	+	Klhl25	0x0
32625	chr7	86041417	86042655	+	Aen	0x0
32626	chr7	86043153	86044355	+	Aen	0x0
32627	chr7	86256266	86257469	+	Acan	0x2
32628	chr7	86278137	86279624	-	Mfge8	0x0
32629	chr7	86450302	86451406	+	Abhd2	0x0
32630	chr7	86505450	86509348	+	Abhd2	0x0
32631	chr7	86509545	86510890	+	Abhd2	0x0
32632	chr7	86542616	86543831	+	Fanci	0x0
32633	chr7	86556263	86557409	+	Fanci	0x0
32634	chr7	86576870	86577980	+	Fanci	0x0
32635	chr7	86585168	86586373	+	Fanci	0x0
32636	chr7	86593740	86595171	-	Polg	0x0
32637	chr7	86594084	86595640	+	Fanci	0x0
32638	chr7	86835259	86836418	+	Ticrr	0x0
32639	chr7	86841166	86842693	+	Ticrr	0x0
32640	chr7	86986903	86988104	-	Anpep	0x0
32641	chr7	86989320	86990486	-	Anpep	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32642	chr7	87019653	87021888	-	Ap3s2	0x0
32643	chr7	87022082	87023183	-	Ap3s2	0x0
32644	chr7	87023442	87025312	-	Ap3s2	0x0
32645	chr7	87175766	87176957	+	Zfp710	0x0
32646	chr7	87189993	87191106	+	Zfp710	0x0
32647	chr7	87209305	87210476	+	Zfp710	0x0
32648	chr7	87213627	87214805	+	Zfp710	0x0
32649	chr7	87225946	87227519	+	Zfp710	0x0
32650	chr7	87235259	87237940	+	Zfp710	0x0
32651	chr7	87239187	87241261	-	Idh2	0x2
32652	chr7	87242227	87243345	-	Idh2	0x2
32653	chr7	87243427	87244531	-	Idh2	0x2
32654	chr7	87360754	87361903	+	Sema4b	0x0
32655	chr7	87367986	87369085	+	Sema4b	0x0
32656	chr7	87370065	87371261	+	Sema4b	0x0
32657	chr7	87408705	87409836	+	Ngrn	0x0
32658	chr7	87445522	87446682	+	Prc1	0x2
32659	chr7	87447721	87448918	+	Prc1	0x2
32660	chr7	87460054	87461522	+	Prc1	0x2
32661	chr7	87493495	87496273	-	Man2a2	0x0
32662	chr7	87534181	87535924	-	Furin	0x0
32663	chr7	87537899	87539050	-	Furin	0x0
32664	chr7	87607295	87608492	-	Blm	0x1
32665	chr7	87855952	87858466	-	Iqgap1	0x0
32666	chr7	87870316	87871516	-	Iqgap1	0x0
32667	chr7	87874647	87875729	-	Iqgap1	0x0
32668	chr7	87940395	87941592	-	Iqgap1	0x0
32669	chr7	88060034	88061275	-	Sec11a	0x0
32670	chr7	88162081	88163230	+	Zfp592	0x0
32671	chr7	88211421	88212565	+	Alpk3	0x0
32672	chr7	88249494	88250652	+	Alpk3	0x0
32673	chr7	88309909	88311103	+	Slc28a1	0x0
32674	chr7	88314452	88315763	+	Slc28a1	0x0
32675	chr7	88488793	88489905	-	Rps17	0x0
32676	chr7	88491419	88492630	-	Cpeb1	0x0
32677	chr7	88751570	88752669	-	Homer2	0x0
32678	chr7	88913229	88914578	+	Fam103a1	0x0
32679	chr7	88936467	88937812	-	Btbd1	0x0
32680	chr7	89919043	89921094	+	Eftud1	0x0
32681	chr7	90017645	90018806	+	Mex3b	0x0
32682	chr7	90107235	90108375	+	Mex3b	0x0
32683	chr7	90789218	90790887	+	Stard5	0x0
32684	chr7	90903937	90905342	+	Stard5	0x0
32685	chr7	91029602	91030784	-	Mesdc1	0x0
32686	chr7	91046152	91048155	+	Mesdc2	0x0
32687	chr7	91257327	91259739	-	Fam108c	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32688	chr7	91397122	91398635	-	Arnt2	0x2
32689	chr7	91486700	91487828	-	Arnt2	0x2
32690	chr7	91743467	91744581	-	Fah	0x0
32691	chr7	91780605	91781843	-	Zfand6	0x0
32692	chr7	94189402	94190571	-	Folh1	0x0
32693	chr7	94545067	94546216	+	Nox4	0x0
32694	chr7	95458968	95460119	+	Ctsc	0x0
32695	chr7	96288644	96289808	-	Tmem135	0x0
32696	chr7	96329142	96330333	-	Tmem135	0x0
32697	chr7	96506479	96507604	+	Fzd4	0x0
32698	chr7	96560764	96561952	+	Fzd4	0x0
32699	chr7	97065080	97066320	-	l7Rn6	0x0
32700	chr7	97103496	97104692	-	Eed	0x0
32701	chr7	97108437	97109545	-	Eed	0x0
32702	chr7	97324339	97325492	+	Picalm	0x2
32703	chr7	97326067	97327215	+	Picalm	0x2
32704	chr7	97337145	97338305	+	Picalm	0x2
32705	chr7	97349394	97350620	+	Picalm	0x2
32706	chr7	97356302	97358319	+	Picalm	0x2
32707	chr7	97441720	97442918	+	Sytl2	0x0
32708	chr7	97592613	97595501	+	Crebzf	0x0
32709	chr7	99742967	99744173	-	Ankrd42	0x0
32710	chr7	99791950	99793133	-	Pcf11	0x0
32711	chr7	99805826	99807083	-	Pcf11	0x0
32712	chr7	99988464	99989590	+	Rab30	0x0
32713	chr7	100005579	100006693	-	4632434I11Rik	0x0
32714	chr7	100073802	100074977	-	4632434I11Rik	0x0
32715	chr7	100081496	100082675	+	Prcp	0x0
32716	chr7	100082840	100083939	+	Prcp	0x0
32717	chr7	100203082	100204287	-	4632434I11Rik	0x0
32718	chr7	103060868	103062168	-	Gm15412	0x0
32719	chr7	103334409	103335604	-	Gm15412	0x0
32720	chr7	103359756	103361333	+	Tenm4	0x0
32721	chr7	103370009	103371238	+	Tenm4	0x0
32722	chr7	103371520	103373177	+	Tenm4	0x0
32723	chr7	103378859	103379978	+	Mir708	0x0
32724	chr7	103414193	103415349	+	Mir708	0x0
32725	chr7	103419110	103420209	+	Mir708	0x0
32726	chr7	103426635	103427902	+	Mir708	0x0
32727	chr7	103447957	103449089	+	Mir708	0x0
32728	chr7	103453489	103455213	+	Tenm4	0x0
32729	chr7	103481030	103482162	+	Tenm4	0x0
32730	chr7	103580263	103581473	+	Tenm4	0x0
32731	chr7	103709792	103710969	+	Tenm4	0x0
32732	chr7	103797677	103798791	+	Tenm4	0x0
32733	chr7	103877414	103878583	+	Tenm4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32734	chr7	103901021	103902220	+	Tenm4	0x0
32735	chr7	103925880	103927080	+	Tenm4	0x0
32736	chr7	103952082	103953204	+	Tenm4	0x0
32737	chr7	104006868	104008002	+	Tenm4	0x0
32738	chr7	104043609	104044776	+	Tenm4	0x0
32739	chr7	104057312	104058427	+	Tenm4	0x0
32740	chr7	104058642	104059858	+	Tenm4	0x0
32741	chr7	104466551	104467750	-	Usp35	0x0
32742	chr7	104523387	104524532	+	Alg8	0x0
32743	chr7	104554878	104556071	+	Ndufc2	0x0
32744	chr7	104669821	104670920	+	Ints4	0x0
32745	chr7	104684291	104685424	+	Ints4	0x0
32746	chr7	104774441	104775574	+	Rsf1	0x0
32747	chr7	104838834	104840004	+	Rsf1	0x0
32748	chr7	104840347	104841458	+	Rsf1	0x0
32749	chr7	104861986	104863085	+	Clns1a	0x0
32750	chr7	104866271	104867871	+	Clns1a	0x0
32751	chr7	105059978	105061143	+	Pak1	0x2
32752	chr7	105241039	105242257	+	Gdpd4	0x0
32753	chr7	105269846	105271077	-	Capn5	0x0
32754	chr7	105280823	105281956	-	Capn5	0x0
32755	chr7	105292061	105293219	-	Omp	0x0
32756	chr7	105364095	105365333	-	Acer3	0x0
32757	chr7	105499454	105500834	-	Tsku	0x0
32758	chr7	105506601	105507780	-	Tsku	0x0
32759	chr7	105735677	105736860	-	2210018M11Rik	0x2
32760	chr7	105737102	105738251	-	2210018M11Rik	0x2
32761	chr7	105738294	105739759	-	2210018M11Rik	0x2
32762	chr7	105748664	105749841	-	2210018M11Rik	0x2
32763	chr7	105865848	105867034	+	Prkrir	0x0
32764	chr7	106092891	106094082	-	Uvrag	0x2
32765	chr7	106257896	106259078	-	Uvrag	0x2
32766	chr7	106302492	106303644	-	Dgat2	0x0
32767	chr7	106420262	106421424	+	Map6	0x0
32768	chr7	106466495	106468971	+	Map6	0x0
32769	chr7	106472617	106473716	+	Map6	0x0
32770	chr7	106493938	106496174	-	Serpinh1	0x0
32771	chr7	106627275	106629151	-	Rps3	0x0
32772	chr7	106627275	106629151	-	Snord15b	0x0
32773	chr7	106629671	106631905	-	Rps3	0x0
32774	chr7	106629671	106631905	-	Snord15a	0x0
32775	chr7	106754509	106755619	+	Arrb1	0x0
32776	chr7	106959183	106960312	-	Neu3	0x0
32777	chr7	106960936	106962139	-	Neu3	0x0
32778	chr7	106986929	106988634	-	Spcs2	0x0
32779	chr7	106989658	106990791	-	Spcs2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32780	chr7	107068304	107070624	-	Rnf169	0x0
32781	chr7	107071825	107073242	-	Rnf169	0x0
32782	chr7	107086280	107087383	-	Rnf169	0x0
32783	chr7	107090992	107092200	-	Rnf169	0x0
32784	chr7	107101507	107102705	-	Rnf169	0x0
32785	chr7	107103398	107104603	-	Rnf169	0x0
32786	chr7	107108626	107109725	-	Rnf169	0x0
32787	chr7	107230195	107232652	-	Pold3	0x0
32788	chr7	107396086	107397234	+	Pgm2l1	0x0
32789	chr7	107423303	107424399	+	Pgm2l1	0x0
32790	chr7	107424579	107425755	+	Pgm2l1	0x0
32791	chr7	107474739	107476188	-	Ppme1	0x0
32792	chr7	107501745	107502938	-	Ppme1	0x0
32793	chr7	107520368	107521491	+	C2cd3	0x0
32794	chr7	107523111	107524314	+	C2cd3	0x0
32795	chr7	107645244	107646360	+	Ucp2	0x0
32796	chr7	107646755	107647916	+	Ucp2	0x0
32797	chr7	107661828	107663023	+	Ucp2	0x0
32798	chr7	107668604	107669717	+	Coa4	0x0
32799	chr7	107756755	107757865	+	Rab6a	0x0
32800	chr7	107783584	107784683	+	Rab6a	0x0
32801	chr7	107787844	107789365	+	Rab6a	0x0
32802	chr7	107792038	107793299	-	Plekhb1	0x0
32803	chr7	107862994	107864203	+	Fam168a	0x0
32804	chr7	107987435	107988615	+	Fam168a	0x0
32805	chr7	107989013	107990301	+	Fam168a	0x0
32806	chr7	107995406	107996620	-	Relt	0x0
32807	chr7	108076314	108077425	-	Arhgef17	0x0
32808	chr7	108080309	108081504	-	Arhgef17	0x0
32809	chr7	108430868	108433098	+	Fchsd2	0x0
32810	chr7	108521844	108523041	+	Arap1	0x0
32811	chr7	108541983	108543146	+	Arap1	0x0
32812	chr7	108872689	108873792	+	Clpb	0x0
32813	chr7	108935843	108937033	+	Clpb	0x0
32814	chr7	109048236	109050113	+	Anapc15	0x0
32815	chr7	109146632	109147782	+	Numa1	0x2
32816	chr7	109147823	109149012	+	Numa1	0x2
32817	chr7	109162528	109163959	+	Numa1	0x2
32818	chr7	109167265	109169111	-	Rnf121	0x0
32819	chr7	109169134	109170252	-	Rnf121	0x0
32820	chr7	109183263	109184460	-	Rnf121	0x0
32821	chr7	109228696	109230383	+	Trpc2	0x0
32822	chr7	109267809	109269137	-	Chrna10	0x0
32823	chr7	109271508	109272694	-	Chrna10	0x0
32824	chr7	109273205	109274388	-	Chrna10	0x0
32825	chr7	109277983	109279055	-	Nup98	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32826	chr7	109299774	109300952	-	Nup98	0x2
32827	chr7	109301823	109303035	-	Nup98	0x2
32828	chr7	109342893	109344094	-	Nup98	0x2
32829	chr7	109378636	109379833	+	Pgap2	0x2
32830	chr7	109385989	109387211	+	Pgap2	0x2
32831	chr7	109442990	109444147	+	Stim1	0x0
32832	chr7	109576722	109577920	+	Stim1	0x0
32833	chr7	109584458	109586309	+	Stim1	0x0
32834	chr7	109598857	109600330	+	Rrm1	0x0
32835	chr7	109616337	109617640	+	Rrm1	0x0
32836	chr7	109617829	109618986	+	Rrm1	0x0
32837	chr7	109620122	109621221	+	Rrm1	0x0
32838	chr7	109793306	109794537	-	Olfr553	0x0
32839	chr7	111379830	111380940	+	Trim6	0x0
32840	chr7	111381564	111383933	+	Trim6	0x0
32841	chr7	111647699	111648885	-	Trim30d	0x0
32842	chr7	112401176	112403058	+	Olfr688	0x0
32843	chr7	112519193	112520406	-	Fam160a2	0x0
32844	chr7	112520846	112521966	-	Fam160a2	0x0
32845	chr7	112523274	112524835	-	Fam160a2	0x0
32846	chr7	112525455	112526957	-	Fam160a2	0x0
32847	chr7	112531864	112533104	-	Fam160a2	0x0
32848	chr7	112540616	112541763	-	Fam160a2	0x0
32849	chr7	112874634	112875832	-	Rrp8	0x0
32850	chr7	112880566	112881766	-	Rrp8	0x0
32851	chr7	112957505	112959180	-	Mrpl17	0x0
32852	chr7	113835859	113837103	-	Olfr694	0x0
32853	chr7	114385498	114387407	+	Rbmxl2	0x0
32854	chr7	114393486	114394606	+	Rbmxl2	0x0
32855	chr7	114427866	114429794	+	Rbmxl2	0x0
32856	chr7	114546806	114547910	+	Syt9	0x0
32857	chr7	114579305	114580450	+	Syt9	0x0
32858	chr7	114606417	114607571	+	Syt9	0x0
32859	chr7	114689535	114692633	+	Syt9	0x0
32860	chr7	114891882	114893028	-	Cyb5r2	0x0
32861	chr7	114893683	114894895	-	Cyb5r2	0x0
32862	chr7	116077595	116078749	+	Eif3f	0x0
32863	chr7	116080804	116082130	+	Eif3f	0x0
32864	chr7	116083573	116085713	+	Eif3f	0x0
32865	chr7	116173397	116174545	+	Tub	0x0
32866	chr7	116174749	116177654	+	Tub	0x0
32867	chr7	116570604	116571809	-	Stk33	0x0
32868	chr7	116665059	116666224	+	Rpl27a	0x0
32869	chr7	116667366	116668469	-	St5	0x1
32870	chr7	116878980	116880288	-	Tmem9b	0x0
32871	chr7	117036796	117038705	-	Dennd5a	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32872	chr7	117054964	117056132	-	Dennd5a	0x0
32873	chr7	117060399	117061574	-	Dennd5a	0x0
32874	chr7	117075810	117077010	-	Dennd5a	0x0
32875	chr7	117090580	117091807	-	Dennd5a	0x0
32876	chr7	117103015	117104219	-	Dennd5a	0x0
32877	chr7	117166246	117167437	+	Ipo7	0x0
32878	chr7	117170084	117171185	+	Ipo7	0x0
32879	chr7	117174654	117175775	+	Ipo7	0x0
32880	chr7	117183608	117184743	+	Ipo7	0x0
32881	chr7	117189779	117190878	+	Ipo7	0x0
32882	chr7	117189779	117190878	+	Snora23	0x0
32883	chr7	117194053	117195539	+	Ipo7	0x0
32884	chr7	117195805	117196850	+	Ipo7	0x0
32885	chr7	117198328	117200387	+	Ipo7	0x0
32886	chr7	117202626	117203940	-	1600010M07Rik	0x0
32887	chr7	117282201	117283323	+	Wee1	0x0
32888	chr7	117369798	117370952	+	Swap70	0x0
32889	chr7	117425093	117427259	+	Swap70	0x0
32890	chr7	117451079	117452278	-	Sbf2	0x0
32891	chr7	117494606	117495834	-	Sbf2	0x0
32892	chr7	117954396	117955770	+	Ampd3	0x4
32893	chr7	117958881	117960403	-	Rnf141	0x0
32894	chr7	118213786	118216443	-	Eif4g2	0x0
32895	chr7	118219048	118220219	-	Eif4g2	0x0
32896	chr7	118223117	118224216	-	Eif4g2	0x0
32897	chr7	118255256	118256443	-	1700012D14Rik	0x0
32898	chr7	119235941	119237280	+	Usp47	0x0
32899	chr7	119253784	119255083	+	Usp47	0x0
32900	chr7	119259793	119260986	-	Dkk3	0x1
32901	chr7	119425332	119426441	+	Mical2	0x0
32902	chr7	119673533	119674735	-	Dkk3	0x1
32903	chr7	119803855	119805026	-	4930543E12Rik	0x0
32904	chr7	119836376	119837475	+	Tead1	0x0
32905	chr7	119910346	119911517	+	Tead1	0x0
32906	chr7	119936070	119937271	+	Tead1	0x0
32907	chr7	119943401	119944601	+	Tead1	0x0
32908	chr7	119983242	119984424	+	Tead1	0x0
32909	chr7	120046239	120047331	+	Tead1	0x0
32910	chr7	120047375	120048528	+	Tead1	0x0
32911	chr7	120049214	120050850	+	Tead1	0x0
32912	chr7	120369389	120370570	+	Arntl	0x0
32913	chr7	120405173	120406286	+	Arntl	0x0
32914	chr7	120638453	120639598	+	Far1	0x0
32915	chr7	120700812	120702023	+	Far1	0x0
32916	chr7	120712840	120714842	+	Far1	0x0
32917	chr7	121189938	121191868	-	Rras2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32918	chr7	121201846	121203057	-	Rras2	0x0
32919	chr7	121396865	121398003	-	Copb1	0x0
32920	chr7	121625722	121626884	+	Pde3b	0x0
32921	chr7	121650069	121651265	+	Pde3b	0x0
32922	chr7	121662552	121663736	+	Pde3b	0x0
32923	chr7	121679756	121680879	+	Pde3b	0x0
32924	chr7	121774485	121776774	-	Calca	0x0
32925	chr7	121849027	121850205	-	Calca	0x0
32926	chr7	121960072	121961267	+	Insc	0x0
32927	chr7	123116423	123117615	-	Sox6	0x0
32928	chr7	123118597	123119762	-	Sox6	0x0
32929	chr7	123246246	123248452	+	1110004F10Rik	0x0
32930	chr7	123269620	123270794	-	Plekha7	0x0
32931	chr7	123276762	123278868	-	Plekha7	0x0
32932	chr7	123357695	123358886	-	Plekha7	0x0
32933	chr7	123411354	123412570	-	Rps13	0x0
32934	chr7	123415957	123417152	-	Rps13	0x0
32935	chr7	123476047	123477148	-	Rps13	0x0
32936	chr7	123480867	123482723	-	Pik3c2a	0x0
32937	chr7	123517600	123518800	-	Pik3c2a	0x0
32938	chr7	123967377	123969081	-	Pik3c2a	0x0
32939	chr7	124537548	124538906	+	Xylt1	0x0
32940	chr7	125248315	125249517	-	Rps15a	0x0
32941	chr7	125255431	125256591	-	Rps15a	0x0
32942	chr7	125257749	125258914	-	Rps15a	0x0
32943	chr7	125262114	125264177	-	Arl6ip1	0x0
32944	chr7	125275138	125278033	-	Smg1	0x0
32945	chr7	125279782	125281045	-	Smg1	0x0
32946	chr7	125295404	125296543	-	Smg1	0x0
32947	chr7	125296468	125297613	+	4930583K01Rik	0x0
32948	chr7	125299619	125300766	-	Smg1	0x0
32949	chr7	125323395	125324547	-	Smg1	0x0
32950	chr7	125327856	125329049	-	Smg1	0x0
32951	chr7	125336550	125337728	-	Smg1	0x0
32952	chr7	125338830	125340143	-	Smg1	0x0
32953	chr7	125355410	125356639	-	Smg1	0x0
32954	chr7	125364660	125365834	-	Smg1	0x0
32955	chr7	125676117	125677297	-	Coq7	0x0
32956	chr7	125678895	125681371	-	Tmc7	0x0
32957	chr7	125687328	125688454	-	Tmc7	0x0
32958	chr7	125831885	125833017	-	Gde1	0x0
32959	chr7	125879571	125880698	+	Ccp110	0x0
32960	chr7	125883813	125884994	+	9030624J02Rik	0x0
32961	chr7	125981069	125982223	+	9030624J02Rik	0x0
32962	chr7	125985316	125990500	-	2310008H09Rik	0x0
32963	chr7	126115330	126116544	-	Gprc5b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
32964	chr7	126858300	126860044	-	Thumpd1	0x0
32965	chr7	126883295	126884607	+	Acsm3	0x0
32966	chr7	126917499	126918685	-	Eri2	0x0
32967	chr7	126991670	126992892	+	2610020H08Rik	0x0
32968	chr7	126996213	127000687	-	Dcun1d3	0x0
32969	chr7	127875178	127876435	+	BC030336	0x0
32970	chr7	128083454	128084631	+	Polr3e	0x0
32971	chr7	128101249	128102348	-	Cdr2	0x0
32972	chr7	128195100	128196349	+	Mettl9	0x0
32973	chr7	128200729	128201881	+	Mettl9	0x0
32974	chr7	128219590	128220825	+	Mettl9	0x0
32975	chr7	128785502	128787633	-	Usp31	0x0
32976	chr7	128788243	128792333	-	Usp31	0x0
32977	chr7	128796141	128797240	-	Usp31	0x0
32978	chr7	128815043	128816221	-	Usp31	0x0
32979	chr7	128820229	128822506	-	Usp31	0x0
32980	chr7	128828475	128829604	-	Usp31	0x0
32981	chr7	129079143	129080291	-	Cog7	0x0
32982	chr7	129081713	129084725	-	Cog7	0x0
32983	chr7	129130862	129133737	-	Gga2	0x0
32984	chr7	129145344	129146541	-	Gga2	0x0
32985	chr7	129222320	129226018	+	Ubfd1	0x0
32986	chr7	129270354	129271552	-	Palb2	0x1
32987	chr7	129291098	129292291	+	Dctn5	0x0
32988	chr7	129312616	129313919	+	Plk1	0x0
32989	chr7	129482911	129484055	+	Prkcb	0x2
32990	chr7	129538295	129539432	+	Prkcb	0x2
32991	chr7	129771003	129772621	+	Prkcb	0x2
32992	chr7	129772964	129774126	+	Prkcb	0x2
32993	chr7	129776012	129777544	+	Prkcb	0x2
32994	chr7	130095509	130096657	+	Rbbp6	0x0
32995	chr7	130113565	130114756	+	Rbbp6	0x0
32996	chr7	130114972	130116101	+	Rbbp6	0x0
32997	chr7	130313065	130314215	+	Tnrc6a	0x0
32998	chr7	130336508	130339129	+	Tnrc6a	0x0
32999	chr7	130382360	130383504	+	Slc5a11	0x0
33000	chr7	130416253	130417394	+	Slc5a11	0x0
33001	chr7	130422404	130423617	-	Arhgap17	0x0
33002	chr7	130439449	130440551	-	Arhgap17	0x0
33003	chr7	130465743	130466965	-	Arhgap17	0x0
33004	chr7	130530965	130533139	+	Lcmt1	0x0
33005	chr7	130560392	130561545	+	Lcmt1	0x0
33006	chr7	132218347	132219937	+	4930571K23Rik	0x0
33007	chr7	132614982	132616133	+	Kdm8	0x0
33008	chr7	132629312	132630487	-	Nsmce1	0x0
33009	chr7	132784346	132786630	-	Gtf3c1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33010	chr7	132789569	132790778	-	Gtf3c1	0x0
33011	chr7	132811810	132812997	-	Gtf3c1	0x0
33012	chr7	132845517	132846655	-	Gtf3c1	0x0
33013	chr7	132985868	132987039	+	D430042O09Rik	0x0
33014	chr7	133244877	133246063	-	Xpo6	0x0
33015	chr7	133263330	133264485	-	Xpo6	0x0
33016	chr7	133296103	133297278	-	Xpo6	0x0
33017	chr7	133303795	133305013	-	Xpo6	0x0
33018	chr7	133336815	133337963	-	Xpo6	0x0
33019	chr7	133435788	133437084	+	Sbk1	0x0
33020	chr7	133437265	133438812	+	Sbk1	0x0
33021	chr7	133474632	133475760	-	Lat	0x0
33022	chr7	133513301	133514416	-	Spns1	0x0
33023	chr7	133526206	133528878	-	Nfatc2ip	0x0
33024	chr7	133611087	133612218	-	Sh2b1	0x0
33025	chr7	133634929	133636544	-	Atxn2l	0x0
33026	chr7	133637215	133638402	-	Atxn2l	0x0
33027	chr7	133639527	133640709	-	Atxn2l	0x0
33028	chr7	133643071	133644271	-	Atxn2l	0x0
33029	chr7	133695114	133696296	-	Eif3c	0x0
33030	chr7	133699407	133700547	-	Eif3c	0x0
33031	chr7	133839634	133840873	+	Bola2	0x0
33032	chr7	133906710	133907831	+	Mapk3	0x0
33033	chr7	133928982	133930319	-	Ppp4c	0x0
33034	chr7	133938214	133939671	-	Aldoa	0x0
33035	chr7	133940344	133941803	-	Aldoa	0x0
33036	chr7	133994737	133995873	-	Ino80e	0x0
33037	chr7	133995910	133997100	-	Ino80e	0x0
33038	chr7	134008716	134009900	-	Taok2	0x0
33039	chr7	134013073	134014258	-	Taok2	0x0
33040	chr7	134123320	134124533	+	Cdipt	0x0
33041	chr7	134158202	134159337	-	Pagr1a	0x0
33042	chr7	134165297	134167088	-	Maz	0x0
33043	chr7	134171106	134172259	-	Kif22	0x0
33044	chr7	134335122	134336805	-	Cd2bp2	0x0
33045	chr7	134340652	134342325	-	Tbc1d10b	0x0
33046	chr7	134378958	134380116	+	Zfp553	0x0
33047	chr7	134380923	134382037	+	Zfp553	0x0
33048	chr7	134389544	134390718	+	Zfp771	0x0
33049	chr7	134397571	134398762	+	Zfp771	0x0
33050	chr7	134414954	134417099	-	Sephs2	0x2
33051	chr7	134562030	134563234	-	Zfp688	0x0
33052	chr7	134618226	134619402	-	Zfp689	0x0
33053	chr7	134633806	134635293	+	Fbrs	0x0
33054	chr7	134668632	134669785	+	Snora30	0x0
33055	chr7	134673970	134675092	+	Snora30	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33056	chr7	134677848	134678953	+	Snora30	0x0
33057	chr7	134681659	134682803	+	Snora30	0x0
33058	chr7	134682943	134684097	+	Snora30	0x0
33059	chr7	134685412	134686458	+	Snora30	0x0
33060	chr7	134692145	134694430	+	Snora30	0x0
33061	chr7	134695209	134697306	+	Phkg2	0x0
33062	chr7	134701166	134703453	+	Phkg2	0x0
33063	chr7	134725875	134726977	+	Phkg2	0x0
33064	chr7	134735584	134736804	+	Rnf40	0x0
33065	chr7	134745806	134746970	+	Rnf40	0x0
33066	chr7	134793176	134794409	-	Zfp629	0x0
33067	chr7	134887912	134889130	-	Ctf2	0x0
33068	chr7	134892733	134893890	+	Fbxl19	0x0
33069	chr7	134911683	134913066	+	Fbxl19	0x0
33070	chr7	134923379	134924478	+	Setd1a	0x0
33071	chr7	134926653	134927816	+	Setd1a	0x0
33072	chr7	134934316	134935413	+	Setd1a	0x0
33073	chr7	134938830	134940710	+	Setd1a	0x0
33074	chr7	134949902	134951053	-	Stx1b	0x0
33075	chr7	134958037	134959230	-	Stx1b	0x0
33076	chr7	135009412	135010613	-	Zfp668	0x2
33077	chr7	135023049	135024148	+	Zfp646	0x2
33078	chr7	135111560	135112663	+	Fus	0x2
33079	chr7	135117298	135118445	+	Fus	0x2
33080	chr7	135124786	135126080	+	Fus	0x2
33081	chr7	135185411	135186608	-	Pycard	0x1
33082	chr7	135414899	135416124	-	BC017158	0x0
33083	chr7	135429302	135430425	-	BC017158	0x0
33084	chr7	135586790	135588357	-	Tial1	0x0
33085	chr7	135598010	135599231	-	Tial1	0x0
33086	chr7	135689589	135690809	+	Bag3	0x0
33087	chr7	135838707	135839879	+	Inpp5f	0x4
33088	chr7	135838978	135840127	-	Mcmbp	0x0
33089	chr7	135840955	135842219	-	Mcmbp	0x0
33090	chr7	135874956	135876172	-	Mcmbp	0x0
33091	chr7	135891670	135892787	+	Sec23ip	0x0
33092	chr7	135897071	135898222	+	Sec23ip	0x0
33093	chr7	135900801	135901948	+	Sec23ip	0x0
33094	chr7	136775327	136776531	+	Wdr11	0x1
33095	chr7	136778290	136779572	+	Wdr11	0x1
33096	chr7	137534993	137536610	-	Ate1	0x0
33097	chr7	137536785	137538181	-	Ate1	0x0
33098	chr7	137610283	137611479	-	Ate1	0x0
33099	chr7	137639166	137640343	-	Ate1	0x0
33100	chr7	137646187	137647391	-	Ate1	0x0
33101	chr7	137685681	137686875	-	Nsmce4a	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33102	chr7	137715631	137716835	+	Tacc2	0x0
33103	chr7	137809860	137811024	+	Tacc2	0x0
33104	chr7	137907332	137908749	+	Tacc2	0x0
33105	chr7	138038133	138039331	+	Plekha1	0x0
33106	chr7	138052324	138053507	+	Plekha1	0x0
33107	chr7	138054652	138056516	+	Plekha1	0x0
33108	chr7	138448612	138449855	-	Cuzd1	0x0
33109	chr7	138483088	138484306	-	2310057M21Rik	0x0
33110	chr7	138588247	138589503	+	Acadsb	0x0
33111	chr7	138714424	138715622	+	Bub3	0x0
33112	chr7	138719664	138720811	+	Bub3	0x0
33113	chr7	139749067	139750321	-	Oat	0x0
33114	chr7	139897294	139898475	+	Lhpp	0x0
33115	chr7	139903585	139904684	-	Fam53b	0x0
33116	chr7	139904762	139905951	-	Fam53b	0x0
33117	chr7	139930527	139931725	-	Fam53b	0x0
33118	chr7	139943326	139944518	-	Fam53b	0x0
33119	chr7	139955330	139956493	-	Fam53b	0x0
33120	chr7	139993208	139994405	-	Fam53b	0x0
33121	chr7	140075414	140076628	+	Fam175b	0x0
33122	chr7	140141074	140142566	+	Zranb1	0x0
33123	chr7	140156181	140157338	+	Zranb1	0x0
33124	chr7	140164630	140165822	+	Zranb1	0x0
33125	chr7	140176091	140178961	-	Ctbp2	0x1
33126	chr7	140182771	140183990	-	Ctbp2	0x1
33127	chr7	140193175	140194292	-	Ctbp2	0x1
33128	chr7	140230506	140231683	-	Ctbp2	0x1
33129	chr7	140235226	140236327	-	Ctbp2	0x1
33130	chr7	140247272	140248400	-	Ctbp2	0x1
33131	chr7	140259768	140260942	-	Ctbp2	0x1
33132	chr7	140264870	140266030	-	Ctbp2	0x1
33133	chr7	140272914	140275178	-	Ctbp2	0x1
33134	chr7	140285299	140286495	-	Ctbp2	0x1
33135	chr7	140296917	140298115	-	Ctbp2	0x1
33136	chr7	140308903	140310142	-	Ctbp2	0x1
33137	chr7	140311587	140312746	-	Ctbp2	0x1
33138	chr7	140862824	140864070	+	2700050L05Rik	0x0
33139	chr7	140887912	140889028	-	Uros	0x0
33140	chr7	140907977	140909152	+	Bccip	0x0
33141	chr7	141852462	141853562	+	Dock1	0x0
33142	chr7	141874106	141875231	+	Dock1	0x0
33143	chr7	141968193	141969343	+	Dock1	0x0
33144	chr7	141971506	141972716	+	Dock1	0x0
33145	chr7	141973523	141974669	+	Dock1	0x0
33146	chr7	141975270	141976370	+	Dock1	0x0
33147	chr7	142074779	142075899	+	Dock1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33148	chr7	142136827	142137991	+	Dock1	0x0
33149	chr7	142354451	142355564	+	Dock1	0x0
33150	chr7	142364111	142365263	+	Dock1	0x0
33151	chr7	142884474	142885559	-	Mki67	0x0
33152	chr7	142888771	142891020	-	Mki67	0x0
33153	chr7	142892073	142893173	-	Mki67	0x0
33154	chr7	142898700	142899906	-	Mki67	0x0
33155	chr7	144115058	144116169	+	Mgmt	0x0
33156	chr7	144155612	144156783	+	Mgmt	0x0
33157	chr7	144175839	144177019	+	Mgmt	0x0
33158	chr7	144179791	144180974	+	Mgmt	0x0
33159	chr7	144213662	144214771	+	Mgmt	0x0
33160	chr7	144221289	144222461	+	Mgmt	0x0
33161	chr7	146038657	146039811	+	Ppp2r2d	0x0
33162	chr7	146040933	146042693	+	Ppp2r2d	0x0
33163	chr7	146050346	146051459	+	Ppp2r2d	0x0
33164	chr7	146067254	146068448	+	Ppp2r2d	0x0
33165	chr7	146073825	146075079	+	Ppp2r2d	0x0
33166	chr7	146082185	146083531	-	Bnip3	0x0
33167	chr7	146086930	146088086	-	Bnip3	0x0
33168	chr7	146413947	146415138	+	Lrrc27	0x0
33169	chr7	146590352	146591517	+	Inpp5a	0x0
33170	chr7	146764088	146765979	+	Inpp5a	0x0
33171	chr7	147073301	147074571	-	Mir202	0x0
33172	chr7	147129553	147131155	+	Utf1	0x0
33173	chr7	147134086	147135247	+	Utf1	0x0
33174	chr7	147213002	147214203	-	Tubgcp2	0x0
33175	chr7	147221595	147222795	-	Tubgcp2	0x0
33176	chr7	147291120	147292568	-	Echs1	0x0
33177	chr7	147301735	147302838	-	Echs1	0x0
33178	chr7	147320137	147322356	+	Paox	0x4
33179	chr7	147335714	147336941	+	Mtg1	0x0
33180	chr7	147962704	147964170	-	Syce1	0x0
33181	chr7	147996524	147997743	-	Zfp941	0x0
33182	chr7	148045761	148046855	+	Ric8	0x0
33183	chr7	148047286	148048386	+	Ric8	0x0
33184	chr7	148074757	148075935	+	Psmd13	0x0
33185	chr7	148083586	148084884	+	Psmd13	0x0
33186	chr7	148128702	148129938	+	Athl1	0x0
33187	chr7	148134508	148135705	-	Ifitm5	0x0
33188	chr7	148149749	148150859	+	Ifitm1	0x4
33189	chr7	148154008	148155216	+	Ifitm1	0x4
33190	chr7	148195823	148197016	-	Ifitm3	0x4
33191	chr7	148253307	148255081	+	B4galnt4	0x4
33192	chr7	148286797	148288043	-	Ano9	0x0
33193	chr7	148320699	148321866	+	Ptdss2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33194	chr7	148338368	148339480	+	Ptdss2	0x0
33195	chr7	148341028	148342358	+	Ptdss2	0x0
33196	chr7	148363611	148364868	-	Rnh1	0x0
33197	chr7	148395637	148396830	-	1600016N20Rik	0x0
33198	chr7	148402872	148404086	+	Rassf7	0x0
33199	chr7	148443738	148444908	+	Phrf1	0x0
33200	chr7	148488614	148489816	-	Deaf1	0x0
33201	chr7	148494054	148495241	-	Deaf1	0x0
33202	chr7	148503257	148504424	-	Deaf1	0x0
33203	chr7	148507525	148508761	-	Deaf1	0x0
33204	chr7	148509862	148511011	-	Deaf1	0x0
33205	chr7	148511405	148512516	-	Deaf1	0x0
33206	chr7	148515128	148516280	-	Deaf1	0x0
33207	chr7	148547933	148549032	+	Eps8l2	0x0
33208	chr7	148587534	148589401	+	Taldo1	0x0
33209	chr7	148594040	148595664	-	Pddc1	0x0
33210	chr7	148625677	148626776	-	Lrdd	0x0
33211	chr7	148633314	148634498	+	Rplp2	0x0
33212	chr7	148656342	148657877	+	Cd151	0x0
33213	chr7	148681162	148682342	-	Chid1	0x0
33214	chr7	148690063	148691179	+	Tspan4	0x0
33215	chr7	148785052	148786205	+	Ap2a2	0x0
33216	chr7	148790323	148791467	+	Ap2a2	0x0
33217	chr7	148817103	148819282	+	Ap2a2	0x0
33218	chr7	149068466	149070630	-	Tollip	0x0
33219	chr7	149188380	149189573	-	Mob2	0x0
33220	chr7	149188540	149189908	+	Brsk2	0x0
33221	chr7	149208730	149209849	-	Mob2	0x0
33222	chr7	149561317	149562849	-	Ctsd	0x0
33223	chr7	149761225	149762351	-	H19	0x5
33224	chr7	150176994	150178149	-	Ascl2	0x4
33225	chr7	150243990	150245096	+	Cd81	0x4
33226	chr7	150247254	150249199	+	Cd81	0x4
33227	chr7	150252763	150254332	+	Cd81	0x4
33228	chr7	150423084	150424243	-	Kcnq1ot1	0x4
33229	chr7	150427609	150428741	-	Kcnq1ot1	0x4
33230	chr7	150434060	150435165	-	Kcnq1ot1	0x4
33231	chr7	150447912	150449580	-	Kcnq1ot1	0x4
33232	chr7	150455439	150456621	-	Kcnq1ot1	0x4
33233	chr7	150458101	150459306	-	Kcnq1ot1	0x4
33234	chr7	150459989	150461186	-	Kcnq1ot1	0x4
33235	chr7	150475805	150476994	-	Kcnq1ot1	0x4
33236	chr7	150477361	150479120	-	Kcnq1ot1	0x4
33237	chr7	150699155	150701574	-	Nap1l4	0x4
33238	chr7	150702439	150703540	-	Nap1l4	0x4
33239	chr7	150705472	150706694	-	Nap1l4	0x4

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33240	chr7	150737524	150738720	-	Nap1l4	0x4
33241	chr7	150761158	150762336	-	Cars	0x2
33242	chr7	150817880	150819031	-	Tnfrsf22	0x0
33243	chr7	150821753	150822933	-	Tnfrsf22	0x0
33244	chr7	151028527	151029695	+	Dhcr7	0x4
33245	chr7	151032993	151034801	+	Dhcr7	0x4
33246	chr7	151621311	151622605	-	Cttn	0x0
33247	chr7	151646026	151647710	-	Cttn	0x0
33248	chr7	151654151	151655330	-	Cttn	0x0
33249	chr7	151662612	151663851	-	Ppfia1	0x0
33250	chr7	151690440	151691594	-	Ppfia1	0x0
33251	chr7	151765575	151766798	-	Fadd	0x1
33252	chr7	152029261	152030411	+	Fgf3	0x0
33253	chr7	152046144	152047243	+	Fgf4	0x0
33254	chr7	152048769	152051605	+	Fgf4	0x0
33255	chr7	152115383	152116922	-	Ccnd1	0x2
33256	chr7	152117332	152118518	-	Ccnd1	0x2
33257	chr7	152123347	152124542	-	Ccnd1	0x2
33258	chr7	152441101	152442294	-	Tpcn2	0x0
33259	chr8	3150937	3155177	-	Insr	0x0
33260	chr8	3179913	3181049	-	Insr	0x0
33261	chr8	3184440	3185542	-	Insr	0x0
33262	chr8	3186731	3187943	-	Insr	0x0
33263	chr8	3192010	3193221	-	Insr	0x0
33264	chr8	3197501	3198704	-	Insr	0x0
33265	chr8	3258220	3259425	-	Insr	0x0
33266	chr8	3404823	3406056	+	Arhgef18	0x0
33267	chr8	3406937	3408310	+	Arhgef18	0x0
33268	chr8	3413345	3414567	+	Arhgef18	0x0
33269	chr8	3452586	3453791	+	Arhgef18	0x0
33270	chr8	3455650	3456781	+	Arhgef18	0x0
33271	chr8	3543612	3544784	+	Pnpla6	0x0
33272	chr8	3597999	3599174	+	Camsap3	0x0
33273	chr8	3608218	3609390	+	Camsap3	0x0
33274	chr8	3636639	3637787	+	Stxbp2	0x0
33275	chr8	3641227	3643542	+	Stxbp2	0x0
33276	chr8	3753862	3755311	-	Cd209a	0x0
33277	chr8	3802551	3803800	-	Rprl3	0x0
33278	chr8	3995627	3996726	+	Cd209g	0x0
33279	chr8	4088578	4090286	+	Cd209g	0x0
33280	chr8	4207007	4208165	+	Evi5l	0x0
33281	chr8	4240102	4241235	+	Map2k7	0x2
33282	chr8	4245879	4248466	+	Gm14378	0x0
33283	chr8	4245879	4248466	+	Map2k7	0x2
33284	chr8	4254618	4255761	+	Snapc2	0x0
33285	chr8	4259624	4260804	-	Timm44	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33286	chr8	4286535	4287633	-	Elavl1	0x0
33287	chr8	4287946	4289912	-	Elavl1	0x0
33288	chr8	4292737	4293865	-	Elavl1	0x0
33289	chr8	4311193	4312376	-	Elavl1	0x0
33290	chr8	4325535	4326673	+	Ccl25	0x0
33291	chr8	4334278	4335435	+	Ccl25	0x0
33292	chr8	4337781	4338956	+	Ccl25	0x0
33293	chr8	4353514	4354757	+	Ccl25	0x0
33294	chr8	4510152	4511320	+	Cers4	0x0
33295	chr8	4519610	4520731	+	Cers4	0x0
33296	chr8	4523451	4525067	+	Cers4	0x0
33297	chr8	4630822	4631921	+	Zfp958	0x0
33298	chr8	4636945	4638132	+	Zfp958	0x0
33299	chr8	5222942	5224103	-	Slc10a2	0x0
33300	chr8	5527277	5528468	+	Zfp958	0x0
33301	chr8	5639147	5641672	+	Zfp958	0x0
33302	chr8	7040410	7041665	+	4930453L07Rik	0x0
33303	chr8	8666114	8667627	-	Arglu1	0x0
33304	chr8	8668843	8669980	-	Arglu1	0x0
33305	chr8	8681114	8682473	-	Arglu1	0x0
33306	chr8	8683156	8684315	-	Arglu1	0x0
33307	chr8	9969617	9970826	-	Lig4	0x0
33308	chr8	9986507	9987612	+	Abhd13	0x0
33309	chr8	9988427	9991443	+	Abhd13	0x0
33310	chr8	10984558	10985835	-	Irs2	0x0
33311	chr8	11198358	11200232	-	Col4a1	0x0
33312	chr8	11351965	11353181	-	Col4a1	0x0
33313	chr8	11447698	11449781	+	Col4a2	0x2
33314	chr8	11482622	11483750	+	Carkd	0x0
33315	chr8	11512679	11513860	+	Carkd	0x0
33316	chr8	11541939	11543134	-	Cars2	0x0
33317	chr8	11562165	11563740	+	Ing1	0x1
33318	chr8	11607746	11609596	-	Ankrd10	0x0
33319	chr8	11611321	11614017	-	Ankrd10	0x0
33320	chr8	11614314	11615413	-	Ankrd10	0x0
33321	chr8	11617712	11618900	-	Ankrd10	0x0
33322	chr8	11622827	11623969	-	Ankrd10	0x0
33323	chr8	11624449	11625693	-	Ankrd10	0x0
33324	chr8	11634960	11636111	-	Ankrd10	0x0
33325	chr8	11640037	11641138	+	Ing1	0x1
33326	chr8	11833088	11834188	+	Arhgef7	0x0
33327	chr8	11834413	11835628	+	Arhgef7	0x0
33328	chr8	12614067	12615264	-	Tubgcp3	0x0
33329	chr8	12616189	12617397	-	Tubgcp3	0x0
33330	chr8	12809879	12811041	+	Atp11a	0x2
33331	chr8	12826661	12827801	+	Atp11a	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33332	chr8	12865032	12867472	+	Atp11a	0x2
33333	chr8	12867566	12868906	+	Atp11a	0x2
33334	chr8	13019740	13020880	+	Mcf2l	0x0
33335	chr8	13076822	13078334	-	Pcid2	0x0
33336	chr8	13114045	13115196	+	Cul4a	0x1
33337	chr8	13116704	13117902	+	Cul4a	0x1
33338	chr8	13146040	13148081	+	Cul4a	0x1
33339	chr8	13166701	13167894	+	Lamp1	0x0
33340	chr8	13173679	13174860	-	Grtp1	0x0
33341	chr8	13173976	13175796	+	Lamp1	0x0
33342	chr8	13175993	13177160	-	Grtp1	0x0
33343	chr8	13180468	13181616	-	Grtp1	0x0
33344	chr8	13314130	13315290	+	Tmco3	0x0
33345	chr8	13342851	13343985	+	Tfdp1	0x0
33346	chr8	13369275	13370421	+	Tfdp1	0x0
33347	chr8	13377090	13378938	+	Tfdp1	0x0
33348	chr8	13379395	13380494	+	Tfdp1	0x0
33349	chr8	13567242	13568355	-	Rasa3	0x0
33350	chr8	13591757	13592908	-	Rasa3	0x0
33351	chr8	13764044	13765208	+	Cdc16	0x0
33352	chr8	13783309	13784408	-	AF366264	0x0
33353	chr8	13792831	13794008	+	Upf3a	0x0
33354	chr8	13878060	13879164	+	Zfp828	0x0
33355	chr8	13879868	13882061	+	Zfp828	0x0
33356	chr8	13884123	13885508	-	Coprs	0x0
33357	chr8	13929554	13930725	+	Fbxo25	0x0
33358	chr8	13948522	13949664	-	2610019F03Rik	0x0
33359	chr8	13951664	13952818	-	2610019F03Rik	0x0
33360	chr8	14896451	14898586	+	Cln8	0x2
33361	chr8	14898624	14901759	+	Cln8	0x2
33362	chr8	15029041	15030231	+	Kbtbd11	0x0
33363	chr8	15519273	15520692	+	Myom2	0x2
33364	chr8	17955253	17956373	-	Csmd1	0x0
33365	chr8	18631474	18632581	+	Mcph1	0x1
33366	chr8	18697469	18698605	+	Mcph1	0x1
33367	chr8	18724052	18725151	+	Mcph1	0x1
33368	chr8	18731055	18732268	+	Mcph1	0x1
33369	chr8	18765696	18766896	+	Mcph1	0x1
33370	chr8	18801344	18803495	+	Mcph1	0x1
33371	chr8	18846095	18847336	+	Agpat5	0x0
33372	chr8	18882140	18883791	+	Agpat5	0x0
33373	chr8	18928068	18929243	-	Xkr5	0x0
33374	chr8	18934590	18935699	-	Xkr5	0x0
33375	chr8	18935867	18937320	-	Xkr5	0x0
33376	chr8	18939357	18940552	-	Xkr5	0x0
33377	chr8	19492468	19493687	+	Defb7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33378	chr8	19535608	19536758	+	Defb7	0x0
33379	chr8	19536898	19538058	+	Defb7	0x0
33380	chr8	19695416	19696521	+	4930467E23Rik	0x0
33381	chr8	19695416	19696521	+	Gm21119	0x0
33382	chr8	19696557	19698292	+	4930467E23Rik	0x0
33383	chr8	19696557	19698292	+	Gm21119	0x0
33384	chr8	19707346	19708551	+	4930467E23Rik	0x0
33385	chr8	19707346	19708551	+	Gm21119	0x0
33386	chr8	19787889	19789038	+	4930467E23Rik	0x0
33387	chr8	19791812	19792943	+	4930467E23Rik	0x0
33388	chr8	19990814	19991993	-	6820431F20Rik	0x0
33389	chr8	20030962	20032126	-	2610005L07Rik	0x0
33390	chr8	23103115	23104320	-	Atp7b	0x0
33391	chr8	23137463	23138674	-	Atp7b	0x0
33392	chr8	23175124	23176264	+	Alg11	0x0
33393	chr8	23178881	23182477	+	Alg11	0x0
33394	chr8	23278597	23279831	-	Ckap2	0x0
33395	chr8	23295316	23296506	-	Ckap2	0x0
33396	chr8	23328559	23331147	+	Vps36	0x0
33397	chr8	23353749	23354880	+	Thsd1	0x1
33398	chr8	23485618	23487179	-	Slc25a15	0x0
33399	chr8	23573107	23574325	-	AI316807	0x0
33400	chr8	23592967	23594077	+	Slc20a2	0x0
33401	chr8	23595044	23596184	+	Slc20a2	0x0
33402	chr8	23602503	23603621	+	Slc20a2	0x0
33403	chr8	23606249	23607410	+	Slc20a2	0x0
33404	chr8	23645217	23646460	+	Slc20a2	0x0
33405	chr8	23655423	23656578	+	Slc20a2	0x0
33406	chr8	23678619	23680500	+	Slc20a2	0x0
33407	chr8	23704497	23705666	-	Vdac3	0x0
33408	chr8	23974425	23975622	+	Kat6a	0x2
33409	chr8	24000881	24002081	+	Kat6a	0x2
33410	chr8	24016034	24017139	+	Kat6a	0x2
33411	chr8	24026998	24028164	+	Kat6a	0x2
33412	chr8	24051563	24054045	+	Kat6a	0x2
33413	chr8	24283920	24285424	-	Agpat6	0x0
33414	chr8	24300826	24302435	-	Agpat6	0x0
33415	chr8	24331592	24332822	-	Gins4	0x0
33416	chr8	24336773	24337963	-	Gins4	0x0
33417	chr8	24351440	24353559	-	Golga7	0x0
33418	chr8	24557098	24560500	+	Sfrp1	0x1
33419	chr8	26059776	26061071	-	Adam9	0x0
33420	chr8	26120118	26121267	-	Adam9	0x0
33421	chr8	26150837	26152593	-	Plekha2	0x0
33422	chr8	26233286	26234416	-	Plekha2	0x0
33423	chr8	26265414	26267143	-	Tacc1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33424	chr8	26267575	26270820	-	Tacc1	0x0
33425	chr8	26674175	26675359	+	Fgfr1	0x2
33426	chr8	26679535	26680653	+	Fgfr1	0x2
33427	chr8	26684852	26686006	+	Fgfr1	0x2
33428	chr8	26784012	26785205	+	Whsc1l1	0x1
33429	chr8	26810401	26811584	+	Whsc1l1	0x1
33430	chr8	26826849	26828485	+	Whsc1l1	0x1
33431	chr8	26835372	26838093	-	Ddhd2	0x0
33432	chr8	26874996	26877458	-	Bag4	0x2
33433	chr8	26882357	26883483	-	Bag4	0x2
33434	chr8	26912340	26913485	+	Lsm1	0x2
33435	chr8	26925142	26926297	+	Star	0x0
33436	chr8	26926880	26928498	-	Ash2l	0x0
33437	chr8	26933110	26934309	-	Ash2l	0x0
33438	chr8	26949730	26950874	-	Ash2l	0x0
33439	chr8	27052025	27053124	-	Hgsnat	0x0
33440	chr8	27054708	27055941	-	Hgsnat	0x0
33441	chr8	27058023	27059171	-	Hgsnat	0x0
33442	chr8	27063045	27064191	-	Hgsnat	0x0
33443	chr8	27092027	27093268	-	4930444A02Rik	0x0
33444	chr8	27108914	27110947	-	Fnta	0x0
33445	chr8	27118212	27119403	-	Fnta	0x0
33446	chr8	27125444	27126661	-	Fnta	0x0
33447	chr8	27131809	27133459	-	Hook3	0x2
33448	chr8	27134709	27135844	-	Hook3	0x2
33449	chr8	27141646	27142744	-	Hook3	0x2
33450	chr8	27252241	27253586	+	Rnf170	0x0
33451	chr8	28146869	28151182	+	Erlin2	0x0
33452	chr8	28157899	28159076	+	Prosc	0x0
33453	chr8	28163755	28164958	+	Prosc	0x0
33454	chr8	28165252	28166715	+	Prosc	0x0
33455	chr8	28250899	28252182	-	Rab11fip1	0x0
33456	chr8	28252549	28253715	-	Rab11fip1	0x0
33457	chr8	28263552	28264781	-	Rab11fip1	0x0
33458	chr8	28312474	28313633	-	Got1l1	0x0
33459	chr8	28332623	28333865	-	Adrb3	0x0
33460	chr8	28335804	28337006	-	Adrb3	0x0
33461	chr8	28339220	28340409	-	Adrb3	0x0
33462	chr8	28371665	28372846	+	Eif4ebp1	0x0
33463	chr8	28383261	28384458	+	Eif4ebp1	0x0
33464	chr8	28384983	28386523	+	Eif4ebp1	0x0
33465	chr8	32041014	32042220	-	Mir1186	0x0
33466	chr8	32264314	32265384	-	Mak16	0x0
33467	chr8	32269743	32271393	-	Mak16	0x0
33468	chr8	32372393	32373529	+	Fut10	0x0
33469	chr8	34301374	34302585	-	Wrn	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33470	chr8	34514049	34515211	+	Purg	0x4
33471	chr8	34518313	34519439	+	Purg	0x4
33472	chr8	34555862	34557017	-	Wrn	0x2
33473	chr8	34725635	34726747	+	Ppp2cb	0x1
33474	chr8	34729172	34730863	+	Ppp2cb	0x1
33475	chr8	34730967	34732170	-	Ubxn8	0x0
33476	chr8	34782799	34783927	+	Gsr	0x0
33477	chr8	34795559	34796711	+	Gsr	0x0
33478	chr8	34807124	34809083	+	Gsr	0x0
33479	chr8	34845703	34846877	+	Gtf2e2	0x0
33480	chr8	34872490	34873653	+	Gtf2e2	0x0
33481	chr8	34886598	34887710	+	Gtf2e2	0x0
33482	chr8	34892644	34895018	-	Rbpms	0x0
33483	chr8	34895156	34896313	-	Rbpms	0x0
33484	chr8	34900861	34902005	-	Rbpms	0x0
33485	chr8	34910530	34911693	-	Rbpms	0x0
33486	chr8	34914757	34916010	-	Rbpms	0x0
33487	chr8	34928747	34929969	-	Rbpms	0x0
33488	chr8	34932499	34933691	-	Rbpms	0x0
33489	chr8	34950122	34951275	-	Rbpms	0x0
33490	chr8	34953946	34955148	-	Rbpms	0x0
33491	chr8	34959963	34961128	-	Rbpms	0x0
33492	chr8	34964913	34966048	-	Rbpms	0x0
33493	chr8	34966597	34967918	-	Rbpms	0x0
33494	chr8	34969248	34971904	-	Rbpms	0x0
33495	chr8	34974474	34975629	-	Rbpms	0x0
33496	chr8	34994060	34995238	-	Rbpms	0x0
33497	chr8	35008703	35009887	-	Rbpms	0x0
33498	chr8	35023425	35024621	-	Rbpms	0x0
33499	chr8	35076602	35077771	+	Mboat4	0x0
33500	chr8	35100178	35101366	+	Mboat4	0x0
33501	chr8	35186513	35188434	+	Mboat4	0x0
33502	chr8	35198196	35199367	-	Leprotl1	0x0
33503	chr8	35232852	35234384	+	Tmem66	0x0
33504	chr8	35247981	35249117	-	Leprotl1	0x0
33505	chr8	35881775	35884210	+	Dusp4	0x0
33506	chr8	35890035	35893311	-	Tnks	0x0
33507	chr8	35921024	35922191	-	Tnks	0x0
33508	chr8	35935662	35936843	-	Tnks	0x0
33509	chr8	35966492	35967655	-	Tnks	0x0
33510	chr8	36000422	36001606	-	Tnks	0x0
33511	chr8	36215638	36216834	-	Tnks	0x0
33512	chr8	36448937	36450693	+	Ppp1r3b	0x0
33513	chr8	36528909	36531481	-	Eri1	0x0
33514	chr8	36740521	36741673	+	Mfhas1	0x1
33515	chr8	37209688	37210901	+	D8Ertd82e	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33516	chr8	37278773	37280335	-	Lonrf1	0x0
33517	chr8	37630343	37633530	-	Dlc1	0x1
33518	chr8	37641767	37643013	-	Dlc1	0x1
33519	chr8	37646608	37647707	-	Dlc1	0x1
33520	chr8	38313804	38314964	+	AI429214	0x0
33521	chr8	40250031	40251156	+	Tusc3	0x1
33522	chr8	40367004	40368159	+	Gm6213	0x0
33523	chr8	41421513	41422688	+	Efha2	0x0
33524	chr8	41463701	41464814	+	Efha2	0x0
33525	chr8	41569294	41571526	+	Zdhhc2	0x1
33526	chr8	41577446	41579389	-	Cnot7	0x0
33527	chr8	41625551	41626732	+	Vps37a	0x0
33528	chr8	41633549	41635261	+	Vps37a	0x0
33529	chr8	41635048	41636912	-	Mtmr7	0x0
33530	chr8	41635486	41636631	+	Vps37a	0x0
33531	chr8	41664361	41665483	-	Mtmr7	0x0
33532	chr8	41671771	41672940	-	Mtmr7	0x0
33533	chr8	41691608	41692816	-	Mtmr7	0x0
33534	chr8	41704516	41705714	-	Mtmr7	0x0
33535	chr8	42004489	42005693	+	Slc7a2	0x0
33536	chr8	42076829	42077997	-	Mtus1	0x1
33537	chr8	42168265	42169362	-	Mtus1	0x1
33538	chr8	42342734	42343924	+	Pcm1	0x2
33539	chr8	42352101	42353267	+	Pcm1	0x2
33540	chr8	42357240	42358383	+	Pcm1	0x2
33541	chr8	42358968	42360070	+	Pcm1	0x2
33542	chr8	42360528	42361725	+	Pcm1	0x2
33543	chr8	42362737	42363891	+	Pcm1	0x2
33544	chr8	42417332	42418417	+	Pcm1	0x2
33545	chr8	42425858	42427131	-	Asah1	0x0
33546	chr8	42428766	42429943	-	Asah1	0x0
33547	chr8	42437969	42439131	-	Asah1	0x0
33548	chr8	42450507	42451668	-	Asah1	0x0
33549	chr8	42496559	42497695	-	Frg1	0x0
33550	chr8	43826071	43827204	-	Triml1	0x0
33551	chr8	44191825	44192975	-	Triml1	0x0
33552	chr8	44223420	44224801	-	Triml1	0x0
33553	chr8	44225862	44227007	-	Triml1	0x0
33554	chr8	44232191	44233326	-	Triml1	0x0
33555	chr8	44243804	44245297	-	Triml1	0x0
33556	chr8	44246406	44248251	-	Triml1	0x0
33557	chr8	44253702	44254882	-	Triml1	0x0
33558	chr8	44261595	44262780	-	Triml1	0x0
33559	chr8	44266763	44267917	+	Triml2	0x0
33560	chr8	44272371	44273572	+	Triml2	0x0
33561	chr8	44278588	44279719	+	Triml2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33562	chr8	44281155	44282264	+	Triml2	0x0
33563	chr8	44374663	44375855	-	Zfp42	0x0
33564	chr8	44375989	44377149	-	Zfp42	0x0
33565	chr8	44378010	44379109	-	Zfp42	0x0
33566	chr8	44380113	44381986	-	Zfp42	0x0
33567	chr8	44387036	44388187	-	Zfp42	0x0
33568	chr8	44389384	44390441	-	Zfp42	0x0
33569	chr8	44390481	44392293	-	Zfp42	0x0
33570	chr8	44461844	44463911	+	Triml2	0x0
33571	chr8	46020098	46021303	+	Fat1	0x1
33572	chr8	46035617	46038752	+	Fat1	0x1
33573	chr8	46040889	46041990	+	Fat1	0x1
33574	chr8	46107857	46111975	+	Fat1	0x1
33575	chr8	46121814	46123268	+	Fat1	0x1
33576	chr8	46136322	46138089	+	Fat1	0x1
33577	chr8	47118251	47119594	-	Snx25	0x0
33578	chr8	47126115	47127352	-	Snx25	0x0
33579	chr8	47206952	47208136	-	Snx25	0x0
33580	chr8	47213747	47214941	-	Snx25	0x0
33581	chr8	47278373	47281261	+	4933411K20Rik	0x0
33582	chr8	47293894	47295342	-	Slc25a4	0x0
33583	chr8	47618347	47619562	+	Acsl1	0x0
33584	chr8	47619617	47621727	+	Acsl1	0x0
33585	chr8	47654835	47655942	+	Mlf1ip	0x0
33586	chr8	47661430	47663470	-	Ccdc111	0x0
33587	chr8	47665731	47666899	+	Mlf1ip	0x0
33588	chr8	47667276	47668439	+	Mlf1ip	0x0
33589	chr8	47723724	47725483	+	Casp3	0x0
33590	chr8	48265347	48266977	-	Stox2	0x0
33591	chr8	48267355	48272130	-	Stox2	0x0
33592	chr8	48276764	48277937	-	Stox2	0x0
33593	chr8	48362400	48363567	-	Stox2	0x0
33594	chr8	48369569	48370769	-	Stox2	0x0
33595	chr8	48635831	48637034	+	Rwdd4a	0x0
33596	chr8	48743194	48744400	-	Ing2	0x1
33597	chr8	48752064	48753258	-	Ing2	0x1
33598	chr8	48794870	48796630	-	Cdkn2aip	0x0
33599	chr8	48911490	48914076	-	Wwc2	0x0
33600	chr8	48916466	48917565	-	Wwc2	0x0
33601	chr8	48934211	48935386	-	Wwc2	0x0
33602	chr8	48964901	48966101	-	Wwc2	0x0
33603	chr8	48985518	48986698	-	Wwc2	0x0
33604	chr8	49020924	49022152	-	Wwc2	0x0
33605	chr8	49024519	49025617	-	Wwc2	0x0
33606	chr8	49047557	49048703	-	Wwc2	0x0
33607	chr8	49049580	49050770	-	Wwc2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33608	chr8	49056869	49058099	-	Wwc2	0x0
33609	chr8	49210979	49212209	+	Dctd	0x0
33610	chr8	49218499	49219668	+	Dctd	0x0
33611	chr8	49225703	49227084	+	Dctd	0x0
33612	chr8	49310541	49312026	-	Tenm3	0x0
33613	chr8	49312742	49313859	-	Tenm3	0x0
33614	chr8	49321597	49322824	-	Tenm3	0x0
33615	chr8	49352245	49353441	-	Tenm3	0x0
33616	chr8	49361390	49362519	-	Tenm3	0x0
33617	chr8	49384421	49385555	-	Tenm3	0x0
33618	chr8	49415996	49417135	-	Tenm3	0x0
33619	chr8	49586146	49587305	-	Tenm3	0x0
33620	chr8	49628584	49629687	-	Tenm3	0x0
33621	chr8	53281024	53282973	-	Neil3	0x0
33622	chr8	53421758	53423002	-	Neil3	0x0
33623	chr8	54671755	54672931	-	Neil3	0x0
33624	chr8	55605524	55607612	-	Spcs3	0x0
33625	chr8	55611365	55612600	-	Spcs3	0x0
33626	chr8	58798973	58800099	+	Hpgd	0x1
33627	chr8	59009889	59011080	-	Cep44	0x0
33628	chr8	59030509	59031675	+	Fbxo8	0x0
33629	chr8	59070178	59071489	+	Fbxo8	0x0
33630	chr8	59984713	59985825	+	Hmgb2	0x0
33631	chr8	59985870	59987016	+	Hmgb2	0x0
33632	chr8	60002539	60004733	-	Galnt7	0x0
33633	chr8	60010860	60012062	-	Galnt7	0x0
33634	chr8	60111812	60112919	-	Galnt7	0x0
33635	chr8	63119887	63121089	+	Mfap3l	0x0
33636	chr8	63152159	63153360	+	Mfap3l	0x0
33637	chr8	63388915	63391644	-	Clcn3	0x2
33638	chr8	63451189	63452365	-	Clcn3	0x2
33639	chr8	63733272	63734449	+	Sh3rf1	0x0
33640	chr8	63760190	63761334	+	Sh3rf1	0x0
33641	chr8	63831306	63832427	+	Sh3rf1	0x0
33642	chr8	63854143	63855344	+	Sh3rf1	0x0
33643	chr8	63874104	63875264	+	Sh3rf1	0x0
33644	chr8	63982847	63983978	+	Cbr4	0x0
33645	chr8	63990553	63992308	-	Palld	0x0
33646	chr8	64017017	64018190	-	Palld	0x0
33647	chr8	64046784	64047992	-	Palld	0x0
33648	chr8	64113288	64114391	-	Palld	0x0
33649	chr8	65025418	65026864	-	Anxa10	0x0
33650	chr8	67196535	67198263	-	Sc4mol	0x0
33651	chr8	67218710	67219814	-	Klhl2	0x0
33652	chr8	67227991	67229187	-	Klhl2	0x0
33653	chr8	67234238	67235373	-	Klhl2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33654	chr8	67492271	67493507	+	Tmem192	0x0
33655	chr8	67551975	67553296	-	Gm10664	0x0
33656	chr8	68998776	69001099	-	Tma16	0x0
33657	chr8	69041919	69043115	+	Tktl2	0x0
33658	chr8	69384115	69385325	+	Naf1	0x0
33659	chr8	69387858	69388985	+	Naf1	0x0
33660	chr8	69409090	69410186	+	Naf1	0x0
33661	chr8	69413202	69414923	+	Naf1	0x0
33662	chr8	71333449	71334605	+	Ints10	0x0
33663	chr8	71335294	71336425	+	Ints10	0x0
33664	chr8	71337009	71338191	+	Ints10	0x0
33665	chr8	71342641	71343796	+	Ints10	0x0
33666	chr8	71351407	71352601	+	Ints10	0x0
33667	chr8	71429482	71430840	+	Lpl	0x0
33668	chr8	71627047	71628100	+	Atp6v1b2	0x0
33669	chr8	71636333	71638021	+	Atp6v1b2	0x0
33670	chr8	71752921	71754190	+	Zfp930	0x0
33671	chr8	71761260	71762456	-	Lzts1	0x1
33672	chr8	71826515	71827753	+	D130040H23Rik	0x0
33673	chr8	71828789	71829971	+	D130040H23Rik	0x0
33674	chr8	71831494	71832707	+	D130040H23Rik	0x0
33675	chr8	71890566	71891655	-	Gm10033	0x0
33676	chr8	71892404	71893937	-	Gm10033	0x0
33677	chr8	72077314	72078416	-	Zfp868	0x0
33678	chr8	72092959	72094120	-	Zfp868	0x0
33679	chr8	72108342	72109551	-	Zfp868	0x0
33680	chr8	72226488	72227700	-	Zfp869	0x0
33681	chr8	72286357	72287576	-	Zfp866	0x0
33682	chr8	72351401	72352515	+	Lpar2	0x0
33683	chr8	72352819	72354411	+	Lpar2	0x0
33684	chr8	72387635	72388734	+	Pbx4	0x0
33685	chr8	72420914	72422079	-	Ndufa13	0x0
33686	chr8	72424899	72426086	-	Ndufa13	0x0
33687	chr8	72431230	72434081	-	Gatad2a	0x0
33688	chr8	72434909	72436040	-	Gatad2a	0x0
33689	chr8	72441309	72442540	-	Gatad2a	0x0
33690	chr8	72452078	72453187	-	Gatad2a	0x0
33691	chr8	72459120	72460451	-	Gatad2a	0x0
33692	chr8	72537984	72540152	-	Mau2	0x0
33693	chr8	72540435	72541541	-	Mau2	0x0
33694	chr8	72542056	72544040	-	Mau2	0x0
33695	chr8	72544969	72546166	-	Mau2	0x0
33696	chr8	72552939	72554038	-	Mau2	0x0
33697	chr8	72611994	72613207	+	Hapln4	0x0
33698	chr8	72668658	72669855	+	2310045N01Rik	0x0
33699	chr8	72695971	72697169	+	Tmem161a	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33700	chr8	72705574	72707494	+	Tmem161a	0x0
33701	chr8	72782738	72783894	+	Sugp2	0x0
33702	chr8	72785613	72786862	+	Sugp2	0x0
33703	chr8	72817036	72818124	+	Homer3	0x0
33704	chr8	72854952	72856776	-	Upf1	0x0
33705	chr8	72863120	72864307	-	Upf1	0x0
33706	chr8	72864839	72865978	-	Upf1	0x0
33707	chr8	72866569	72867668	-	Upf1	0x0
33708	chr8	72872364	72873504	-	Upf1	0x0
33709	chr8	72906226	72908940	-	Crtc1	0x2
33710	chr8	72928886	72930386	-	Crtc1	0x2
33711	chr8	72967112	72968234	-	Crtc1	0x2
33712	chr8	72974306	72975507	-	Klhl26	0x0
33713	chr8	73036916	73038224	-	Kxd1	0x0
33714	chr8	73058291	73059690	+	Fkbp8	0x0
33715	chr8	73115239	73117072	+	Ell	0x2
33716	chr8	73118544	73119642	+	Isyna1	0x0
33717	chr8	73120053	73121246	+	Isyna1	0x0
33718	chr8	73120894	73122139	-	Ssbp4	0x0
33719	chr8	73171035	73172165	-	Pgpep1	0x0
33720	chr8	73172185	73174771	-	Pgpep1	0x0
33721	chr8	73201900	73203191	+	Lsm4	0x0
33722	chr8	73209439	73210602	-	Pgpep1	0x0
33723	chr8	73219728	73220843	-	Pgpep1	0x0
33724	chr8	73223088	73224279	+	Jund	0x0
33725	chr8	73271776	73272903	+	Pde4c	0x0
33726	chr8	73282108	73283347	-	Mpv17l2	0x0
33727	chr8	73288067	73289238	-	Ifi30	0x0
33728	chr8	73302200	73303339	-	Mast3	0x0
33729	chr8	73367308	73368614	-	Kcnn1	0x0
33730	chr8	73372179	73373338	-	Kcnn1	0x0
33731	chr8	73419461	73420683	-	Rpl18a	0x0
33732	chr8	73419461	73420683	-	Snora68	0x0
33733	chr8	73862887	73864077	+	Myo9b	0x0
33734	chr8	73897645	73898810	-	Nr2f6	0x0
33735	chr8	73903033	73904206	-	Nr2f6	0x0
33736	chr8	73980754	73981962	-	Abhd8	0x0
33737	chr8	73999174	74000446	+	Dda1	0x0
33738	chr8	74000025	74001212	-	Ano8	0x0
33739	chr8	74016338	74017735	+	Gtpbp3	0x0
33740	chr8	74042470	74043621	-	Plvap	0x0
33741	chr8	74057689	74058863	-	Bst2	0x0
33742	chr8	74068629	74069852	+	Mvb12a	0x0
33743	chr8	74093092	74094263	+	Slc27a1	0x0
33744	chr8	74103388	74104533	+	Slc27a1	0x0
33745	chr8	74117455	74118652	+	Pgls	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33746	chr8	74119518	74120690	+	Pgls	0x0
33747	chr8	74134778	74135889	+	Glt25d1	0x0
33748	chr8	74147380	74149184	+	Glt25d1	0x0
33749	chr8	74163065	74164255	-	Unc13a	0x0
33750	chr8	74202028	74203262	+	Jak3	0x2
33751	chr8	74214143	74216698	-	B3gnt3	0x0
33752	chr8	74476322	74477425	+	Zfp961	0x0
33753	chr8	74488572	74489674	+	Zfp961	0x0
33754	chr8	74492480	74494914	+	Zfp961	0x0
33755	chr8	74675727	74677397	+	Tpm4	0x0
33756	chr8	74703717	74705572	+	Rab8a	0x0
33757	chr8	74746205	74747491	+	Fam32a	0x0
33758	chr8	74844265	74845792	+	Klf2	0x2
33759	chr8	74867990	74869375	-	Eps15l1	0x0
33760	chr8	74878523	74880119	-	Eps15l1	0x0
33761	chr8	74883230	74884407	-	Eps15l1	0x0
33762	chr8	74899769	74900868	-	Eps15l1	0x0
33763	chr8	74901310	74902787	-	Eps15l1	0x0
33764	chr8	74984245	74987343	-	Cherp	0x0
33765	chr8	74993479	74994694	-	Cherp	0x0
33766	chr8	75004085	75010500	-	Slc35e1	0x0
33767	chr8	75015784	75017009	-	Slc35e1	0x0
33768	chr8	75018332	75019521	-	Med26	0x0
33769	chr8	75088143	75091113	-	Smim7	0x0
33770	chr8	75109859	75111687	+	Tmem38a	0x0
33771	chr8	75254543	75255735	+	Sin3b	0x0
33772	chr8	75257537	75258653	+	Sin3b	0x0
33773	chr8	75263125	75264352	+	Sin3b	0x0
33774	chr8	75338135	75339752	-	Large	0x0
33775	chr8	75398688	75399867	-	Large	0x0
33776	chr8	75409885	75411040	-	Large	0x0
33777	chr8	75525484	75526678	-	Large	0x0
33778	chr8	75528489	75529588	-	Large	0x0
33779	chr8	75683930	75685029	-	Large	0x0
33780	chr8	75755280	75756476	-	Large	0x0
33781	chr8	75837326	75838450	-	Large	0x0
33782	chr8	75866764	75867881	-	Large	0x0
33783	chr8	75868780	75869952	-	Large	0x0
33784	chr8	75872624	75873757	-	Large	0x0
33785	chr8	75875930	75877078	-	Large	0x0
33786	chr8	77261470	77262661	+	Isx	0x0
33787	chr8	77546382	77547491	+	Hmgxb4	0x0
33788	chr8	77553582	77560500	+	Hmgxb4	0x0
33789	chr8	77553582	77560500	+	Tom1	0x0
33790	chr8	77623662	77624891	+	Hmox1	0x0
33791	chr8	77640907	77642087	+	Mcm5	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33792	chr8	77650799	77652376	+	Mcm5	0x0
33793	chr8	79516902	79518097	+	Nr3c2	0x0
33794	chr8	79767673	79768973	+	Nr3c2	0x0
33795	chr8	80010277	80011489	-	Arhgap10	0x0
33796	chr8	81009501	81010745	-	Rbmxl1	0x0
33797	chr8	81032834	81033981	+	Slc10a7	0x0
33798	chr8	81068064	81069208	+	Slc10a7	0x0
33799	chr8	81073808	81075004	+	Slc10a7	0x0
33800	chr8	81092813	81093921	+	Slc10a7	0x0
33801	chr8	81096582	81097715	+	Slc10a7	0x0
33802	chr8	81111064	81112258	+	Slc10a7	0x0
33803	chr8	81149644	81150763	+	Slc10a7	0x0
33804	chr8	81223034	81224211	+	Slc10a7	0x0
33805	chr8	81256355	81257881	+	Slc10a7	0x0
33806	chr8	81330110	81340500	-	Lsm6	0x0
33807	chr8	81575559	81576658	+	Zfp827	0x0
33808	chr8	81583743	81584950	+	Zfp827	0x0
33809	chr8	81604580	81605762	+	Zfp827	0x0
33810	chr8	81862305	81863498	-	Smad1	0x0
33811	chr8	81895528	81896734	-	Smad1	0x0
33812	chr8	82065285	82066481	-	Abce1	0x2
33813	chr8	82108789	82109965	-	Abce1	0x2
33814	chr8	82131723	82132962	-	Abce1	0x2
33815	chr8	82179061	82180242	+	Otud4	0x0
33816	chr8	82198336	82202125	+	Otud4	0x0
33817	chr8	82207114	82209495	-	Abce1	0x2
33818	chr8	82213590	82214906	-	Abce1	0x2
33819	chr8	82265732	82266857	+	Anapc10	0x0
33820	chr8	83223387	83225419	-	Smarca5	0x0
33821	chr8	83287874	83290348	-	Gab1	0x6
33822	chr8	83327773	83328930	-	Gab1	0x6
33823	chr8	83354043	83355249	-	Gab1	0x6
33824	chr8	83363312	83364459	-	Gab1	0x6
33825	chr8	83378791	83380280	-	Gab1	0x6
33826	chr8	83489904	83491101	+	Frem3	0x0
33827	chr8	83504264	83505793	-	Usp38	0x0
33828	chr8	85297424	85298558	-	Zfp330	0x0
33829	chr8	85796346	85797454	+	Tbc1d9	0x0
33830	chr8	85957932	85959158	-	Scoc	0x0
33831	chr8	86001686	86002826	-	Scoc	0x0
33832	chr8	86095177	86096359	-	Tecr	0x0
33833	chr8	86098670	86099738	-	Tecr	0x0
33834	chr8	86133996	86136242	+	Dnajb1	0x0
33835	chr8	86185319	86186499	+	Gipc1	0x0
33836	chr8	86187440	86189181	+	Gipc1	0x0
33837	chr8	86189803	86191011	-	Pkn1	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33838	chr8	86193665	86194865	-	Pkn1	0x2
33839	chr8	86195923	86197110	-	Pkn1	0x2
33840	chr8	86204307	86205478	-	Pkn1	0x2
33841	chr8	86242386	86244059	+	Ddx39	0x0
33842	chr8	86244427	86245545	+	Ddx39	0x0
33843	chr8	86245599	86246738	+	Ddx39	0x0
33844	chr8	86246861	86248256	-	Cd97	0x0
33845	chr8	86251107	86252796	-	Cd97	0x0
33846	chr8	86384432	86385615	-	Cd97	0x0
33847	chr8	86425228	86426429	+	Lphn1	0x2
33848	chr8	86426500	86427637	+	Lphn1	0x2
33849	chr8	86428416	86429546	+	Lphn1	0x2
33850	chr8	86430431	86431508	+	Lphn1	0x2
33851	chr8	86432343	86433442	+	Lphn1	0x2
33852	chr8	86436681	86438362	+	Lphn1	0x2
33853	chr8	86438758	86440013	+	Lphn1	0x2
33854	chr8	86448308	86450413	+	Lphn1	0x2
33855	chr8	86450757	86451884	+	Lphn1	0x2
33856	chr8	86452209	86454351	+	Lphn1	0x2
33857	chr8	86455406	86457056	+	Lphn1	0x2
33858	chr8	86457938	86459006	+	Lphn1	0x2
33859	chr8	86462069	86463174	+	Lphn1	0x2
33860	chr8	86463464	86466171	+	Lphn1	0x2
33861	chr8	86511661	86512811	+	Prkaca	0x0
33862	chr8	86519137	86520873	+	Prkaca	0x0
33863	chr8	86523722	86524804	+	Samd1	0x0
33864	chr8	86550942	86552111	+	Palm3	0x0
33865	chr8	86556920	86558016	+	Palm3	0x0
33866	chr8	86613244	86614377	+	Rfx1	0x0
33867	chr8	86729536	86730641	+	Mir23a	0x0
33868	chr8	86735637	86737039	-	Zswim4	0x0
33869	chr8	86780382	86781539	-	Mri1	0x0
33870	chr8	86942236	86943373	+	Cacna1a	0x0
33871	chr8	86962952	86964095	+	Cacna1a	0x0
33872	chr8	86964925	86966121	+	Cacna1a	0x0
33873	chr8	86984887	86986040	+	Cacna1a	0x0
33874	chr8	86986084	86987357	+	Cacna1a	0x0
33875	chr8	87010312	87011446	+	Cacna1a	0x0
33876	chr8	87077852	87079002	+	Cacna1a	0x0
33877	chr8	87084278	87085458	+	Cacna1a	0x0
33878	chr8	87112154	87113330	+	Cacna1a	0x0
33879	chr8	87179261	87180480	-	Ier2	0x0
33880	chr8	87184809	87186232	-	Ier2	0x0
33881	chr8	87194339	87196766	-	Nacc1	0x0
33882	chr8	87200286	87201440	-	Nacc1	0x0
33883	chr8	87204304	87205376	-	Nacc1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33884	chr8	87214168	87215864	+	Trmt1	0x0
33885	chr8	87229276	87230707	-	Nfix	0x0
33886	chr8	87249682	87250811	+	Lyl1	0x2
33887	chr8	87295591	87296777	-	Nfix	0x0
33888	chr8	87319568	87320757	-	Nfix	0x0
33889	chr8	87357962	87359714	+	Gadd45gip1	0x1
33890	chr8	87358337	87359482	-	Rad23a	0x0
33891	chr8	87365530	87367275	-	Calr	0x2
33892	chr8	87367960	87369057	-	Calr	0x2
33893	chr8	87369294	87371296	-	Calr	0x2
33894	chr8	87380380	87381577	+	Farsa	0x0
33895	chr8	87415828	87417045	-	Gcdh	0x0
33896	chr8	87480565	87481729	-	Rnaseh2a	0x2
33897	chr8	87489003	87490176	-	Rnaseh2a	0x2
33898	chr8	87492995	87494194	+	Prdx2	0x0
33899	chr8	87521899	87522998	+	Hook2	0x0
33900	chr8	87526351	87527478	+	Hook2	0x0
33901	chr8	87541916	87543120	-	Asna1	0x0
33902	chr8	87550319	87551509	+	2310036O22Rik	0x0
33903	chr8	87553721	87554908	+	2310036O22Rik	0x0
33904	chr8	87555756	87556860	+	2310036O22Rik	0x0
33905	chr8	87567914	87569106	+	Tnpo2	0x0
33906	chr8	87570612	87571818	+	Tnpo2	0x0
33907	chr8	87573624	87574932	+	Tnpo2	0x0
33908	chr8	87577006	87578791	+	Tnpo2	0x0
33909	chr8	87579372	87582023	+	Tnpo2	0x0
33910	chr8	87598495	87599702	-	Wdr83	0x0
33911	chr8	87605255	87606525	+	BC056474	0x0
33912	chr8	87635253	87636471	-	Zfp791	0x2
33913	chr8	87783897	87785319	-	Vps35	0x0
33914	chr8	87796881	87798030	-	Vps35	0x0
33915	chr8	87807381	87808632	-	Vps35	0x0
33916	chr8	87813038	87814220	-	Vps35	0x0
33917	chr8	87820684	87821841	-	Vps35	0x0
33918	chr8	88049356	88051463	+	Gpt2	0x0
33919	chr8	88061476	88063726	-	Dnaja2	0x0
33920	chr8	88063760	88064827	-	Dnaja2	0x0
33921	chr8	88069893	88070994	-	Dnaja2	0x0
33922	chr8	88076668	88078139	-	Dnaja2	0x0
33923	chr8	88135339	88136438	+	Gpt2	0x0
33924	chr8	88160935	88162111	-	Neto2	0x0
33925	chr8	88172989	88174090	-	Neto2	0x0
33926	chr8	88179263	88180362	-	Neto2	0x0
33927	chr8	88224085	88225282	-	Neto2	0x0
33928	chr8	88241629	88243117	-	Itfg1	0x0
33929	chr8	88380452	88381650	+	Phkb	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33930	chr8	88399023	88400157	+	Phkb	0x0
33931	chr8	88446182	88447378	+	Phkb	0x0
33932	chr8	88464195	88465360	+	Phkb	0x0
33933	chr8	88485902	88487004	+	Phkb	0x0
33934	chr8	88508482	88509781	+	Phkb	0x0
33935	chr8	88514352	88515451	+	Phkb	0x0
33936	chr8	88580381	88581565	+	Phkb	0x0
33937	chr8	89150040	89151140	+	Lonp2	0x0
33938	chr8	89168162	89169266	+	Lonp2	0x0
33939	chr8	89212000	89213175	+	Lonp2	0x0
33940	chr8	89239374	89240569	-	Siah1a	0x1
33941	chr8	89248051	89249191	-	Siah1a	0x1
33942	chr8	89364510	89368184	-	N4bp1	0x0
33943	chr8	89383999	89386452	-	N4bp1	0x0
33944	chr8	89390102	89391292	-	N4bp1	0x0
33945	chr8	89391639	89392740	-	N4bp1	0x0
33946	chr8	89399466	89400653	-	N4bp1	0x0
33947	chr8	89571453	89572669	+	Gm10638	0x0
33948	chr8	89992305	89994053	-	Cbln1	0x0
33949	chr8	90006039	90007175	+	Gm2694	0x0
33950	chr8	90060154	90061333	-	Cbln1	0x0
33951	chr8	90257216	90258391	-	Zfp423	0x0
33952	chr8	90304041	90306391	-	Zfp423	0x0
33953	chr8	90306618	90307797	-	Zfp423	0x0
33954	chr8	90481542	90482641	+	Cnep1r1	0x0
33955	chr8	90662724	90663877	+	Heatr3	0x0
33956	chr8	90673582	90674758	+	Heatr3	0x0
33957	chr8	90694502	90696365	+	Heatr3	0x0
33958	chr8	90769681	90770875	+	Papd5	0x0
33959	chr8	90774087	90775206	+	Papd5	0x0
33960	chr8	90775791	90776956	+	Papd5	0x0
33961	chr8	90780612	90790500	+	Papd5	0x0
33962	chr8	90852120	90853241	+	Adcy7	0x0
33963	chr8	90855781	90857018	-	Brd7	0x1
33964	chr8	90862206	90863323	-	Brd7	0x1
33965	chr8	91271081	91272213	+	Cyld	0x1
33966	chr8	91274949	91276073	+	Cyld	0x1
33967	chr8	91550839	91552564	-	Sall1	0x4
33968	chr8	91554294	91555926	-	Sall1	0x4
33969	chr8	91577991	91579144	+	Cyld	0x1
33970	chr8	93430256	93431395	-	Aktip	0x2
33971	chr8	93455829	93458267	+	Chd9	0x0
33972	chr8	93512892	93514041	+	Chd9	0x0
33973	chr8	93517905	93519067	+	Chd9	0x0
33974	chr8	93525022	93526232	+	Chd9	0x0
33975	chr8	93532103	93533213	+	Chd9	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
33976	chr8	93538495	93539685	+	Chd9	0x0
33977	chr8	93546209	93547356	+	Chd9	0x0
33978	chr8	93553843	93554999	+	Chd9	0x0
33979	chr8	93556876	93558583	+	Chd9	0x0
33980	chr8	93559744	93560947	+	Chd9	0x0
33981	chr8	93563303	93564454	+	Chd9	0x0
33982	chr8	93564494	93565591	+	Chd9	0x0
33983	chr8	93572490	93573653	+	Chd9	0x0
33984	chr8	93577185	93578869	+	Chd9	0x0
33985	chr8	93608895	93610019	+	Rbl2	0x1
33986	chr8	93647051	93648979	-	Aktip	0x2
33987	chr8	93933613	93934739	+	Fto	0x0
33988	chr8	94008561	94009759	+	Fto	0x0
33989	chr8	94053802	94054972	+	Fto	0x0
33990	chr8	94067639	94068842	+	Fto	0x0
33991	chr8	94078011	94079149	+	Fto	0x0
33992	chr8	94108573	94109726	+	Fto	0x0
33993	chr8	94190408	94192726	+	Fto	0x0
33994	chr8	94322188	94323369	-	Irx3	0x0
33995	chr8	95362846	95364045	+	Mmp2	0x2
33996	chr8	96495071	96497439	-	Amfr	0x2
33997	chr8	96510733	96511917	-	Amfr	0x2
33998	chr8	96523820	96525058	-	Amfr	0x2
33999	chr8	96539125	96540348	-	Amfr	0x2
34000	chr8	96542695	96544153	-	Nudt21	0x0
34001	chr8	96560254	96561448	-	Nudt21	0x0
34002	chr8	96588532	96592295	+	Ogfod1	0x0
34003	chr8	96696806	96698226	+	Mt2	0x0
34004	chr8	96702502	96704713	+	Mt1	0x0
34005	chr8	96713357	96714459	+	Mt1	0x0
34006	chr8	96805511	96806658	+	Nup93	0x0
34007	chr8	96818416	96819555	+	Nup93	0x0
34008	chr8	96827064	96828315	+	Nup93	0x0
34009	chr8	96918278	96919451	+	Herpud1	0x2
34010	chr8	97098466	97099699	-	Fam192a	0x0
34011	chr8	97100714	97101819	-	Fam192a	0x0
34012	chr8	97112200	97113375	-	Fam192a	0x0
34013	chr8	97118727	97119905	-	Fam192a	0x0
34014	chr8	97197004	97198514	+	Arl2bp	0x0
34015	chr8	97227351	97228582	-	Pllp	0x0
34016	chr8	97299903	97301119	-	Ciapin1	0x0
34017	chr8	97345922	97347387	-	Ciapin1	0x0
34018	chr8	97369897	97371053	+	Coq9	0x0
34019	chr8	97377623	97379268	+	Coq9	0x0
34020	chr8	97461129	97462295	+	Gpr114	0x0
34021	chr8	97536513	97537637	+	Gpr56	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34022	chr8	97623692	97624869	-	Kifc3	0x0
34023	chr8	97625392	97626606	-	Kifc3	0x0
34024	chr8	97628688	97629835	-	Kifc3	0x0
34025	chr8	97652547	97653732	-	Kifc3	0x0
34026	chr8	97870331	97871450	+	Usb1	0x0
34027	chr8	97897166	97898289	+	Mmp15	0x0
34028	chr8	97945505	97946606	-	Gtl3	0x0
34029	chr8	97948734	97949848	-	Gtl3	0x0
34030	chr8	97973146	97974942	-	Csnk2a2	0x0
34031	chr8	97976217	97977519	-	Csnk2a2	0x0
34032	chr8	97980109	97981208	-	Csnk2a2	0x0
34033	chr8	97984008	97985133	-	Csnk2a2	0x0
34034	chr8	97988979	97990206	-	Csnk2a2	0x0
34035	chr8	98005339	98006485	-	Csnk2a2	0x0
34036	chr8	98018895	98020062	-	Csnk2a2	0x0
34037	chr8	98237248	98239109	+	Ndrg4	0x1
34038	chr8	98243495	98244805	-	Cnot1	0x2
34039	chr8	98252506	98253661	-	Cnot1	0x2
34040	chr8	98257441	98258781	-	Cnot1	0x2
34041	chr8	98260502	98261601	-	Cnot1	0x2
34042	chr8	98265238	98266393	-	Cnot1	0x2
34043	chr8	98267662	98268804	-	Cnot1	0x2
34044	chr8	98269362	98270661	-	Cnot1	0x2
34045	chr8	98271673	98272741	-	Cnot1	0x2
34046	chr8	98276067	98277159	-	Cnot1	0x2
34047	chr8	98283430	98284658	-	Cnot1	0x2
34048	chr8	98286526	98287673	-	Cnot1	0x2
34049	chr8	98293881	98295039	-	Cnot1	0x2
34050	chr8	98312056	98313264	-	Cnot1	0x2
34051	chr8	98359658	98361700	-	Slc38a7	0x0
34052	chr8	98362427	98363620	-	Slc38a7	0x0
34053	chr8	98387543	98389496	-	Got2	0x0
34054	chr8	98399112	98400310	-	Got2	0x0
34055	chr8	99952358	99953554	-	Got2	0x0
34056	chr8	102554005	102555831	+	4933400L20Rik	0x0
34057	chr8	103629270	103630478	+	4933400L20Rik	0x0
34058	chr8	103669471	103670619	+	4933400L20Rik	0x0
34059	chr8	105388225	105390023	-	Cdh11	0x1
34060	chr8	106873832	106876366	-	Cmtm4	0x0
34061	chr8	106900174	106901288	-	Cmtm4	0x0
34062	chr8	106942464	106944426	-	Dync1li2	0x0
34063	chr8	106980394	106981587	-	Ccdc79	0x0
34064	chr8	107036607	107037747	-	Nae1	0x0
34065	chr8	107039480	107040675	-	Nae1	0x0
34066	chr8	107119225	107122206	+	Pdp2	0x0
34067	chr8	107712510	107713713	+	Cbfb	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34068	chr8	107717843	107719032	+	Cbfb	0x2
34069	chr8	107725815	107726985	+	Cbfb	0x2
34070	chr8	107740107	107742278	+	Cbfb	0x2
34071	chr8	107772168	107773366	+	D230025D16Rik	0x0
34072	chr8	107775117	107777408	+	D230025D16Rik	0x0
34073	chr8	107780928	107783163	-	Tradd	0x0
34074	chr8	107786534	107787633	-	Tradd	0x0
34075	chr8	107803801	107806089	-	4931428F04Rik	0x0
34076	chr8	107828071	107829732	+	E2f4	0x0
34077	chr8	107828071	107829732	+	Elmo3	0x0
34078	chr8	107845841	107846974	-	Lrrc29	0x0
34079	chr8	107905725	107906828	+	Plekhg4	0x0
34080	chr8	108047818	108049882	-	Atp6v0d1	0x0
34081	chr8	108072362	108073463	-	Atp6v0d1	0x0
34082	chr8	108074904	108076099	-	Atp6v0d1	0x0
34083	chr8	108096831	108098068	-	Agrp	0x0
34084	chr8	108108815	108110064	-	Agrp	0x0
34085	chr8	108141700	108142848	+	Fam65a	0x0
34086	chr8	108143244	108144444	+	Fam65a	0x0
34087	chr8	108160041	108161156	+	Ctcf	0x1
34088	chr8	108200642	108201747	+	Ctcf	0x1
34089	chr8	108203482	108204599	+	Ctcf	0x1
34090	chr8	108205189	108207334	+	Ctcf	0x1
34091	chr8	108225312	108226441	+	Pard6a	0x0
34092	chr8	108291816	108294905	-	Ranbp10	0x0
34093	chr8	108369191	108370302	-	Cenpt	0x0
34094	chr8	108379813	108381167	+	Thap11	0x0
34095	chr8	108403472	108404575	+	Nutf2	0x0
34096	chr8	108409481	108410701	+	Edc4	0x0
34097	chr8	108412857	108413956	+	Edc4	0x0
34098	chr8	108453862	108455724	+	Pskh1	0x0
34099	chr8	108468488	108469665	-	Slc12a4	0x0
34100	chr8	108477720	108478912	-	Slc12a4	0x0
34101	chr8	108559605	108560762	+	Dus2l	0x0
34102	chr8	108602024	108603583	+	Nfatc3	0x0
34103	chr8	108622471	108623590	+	Nfatc3	0x0
34104	chr8	108648702	108649806	+	Nfatc3	0x0
34105	chr8	108651623	108654764	+	Nfatc3	0x0
34106	chr8	108687219	108689148	+	Pla2g15	0x0
34107	chr8	108718572	108719673	+	Slc7a6	0x0
34108	chr8	108720352	108722474	+	Slc7a6	0x0
34109	chr8	108723585	108724692	+	Slc7a6	0x0
34110	chr8	108723783	108725467	-	Slc7a6os	0x0
34111	chr8	108732150	108733344	-	Slc7a6os	0x0
34112	chr8	108736898	108738040	+	Prmt7	0x0
34113	chr8	108760864	108762060	+	Prmt7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34114	chr8	108765005	108766104	+	Prmt7	0x0
34115	chr8	108775460	108776751	+	Prmt7	0x0
34116	chr8	109078934	109080126	+	Cdh3	0x0
34117	chr8	109096320	109097798	-	Smpd3	0x0
34118	chr8	109126746	109127967	+	Cdh1	0x1
34119	chr8	109150240	109151413	+	Cdh1	0x1
34120	chr8	109180025	109181322	+	Cdh1	0x1
34121	chr8	109191950	109194596	+	Cdh1	0x1
34122	chr8	109223538	109224671	+	Tango6	0x0
34123	chr8	109241343	109242530	+	Tango6	0x0
34124	chr8	109274000	109275131	+	Tango6	0x0
34125	chr8	109305025	109306263	+	Tango6	0x0
34126	chr8	109343920	109345019	+	Tango6	0x0
34127	chr8	109350969	109352135	+	Tango6	0x0
34128	chr8	109374277	109376274	+	Tango6	0x0
34129	chr8	109403753	109404958	+	Has3	0x0
34130	chr8	109407579	109409136	-	Chtf8	0x0
34131	chr8	109409511	109410737	-	Chtf8	0x0
34132	chr8	109412289	109413423	-	Chtf8	0x0
34133	chr8	109413580	109414720	-	Chtf8	0x0
34134	chr8	109421457	109422669	+	Cirh1a	0x0
34135	chr8	109426982	109428184	+	Cirh1a	0x0
34136	chr8	109451109	109452279	-	Chtf8	0x0
34137	chr8	109535124	109536277	+	Sntb2	0x0
34138	chr8	109536506	109537653	+	Sntb2	0x0
34139	chr8	109537975	109539185	+	Sntb2	0x0
34140	chr8	109540026	109541302	+	Sntb2	0x0
34141	chr8	109541342	109543011	+	Sntb2	0x0
34142	chr8	109582134	109584335	+	Nip7	0x0
34143	chr8	109599780	109600939	-	Terf2	0x0
34144	chr8	109608243	109609666	-	Terf2	0x0
34145	chr8	109610613	109611808	-	Terf2	0x0
34146	chr8	109681050	109682208	+	Cyb5b	0x0
34147	chr8	109696275	109697384	+	Cyb5b	0x0
34148	chr8	109697730	109698845	+	Cyb5b	0x0
34149	chr8	109707641	109711787	+	Cyb5b	0x0
34150	chr8	109862478	109863626	+	Nfat5	0x0
34151	chr8	109896148	109897375	+	Nfat5	0x0
34152	chr8	109897413	109898620	+	Nfat5	0x0
34153	chr8	109899090	109903450	+	Nfat5	0x0
34154	chr8	110006716	110007893	+	Wwp2	0x0
34155	chr8	110070263	110071433	+	Wwp2	0x0
34156	chr8	110078746	110079944	+	Wwp2	0x0
34157	chr8	110080435	110082735	+	Wwp2	0x0
34158	chr8	110103791	110105243	-	Psmd7	0x0
34159	chr8	110200022	110201150	-	Psmd7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34160	chr8	110201720	110202914	-	Psmd7	0x0
34161	chr8	110250449	110251638	-	Psmd7	0x0
34162	chr8	111272706	111273840	+	Zfhx3	0x1
34163	chr8	111312590	111313739	-	Gm1943	0x0
34164	chr8	111315596	111317995	+	Zfhx3	0x1
34165	chr8	111337117	111338216	+	Zfhx3	0x1
34166	chr8	111392903	111394095	+	Zfhx3	0x1
34167	chr8	111472152	111473359	+	Zfhx3	0x1
34168	chr8	111774687	111775794	+	Pmfbp1	0x0
34169	chr8	112078300	112079474	-	Dhx38	0x0
34170	chr8	112084666	112085867	-	Dhx38	0x0
34171	chr8	112191867	112192992	-	Ist1	0x0
34172	chr8	112194741	112196814	-	Ist1	0x0
34173	chr8	112251846	112253503	-	Atxn1l	0x0
34174	chr8	112342621	112343775	+	Ap1g1	0x0
34175	chr8	112385441	112388066	+	Ap1g1	0x0
34176	chr8	113029053	113030209	-	Il34	0x0
34177	chr8	113065022	113066120	+	Hydin	0x0
34178	chr8	113224818	113226011	+	Vac14	0x0
34179	chr8	113238809	113239969	+	Vac14	0x0
34180	chr8	113242576	113243700	+	Vac14	0x0
34181	chr8	113261311	113262456	+	Mtss1l	0x0
34182	chr8	113262776	113265146	+	Mtss1l	0x0
34183	chr8	113334136	113335946	-	Sf3b3	0x0
34184	chr8	113344877	113346045	-	Sf3b3	0x0
34185	chr8	113346717	113347896	-	Sf3b3	0x0
34186	chr8	113349426	113350649	-	Sf3b3	0x0
34187	chr8	113354908	113356313	-	Sf3b3	0x0
34188	chr8	113358971	113360056	-	Sf3b3	0x0
34189	chr8	113365730	113366912	-	Sf3b3	0x0
34190	chr8	113406612	113407792	-	Fuk	0x2
34191	chr8	113446542	113447766	+	St3gal2	0x0
34192	chr8	113497960	113499516	-	Ddx19a	0x0
34193	chr8	113498179	113499346	+	St3gal2	0x0
34194	chr8	113508361	113510587	-	Ddx19a	0x0
34195	chr8	113526687	113532269	-	Ddx19b	0x0
34196	chr8	113538985	113540053	-	Ddx19b	0x0
34197	chr8	113557517	113558661	+	Aars	0x0
34198	chr8	113568332	113569438	+	Aars	0x0
34199	chr8	113570381	113572473	+	Aars	0x0
34200	chr8	113578667	113580002	+	Aars	0x0
34201	chr8	113585868	113587106	+	Exosc6	0x0
34202	chr8	113658760	113662866	+	Pdpr	0x0
34203	chr8	113677500	113682161	-	Glg1	0x0
34204	chr8	113704289	113705484	-	Glg1	0x0
34205	chr8	113712037	113713253	-	Glg1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34206	chr8	113782498	113783597	-	Glg1	0x0
34207	chr8	113794818	113796741	-	Rfwd3	0x0
34208	chr8	113799575	113800806	-	Rfwd3	0x0
34209	chr8	113973766	113975320	-	Wdr59	0x0
34210	chr8	113991432	113992625	-	Wdr59	0x0
34211	chr8	114013665	114014894	-	Wdr59	0x0
34212	chr8	114038216	114039400	-	Wdr59	0x0
34213	chr8	114062975	114064151	+	Znrf1	0x0
34214	chr8	114099575	114100774	+	Znrf1	0x0
34215	chr8	114291959	114293154	-	Cfdp1	0x0
34216	chr8	114302588	114303800	-	Cfdp1	0x0
34217	chr8	114346380	114347541	-	Cfdp1	0x0
34218	chr8	114352794	114353953	-	Cfdp1	0x0
34219	chr8	114386596	114388782	-	Tmem170	0x0
34220	chr8	114420537	114421728	-	Chst5	0x0
34221	chr8	114435742	114438321	-	Tmem231	0x0
34222	chr8	114450951	114452097	-	Tmem231	0x0
34223	chr8	114476161	114477977	+	Gabarapl2	0x0
34224	chr8	114503908	114505096	-	Adat1	0x0
34225	chr8	114516948	114518142	-	Kars	0x0
34226	chr8	114518240	114519476	-	Kars	0x0
34227	chr8	114521638	114522743	-	Kars	0x0
34228	chr8	114524838	114526062	-	Kars	0x0
34229	chr8	116167323	116168943	+	Mon1b	0x0
34230	chr8	117011956	117013067	+	Wwox	0x1
34231	chr8	117019981	117021144	+	Wwox	0x1
34232	chr8	117047251	117048400	+	Wwox	0x1
34233	chr8	117079249	117080411	+	Wwox	0x1
34234	chr8	117108533	117109685	+	Wwox	0x1
34235	chr8	117120010	117121183	+	Wwox	0x1
34236	chr8	117167788	117168924	+	Wwox	0x1
34237	chr8	117242265	117244013	+	Wwox	0x1
34238	chr8	117246990	117248157	+	Wwox	0x1
34239	chr8	117255096	117256289	+	Wwox	0x1
34240	chr8	117268111	117269350	+	Wwox	0x1
34241	chr8	117281439	117282566	+	Wwox	0x1
34242	chr8	117298280	117299379	+	Wwox	0x1
34243	chr8	117316580	117317787	+	Wwox	0x1
34244	chr8	117326584	117327720	+	Wwox	0x1
34245	chr8	117355852	117356992	+	Wwox	0x1
34246	chr8	117365586	117366712	+	Wwox	0x1
34247	chr8	117387972	117389139	+	Wwox	0x1
34248	chr8	117398805	117399961	+	Wwox	0x1
34249	chr8	117403706	117404944	+	Wwox	0x1
34250	chr8	117408390	117409691	+	Wwox	0x1
34251	chr8	117414094	117415842	+	Wwox	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34252	chr8	117419761	117421431	+	Wwox	0x1
34253	chr8	117437857	117438983	+	Wwox	0x1
34254	chr8	117445650	117446757	+	Wwox	0x1
34255	chr8	117455160	117456261	+	Wwox	0x1
34256	chr8	117482915	117484057	+	Wwox	0x1
34257	chr8	117484184	117485300	+	Wwox	0x1
34258	chr8	117491597	117492735	+	Wwox	0x1
34259	chr8	117566090	117567288	+	Wwox	0x1
34260	chr8	117570611	117571740	+	Wwox	0x1
34261	chr8	117587062	117588197	+	Wwox	0x1
34262	chr8	117618558	117619723	+	Wwox	0x1
34263	chr8	117622937	117624075	+	Wwox	0x1
34264	chr8	117639617	117640749	+	Wwox	0x1
34265	chr8	117644044	117645195	+	Wwox	0x1
34266	chr8	117661120	117662316	+	Wwox	0x1
34267	chr8	117672034	117673186	+	Wwox	0x1
34268	chr8	117781403	117782580	+	Wwox	0x1
34269	chr8	118495407	118496533	-	Maf	0x1
34270	chr8	119093679	119094878	-	Cdyl2	0x0
34271	chr8	119095256	119097099	-	Cdyl2	0x0
34272	chr8	119106384	119107491	-	Cdyl2	0x0
34273	chr8	119112589	119113798	-	Cdyl2	0x0
34274	chr8	119139377	119140475	-	Cdyl2	0x0
34275	chr8	119147332	119148448	-	Cdyl2	0x0
34276	chr8	119170313	119171434	-	Cdyl2	0x0
34277	chr8	119175514	119176618	-	Cdyl2	0x0
34278	chr8	119237115	119238220	-	Cdyl2	0x0
34279	chr8	119464429	119465592	+	Cenpn	0x0
34280	chr8	119480007	119481090	+	Atmin	0x0
34281	chr8	119481726	119484706	+	Atmin	0x0
34282	chr8	119505404	119506994	-	Gcsh	0x0
34283	chr8	119514590	119515696	-	Gcsh	0x0
34284	chr8	119695327	119696518	+	Gan	0x0
34285	chr8	119733915	119736032	+	Gan	0x0
34286	chr8	119737030	119738153	+	Gan	0x0
34287	chr8	119805821	119806998	+	Cmip	0x0
34288	chr8	119808106	119809257	+	Cmip	0x0
34289	chr8	119820338	119822291	+	Cmip	0x0
34290	chr8	119823791	119824942	+	Cmip	0x0
34291	chr8	119842245	119843394	+	Cmip	0x0
34292	chr8	119851522	119852669	+	Cmip	0x0
34293	chr8	119861295	119862477	+	Cmip	0x0
34294	chr8	119918837	119919959	+	Cmip	0x0
34295	chr8	119960031	119961230	+	Cmip	0x0
34296	chr8	119978222	119979321	+	Cmip	0x0
34297	chr8	119982729	119985026	+	Cmip	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34298	chr8	120101261	120102439	+	Plcg2	0x2
34299	chr8	120113284	120114400	+	Plcg2	0x2
34300	chr8	120153974	120155116	-	Sdr42e1	0x0
34301	chr8	120158402	120159565	+	Plcg2	0x2
34302	chr8	120171967	120173113	-	Sdr42e1	0x0
34303	chr8	120315316	120316416	-	Mphosph6	0x0
34304	chr8	120318577	120319739	-	Mphosph6	0x0
34305	chr8	120892285	120893387	-	Mphosph6	0x0
34306	chr8	121871430	121873321	+	Hsbp1	0x0
34307	chr8	121971187	121972536	+	Necab2	0x0
34308	chr8	121972870	121974006	+	Necab2	0x0
34309	chr8	122031601	122033153	-	Mbtps1	0x0
34310	chr8	122041492	122042691	-	Mbtps1	0x0
34311	chr8	122044382	122045486	-	Mbtps1	0x0
34312	chr8	122058935	122060109	-	Mbtps1	0x0
34313	chr8	122062170	122063357	-	Mbtps1	0x0
34314	chr8	122066198	122067345	-	Mbtps1	0x0
34315	chr8	122070252	122072279	-	Mbtps1	0x0
34316	chr8	122072989	122074042	-	Mbtps1	0x0
34317	chr8	122085952	122087819	-	Hsdl1	0x0
34318	chr8	122107855	122109121	-	Hsdl1	0x0
34319	chr8	122123466	122124583	-	Taf1c	0x0
34320	chr8	122332608	122334215	-	Cotl1	0x0
34321	chr8	122443622	122444773	+	Usp10	0x0
34322	chr8	122447134	122448308	+	Usp10	0x0
34323	chr8	122461976	122463042	+	Usp10	0x0
34324	chr8	122464946	122466265	+	Usp10	0x0
34325	chr8	122474685	122476759	+	Usp10	0x0
34326	chr8	122480069	122481893	+	Usp10	0x0
34327	chr8	122586899	122588060	+	Crispld2	0x0
34328	chr8	122604533	122606450	-	Zdhhc7	0x0
34329	chr8	122882441	122883582	+	Gse1	0x0
34330	chr8	122913009	122914108	+	Gse1	0x0
34331	chr8	122945231	122946429	-	Gins2	0x0
34332	chr8	123006493	123007657	+	Gse1	0x0
34333	chr8	123089670	123090863	+	Gse1	0x0
34334	chr8	123091200	123092701	+	Gse1	0x0
34335	chr8	123102062	123105280	+	Gse1	0x0
34336	chr8	123104965	123106097	-	Gins2	0x0
34337	chr8	123132219	123133470	-	1190005I06Rik	0x0
34338	chr8	123140929	123142146	-	1190005I06Rik	0x0
34339	chr8	123153771	123154977	-	1190005I06Rik	0x0
34340	chr8	123179920	123180984	-	Emc8	0x0
34341	chr8	123181294	123182668	-	Emc8	0x0
34342	chr8	123191112	123192300	-	Emc8	0x0
34343	chr8	123191675	123192827	+	Cox4i1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34344	chr8	123196061	123197295	+	Cox4i1	0x0
34345	chr8	123197372	123198579	+	Cox4i1	0x0
34346	chr8	123625392	123626493	-	Mthfsd	0x0
34347	chr8	123896966	123898145	-	1700018B08Rik	0x0
34348	chr8	124072818	124074751	-	Fbxo31	0x1
34349	chr8	124087157	124088379	-	Fbxo31	0x1
34350	chr8	124120583	124122487	+	Map1lc3b	0x0
34351	chr8	124123987	124126801	-	Zcchc14	0x0
34352	chr8	124133491	124134664	-	Zcchc14	0x0
34353	chr8	124320334	124321479	-	Klhdc4	0x0
34354	chr8	124323685	124324818	-	Klhdc4	0x0
34355	chr8	124325028	124327176	-	Klhdc4	0x0
34356	chr8	124363555	124364664	+	Jph3	0x0
34357	chr8	124396659	124397798	-	Slc7a5	0x0
34358	chr8	124404630	124407325	-	Slc7a5	0x0
34359	chr8	124427521	124429368	-	Slc7a5	0x0
34360	chr8	124430775	124432147	-	Slc7a5	0x0
34361	chr8	124477187	124478308	+	Banp	0x1
34362	chr8	124497798	124499035	+	Banp	0x1
34363	chr8	124505444	124506584	-	Car5a	0x0
34364	chr8	124551346	124552469	+	Banp	0x1
34365	chr8	124834300	124835432	-	Trhr2	0x0
34366	chr8	124859136	124860319	+	Zfpm1	0x0
34367	chr8	124931553	124932785	+	Zc3h18	0x0
34368	chr8	124940006	124941779	+	Zc3h18	0x0
34369	chr8	124957332	124958523	-	Mvd	0x0
34370	chr8	124967876	124969082	+	9330133O14Rik	0x0
34371	chr8	124990009	124991916	-	Rnf166	0x0
34372	chr8	125000288	125001482	+	Ctu2	0x0
34373	chr8	125005077	125006263	-	Piezo1	0x0
34374	chr8	125008153	125009357	-	Piezo1	0x0
34375	chr8	125009899	125011055	-	Piezo1	0x0
34376	chr8	125019963	125021165	-	Piezo1	0x0
34377	chr8	125021552	125022646	-	Piezo1	0x0
34378	chr8	125023046	125024141	-	Piezo1	0x0
34379	chr8	125025685	125026701	-	Piezo1	0x0
34380	chr8	125031895	125033042	-	Piezo1	0x0
34381	chr8	125038980	125040185	-	Piezo1	0x0
34382	chr8	125048326	125049515	-	Piezo1	0x0
34383	chr8	125093386	125094532	+	Cdt1	0x0
34384	chr8	125094620	125097533	+	Cdt1	0x0
34385	chr8	125098029	125099635	-	Aprt	0x0
34386	chr8	125101758	125102985	-	Galns	0x2
34387	chr8	125112634	125113829	-	Galns	0x2
34388	chr8	125313721	125314954	+	Acsf3	0x0
34389	chr8	125401997	125403195	+	Cdh15	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34390	chr8	125407011	125408501	-	Ankrd11	0x0
34391	chr8	125410914	125412109	-	Ankrd11	0x0
34392	chr8	125414467	125416698	-	Ankrd11	0x0
34393	chr8	125417635	125418929	-	Ankrd11	0x0
34394	chr8	125420446	125422974	-	Ankrd11	0x0
34395	chr8	125432010	125433130	-	Ankrd11	0x0
34396	chr8	125465368	125466557	-	Ankrd11	0x0
34397	chr8	125501794	125502900	-	Ankrd11	0x0
34398	chr8	125529342	125531580	-	Ankrd11	0x0
34399	chr8	125548847	125549980	-	Ankrd11	0x0
34400	chr8	125554890	125556109	-	Ankrd11	0x0
34401	chr8	125563923	125565417	-	Ankrd11	0x0
34402	chr8	125566949	125568048	+	2810013P06Rik	0x0
34403	chr8	125580271	125581315	+	Spg7	0x0
34404	chr8	125607194	125608326	+	Spg7	0x0
34405	chr8	125628576	125629622	+	Rpl13	0x0
34406	chr8	125727673	125730036	-	Chmp1a	0x0
34407	chr8	125731404	125732538	-	Chmp1a	0x0
34408	chr8	125755494	125756713	+	Cdk10	0x0
34409	chr8	125758298	125759471	+	4933417D19Rik	0x0
34410	chr8	125767056	125768240	-	Vps9d1	0x0
34411	chr8	125790001	125792093	-	Fanca	0x2
34412	chr8	125794560	125795785	-	Fanca	0x2
34413	chr8	125798459	125799669	-	Fanca	0x2
34414	chr8	125807327	125808491	-	Fanca	0x2
34415	chr8	125813343	125814518	-	Fanca	0x2
34416	chr8	125829145	125830305	-	Fanca	0x2
34417	chr8	125865541	125866718	+	Spire2	0x0
34418	chr8	125887673	125888851	+	Spire2	0x0
34419	chr8	125898278	125899707	+	Tcf25	0x0
34420	chr8	125904832	125905935	+	Tcf25	0x0
34421	chr8	125914915	125916122	+	Tcf25	0x0
34422	chr8	125916515	125917683	+	Tcf25	0x0
34423	chr8	125925647	125926772	+	Tcf25	0x0
34424	chr8	125926795	125928062	+	Tcf25	0x0
34425	chr8	125971223	125972327	+	Def8	0x0
34426	chr8	125985027	125987499	+	Def8	0x0
34427	chr8	126007494	126008632	+	Afg3l1	0x0
34428	chr8	126025264	126028211	+	Afg3l1	0x0
34429	chr8	126030586	126031779	+	Afg3l1	0x0
34430	chr8	126032181	126034317	+	Afg3l1	0x0
34431	chr8	126051290	126052481	+	Gas8	0x0
34432	chr8	126107947	126109046	-	Dbndd1	0x0
34433	chr8	126185092	126186180	+	Rhou	0x0
34434	chr8	126186517	126188163	+	Rhou	0x0
34435	chr8	126358263	126359590	+	Rab4a	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34436	chr8	126364788	126366081	-	Ccsap	0x0
34437	chr8	126452656	126453840	-	Nup133	0x2
34438	chr8	126475911	126477843	-	Abcb10	0x0
34439	chr8	126485528	126486670	-	Abcb10	0x0
34440	chr8	126498695	126499882	-	Abcb10	0x0
34441	chr8	126506071	126507258	-	Abcb10	0x0
34442	chr8	126520120	126521466	-	Taf5l	0x0
34443	chr8	126532480	126533705	-	Taf5l	0x0
34444	chr8	126547146	126548285	+	Urb2	0x0
34445	chr8	126553320	126554514	+	Urb2	0x0
34446	chr8	126570889	126572529	+	Urb2	0x0
34447	chr8	126757215	126758426	+	Galnt2	0x0
34448	chr8	126760519	126761656	+	Galnt2	0x0
34449	chr8	126781052	126782226	+	Galnt2	0x0
34450	chr8	126786900	126788089	+	Galnt2	0x0
34451	chr8	126827596	126828778	+	Galnt2	0x0
34452	chr8	126867228	126869997	+	Galnt2	0x0
34453	chr8	126893022	126894256	-	Pgbd5	0x0
34454	chr8	126927310	126928437	-	Pgbd5	0x0
34455	chr8	126946107	126947344	-	Pgbd5	0x0
34456	chr8	127073563	127074729	+	Cog2	0x0
34457	chr8	127159291	127162023	-	2310022B05Rik	0x0
34458	chr8	127205663	127206967	-	Ttc13	0x0
34459	chr8	127225475	127226701	-	Ttc13	0x0
34460	chr8	127232124	127233252	-	Ttc13	0x0
34461	chr8	127251767	127252910	+	Arv1	0x0
34462	chr8	127256597	127258463	+	Arv1	0x0
34463	chr8	127320492	127321666	+	Trim67	0x0
34464	chr8	127360510	127362615	-	2810004N23Rik	0x0
34465	chr8	127406734	127407966	+	Gnpat	0x0
34466	chr8	127412791	127414405	+	Gnpat	0x0
34467	chr8	127416804	127418264	-	Exoc8	0x2
34468	chr8	127428252	127430121	+	Sprtn	0x0
34469	chr8	127432268	127440500	-	Egln1	0x1
34470	chr8	127453808	127455004	-	Egln1	0x1
34471	chr8	127460929	127462127	-	Egln1	0x1
34472	chr8	127541603	127542778	+	Tsnax	0x0
34473	chr8	127556347	127558563	+	Tsnax	0x0
34474	chr8	127787590	127788695	+	Disc1	0x0
34475	chr8	127941990	127943419	-	Sipa1l2	0x0
34476	chr8	127968540	127969639	-	Sipa1l2	0x0
34477	chr8	128015912	128017165	-	Sipa1l2	0x0
34478	chr8	128087721	128088957	-	Sipa1l2	0x0
34479	chr8	128541108	128542259	+	Kcnk1	0x0
34480	chr8	128553748	128555037	+	Kcnk1	0x0
34481	chr8	128869656	128870920	+	Slc35f3	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34482	chr8	128949183	128951190	-	Gm17296	0x0
34483	chr8	128951399	128952543	-	Gm17296	0x0
34484	chr8	128962190	128963388	-	Gm17296	0x0
34485	chr8	128977136	128978312	-	Gm17296	0x0
34486	chr8	128979178	128980382	-	Gm17296	0x0
34487	chr8	128998062	128999281	-	Gm17296	0x0
34488	chr8	129112187	129114826	-	Irf2bp2	0x0
34489	chr8	129116302	129117391	-	Irf2bp2	0x0
34490	chr8	129454612	129458940	-	Tomm20	0x0
34491	chr8	129469144	129470167	-	Tomm20	0x0
34492	chr8	129471393	129472668	-	Rbm34	0x0
34493	chr8	129488808	129489987	-	Rbm34	0x0
34494	chr8	129653636	129654781	+	Pard3	0x0
34495	chr8	129719903	129721054	+	Pard3	0x0
34496	chr8	129857947	129859052	+	Pard3	0x0
34497	chr8	129924976	129926170	+	Pard3	0x0
34498	chr8	129944193	129945349	+	Pard3	0x0
34499	chr8	130016540	130017693	+	Pard3	0x0
34500	chr8	130020736	130021926	+	Pard3	0x0
34501	chr8	130821379	130822519	-	Ccdc7	0x0
34502	chr8	131230299	131231481	+	Itgb1	0x1
34503	chr8	131245836	131247026	+	Itgb1	0x1
34504	chr8	131249539	131250637	+	Itgb1	0x1
34505	chr8	131255613	131257419	+	Itgb1	0x1
34506	chr8	131278933	131280107	+	Itgb1	0x1
34507	chr9	3186273	3187438	-	4930433N12Rik	0x0
34508	chr9	3385845	3387095	+	Alkbh8	0x0
34509	chr9	3387744	3388843	+	Alkbh8	0x0
34510	chr9	3388931	3390302	+	Alkbh8	0x0
34511	chr9	3431210	3432398	+	Cwf19l2	0x0
34512	chr9	3477724	3478936	+	Cwf19l2	0x0
34513	chr9	3492587	3493764	+	Cwf19l2	0x0
34514	chr9	4301991	4303187	-	Aasdhppt	0x0
34515	chr9	4308697	4309906	-	Aasdhppt	0x0
34516	chr9	4384383	4386902	+	Msantd4	0x0
34517	chr9	5063044	5064766	+	Casp1	0x0
34518	chr9	6815987	6817109	+	Dcun1d5	0x0
34519	chr9	6967813	6969040	-	Dync2h1	0x2
34520	chr9	7213963	7215150	+	Dcun1d5	0x0
34521	chr9	7425637	7426844	-	Mmp1b	0x0
34522	chr9	7723733	7725116	+	Mmp7	0x0
34523	chr9	7799394	7800584	-	Birc2	0x2
34524	chr9	7803980	7805155	-	Birc2	0x2
34525	chr9	7817911	7819082	-	Birc2	0x2
34526	chr9	7931598	7934952	-	Yap1	0x1
34527	chr9	8003213	8004388	-	Yap1	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34528	chr9	8076540	8077762	-	AK129341	0x0
34529	chr9	8993775	8995869	-	Arhgap42	0x0
34530	chr9	9023667	9024874	-	Arhgap42	0x0
34531	chr9	11820640	11821806	+	Phxr4	0x0
34532	chr9	11822083	11823364	+	Phxr4	0x0
34533	chr9	12274075	12275276	+	Phxr4	0x0
34534	chr9	13553088	13554254	+	Mtmr2	0x0
34535	chr9	13575247	13576479	+	Mtmr2	0x0
34536	chr9	13609538	13611458	+	Mtmr2	0x0
34537	chr9	13611866	13613589	-	Cep57	0x0
34538	chr9	14102516	14103673	+	Sesn3	0x0
34539	chr9	14131287	14133424	+	Sesn3	0x0
34540	chr9	14134441	14135498	+	Sesn3	0x0
34541	chr9	14136310	14137773	+	Sesn3	0x0
34542	chr9	14345960	14349392	-	Amotl1	0x0
34543	chr9	14350128	14352278	-	Amotl1	0x0
34544	chr9	14354397	14355544	-	Amotl1	0x0
34545	chr9	14583866	14585435	-	Ankrd49	0x0
34546	chr9	14594603	14595754	+	Mre11a	0x2
34547	chr9	14600935	14602148	+	Mre11a	0x2
34548	chr9	14637659	14639254	+	Mre11a	0x2
34549	chr9	14811788	14812949	-	Panx1	0x0
34550	chr9	14998978	15000145	-	Med17	0x0
34551	chr9	15065826	15067078	-	Med17	0x0
34552	chr9	15087448	15089010	-	4931406C07Rik	0x0
34553	chr9	15118824	15119945	+	Taf1d	0x0
34554	chr9	15124299	15126319	-	5830418K08Rik	0x0
34555	chr9	15130146	15131428	-	5830418K08Rik	0x0
34556	chr9	15130146	15131428	-	Scarna9	0x0
34557	chr9	15305984	15307198	+	BC017612	0x0
34558	chr9	15543130	15544276	+	Slc36a4	0x0
34559	chr9	15544942	15546069	+	Slc36a4	0x0
34560	chr9	15793534	15794687	-	Fat3	0x2
34561	chr9	16834933	16836170	+	Chordc1	0x0
34562	chr9	17122868	17124005	+	Chordc1	0x0
34563	chr9	17537308	17538913	+	Chordc1	0x0
34564	chr9	17791648	17792878	+	Chordc1	0x0
34565	chr9	18110645	18111803	+	Chordc1	0x0
34566	chr9	18117309	18118984	+	Chordc1	0x0
34567	chr9	18120334	18121433	+	Chordc1	0x0
34568	chr9	19013375	19015489	+	Olfr837	0x0
34569	chr9	19407014	19408238	-	Olfr854	0x0
34570	chr9	19452553	19454566	+	Zfp317	0x0
34571	chr9	19456959	19458062	+	Zfp317	0x0
34572	chr9	20233610	20234814	-	Zfp26	0x0
34573	chr9	20237803	20239134	-	Zfp26	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34574	chr9	20290288	20291421	-	Zfp426	0x0
34575	chr9	20299205	20301535	-	Zfp266	0x0
34576	chr9	20309833	20311025	-	Zfp266	0x0
34577	chr9	20398986	20400091	+	Zfp846	0x2
34578	chr9	20441758	20443204	-	Fbxl12	0x0
34579	chr9	20450570	20451712	+	Ubl5	0x0
34580	chr9	20465444	20466669	+	Pin1	0x0
34581	chr9	20467485	20469911	+	Pin1	0x0
34582	chr9	20515599	20516785	-	Olfm2	0x0
34583	chr9	20575373	20576554	-	Col5a3	0x0
34584	chr9	20613919	20615123	-	Col5a3	0x0
34585	chr9	20695340	20696448	+	Ppan	0x0
34586	chr9	20699099	20700271	-	Eif3g	0x0
34587	chr9	20717822	20719010	-	Dnmt1	0x4
34588	chr9	20721789	20722942	-	Dnmt1	0x4
34589	chr9	20725958	20727081	-	Dnmt1	0x4
34590	chr9	20727985	20729105	-	Dnmt1	0x4
34591	chr9	20730603	20731753	-	Dnmt1	0x4
34592	chr9	20770087	20772319	-	S1pr2	0x2
34593	chr9	20820223	20821374	+	Icam1	0x0
34594	chr9	20832032	20833445	+	Icam1	0x0
34595	chr9	20878200	20880351	-	Raver1	0x0
34596	chr9	20878200	20880351	-	Raver1-fdx1l	0x0
34597	chr9	20908571	20909839	-	Tyk2	0x0
34598	chr9	20911852	20913029	-	Tyk2	0x0
34599	chr9	20943344	20944713	-	Cdc37	0x0
34600	chr9	21015825	21017018	+	Pde4a	0x0
34601	chr9	21077400	21078620	+	Atg4d	0x0
34602	chr9	21081672	21083556	-	Kri1	0x0
34603	chr9	21118382	21119545	+	Slc44a2	0x0
34604	chr9	21158133	21159285	+	Slc44a2	0x0
34605	chr9	21192427	21193696	+	Ilf3	0x0
34606	chr9	21197619	21198804	+	Ilf3	0x0
34607	chr9	21203658	21204868	+	Ilf3	0x0
34608	chr9	21205015	21206625	+	Ilf3	0x0
34609	chr9	21208982	21210178	+	Ilf3	0x0
34610	chr9	21281089	21282269	+	Dnm2	0x2
34611	chr9	21310668	21311911	+	Dnm2	0x2
34612	chr9	21354249	21355461	+	Carm1	0x0
34613	chr9	21373911	21375157	+	Carm1	0x0
34614	chr9	21392759	21394059	+	Carm1	0x0
34615	chr9	21393352	21394512	-	Yipf2	0x0
34616	chr9	21395458	21396594	+	1810026J23Rik	0x0
34617	chr9	21490079	21491279	+	Smarca4	0x1
34618	chr9	21507066	21509118	+	Smarca4	0x1
34619	chr9	21535523	21536742	+	Ldlr	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34620	chr9	21539967	21541120	+	Ldlr	0x0
34621	chr9	21541570	21542679	+	Ldlr	0x0
34622	chr9	21546115	21547247	+	Ldlr	0x0
34623	chr9	21553021	21554846	+	Ldlr	0x0
34624	chr9	21559735	21561005	-	Spc24	0x0
34625	chr9	21570835	21573426	-	Kank2	0x0
34626	chr9	21599119	21600316	-	Kank2	0x0
34627	chr9	21604113	21605289	-	Dock6	0x0
34628	chr9	21606304	21608035	-	Dock6	0x0
34629	chr9	21624188	21625427	-	Dock6	0x0
34630	chr9	21713131	21714633	-	Rab3d	0x0
34631	chr9	21817902	21819239	+	Prkcsh	0x0
34632	chr9	21819352	21822573	-	Elavl3	0x0
34633	chr9	21859972	21861472	-	Zfp653	0x0
34634	chr9	21869300	21870480	-	Zfp653	0x0
34635	chr9	21876878	21878062	-	Ecsit	0x0
34636	chr9	21917084	21918444	-	Elof1	0x0
34637	chr9	22044219	22045322	+	Zfp809	0x0
34638	chr9	22046946	22048239	+	Zfp809	0x0
34639	chr9	22051425	22052603	-	Zfp599	0x0
34640	chr9	22136089	22137740	-	Anln	0x0
34641	chr9	22173163	22174310	-	Anln	0x0
34642	chr9	22184174	22185336	-	Anln	0x0
34643	chr9	22186119	22187285	-	Anln	0x0
34644	chr9	22187953	22189146	-	Anln	0x0
34645	chr9	22192898	22194045	-	Anln	0x0
34646	chr9	22307976	22309144	+	Bbs9	0x0
34647	chr9	22386099	22387211	+	Bbs9	0x0
34648	chr9	22482829	22483996	+	Bbs9	0x0
34649	chr9	22495125	22496355	+	Bbs9	0x0
34650	chr9	24215765	24218995	-	Dpy19l1	0x0
34651	chr9	24279195	24280392	-	Dpy19l1	0x0
34652	chr9	24285874	24287075	-	Dpy19l1	0x0
34653	chr9	24288922	24290138	-	Dpy19l1	0x0
34654	chr9	24905044	24906290	-	Herpud2	0x0
34655	chr9	25114959	25116509	+	Sept7	0x0
34656	chr9	25301680	25302914	+	Eepd1	0x0
34657	chr9	26570239	26571432	-	Glb1l2	0x0
34658	chr9	26768700	26769934	-	Acad8	0x0
34659	chr9	26815065	26817691	-	Vps26b	0x0
34660	chr9	26892744	26893937	+	Ncapd3	0x0
34661	chr9	26904479	26905591	-	Jam3	0x0
34662	chr9	27118616	27119781	+	Igsf9b	0x0
34663	chr9	27126539	27127713	+	Igsf9b	0x0
34664	chr9	27129239	27130462	+	Igsf9b	0x0
34665	chr9	27133149	27134248	+	Igsf9b	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34666	chr9	27144976	27146163	+	Igsf9b	0x0
34667	chr9	27155286	27156432	+	AI414108	0x0
34668	chr9	27157658	27159081	+	AI414108	0x0
34669	chr9	27160185	27161730	+	AI414108	0x0
34670	chr9	27161833	27164200	+	AI414108	0x0
34671	chr9	30265651	30266825	+	Snx19	0x0
34672	chr9	30706251	30707423	-	Adamts15	0x0
34673	chr9	30853308	30854407	+	Zbtb44	0x0
34674	chr9	30860519	30862344	+	Zbtb44	0x0
34675	chr9	30873891	30874990	+	Zbtb44	0x0
34676	chr9	30876273	30879014	+	Zbtb44	0x0
34677	chr9	30879046	30883936	+	Zbtb44	0x0
34678	chr9	30896633	30897949	-	St14	0x0
34679	chr9	30937703	30938927	-	St14	0x0
34680	chr9	30956367	30958973	-	Aplp2	0x0
34681	chr9	30977481	30978654	-	Aplp2	0x0
34682	chr9	31187627	31188774	+	Prdm10	0x0
34683	chr9	31207651	31208792	+	Nfrkb	0x0
34684	chr9	31227788	31229017	+	Nfrkb	0x0
34685	chr9	31742557	31743692	-	Barx2	0x0
34686	chr9	31849718	31850915	+	Arhgap32	0x0
34687	chr9	31921373	31922526	+	Arhgap32	0x0
34688	chr9	31940307	31941503	-	Kcnj5	0x0
34689	chr9	31993404	31994564	+	Arhgap32	0x0
34690	chr9	32057645	32058746	+	Arhgap32	0x0
34691	chr9	32066670	32068193	+	Arhgap32	0x0
34692	chr9	32069392	32072155	+	Arhgap32	0x0
34693	chr9	32503289	32504440	+	Ets1	0x1
34694	chr9	32770433	32771613	+	Ets1	0x1
34695	chr9	33537142	33538296	+	7630403G23Rik	0x0
34696	chr9	34853934	34855154	-	St3gal4	0x0
34697	chr9	34861149	34862348	-	St3gal4	0x0
34698	chr9	34989812	34990911	-	Tirap	0x0
34699	chr9	35011272	35012395	-	Foxred1	0x0
34700	chr9	35013252	35014431	-	Foxred1	0x0
34701	chr9	35019377	35020589	+	Srpr	0x0
34702	chr9	35023544	35024955	+	Srpr	0x0
34703	chr9	35075458	35076692	+	Rpusd4	0x0
34704	chr9	35077848	35078974	+	Rpusd4	0x0
34705	chr9	35312095	35314259	+	Cdon	0x0
34706	chr9	35314314	35315418	+	Cdon	0x0
34707	chr9	35321206	35322338	+	Cdon	0x0
34708	chr9	35373972	35375126	+	Pus3	0x0
34709	chr9	35858409	35859604	+	Gm17677	0x0
34710	chr9	36510623	36511725	-	Chek1	0x1
34711	chr9	36525364	36526513	-	Chek1	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34712	chr9	36532291	36533460	-	Chek1	0x1
34713	chr9	36534193	36535390	-	Chek1	0x1
34714	chr9	36536614	36537840	-	Stt3a	0x0
34715	chr9	36537842	36541097	-	Stt3a	0x0
34716	chr9	36541419	36543706	-	Stt3a	0x0
34717	chr9	36550510	36551700	-	Stt3a	0x0
34718	chr9	36553594	36554761	-	Stt3a	0x0
34719	chr9	36555072	36556140	-	Stt3a	0x0
34720	chr9	36558203	36559439	-	Stt3a	0x0
34721	chr9	36561835	36563070	-	Stt3a	0x0
34722	chr9	36566293	36567454	-	Stt3a	0x0
34723	chr9	36570144	36571289	-	Stt3a	0x0
34724	chr9	36586285	36587967	-	Ei24	0x1
34725	chr9	36620588	36621802	-	Ei24	0x1
34726	chr9	37037704	37039234	-	Slc37a2	0x0
34727	chr9	37057102	37058310	-	Slc37a2	0x0
34728	chr9	37078470	37079621	-	Ccdc15	0x0
34729	chr9	37128154	37129319	-	Ccdc15	0x0
34730	chr9	37134029	37135195	-	Ccdc15	0x0
34731	chr9	37220615	37221821	+	Robo4	0x0
34732	chr9	37299816	37301016	+	Msantd2	0x0
34733	chr9	37311901	37313039	+	Msantd2	0x0
34734	chr9	37330238	37331541	+	Msantd2	0x0
34735	chr9	37448874	37450042	+	Siae	0x0
34736	chr9	37453674	37454952	+	Siae	0x0
34737	chr9	37460035	37461259	-	Tbrg1	0x1
34738	chr9	37464057	37465373	-	Tbrg1	0x1
34739	chr9	38447002	38449071	+	Olfr914	0x0
34740	chr9	39954685	39955865	-	Olfr985	0x0
34741	chr9	39975837	39977027	-	Olfr985	0x0
34742	chr9	39989318	39990456	-	Olfr985	0x0
34743	chr9	39998646	39999945	-	Olfr985	0x0
34744	chr9	40003331	40004508	-	Olfr985	0x0
34745	chr9	40011989	40013190	-	Olfr985	0x0
34746	chr9	40014162	40015818	-	Olfr985	0x0
34747	chr9	40038134	40039338	-	Gramd1b	0x0
34748	chr9	40043757	40044937	-	Gramd1b	0x0
34749	chr9	40100958	40103497	-	Gramd1b	0x0
34750	chr9	40651869	40652968	+	Bsx	0x0
34751	chr9	40886596	40887749	-	Ubash3b	0x0
34752	chr9	41357676	41358785	+	Mirlet7a-2	0x1
34753	chr9	41772861	41776801	-	Sorl1	0x2
34754	chr9	41796260	41797447	-	Sorl1	0x2
34755	chr9	41839374	41840553	-	Sorl1	0x2
34756	chr9	41851464	41852665	-	Sorl1	0x2
34757	chr9	42061400	42062448	-	Sc5d	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34758	chr9	42220174	42223440	-	Tbcel	0x0
34759	chr9	42269644	42270829	-	Tbcel	0x0
34760	chr9	42615465	42616637	-	Grik4	0x0
34761	chr9	42722008	42723222	-	Grik4	0x0
34762	chr9	42724678	42725903	-	Grik4	0x0
34763	chr9	42771715	42772876	-	Arhgef12	0x1
34764	chr9	42772952	42774376	-	Arhgef12	0x1
34765	chr9	42782112	42783317	-	Arhgef12	0x1
34766	chr9	42874904	42876077	-	Arhgef12	0x1
34767	chr9	43549786	43550920	+	Pvrl1	0x0
34768	chr9	43612669	43616004	+	Pvrl1	0x0
34769	chr9	43853152	43854207	+	Thy1	0x1
34770	chr9	43855062	43857006	+	Thy1	0x1
34771	chr9	43883440	43884587	+	Usp2	0x0
34772	chr9	43885793	43887020	+	Usp2	0x0
34773	chr9	43902813	43903912	+	Usp2	0x0
34774	chr9	43918479	43919799	-	Rnf26	0x0
34775	chr9	43949739	43950994	+	Mcam	0x0
34776	chr9	43950739	43960500	-	Cbl	0x2
34777	chr9	43970900	43971980	-	Cbl	0x2
34778	chr9	44100478	44102238	-	Hinfp	0x2
34779	chr9	44142957	44144667	+	H2afx	0x0
34780	chr9	44145481	44146707	-	Hmbs	0x0
34781	chr9	44188818	44190029	+	Hyou1	0x0
34782	chr9	44198826	44200954	+	Hyou1	0x0
34783	chr9	44211350	44212539	-	Trappc4	0x0
34784	chr9	44216305	44218495	+	Rps25	0x0
34785	chr9	44318463	44319687	+	Bcl9l	0x0
34786	chr9	44444291	44445358	+	Ddx6	0x0
34787	chr9	44445363	44446788	+	Ddx6	0x0
34788	chr9	44447400	44448668	+	Ddx6	0x0
34789	chr9	44549679	44552201	-	Arcn1	0x0
34790	chr9	44611578	44612745	-	Mll1	0x0
34791	chr9	44613535	44615448	-	Mll1	0x0
34792	chr9	44628518	44630160	-	Mll1	0x0
34793	chr9	44731219	44733442	-	Ube4a	0x0
34794	chr9	44860319	44862493	+	Mpzl2	0x0
34795	chr9	45202731	45204740	+	Fxyd6	0x0
34796	chr9	45291102	45292201	+	Dscaml1	0x2
34797	chr9	45574939	45576367	-	Cep164	0x0
34798	chr9	45665066	45669635	-	Rnf214	0x0
34799	chr9	45671120	45672411	-	Rnf214	0x0
34800	chr9	45739182	45740348	-	Tagln	0x0
34801	chr9	45745820	45747415	-	Sidt2	0x0
34802	chr9	45773391	45776788	-	Pafah1b2	0x2
34803	chr9	45784095	45785281	-	Pafah1b2	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34804	chr9	45916204	45917318	+	Sik3	0x2
34805	chr9	45989624	45990822	+	Sik3	0x2
34806	chr9	46009755	46011090	+	Sik3	0x2
34807	chr9	46030762	46032796	+	Sik3	0x2
34808	chr9	46083384	46084483	+	Zfp259	0x0
34809	chr9	46088838	46090130	+	Zfp259	0x0
34810	chr9	47354567	47355673	+	Cadm1	0x1
34811	chr9	47373436	47374633	+	Cadm1	0x1
34812	chr9	47450458	47451632	+	Cadm1	0x1
34813	chr9	47464294	47465422	+	Cadm1	0x1
34814	chr9	47475917	47477118	+	Cadm1	0x1
34815	chr9	47505849	47507460	+	Cadm1	0x1
34816	chr9	47524504	47525701	+	Cadm1	0x1
34817	chr9	47607351	47608501	+	Cadm1	0x1
34818	chr9	47658717	47661009	+	Cadm1	0x1
34819	chr9	48007189	48008389	+	Nxpe4	0x0
34820	chr9	48059704	48060903	+	Nxpe4	0x0
34821	chr9	48258987	48260135	+	Gm8884	0x0
34822	chr9	48276271	48277452	-	Rexo2	0x0
34823	chr9	48296401	48298107	-	Rbm7	0x0
34824	chr9	48843311	48844411	+	Usp28	0x2
34825	chr9	48849143	48851075	+	Usp28	0x2
34826	chr9	49309797	49311612	-	Ncam1	0x0
34827	chr9	49311786	49313141	-	Ncam1	0x0
34828	chr9	49336820	49338620	-	Ncam1	0x0
34829	chr9	49457135	49458319	-	Ncam1	0x0
34830	chr9	49522891	49524004	-	Ncam1	0x0
34831	chr9	49581395	49582561	-	Ncam1	0x0
34832	chr9	50312329	50313467	+	1600029D21Rik	0x0
34833	chr9	50404269	50405634	-	Sdhd	0x5
34834	chr9	50413807	50416175	-	AU019823	0x0
34835	chr9	50434588	50435819	-	Dlat	0x0
34836	chr9	50443733	50444836	-	Dlat	0x0
34837	chr9	50461179	50462369	-	Dlat	0x0
34838	chr9	50616227	50617457	+	Alg9	0x0
34839	chr9	50650562	50652105	+	Alg9	0x0
34840	chr9	50652832	50654004	+	Alg9	0x0
34841	chr9	50687867	50689763	+	Ppp2r1b	0x1
34842	chr9	50701314	50703843	-	Sik2	0x0
34843	chr9	50782257	50783440	-	Sik2	0x0
34844	chr9	50883981	50885187	-	Layn	0x0
34845	chr9	51764679	51765885	-	Fdx1	0x0
34846	chr9	51862862	51863966	+	Rdx	0x0
34847	chr9	51894446	51896942	+	Rdx	0x0
34848	chr9	52906275	52907534	-	Ddx10	0x0
34849	chr9	53200102	53201294	+	Kdelc2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34850	chr9	53208251	53209385	+	Kdelc2	0x0
34851	chr9	53245569	53248233	-	Atm	0x1
34852	chr9	53326069	53327286	-	Atm	0x1
34853	chr9	53349302	53350479	+	Npat	0x0
34854	chr9	53370886	53372001	+	Npat	0x0
34855	chr9	53380376	53382580	+	Npat	0x0
34856	chr9	53422496	53425943	-	Cul5	0x1
34857	chr9	53441536	53442739	-	Cul5	0x1
34858	chr9	53453770	53454967	-	Cul5	0x1
34859	chr9	53472822	53473961	-	Cul5	0x1
34860	chr9	53507395	53508599	+	Slc35f2	0x0
34861	chr9	53664377	53666437	+	Slc35f2	0x0
34862	chr9	54248390	54249667	-	Dmxl2	0x0
34863	chr9	54450821	54452421	+	Idh3a	0x0
34864	chr9	54537722	54538868	-	Wdr61	0x0
34865	chr9	54564618	54565794	-	Wdr61	0x0
34866	chr9	54691346	54692514	-	AY074887	0x0
34867	chr9	54728671	54729875	+	Ireb2	0x0
34868	chr9	54731215	54732412	+	Ireb2	0x0
34869	chr9	54757762	54760752	+	Ireb2	0x0
34870	chr9	54799022	54800232	+	Psma4	0x0
34871	chr9	54804084	54805221	+	Psma4	0x0
34872	chr9	55054109	55055276	+	Ube2q2	0x0
34873	chr9	55056647	55057877	+	Fbxo22	0x0
34874	chr9	55060428	55061577	+	Fbxo22	0x0
34875	chr9	55068365	55069465	+	Fbxo22	0x0
34876	chr9	55069317	55070513	-	Nrg4	0x0
34877	chr9	55071016	55072205	+	Fbxo22	0x0
34878	chr9	55336099	55337290	-	Etfa	0x0
34879	chr9	55905726	55906991	+	Rcn2	0x1
34880	chr9	55974397	55975551	+	Pstpip1	0x0
34881	chr9	55983231	55984839	-	Tspan3	0x0
34882	chr9	55994660	55995863	-	Tspan3	0x0
34883	chr9	56049704	56050846	-	C230081A13Rik	0x0
34884	chr9	56052912	56054224	-	C230081A13Rik	0x0
34885	chr9	56070807	56072337	-	C230081A13Rik	0x0
34886	chr9	56097615	56098785	-	C230081A13Rik	0x0
34887	chr9	56135913	56137133	-	C230081A13Rik	0x0
34888	chr9	56285122	56286353	+	Hmg20a	0x0
34889	chr9	56340689	56341790	+	Hmg20a	0x0
34890	chr9	56343265	56344591	+	Hmg20a	0x0
34891	chr9	56623999	56625138	-	Odf3l1	0x0
34892	chr9	56626507	56627654	-	Odf3l1	0x0
34893	chr9	56785401	56786723	+	Imp3	0x0
34894	chr9	56833871	56835099	+	Snupn	0x0
34895	chr9	56908938	56910887	+	Ptpn9	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34896	chr9	56923868	56924980	+	Sin3a	0x0
34897	chr9	56945053	56946249	+	Sin3a	0x0
34898	chr9	56949996	56951100	+	Sin3a	0x0
34899	chr9	56954645	56955752	+	Sin3a	0x0
34900	chr9	56974782	56976361	+	Sin3a	0x0
34901	chr9	56978823	56979894	+	Man2c1	0x0
34902	chr9	56996351	56997497	+	Man2c1	0x0
34903	chr9	57090017	57091192	-	1700017B05Rik	0x0
34904	chr9	57092102	57093232	-	1700017B05Rik	0x0
34905	chr9	57100629	57101990	-	1700017B05Rik	0x0
34906	chr9	57104164	57105554	-	1700017B05Rik	0x0
34907	chr9	57263281	57264386	-	Ppcdc	0x0
34908	chr9	57289015	57291777	-	Scamp5	0x0
34909	chr9	57325511	57327058	-	Scamp5	0x0
34910	chr9	57351532	57353623	+	Rpp25	0x0
34911	chr9	57379562	57380724	+	Cox5a	0x0
34912	chr9	57388860	57390014	+	Fam219b	0x0
34913	chr9	57391708	57393088	-	Mpi	0x0
34914	chr9	57435815	57436932	+	Scamp2	0x0
34915	chr9	57443030	57444129	+	Ulk3	0x0
34916	chr9	57473930	57475573	-	Csk	0x0
34917	chr9	57491459	57492647	-	Csk	0x0
34918	chr9	57596383	57599332	+	Edc3	0x0
34919	chr9	57609670	57610911	-	Clk3	0x0
34920	chr9	57637705	57640265	-	Arid3b	0x1
34921	chr9	57761904	57763003	+	Ubl7	0x0
34922	chr9	57776998	57778163	+	Ubl7	0x0
34923	chr9	58065302	58067512	-	Pml	0x1
34924	chr9	58069591	58070746	-	Pml	0x1
34925	chr9	58073295	58074493	-	Pml	0x1
34926	chr9	58102821	58104003	+	Stoml1	0x0
34927	chr9	58304330	58305526	+	4930461G14Rik	0x0
34928	chr9	58317058	58318157	+	4930461G14Rik	0x0
34929	chr9	58371757	58374009	-	Cd276	0x0
34930	chr9	58395163	58396360	-	Cd276	0x0
34931	chr9	58429999	58431176	+	Nptn	0x0
34932	chr9	58443712	58444911	+	Nptn	0x0
34933	chr9	58492530	58493591	+	Nptn	0x0
34934	chr9	58499327	58501162	+	Nptn	0x0
34935	chr9	58500174	58501359	-	2410076I21Rik	0x0
34936	chr9	58505865	58506972	+	Nptn	0x0
34937	chr9	58722250	58724596	-	Neo1	0x1
34938	chr9	59138909	59140079	+	Adpgk	0x0
34939	chr9	59143068	59144215	+	Adpgk	0x0
34940	chr9	59163090	59164362	+	Adpgk	0x0
34941	chr9	59237398	59239306	-	Arih1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34942	chr9	59240502	59241783	-	Arih1	0x0
34943	chr9	59253037	59254227	-	Arih1	0x0
34944	chr9	59255156	59256255	-	Arih1	0x0
34945	chr9	59260447	59261649	-	Arih1	0x0
34946	chr9	59311271	59312463	-	Arih1	0x0
34947	chr9	59407406	59408640	+	Hexa	0x0
34948	chr9	59503851	59505044	+	Pkm	0x0
34949	chr9	59512527	59514591	+	Pkm	0x0
34950	chr9	59516222	59517418	+	Pkm	0x0
34951	chr9	59517860	59519066	+	Pkm	0x0
34952	chr9	59519330	59520357	+	Pkm	0x0
34953	chr9	59521037	59522132	+	Pkm	0x0
34954	chr9	59525423	59527686	+	Pkm	0x0
34955	chr9	59583570	59585434	-	Senp8	0x0
34956	chr9	59753806	59754954	+	Myo9a	0x2
34957	chr9	59772855	59774210	+	Myo9a	0x2
34958	chr9	59774259	59775474	+	Myo9a	0x2
34959	chr9	59818823	59820030	-	Thsd4	0x0
34960	chr9	60181907	60183090	-	Thsd4	0x0
34961	chr9	60306351	60307549	-	Thsd4	0x0
34962	chr9	60717019	60718166	+	Uaca	0x0
34963	chr9	60727481	60728650	+	Uaca	0x0
34964	chr9	60917203	60918322	+	Gm5122	0x0
34965	chr9	61261937	61263156	+	Tle3	0x0
34966	chr9	61264268	61266614	+	Tle3	0x0
34967	chr9	61760552	61762783	-	Rplp1	0x0
34968	chr9	61904807	61905960	-	Glce	0x0
34969	chr9	61906797	61907930	-	Glce	0x0
34970	chr9	62224670	62227001	+	Anp32a	0x1
34971	chr9	62267046	62268945	-	Coro2b	0x0
34972	chr9	62269816	62271440	-	Coro2b	0x0
34973	chr9	62275969	62277134	-	Coro2b	0x0
34974	chr9	62639172	62642395	-	Fem1b	0x0
34975	chr9	62688808	62690416	-	Gm10653	0x0
34976	chr9	62698312	62700026	+	Cln6	0x0
34977	chr9	62728167	62729269	-	Pias1	0x0
34978	chr9	62797282	62798461	-	Pias1	0x0
34979	chr9	63040020	63041119	-	Map2k5	0x0
34980	chr9	63110405	63111553	-	Map2k5	0x0
34981	chr9	63115897	63117094	-	Map2k5	0x0
34982	chr9	63247815	63248949	+	Aagab	0x0
34983	chr9	63463991	63465998	+	Aagab	0x0
34984	chr9	63487855	63490134	+	Aagab	0x0
34985	chr9	63494425	63495654	-	Smad3	0x1
34986	chr9	63495795	63497078	-	Smad3	0x1
34987	chr9	63505986	63507197	-	Smad3	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
34988	chr9	63551526	63552738	-	Smad3	0x1
34989	chr9	63574571	63576365	-	Smad3	0x1
34990	chr9	63578212	63579418	-	Smad3	0x1
34991	chr9	63602082	63603303	-	Smad3	0x1
34992	chr9	63801185	63802381	-	Smad6	0x0
34993	chr9	63984648	63986262	-	Zwilch	0x2
34994	chr9	63991435	63992536	-	Zwilch	0x2
34995	chr9	64008120	64009287	-	Zwilch	0x2
34996	chr9	64011542	64012727	-	Zwilch	0x2
34997	chr9	64023426	64026688	+	Rpl4	0x0
34998	chr9	64033237	64034678	-	Map2k1	0x0
34999	chr9	64034717	64035829	-	Map2k1	0x0
35000	chr9	64038529	64039718	-	Map2k1	0x0
35001	chr9	64052413	64053547	-	Map2k1	0x0
35002	chr9	64061709	64062915	-	Map2k1	0x0
35003	chr9	64072088	64073276	-	Map2k1	0x0
35004	chr9	64091316	64092534	-	Map2k1	0x0
35005	chr9	64143230	64144613	+	Tipin	0x0
35006	chr9	64150323	64151472	+	Tipin	0x0
35007	chr9	64151933	64153059	+	Tipin	0x0
35008	chr9	64244563	64245713	+	Megf11	0x0
35009	chr9	64253234	64254429	+	Megf11	0x0
35010	chr9	64274906	64276060	+	Megf11	0x0
35011	chr9	64314823	64315981	+	Megf11	0x0
35012	chr9	64332358	64333512	+	Megf11	0x0
35013	chr9	64370532	64371756	+	Megf11	0x0
35014	chr9	64563380	64564882	-	Rab11a	0x0
35015	chr9	64572898	64574064	-	Rab11a	0x0
35016	chr9	64574686	64575885	-	Rab11a	0x0
35017	chr9	64743962	64745165	+	Dennd4a	0x2
35018	chr9	64757327	64758526	+	Dennd4a	0x2
35019	chr9	64765426	64767616	+	Dennd4a	0x2
35020	chr9	64834317	64835695	-	Ptplad1	0x0
35021	chr9	64881205	64882358	+	Dpp8	0x0
35022	chr9	64897351	64898515	+	Dpp8	0x0
35023	chr9	65025189	65026300	+	Igdcc3	0x0
35024	chr9	65033498	65034625	+	Igdcc3	0x0
35025	chr9	65043842	65045016	-	Ptplad1	0x0
35026	chr9	65173919	65175227	+	Clpx	0x0
35027	chr9	65204035	65205152	+	Pdcd7	0x0
35028	chr9	65206552	65207914	+	Pdcd7	0x0
35029	chr9	65300031	65301180	+	Mtfmt	0x0
35030	chr9	65322980	65324122	+	Spg21	0x0
35031	chr9	65334090	65336134	+	Spg21	0x0
35032	chr9	65403141	65404321	-	Plekho2	0x0
35033	chr9	65434525	65435728	+	Pif1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35034	chr9	65497221	65498582	+	Rbpms2	0x0
35035	chr9	65507051	65508882	+	Rbpms2	0x0
35036	chr9	65539822	65543554	-	Zfp609	0x0
35037	chr9	65550427	65551638	-	Zfp609	0x0
35038	chr9	65641958	65643837	-	Zfp609	0x0
35039	chr9	65654703	65655855	-	Zfp609	0x0
35040	chr9	65678516	65679664	-	Trip4	0x0
35041	chr9	65722144	65723335	-	Trip4	0x0
35042	chr9	65750092	65752713	+	2810417H13Rik	0x0
35043	chr9	65778083	65779250	+	Csnk1g1	0x0
35044	chr9	65912799	65913923	-	Snx22	0x0
35045	chr9	65913538	65914921	+	Ppib	0x0
35046	chr9	65938368	65939544	-	Snx1	0x0
35047	chr9	65940291	65941483	-	Snx1	0x0
35048	chr9	65973918	65975133	+	Fam96a	0x0
35049	chr9	65985751	65987222	+	Fam96a	0x0
35050	chr9	66119053	66120241	+	Dapk2	0x0
35051	chr9	66261646	66262796	+	Herc1	0x0
35052	chr9	66276235	66277408	+	Herc1	0x0
35053	chr9	66297966	66299653	+	Herc1	0x0
35054	chr9	66339262	66341588	+	Herc1	0x0
35055	chr9	66365222	66366450	-	Usp3	0x0
35056	chr9	66412073	66413216	-	Usp3	0x0
35057	chr9	66612684	66613829	+	Car12	0x0
35058	chr9	66691371	66693534	-	Rab8b	0x0
35059	chr9	66794890	66796055	+	Rps27l	0x0
35060	chr9	66870169	66871449	-	Tpm1	0x0
35061	chr9	66880046	66881164	-	Tpm1	0x0
35062	chr9	67065902	67067241	-	Tln2	0x0
35063	chr9	67068191	67069496	-	Tln2	0x0
35064	chr9	67114154	67115279	-	Tln2	0x0
35065	chr9	67166607	67167842	-	Tln2	0x0
35066	chr9	67193731	67194928	-	Tln2	0x0
35067	chr9	67353410	67354554	-	Tln2	0x0
35068	chr9	67449795	67450967	-	Tln2	0x0
35069	chr9	67476026	67477125	-	Tln2	0x0
35070	chr9	67499910	67501116	+	C2cd4b	0x0
35071	chr9	67699761	67700878	+	Vps13c	0x0
35072	chr9	67734511	67735707	+	Vps13c	0x0
35073	chr9	67843566	67844759	+	Vps13c	0x0
35074	chr9	67844783	67845914	+	Vps13c	0x0
35075	chr9	68524263	68525445	+	Rora	0x0
35076	chr9	68564330	68565541	+	9530091C08Rik	0x0
35077	chr9	68653101	68654202	+	9530091C08Rik	0x0
35078	chr9	68737468	68738640	+	9530091C08Rik	0x0
35079	chr9	68744901	68746043	+	9530091C08Rik	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35080	chr9	68764976	68766150	+	9530091C08Rik	0x0
35081	chr9	68981082	68982276	+	Rora	0x0
35082	chr9	69262966	69264156	+	Narg2	0x0
35083	chr9	69338684	69339917	+	Anxa2	0x0
35084	chr9	69854849	69856523	+	Bnip2	0x0
35085	chr9	69936705	69938413	-	Fam81a	0x0
35086	chr9	69969506	69970655	-	Fam81a	0x0
35087	chr9	70213774	70214959	+	Myo1e	0x0
35088	chr9	70254944	70257150	-	Ccnb2	0x0
35089	chr9	70280852	70282059	-	Rnf111	0x0
35090	chr9	70323320	70324819	-	Rnf111	0x0
35091	chr9	70337357	70338470	-	Rnf111	0x0
35092	chr9	70347625	70348807	-	Rnf111	0x0
35093	chr9	70401031	70403118	+	Sltm	0x0
35094	chr9	70409036	70410209	+	Sltm	0x0
35095	chr9	70417087	70418206	+	Sltm	0x0
35096	chr9	70434019	70435185	+	Sltm	0x0
35097	chr9	70439046	70440312	+	Sltm	0x0
35098	chr9	70459330	70460430	+	Sltm	0x0
35099	chr9	70625855	70628294	+	Adam10	0x2
35100	chr9	71325753	71327804	-	Polr2m	0x0
35101	chr9	71330600	71332069	-	Polr2m	0x0
35102	chr9	71473877	71474962	-	Cgnl1	0x0
35103	chr9	71475507	71477091	-	Cgnl1	0x0
35104	chr9	71497510	71498704	-	Cgnl1	0x0
35105	chr9	71503392	71504610	-	Cgnl1	0x0
35106	chr9	71769982	71771128	-	Tcf12	0x2
35107	chr9	71803147	71804330	-	Tcf12	0x2
35108	chr9	71843383	71844559	-	Tcf12	0x2
35109	chr9	71894362	71895599	-	Tcf12	0x2
35110	chr9	72210259	72211875	+	Zfp280d	0x0
35111	chr9	72297979	72299169	+	Mns1	0x0
35112	chr9	72347162	72348308	+	Rfx7	0x0
35113	chr9	72428511	72429660	+	Rfx7	0x0
35114	chr9	72434183	72435321	+	Rfx7	0x0
35115	chr9	72455969	72457121	+	Rfx7	0x0
35116	chr9	72468510	72469641	+	Rfx7	0x0
35117	chr9	72509806	72510841	+	Nedd4	0x0
35118	chr9	72517313	72518498	+	Nedd4	0x0
35119	chr9	72524572	72525746	+	Nedd4	0x0
35120	chr9	72529950	72531049	+	Nedd4	0x0
35121	chr9	72533274	72534373	+	Nedd4	0x0
35122	chr9	72568616	72569891	+	Nedd4	0x0
35123	chr9	72573731	72574895	+	Nedd4	0x0
35124	chr9	72582297	72583489	+	Nedd4	0x0
35125	chr9	72587461	72588583	+	Nedd4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35126	chr9	72588939	72589997	+	Nedd4	0x0
35127	chr9	72594859	72597662	+	Nedd4	0x0
35128	chr9	72677428	72678572	+	Prtg	0x0
35129	chr9	72759941	72761096	+	Prtg	0x0
35130	chr9	72762092	72765221	+	Prtg	0x0
35131	chr9	72861662	72863980	+	Ccpg1	0x0
35132	chr9	72943902	72945860	+	Rab27a	0x0
35133	chr9	72950244	72951355	+	Khdc3	0x0
35134	chr9	72969818	72971616	+	Rsl24d1	0x0
35135	chr9	72971894	72973015	+	Rsl24d1	0x0
35136	chr9	74890241	74891435	+	Arpp19	0x0
35137	chr9	75065846	75067040	+	Myo5a	0x0
35138	chr9	75068968	75070088	+	Myo5a	0x0
35139	chr9	75070629	75071993	+	Myo5a	0x0
35140	chr9	75103183	75104330	+	Myo5c	0x0
35141	chr9	75152483	75153744	+	Myo5c	0x0
35142	chr9	75234041	75236091	-	Mapk6	0x0
35143	chr9	75345930	75348208	-	Tmod3	0x0
35144	chr9	75413416	75415319	-	Tmod2	0x0
35145	chr9	75415856	75420990	-	Tmod2	0x0
35146	chr9	75475292	75476395	+	Lysmd2	0x0
35147	chr9	76372740	76373867	-	Fam83b	0x0
35148	chr9	77640761	77642467	+	Gclc	0x0
35149	chr9	77771647	77772840	+	Elovl5	0x0
35150	chr9	77808200	77809404	+	Elovl5	0x0
35151	chr9	77830316	77832727	+	Elovl5	0x0
35152	chr9	77942862	77944102	-	Fbxo9	0x0
35153	chr9	77997853	77999028	+	Ick	0x2
35154	chr9	78042269	78043485	+	Gsta4	0x0
35155	chr9	78056873	78058001	+	Gsta4	0x0
35156	chr9	78214961	78216485	-	Dppa5a	0x0
35157	chr9	78311735	78320500	+	Mto1	0x0
35158	chr9	78326114	78329014	-	Eef1a1	0x1
35159	chr9	78366253	78367438	-	Slc17a5	0x2
35160	chr9	78368224	78369381	+	Mto1	0x0
35161	chr9	78374506	78375741	+	Mto1	0x0
35162	chr9	79616630	79618931	-	Tmem30a	0x0
35163	chr9	79914662	79915880	-	Filip1	0x0
35164	chr9	79942979	79944129	+	Senp6	0x0
35165	chr9	80156536	80157694	+	Myo6	0x0
35166	chr9	80734698	80735826	+	Myo6	0x0
35167	chr9	81571359	81572494	+	D430036J16Rik	0x0
35168	chr9	81797125	81798235	+	Mei4	0x0
35169	chr9	82760298	82762043	-	Phip	0x2
35170	chr9	82762611	82763723	-	Phip	0x2
35171	chr9	82764701	82765800	-	Phip	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35172	chr9	82825953	82827181	-	Phip	0x2
35173	chr9	82838790	82839991	-	Phip	0x2
35174	chr9	82848213	82849434	-	Phip	0x2
35175	chr9	83287474	83288651	-	Lca5	0x0
35176	chr9	83302715	83303934	+	Sh3bgrl2	0x0
35177	chr9	83491588	83494531	+	Sh3bgrl2	0x0
35178	chr9	83671837	83673821	-	Elovl4	0x0
35179	chr9	83765315	83766582	+	Ttk	0x2
35180	chr9	83818199	83819421	+	Bckdhb	0x0
35181	chr9	85580582	85582234	-	Ibtk	0x0
35182	chr9	85614182	85615325	-	Ibtk	0x0
35183	chr9	85615460	85616559	-	Ibtk	0x0
35184	chr9	86333638	86334804	-	Ube2cbp	0x0
35185	chr9	86417398	86418529	+	Dopey1	0x0
35186	chr9	86474709	86476461	-	Me1	0x0
35187	chr9	86573976	86575155	-	Me1	0x0
35188	chr9	86963019	86964169	+	Cyb5r4	0x2
35189	chr9	87147836	87149018	-	4922501C03Rik	0x0
35190	chr9	88070110	88071319	+	Nt5e	0x0
35191	chr9	88344674	88345724	-	Syncrip	0x0
35192	chr9	88346019	88348851	-	Syncrip	0x0
35193	chr9	88415457	88417208	-	Snhg5	0x0
35194	chr9	88447626	88448797	+	Zfp949	0x0
35195	chr9	88748671	88749852	-	9330159M07Rik	0x0
35196	chr9	88979294	88980493	-	Trim43b	0x0
35197	chr9	89483068	89484310	-	AF529169	0x0
35198	chr9	89593518	89594887	-	Tmed3	0x0
35199	chr9	89982928	89984068	-	Morf4l1	0x0
35200	chr9	89986579	89987763	-	Morf4l1	0x0
35201	chr9	90015061	90016263	+	Adamts7	0x0
35202	chr9	90246401	90247530	+	Adamts7	0x0
35203	chr9	92465806	92467014	+	Plod2	0x0
35204	chr9	92467763	92468920	+	Plod2	0x0
35205	chr9	92475578	92476749	+	Plod2	0x0
35206	chr9	92501559	92503132	+	Plod2	0x0
35207	chr9	94417753	94418915	-	1190002N15Rik	0x0
35208	chr9	94419848	94421150	-	1190002N15Rik	0x0
35209	chr9	95306934	95308108	+	Paqr9	0x0
35210	chr9	95357582	95359786	-	U2surp	0x0
35211	chr9	95360055	95362291	-	U2surp	0x0
35212	chr9	95375982	95377128	-	U2surp	0x0
35213	chr9	95409331	95410480	-	U2surp	0x0
35214	chr9	95580266	95581438	+	Pcolce2	0x0
35215	chr9	95595046	95596249	+	Pcolce2	0x0
35216	chr9	95767416	95768571	+	Atr	0x1
35217	chr9	95774045	95775187	+	Atr	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35218	chr9	95821556	95822728	+	Atr	0x1
35219	chr9	95839071	95840267	+	Atr	0x1
35220	chr9	95849465	95850622	+	Atr	0x1
35221	chr9	95885024	95886264	+	Xrn1	0x1
35222	chr9	95932270	95933411	+	Xrn1	0x1
35223	chr9	95953929	95956464	+	Xrn1	0x1
35224	chr9	96037497	96038719	+	Gk5	0x0
35225	chr9	96082417	96084117	+	Gk5	0x0
35226	chr9	96128334	96129503	+	Tfdp2	0x0
35227	chr9	96167647	96168889	+	Tfdp2	0x0
35228	chr9	96218308	96219536	+	Tfdp2	0x0
35229	chr9	96219948	96223228	+	Tfdp2	0x0
35230	chr9	96232556	96234406	-	Atp1b3	0x0
35231	chr9	96372623	96373799	-	Rnf7	0x0
35232	chr9	96491811	96492974	-	Rasa2	0x0
35233	chr9	96582754	96583951	-	Zbtb38	0x0
35234	chr9	96584733	96585903	-	Zbtb38	0x0
35235	chr9	96631981	96633148	-	E030011O05Rik	0x0
35236	chr9	96631981	96633148	-	Zbtb38	0x0
35237	chr9	96713444	96715016	-	Acpl2	0x0
35238	chr9	96779317	96780433	-	Acpl2	0x0
35239	chr9	96975871	96979438	-	Slc25a36	0x0
35240	chr9	96985576	96986748	-	Slc25a36	0x0
35241	chr9	96994384	96995602	-	Slc25a36	0x0
35242	chr9	97127300	97128491	-	Slc25a36	0x0
35243	chr9	97351360	97352542	-	Clstn2	0x2
35244	chr9	98478935	98480034	+	Copb2	0x0
35245	chr9	98482551	98483749	+	Copb2	0x0
35246	chr9	98766209	98767359	+	2410012M07Rik	0x0
35247	chr9	98937060	98938892	-	Pik3cb	0x0
35248	chr9	98994353	98995578	-	Pik3cb	0x0
35249	chr9	99207887	99208986	+	Cep70	0x0
35250	chr9	99210079	99211760	-	Esyt3	0x0
35251	chr9	99285373	99286749	-	Mras	0x0
35252	chr9	99379152	99380346	-	Armc8	0x0
35253	chr9	99420104	99421252	-	Armc8	0x0
35254	chr9	99483481	99484678	+	Dbr1	0x2
35255	chr9	100548057	100549256	+	Stag1	0x0
35256	chr9	100605063	100606246	+	Stag1	0x0
35257	chr9	100612320	100613477	+	Stag1	0x0
35258	chr9	100830255	100831461	+	Stag1	0x0
35259	chr9	100839045	100840174	-	Pccb	0x0
35260	chr9	100843662	100844787	-	Pccb	0x0
35261	chr9	100856989	100859117	+	Stag1	0x0
35262	chr9	100882009	100883323	-	Pccb	0x0
35263	chr9	100915565	100916702	-	Pccb	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35264	chr9	101003710	101005763	+	Msl2	0x0
35265	chr9	102029647	102030911	+	Ky	0x0
35266	chr9	102111139	102112353	-	Ephb1	0x2
35267	chr9	102634129	102635329	+	Amotl2	0x0
35268	chr9	102782380	102783520	+	Ryk	0x0
35269	chr9	102807832	102810843	+	Ryk	0x0
35270	chr9	102817417	102818518	+	Ryk	0x0
35271	chr9	103079358	103080470	+	Rab6b	0x0
35272	chr9	103083980	103085615	+	Rab6b	0x0
35273	chr9	103203605	103204830	-	1300017J02Rik	0x0
35274	chr9	103208823	103209930	+	Topbp1	0x0
35275	chr9	103214593	103215787	+	Topbp1	0x0
35276	chr9	103218628	103219760	+	Topbp1	0x0
35277	chr9	103248789	103249943	+	Topbp1	0x0
35278	chr9	103251798	103253032	+	Topbp1	0x0
35279	chr9	103255089	103257657	-	Cdv3	0x0
35280	chr9	103617991	103619208	-	Tmem108	0x0
35281	chr9	103949034	103950240	-	Uba5	0x0
35282	chr9	103961911	103963087	-	Uba5	0x0
35283	chr9	103965573	103966720	+	Acad11	0x0
35284	chr9	104053757	104054968	-	Dnajc13	0x0
35285	chr9	104069327	104070501	-	Dnajc13	0x0
35286	chr9	104097793	104099027	-	Dnajc13	0x0
35287	chr9	104102192	104103412	-	Dnajc13	0x0
35288	chr9	104310395	104311622	-	Acpp	0x0
35289	chr9	104978957	104980228	+	Mrpl3	0x0
35290	chr9	105313743	105315695	-	Atp2c1	0x0
35291	chr9	105320314	105321468	-	Atp2c1	0x0
35292	chr9	105323133	105324274	-	Atp2c1	0x0
35293	chr9	105461941	105463365	-	Atp2c1	0x0
35294	chr9	105574287	105575484	+	Pik3r4	0x0
35295	chr9	106072965	106074137	+	Wdr82	0x0
35296	chr9	106086102	106087311	+	Wdr82	0x0
35297	chr9	106091242	106093866	+	Wdr82	0x0
35298	chr9	106116898	106118032	+	Twf2	0x0
35299	chr9	106139865	106141359	-	Alas1	0x0
35300	chr9	106244228	106245412	+	Poc1a	0x0
35301	chr9	106276674	106277909	+	Dusp7	0x2
35302	chr9	106365243	106366749	+	Pcbp4	0x0
35303	chr9	106384705	106385812	+	Rrp9	0x0
35304	chr9	106386235	106388243	+	Rrp9	0x0
35305	chr9	106560563	106561778	-	Tex264	0x0
35306	chr9	106591273	106594298	-	Rad54l2	0x0
35307	chr9	106604151	106605338	-	Rad54l2	0x0
35308	chr9	106632521	106633761	-	Rad54l2	0x0
35309	chr9	106655770	106656977	-	Rad54l2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35310	chr9	106749753	106750855	+	Vprbp	0x0
35311	chr9	106753724	106754887	+	Vprbp	0x0
35312	chr9	106759856	106770500	+	Vprbp	0x0
35313	chr9	106782366	106783736	+	Vprbp	0x0
35314	chr9	106783384	106786453	-	Rbm15b	0x0
35315	chr9	106786833	106788576	-	Rbm15b	0x0
35316	chr9	106790629	106791847	-	Manf	0x0
35317	chr9	106791853	106793066	-	Manf	0x0
35318	chr9	106795381	106796509	-	Dock3	0x0
35319	chr9	107021867	107023041	-	Dock3	0x0
35320	chr9	107156800	107158728	-	Mapkapk3	0x0
35321	chr9	107161867	107162966	-	Mapkapk3	0x0
35322	chr9	107429768	107430923	+	Cacna2d2	0x0
35323	chr9	107440049	107441191	+	Tmem115	0x0
35324	chr9	107472506	107473653	+	Hyal2	0x0
35325	chr9	107483229	107484723	+	Hyal3	0x0
35326	chr9	107483229	107484723	+	Nat6	0x1
35327	chr9	107494344	107495892	+	Ifrd2	0x0
35328	chr9	107515968	107517311	-	Gnai2	0x0
35329	chr9	107517441	107518542	-	Gnai2	0x0
35330	chr9	107652245	107653415	-	Rbm5	0x1
35331	chr9	107665872	107667072	-	Rbm5	0x1
35332	chr9	107715010	107716139	-	Rbm6	0x1
35333	chr9	107851423	107852614	+	Camkv	0x0
35334	chr9	107861814	107863005	+	Traip	0x0
35335	chr9	107947773	107951427	+	Ip6k1	0x0
35336	chr9	107958432	107959588	-	Rnf123	0x0
35337	chr9	107987274	107988505	-	Apeh	0x0
35338	chr9	107993716	107994908	-	Apeh	0x0
35339	chr9	108106762	108109174	-	Dag1	0x0
35340	chr9	108111160	108112330	-	Dag1	0x0
35341	chr9	108196700	108197921	+	Nicn1	0x0
35342	chr9	108199519	108200648	+	Amt	0x0
35343	chr9	108202438	108203551	+	Amt	0x0
35344	chr9	108203616	108204997	+	Amt	0x0
35345	chr9	108208266	108209452	+	Rhoa	0x1
35346	chr9	108238681	108240765	+	Rhoa	0x1
35347	chr9	108241298	108243050	+	Gpx1	0x0
35348	chr9	108258604	108259808	+	Usp4	0x0
35349	chr9	108260122	108261589	-	Ccdc36	0x0
35350	chr9	108275389	108276494	+	Usp4	0x0
35351	chr9	108324805	108325963	-	Ccdc36	0x0
35352	chr9	108388335	108389437	+	Lamb2	0x0
35353	chr9	108413122	108414338	+	Qars	0x0
35354	chr9	108415506	108418704	+	Qars	0x0
35355	chr9	108420609	108421708	+	Qrich1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35356	chr9	108430494	108431586	+	Qrich1	0x0
35357	chr9	108436244	108437417	+	Qrich1	0x0
35358	chr9	108444265	108445438	+	Qrich1	0x0
35359	chr9	108461528	108462970	+	Impdh2	0x0
35360	chr9	108461528	108462970	+	Qrich1	0x0
35361	chr9	108474134	108475588	-	Wdr6	0x0
35362	chr9	108505055	108506812	-	Arih2	0x0
35363	chr9	108510429	108511578	-	Arih2	0x0
35364	chr9	108545991	108547213	-	Arih2	0x0
35365	chr9	108575180	108576370	+	Slc25a20	0x0
35366	chr9	108649133	108660500	+	Prkar2a	0x0
35367	chr9	108719675	108720849	+	Nckipsd	0x2
35368	chr9	108723606	108724775	+	Nckipsd	0x2
35369	chr9	108738357	108739526	+	Celsr3	0x0
35370	chr9	108752687	108753836	-	Arih2	0x0
35371	chr9	108843616	108844715	+	Uqcrc1	0x0
35372	chr9	108849177	108850444	+	Uqcrc1	0x0
35373	chr9	108958685	108960399	+	Shisa5	0x0
35374	chr9	108972993	108974130	-	Atrip	0x0
35375	chr9	109005216	109006367	+	Plxnb1	0x0
35376	chr9	109020198	109021400	+	Plxnb1	0x0
35377	chr9	109021799	109022950	+	Plxnb1	0x0
35378	chr9	109780931	109782030	+	Cdc25a	0x0
35379	chr9	109785569	109786728	+	Cdc25a	0x0
35380	chr9	109795102	109796854	+	Cdc25a	0x0
35381	chr9	109833032	109834152	-	Camp	0x0
35382	chr9	109854467	109855624	+	Map4	0x0
35383	chr9	109893786	109894932	+	Map4	0x0
35384	chr9	109906264	109907441	+	Map4	0x0
35385	chr9	109916324	109917458	+	Map4	0x0
35386	chr9	109934100	109935199	+	Map4	0x0
35387	chr9	109937346	109938446	+	Map4	0x0
35388	chr9	109970918	109972041	+	Map4	0x0
35389	chr9	109984271	109986818	+	Map4	0x0
35390	chr9	109989082	109990195	-	Dhx30	0x0
35391	chr9	109994995	109996189	-	Dhx30	0x0
35392	chr9	110054392	110055520	+	Smarcc1	0x0
35393	chr9	110098345	110099455	+	Smarcc1	0x0
35394	chr9	110140119	110143018	+	Smarcc1	0x0
35395	chr9	110158139	110159248	+	Cspg5	0x0
35396	chr9	110161334	110162504	+	Cspg5	0x0
35397	chr9	110212427	110213612	+	Elp6	0x0
35398	chr9	110280541	110281682	+	Scap	0x0
35399	chr9	110286679	110287838	+	Scap	0x0
35400	chr9	110291290	110292438	-	Ptpn23	0x0
35401	chr9	110328711	110329853	-	Klhl18	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35402	chr9	110446873	110448096	+	Setd2	0x2
35403	chr9	110452142	110453258	+	Setd2	0x2
35404	chr9	110467714	110468794	+	Setd2	0x2
35405	chr9	110469673	110470828	+	Setd2	0x2
35406	chr9	110475871	110476980	+	Setd2	0x2
35407	chr9	110519861	110521557	+	Setd2	0x2
35408	chr9	110524031	110525239	-	Nradd	0x0
35409	chr9	110526885	110528082	-	Nbeal2	0x0
35410	chr9	110526885	110528082	-	Nradd	0x0
35411	chr9	110701251	110702371	+	Prss42	0x0
35412	chr9	110841654	110843695	-	Tdgf1	0x0
35413	chr9	110882822	110884881	+	Lrrc2	0x0
35414	chr9	111038115	111039315	+	Lrrfip2	0x0
35415	chr9	111059097	111060237	+	Lrrfip2	0x0
35416	chr9	111130318	111131545	-	Mlh1	0x1
35417	chr9	111174556	111175756	+	Epm2aip1	0x0
35418	chr9	111175916	111177051	+	Epm2aip1	0x0
35419	chr9	111180353	111181493	+	Epm2aip1	0x0
35420	chr9	111268071	111269299	+	Trank1	0x0
35421	chr9	111401399	111402633	-	Stac	0x0
35422	chr9	113352319	113353435	-	AU023762	0x0
35423	chr9	113561179	113562608	-	Pdcd6ip	0x0
35424	chr9	113664999	113666562	+	Clasp2	0x0
35425	chr9	113720151	113721309	+	Clasp2	0x0
35426	chr9	113783586	113784758	+	Clasp2	0x0
35427	chr9	113787306	113788455	+	Clasp2	0x0
35428	chr9	113827158	113828409	+	Clasp2	0x0
35429	chr9	113881037	113882193	+	Ubp1	0x0
35430	chr9	113884335	113886292	+	Ubp1	0x0
35431	chr9	114286597	114287788	-	Crtap	0x0
35432	chr9	114318585	114319867	+	Tmppe	0x0
35433	chr9	114320379	114321512	+	Tmppe	0x0
35434	chr9	114339036	114340135	+	Glb1	0x0
35435	chr9	114368226	114369371	+	Glb1	0x0
35436	chr9	114382557	114383935	+	Glb1	0x0
35437	chr9	114406355	114407500	-	Ccr4	0x0
35438	chr9	114416223	114421624	-	Trim71	0x0
35439	chr9	114431940	114433084	-	Trim71	0x0
35440	chr9	114433597	114434802	-	Trim71	0x0
35441	chr9	114457964	114459171	-	Trim71	0x0
35442	chr9	114471036	114472737	-	Trim71	0x0
35443	chr9	114504666	114505866	-	Cnot10	0x0
35444	chr9	114506107	114507245	-	Cnot10	0x0
35445	chr9	114517596	114518744	-	Cnot10	0x0
35446	chr9	114579951	114581188	-	Cnot10	0x0
35447	chr9	114632301	114633873	+	Dync1li1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35448	chr9	114656350	114658749	+	Cmtm6	0x0
35449	chr9	114665589	114666925	-	Cmtm7	0x0
35450	chr9	114671623	114672830	-	Cmtm7	0x0
35451	chr9	114683993	114685236	-	Cmtm7	0x0
35452	chr9	114808192	114811681	-	Gpd1l	0x0
35453	chr9	114932502	114933618	+	Osbpl10	0x0
35454	chr9	114963389	114964564	+	Osbpl10	0x0
35455	chr9	115151176	115153195	-	Stt3b	0x0
35456	chr9	115162490	115163665	-	Stt3b	0x0
35457	chr9	115185417	115186516	-	Stt3b	0x0
35458	chr9	115346368	115347984	-	Stt3b	0x0
35459	chr9	115535148	115536315	-	Stt3b	0x0
35460	chr9	116845415	116846627	-	Rbms3	0x0
35461	chr9	118309583	118312949	-	Cmc1	0x0
35462	chr9	118435731	118436916	+	Golga4	0x2
35463	chr9	118464214	118465409	+	Golga4	0x2
35464	chr9	118465851	118467181	+	Golga4	0x2
35465	chr9	118473242	118474371	+	Golga4	0x2
35466	chr9	118490648	118492163	+	Golga4	0x2
35467	chr9	118768191	118769357	-	Plcd1	0x1
35468	chr9	118808474	118809632	+	Itga9	0x0
35469	chr9	118949804	118951428	+	Ctdspl	0x1
35470	chr9	118952029	118953204	+	Ctdspl	0x1
35471	chr9	119072281	119073666	+	Dlec1	0x1
35472	chr9	119148064	119151249	-	Oxsr1	0x0
35473	chr9	119213094	119214267	-	Oxsr1	0x0
35474	chr9	119270224	119271326	+	Xylb	0x0
35475	chr9	119312467	119313742	+	Acvr2b	0x0
35476	chr9	119336097	119338170	+	Acvr2b	0x0
35477	chr9	119345792	119348394	+	Acvr2b	0x0
35478	chr9	119349555	119351633	+	Exog	0x0
35479	chr9	119810842	119811988	+	Wdr48	0x0
35480	chr9	119820953	119822111	+	Wdr48	0x0
35481	chr9	119837423	119838621	-	Gorasp1	0x0
35482	chr9	119841852	119843009	-	Gorasp1	0x0
35483	chr9	119880377	119881585	-	Csrnp1	0x0
35484	chr9	119893043	119894260	-	Csrnp1	0x0
35485	chr9	120039690	120041238	+	Rpsa	0x0
35486	chr9	120237518	120238660	+	Myrip	0x0
35487	chr9	120401289	120402473	+	Eif1b	0x0
35488	chr9	120482692	120484154	+	Rpl14	0x0
35489	chr9	120859101	120860781	+	Ctnnb1	0x2
35490	chr9	120861559	120862672	+	Ctnnb1	0x2
35491	chr9	120867212	120868311	+	Ctnnb1	0x2
35492	chr9	120868334	120869933	+	Ctnnb1	0x2
35493	chr9	121224370	121225487	+	Trak1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35494	chr9	121239803	121240932	+	Trak1	0x0
35495	chr9	121349281	121350441	+	Trak1	0x0
35496	chr9	121375358	121377016	+	Trak1	0x0
35497	chr9	121590761	121593055	-	Sec22c	0x0
35498	chr9	121650293	121651482	+	Nktr	0x0
35499	chr9	121664318	121665931	+	Nktr	0x0
35500	chr9	122045810	122047005	+	Snrk	0x0
35501	chr9	122105306	122106537	-	Ano10	0x0
35502	chr9	122216926	122218104	-	Ano10	0x0
35503	chr9	122288904	122290101	+	Abhd5	0x0
35504	chr9	122744550	122745924	+	Tcaim	0x0
35505	chr9	122758748	122759949	-	Zfp445	0x0
35506	chr9	122760431	122761604	-	Zfp445	0x0
35507	chr9	122770920	122772082	-	Zfp445	0x0
35508	chr9	122862853	122864329	+	Kif15	0x0
35509	chr9	122913300	122914514	+	Kif15	0x0
35510	chr9	122975609	122977632	-	Zdhhc3	0x0
35511	chr9	122978275	122979464	-	Zdhhc3	0x0
35512	chr9	122980416	122981558	-	Zdhhc3	0x0
35513	chr9	122982811	122984011	-	Zdhhc3	0x0
35514	chr9	122984652	122987554	-	Zdhhc3	0x0
35515	chr9	122999501	123000696	-	Zdhhc3	0x0
35516	chr9	123320590	123321762	+	Lars2	0x0
35517	chr9	123370575	123371834	+	Lars2	0x0
35518	chr9	123389648	123390792	+	Limd1	0x1
35519	chr9	123400110	123401246	+	Limd1	0x1
35520	chr9	123428774	123431036	+	Limd1	0x1
35521	chr9	123490880	123492019	+	Sacm1l	0x0
35522	chr9	123499694	123502217	+	Sacm1l	0x0
35523	chr9	123598116	123599341	-	Lztfl1	0x0
35524	chr9	123689116	123690351	+	Ccr9	0x0
35525	chr9	123698330	123700514	-	Fyco1	0x0
35526	chrX	3846157	3847398	+	Gm14347	0x0
35527	chrX	4544816	4546026	+	Gm3763	0x0
35528	chrX	5275788	5276922	-	Mycs	0x2
35529	chrX	5277013	5278284	-	Mycs	0x2
35530	chrX	5629807	5632055	+	Nudt11	0x0
35531	chrX	5683449	5684728	+	Nudt11	0x0
35532	chrX	5991501	5992607	+	Shroom4	0x0
35533	chrX	6011639	6012790	+	Shroom4	0x0
35534	chrX	6033627	6034798	+	Shroom4	0x0
35535	chrX	6211229	6214213	+	Shroom4	0x0
35536	chrX	6730650	6733051	-	Clcn5	0x2
35537	chrX	6733696	6734793	-	Clcn5	0x2
35538	chrX	6735211	6736293	-	Clcn5	0x2
35539	chrX	6738508	6739594	-	Clcn5	0x2

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35540	chrX	6759070	6760245	-	Clcn5	0x2
35541	chrX	6888483	6889628	-	Clcn5	0x2
35542	chrX	7171539	7172742	-	Ccdc22	0x0
35543	chrX	7285223	7287060	+	Gpkow	0x0
35544	chrX	7306942	7308133	+	Praf2	0x0
35545	chrX	7313548	7314748	+	Praf2	0x0
35546	chrX	7350271	7352850	+	Tfe3	0x1
35547	chrX	7413834	7415299	+	Kcnd1	0x0
35548	chrX	7419216	7420420	+	Otud5	0x0
35549	chrX	7449235	7450385	+	Otud5	0x0
35550	chrX	7451170	7454302	+	Otud5	0x0
35551	chrX	7469651	7471529	+	Slc35a2	0x0
35552	chrX	7484741	7485943	+	Timm17b	0x0
35553	chrX	7499246	7500879	+	Pcsk1n	0x0
35554	chrX	7501030	7502171	-	Eras	0x0
35555	chrX	7506750	7509065	-	Hdac6	0x0
35556	chrX	7512604	7513837	-	Hdac6	0x0
35557	chrX	7514260	7515359	-	Hdac6	0x0
35558	chrX	7535341	7536535	+	Pcsk1n	0x0
35559	chrX	7550714	7551858	+	Pcsk1n	0x0
35560	chrX	7558578	7559714	+	Pcsk1n	0x0
35561	chrX	7612004	7613214	+	Gm6787	0x0
35562	chrX	7626060	7627236	+	Gm6787	0x0
35563	chrX	7638879	7640143	-	Suv39h1	0x0
35564	chrX	7700239	7702327	-	Wdr13	0x0
35565	chrX	7717253	7718430	-	Rbm3	0x0
35566	chrX	7718904	7720113	-	Rbm3	0x0
35567	chrX	7739601	7740822	-	Tbc1d25	0x0
35568	chrX	7761946	7763243	-	Ebp	0x0
35569	chrX	7770507	7771681	-	Ebp	0x0
35570	chrX	7770507	7771681	-	Porcn	0x0
35571	chrX	7817146	7818378	-	Ftsj1	0x0
35572	chrX	8231101	8232321	+	Ssx9	0x2
35573	chrX	8457738	8458927	+	B630019K06Rik	0x0
35574	chrX	8887202	8889278	+	Xk	0x0
35575	chrX	8889662	8890860	+	Xk	0x0
35576	chrX	9050967	9052842	-	Cybb	0x0
35577	chrX	9165375	9166490	+	Gm14501	0x0
35578	chrX	9230974	9233344	-	Dynlt3	0x0
35579	chrX	10119884	10121044	+	Tspan7	0x0
35580	chrX	10172841	10174134	+	Tspan7	0x0
35581	chrX	10293232	10294423	+	Mid1ip1	0x0
35582	chrX	11613531	11614843	-	Bcor	0x2
35583	chrX	11634423	11635644	-	Bcor	0x2
35584	chrX	11841748	11842929	+	Atp6ap2	0x0
35585	chrX	12164505	12165661	+	Atp6ap2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35586	chrX	12192738	12194372	+	Atp6ap2	0x0
35587	chrX	12231516	12232881	-	1810030O07Rik	0x0
35588	chrX	12249618	12250719	-	1810030O07Rik	0x0
35589	chrX	12252731	12254379	-	Med14	0x0
35590	chrX	12263021	12264155	-	Med14	0x0
35591	chrX	12278834	12280058	-	Med14	0x0
35592	chrX	12312733	12313970	-	Med14	0x0
35593	chrX	12378420	12379627	-	Med14	0x0
35594	chrX	12648174	12649372	+	Usp9x	0x0
35595	chrX	12651596	12652720	+	Usp9x	0x0
35596	chrX	12656438	12657540	+	Usp9x	0x0
35597	chrX	12659789	12661003	+	Usp9x	0x0
35598	chrX	12670530	12671699	+	Usp9x	0x0
35599	chrX	12674385	12676191	+	Usp9x	0x0
35600	chrX	12681182	12682451	+	Usp9x	0x0
35601	chrX	12683682	12684837	+	Usp9x	0x0
35602	chrX	12686630	12687800	+	Usp9x	0x0
35603	chrX	12690197	12692287	+	Usp9x	0x0
35604	chrX	12699855	12701101	+	Usp9x	0x0
35605	chrX	12708092	12710055	+	Usp9x	0x0
35606	chrX	12711495	12712691	+	Usp9x	0x0
35607	chrX	12716742	12717890	+	Usp9x	0x0
35608	chrX	12720944	12723045	+	Usp9x	0x0
35609	chrX	12724540	12725689	+	Usp9x	0x0
35610	chrX	12732950	12734128	+	Usp9x	0x0
35611	chrX	12737956	12739381	+	Usp9x	0x0
35612	chrX	12741306	12742549	+	Usp9x	0x0
35613	chrX	12779230	12781369	+	Usp9x	0x0
35614	chrX	12847810	12849009	-	2010308F09Rik	0x0
35615	chrX	12854504	12855722	-	2010308F09Rik	0x0
35616	chrX	12868212	12871601	+	Ddx3x	0x1
35617	chrX	13094407	13097720	-	Cask	0x0
35618	chrX	13098201	13099267	-	Cask	0x0
35619	chrX	13245645	13246814	+	Gpr82	0x0
35620	chrX	13422401	13423516	-	Cask	0x0
35621	chrX	13435358	13436574	-	Cask	0x0
35622	chrX	13891976	13893251	-	Cask	0x0
35623	chrX	16262233	16263397	+	Maoa	0x0
35624	chrX	17134039	17135208	-	Fundc1	0x0
35625	chrX	17251134	17252374	-	Fundc1	0x0
35626	chrX	17740550	17741692	+	Kdm6a	0x2
35627	chrX	17785615	17786804	+	Kdm6a	0x2
35628	chrX	17827402	17828599	+	Kdm6a	0x2
35629	chrX	17855560	17856838	+	Kdm6a	0x2
35630	chrX	19682196	19683369	-	Slc9a7	0x0
35631	chrX	19953521	19954723	+	Rp2h	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35632	chrX	19962481	19963651	+	Rp2h	0x0
35633	chrX	19974893	19977978	+	Rp2h	0x0
35634	chrX	20004282	20005497	+	Rp2h	0x0
35635	chrX	20094669	20097571	+	Phf16	0x0
35636	chrX	20157827	20159022	-	Ndufb11	0x0
35637	chrX	20192055	20193493	-	Ndufb11	0x0
35638	chrX	20193611	20194834	-	Ndufb11	0x0
35639	chrX	20196941	20198058	+	Rbm10	0x0
35640	chrX	20218331	20219474	+	Rbm10	0x0
35641	chrX	20225225	20226380	+	Rbm10	0x0
35642	chrX	20227367	20228559	+	Rbm10	0x0
35643	chrX	20245796	20246895	+	Uba1	0x0
35644	chrX	20247976	20250628	+	Uba1	0x0
35645	chrX	20255287	20256462	+	Uba1	0x0
35646	chrX	20257751	20260707	+	Uba1	0x0
35647	chrX	20275454	20277559	+	Cdk16	0x0
35648	chrX	20294166	20295263	+	Usp11	0x0
35649	chrX	20296255	20297462	+	Usp11	0x0
35650	chrX	20394703	20395877	+	Araf	0x0
35651	chrX	20406271	20407488	+	Araf	0x0
35652	chrX	20426523	20427644	+	Araf	0x0
35653	chrX	20429143	20430344	+	Araf	0x0
35654	chrX	20435424	20436546	+	Araf	0x0
35655	chrX	20436622	20438171	+	Araf	0x0
35656	chrX	20437798	20438963	-	Syn1	0x0
35657	chrX	20451185	20452344	+	Timp1	0x0
35658	chrX	20510833	20512664	-	Elk1	0x0
35659	chrX	20534069	20535176	-	Uxt	0x0
35660	chrX	20555997	20557217	+	A230072C01Rik	0x0
35661	chrX	20603998	20605181	-	Zfp182	0x0
35662	chrX	20606121	20607310	-	Zfp182	0x0
35663	chrX	21257143	21258359	-	Gm6938	0x0
35664	chrX	22795916	22797788	-	Klhl13	0x0
35665	chrX	22805156	22806394	-	Klhl13	0x0
35666	chrX	22811804	22813692	-	Klhl13	0x0
35667	chrX	22823922	22825948	-	Klhl13	0x0
35668	chrX	22867765	22868913	-	Klhl13	0x0
35669	chrX	22885224	22886424	-	Klhl13	0x0
35670	chrX	22906042	22907221	-	Klhl13	0x0
35671	chrX	22914798	22916124	-	Klhl13	0x0
35672	chrX	22931722	22932846	-	Klhl13	0x0
35673	chrX	23334419	23335567	+	Wdr44	0x0
35674	chrX	23585003	23586452	+	Gm4907	0x1
35675	chrX	24819587	24820757	+	Gm4907	0x1
35676	chrX	30529722	30531883	+	Gm2799	0x0
35677	chrX	31681035	31682321	+	Gm2837	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35678	chrX	31683003	31684857	+	Gm2837	0x0
35679	chrX	32689059	32690224	+	Gm10230	0x0
35680	chrX	32689059	32690224	+	Gm10486	0x0
35681	chrX	32689059	32690224	+	Gm14632	0x0
35682	chrX	32689059	32690224	+	Gm14819	0x0
35683	chrX	33267020	33268302	+	Dock11	0x0
35684	chrX	33359899	33361051	-	Akap17b	0x0
35685	chrX	33521892	33523034	+	Dock11	0x0
35686	chrX	33620243	33621442	+	Dock11	0x0
35687	chrX	33752991	33754175	-	Akap17b	0x0
35688	chrX	33902766	33904155	+	Lonrf3	0x0
35689	chrX	33904853	33907066	+	Lonrf3	0x0
35690	chrX	34139317	34140428	+	Pgrmc1	0x0
35691	chrX	34144565	34146398	+	Pgrmc1	0x0
35692	chrX	34148733	34150892	-	Akap17b	0x0
35693	chrX	34150946	34152175	-	Akap17b	0x0
35694	chrX	34307280	34308380	-	C330007P06Rik	0x0
35695	chrX	34336516	34339320	+	Slc25a5	0x0
35696	chrX	34354456	34355634	-	C330007P06Rik	0x0
35697	chrX	34388557	34391421	-	C330007P06Rik	0x0
35698	chrX	34426455	34428759	-	Nkrf	0x0
35699	chrX	34453607	34454807	-	Sept6	0x0
35700	chrX	34622025	34623566	-	Rpl39	0x0
35701	chrX	34622025	34623566	-	Snora69	0x0
35702	chrX	34631460	34632901	-	Upf3b	0x0
35703	chrX	34688738	34691158	+	Nkap	0x0
35704	chrX	35094325	35095511	-	Rhox2h	0x0
35705	chrX	35532790	35533986	-	Tmem255a	0x0
35706	chrX	35643138	35644289	+	Atp1b4	0x0
35707	chrX	35700084	35701252	-	Lamp2	0x0
35708	chrX	35753693	35754839	-	Lamp2	0x0
35709	chrX	35764273	35765477	-	Lamp2	0x0
35710	chrX	35772532	35775148	-	Lamp2	0x0
35711	chrX	35796531	35797749	-	Lamp2	0x0
35712	chrX	35884325	35886767	-	Cul4b	0x0
35713	chrX	35895927	35897045	-	Cul4b	0x0
35714	chrX	35902687	35903786	-	Cul4b	0x0
35715	chrX	35914262	35915398	-	Cul4b	0x0
35716	chrX	35966017	35967140	+	Mcts1	0x1
35717	chrX	39148541	39151166	-	Thoc2	0x0
35718	chrX	39211444	39212588	-	Thoc2	0x0
35719	chrX	39447301	39448969	+	Xiap	0x0
35720	chrX	39457997	39461526	+	Xiap	0x0
35721	chrX	39462177	39463295	+	Xiap	0x0
35722	chrX	39545051	39546210	+	Stag2	0x0
35723	chrX	39588942	39590133	+	Stag2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35724	chrX	39603016	39604169	+	Stag2	0x0
35725	chrX	39612064	39613191	+	Stag2	0x0
35726	chrX	39628221	39630887	+	Stag2	0x0
35727	chrX	40606720	40607939	+	Gm362	0x0
35728	chrX	42139636	42141098	-	Dcaf12l1	0x0
35729	chrX	42594347	42595472	-	Dcaf12l1	0x0
35730	chrX	43808563	43809705	-	4930515L19Rik	0x0
35731	chrX	45162687	45163832	-	Smarca1	0x2
35732	chrX	45268923	45270086	+	Ocrl	0x0
35733	chrX	45281073	45282292	+	Ocrl	0x0
35734	chrX	45316924	45319540	+	Ocrl	0x0
35735	chrX	45378449	45379658	-	Apln	0x0
35736	chrX	45488409	45490309	+	Xpnpep2	0x2
35737	chrX	45525516	45526748	-	Zdhhc9	0x0
35738	chrX	45543861	45544995	-	Zdhhc9	0x0
35739	chrX	45598715	45599897	-	9530027J09Rik	0x0
35740	chrX	45620204	45621400	+	Utp14a	0x0
35741	chrX	45622021	45623134	+	Utp14a	0x0
35742	chrX	45629975	45631162	+	Utp14a	0x0
35743	chrX	45722336	45723569	+	Bcorl1	0x0
35744	chrX	45759212	45761173	+	Bcorl1	0x0
35745	chrX	45765391	45767800	-	Elf4	0x2
35746	chrX	45778492	45779682	-	Elf4	0x2
35747	chrX	45827630	45828868	-	Aifm1	0x0
35748	chrX	45832764	45833972	-	Aifm1	0x0
35749	chrX	45864030	45865163	-	Aifm1	0x0
35750	chrX	45865906	45867057	-	Aifm1	0x0
35751	chrX	45895603	45896785	-	Zfp280c	0x2
35752	chrX	46273739	46274918	+	Rbmx2	0x0
35753	chrX	46549257	46550468	-	Enox2	0x0
35754	chrX	46565053	46566208	-	Enox2	0x0
35755	chrX	46572912	46574040	-	Enox2	0x0
35756	chrX	46586135	46587286	-	Enox2	0x0
35757	chrX	46749229	46750405	+	Arhgap36	0x0
35758	chrX	47909817	47910916	-	6720401G13Rik	0x0
35759	chrX	47913514	47914852	-	6720401G13Rik	0x0
35760	chrX	47915977	47917552	-	6720401G13Rik	0x0
35761	chrX	47922231	47923386	-	6720401G13Rik	0x0
35762	chrX	47944444	47945606	-	6720401G13Rik	0x0
35763	chrX	47971273	47972413	-	6720401G13Rik	0x0
35764	chrX	47976216	47977408	-	6720401G13Rik	0x0
35765	chrX	48244868	48246659	+	2610018G03Rik	0x0
35766	chrX	48357057	48359933	-	Rap2c	0x0
35767	chrX	48469906	48471095	-	Mbnl3	0x0
35768	chrX	48473100	48474257	-	Mbnl3	0x0
35769	chrX	48740357	48741540	-	Hs6st2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35770	chrX	48931787	48932977	-	Hs6st2	0x0
35771	chrX	49104198	49106095	-	Usp26	0x2
35772	chrX	49106413	49107947	-	Usp26	0x2
35773	chrX	49403748	49406353	-	Gpc4	0x0
35774	chrX	49415535	49416904	-	Gpc4	0x0
35775	chrX	49426894	49428090	-	Gpc4	0x0
35776	chrX	49447246	49448415	-	Gpc4	0x0
35777	chrX	49600685	49601869	-	Gpc3	0x1
35778	chrX	49625019	49626295	-	Gpc3	0x1
35779	chrX	49781168	49782414	-	Gpc3	0x1
35780	chrX	49888044	49889206	-	Gpc3	0x1
35781	chrX	49900661	49901760	-	Gpc3	0x1
35782	chrX	49904346	49905505	-	Gpc3	0x1
35783	chrX	49927026	49928147	-	Gpc3	0x1
35784	chrX	49933899	49935093	-	Gpc3	0x1
35785	chrX	49966296	49967446	-	Gpc3	0x1
35786	chrX	50125063	50126245	-	Kis2	0x0
35787	chrX	50278053	50279273	+	Phf6	0x1
35788	chrX	50292736	50293862	+	Phf6	0x1
35789	chrX	50307092	50310435	+	Phf6	0x1
35790	chrX	50373909	50375297	+	Hprt	0x0
35791	chrX	50408674	50409803	-	C430049B03Rik	0x0
35792	chrX	50596898	50600408	-	Fam122b	0x0
35793	chrX	53629875	53631322	+	Ncrna00086	0x0
35794	chrX	53633055	53634189	+	Ncrna00086	0x0
35795	chrX	53756164	53757297	+	Ddx26b	0x0
35796	chrX	53838532	53841810	-	Mir5116	0x0
35797	chrX	53838532	53841810	-	Mmgt1	0x0
35798	chrX	53914204	53915786	+	Slc9a6	0x0
35799	chrX	53916080	53917491	+	Slc9a6	0x0
35800	chrX	54044525	54046912	+	Fhl1	0x0
35801	chrX	54685825	54686976	+	Gm364	0x0
35802	chrX	54716972	54718137	+	Gm364	0x0
35803	chrX	55287686	55288831	+	Zic3	0x2
35804	chrX	56315207	56316340	-	Fgf13	0x0
35805	chrX	57308589	57310073	-	Mcf2	0x0
35806	chrX	57338646	57339765	-	Mcf2	0x0
35807	chrX	57342904	57344036	-	Mcf2	0x0
35808	chrX	57356636	57357766	-	Mcf2	0x0
35809	chrX	57366003	57367127	-	Mcf2	0x0
35810	chrX	57476731	57478905	-	Atp11c	0x0
35811	chrX	57483924	57485086	-	Atp11c	0x0
35812	chrX	57655644	57656873	-	Atp11c	0x0
35813	chrX	57829770	57831666	-	Gm7073	0x0
35814	chrX	57909795	57910909	+	Gm715	0x0
35815	chrX	59038186	59039385	+	Ldoc1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35816	chrX	59508545	59509721	+	4933402E13Rik	0x0
35817	chrX	60684685	60685784	-	Gm6760	0x0
35818	chrX	61749718	61751668	+	3830417A13Rik	0x0
35819	chrX	62187968	62189152	+	Ctag2	0x0
35820	chrX	62189583	62191567	+	Ctag2	0x0
35821	chrX	64031149	64032601	-	Mir743b	0x0
35822	chrX	65968667	65971140	+	Fmr1	0x0
35823	chrX	66858204	66859381	-	1700111N16Rik	0x0
35824	chrX	67596016	67599089	-	Ids	0x0
35825	chrX	67599309	67600350	-	Ids	0x0
35826	chrX	67605776	67606983	-	Ids	0x0
35827	chrX	67610966	67612181	-	Ids	0x0
35828	chrX	67712405	67714198	-	BC023829	0x0
35829	chrX	68472154	68473333	+	Mtm1	0x0
35830	chrX	68513445	68514645	+	Mtm1	0x0
35831	chrX	68566546	68567715	+	Mtm1	0x0
35832	chrX	68669983	68672559	+	Mtmr1	0x0
35833	chrX	68673409	68675197	-	Cd99l2	0x0
35834	chrX	68812923	68814320	+	Hmgb3	0x0
35835	chrX	69068947	69070070	+	Vma21	0x0
35836	chrX	69213362	69214517	+	Prrg3	0x0
35837	chrX	69214523	69218364	+	Fate1	0x0
35838	chrX	69214523	69218364	+	Prrg3	0x0
35839	chrX	70249898	70251028	+	Zfp185	0x0
35840	chrX	70275276	70277207	+	Zfp185	0x0
35841	chrX	70278866	70282909	-	Pnma5	0x0
35842	chrX	70312365	70313539	+	Pnma3	0x0
35843	chrX	70331163	70332372	-	Xlr3a	0x0
35844	chrX	70499446	70500659	-	Xlr3c	0x0
35845	chrX	70504104	70505332	-	Xlr3c	0x0
35846	chrX	70528454	70529629	-	Xlr5c	0x0
35847	chrX	70601529	70604303	+	Zfp275	0x0
35848	chrX	70629040	70630187	+	Zfp275	0x0
35849	chrX	70640276	70641777	-	Trex2	0x0
35850	chrX	70641985	70643180	-	Trex2	0x0
35851	chrX	70736851	70738956	+	Bgn	0x0
35852	chrX	70740032	70741505	+	Bgn	0x0
35853	chrX	70887627	70889283	+	Dusp9	0x2
35854	chrX	70918656	70919861	+	Slc6a8	0x0
35855	chrX	70926254	70928285	+	Slc6a8	0x0
35856	chrX	70931070	70932385	-	Bcap31	0x0
35857	chrX	70932678	70934694	-	Bcap31	0x0
35858	chrX	70936867	70938058	-	Bcap31	0x0
35859	chrX	71009439	71010566	+	Plxnb3	0x0
35860	chrX	71023806	71026352	-	Idh3g	0x0
35861	chrX	71032302	71033489	+	Ssr4	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35862	chrX	71035257	71036441	+	Ssr4	0x0
35863	chrX	71038197	71040765	-	Pdzd4	0x0
35864	chrX	71062248	71063462	-	Pdzd4	0x0
35865	chrX	71161806	71163027	-	Naa10	0x0
35866	chrX	71175175	71176395	-	Renbp	0x0
35867	chrX	71179660	71180854	+	Avpr2	0x0
35868	chrX	71187696	71189295	-	Hcfc1	0x0
35869	chrX	71193141	71194295	-	Hcfc1	0x0
35870	chrX	71195128	71196275	-	Hcfc1	0x0
35871	chrX	71196477	71197672	-	Hcfc1	0x0
35872	chrX	71204365	71205569	-	Hcfc1	0x0
35873	chrX	71210735	71212312	-	Hcfc1	0x0
35874	chrX	71258752	71260889	-	Irak1	0x0
35875	chrX	71263087	71264225	-	Irak1	0x0
35876	chrX	71265254	71266401	-	Irak1	0x0
35877	chrX	71273103	71274730	-	Mecp2	0x0
35878	chrX	71275999	71277159	-	Mecp2	0x0
35879	chrX	71280093	71281224	-	Mecp2	0x0
35880	chrX	71468291	71470738	-	Flna	0x2
35881	chrX	71471331	71472465	-	Flna	0x2
35882	chrX	71475401	71476584	-	Flna	0x2
35883	chrX	71480525	71482026	-	Flna	0x2
35884	chrX	71486343	71487706	-	Flna	0x2
35885	chrX	71487923	71489014	-	Flna	0x2
35886	chrX	71491089	71492286	-	Flna	0x2
35887	chrX	71500292	71501723	+	Emd	0x0
35888	chrX	71502029	71503480	+	Emd	0x0
35889	chrX	71517337	71518508	+	Rpl10	0x1
35890	chrX	71517337	71518508	+	Snora70	0x0
35891	chrX	71533210	71534309	+	Taz	0x0
35892	chrX	71547254	71548481	+	Atp6ap1	0x0
35893	chrX	71549237	71550570	+	Atp6ap1	0x0
35894	chrX	71549237	71550570	+	Gdi1	0x0
35895	chrX	71555946	71557652	+	Gdi1	0x0
35896	chrX	71557903	71559099	+	Fam50a	0x0
35897	chrX	71563541	71564691	+	Fam50a	0x0
35898	chrX	71586862	71587981	+	Plxna3	0x0
35899	chrX	71589253	71590448	+	Plxna3	0x0
35900	chrX	71598211	71599406	-	Lage3	0x0
35901	chrX	71611292	71612781	-	Ubl4	0x0
35902	chrX	71654546	71655780	-	G6pdx	0x0
35903	chrX	71668955	71670072	-	G6pdx	0x0
35904	chrX	71672900	71674086	-	G6pdx	0x0
35905	chrX	71694410	71695622	+	Ikbkg	0x0
35906	chrX	71944705	71945850	+	Gm6890	0x0
35907	chrX	72165644	72166852	+	Gm5936	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35908	chrX	72343561	72344772	+	Dkc1	0x0
35909	chrX	72353893	72355626	+	Dkc1	0x0
35910	chrX	72355154	72356349	-	Mpp1	0x0
35911	chrX	72530773	72531872	-	F8	0x2
35912	chrX	72639238	72640875	+	Fundc2	0x0
35913	chrX	72698087	72699241	+	Brcc3	0x0
35914	chrX	72700408	72701599	+	Brcc3	0x0
35915	chrX	72778988	72780746	+	Vbp1	0x0
35916	chrX	72918116	72919262	+	Vbp1	0x0
35917	chrX	73030488	73032327	-	Pls3	0x0
35918	chrX	73373679	73375222	-	Pls3	0x0
35919	chrX	73520809	73521938	+	Gm4937	0x0
35920	chrX	73618631	73619767	+	4930428D18Rik	0x0
35921	chrX	73666606	73667745	-	4930468A15Rik	0x0
35922	chrX	74758591	74759754	+	Tbl1x	0x0
35923	chrX	74761909	74763879	+	Tbl1x	0x0
35924	chrX	74776347	74777542	+	Tbl1x	0x0
35925	chrX	74777848	74779002	+	Tbl1x	0x0
35926	chrX	74801952	74803268	+	Tbl1x	0x0
35927	chrX	74829055	74830218	+	Tbl1x	0x0
35928	chrX	74838937	74840058	+	Tbl1x	0x0
35929	chrX	74905104	74908636	+	Tbl1x	0x0
35930	chrX	75002364	75003545	-	Prkx	0x2
35931	chrX	75006561	75008718	-	Prkx	0x2
35932	chrX	75798888	75800066	-	Prrg1	0x0
35933	chrX	75926706	75927951	-	Prrg1	0x0
35934	chrX	76102411	76103621	-	Prrg1	0x0
35935	chrX	76440087	76441366	+	Fam47c	0x0
35936	chrX	76875603	76876779	-	Mageb16	0x0
35937	chrX	77120669	77121847	+	Fam47c	0x0
35938	chrX	77779252	77780446	-	Mageb16	0x0
35939	chrX	78339866	78341659	+	Tmem47	0x0
35940	chrX	78342277	78343709	+	Tmem47	0x0
35941	chrX	79066415	79067593	-	4930595M18Rik	0x2
35942	chrX	79447788	79448914	-	4930595M18Rik	0x2
35943	chrX	81623842	81625002	-	Tsga8	0x0
35944	chrX	81643787	81644885	-	Tsga8	0x0
35945	chrX	81647056	81648210	-	Tsga8	0x0
35946	chrX	81668689	81669837	-	Tsga8	0x0
35947	chrX	82355771	82356917	+	Dmd	0x2
35948	chrX	82380792	82381970	+	Dmd	0x2
35949	chrX	82427256	82428439	+	Dmd	0x2
35950	chrX	82447959	82450351	+	Dmd	0x2
35951	chrX	82877710	82879801	+	Tab3	0x0
35952	chrX	82947606	82948815	-	Gyk	0x0
35953	chrX	83440198	83441769	+	Nr0b1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
35954	chrX	84483098	84484325	+	Nr0b1	0x0
35955	chrX	87127335	87128743	-	4930415L06Rik	0x0
35956	chrX	87989415	87990875	-	4930415L06Rik	0x0
35957	chrX	89132649	89133813	-	Gm5071	0x0
35958	chrX	90549589	90551458	-	Pola1	0x0
35959	chrX	90656976	90658163	-	Pola1	0x0
35960	chrX	90706158	90707400	-	Pola1	0x0
35961	chrX	90708091	90709348	-	Pola1	0x0
35962	chrX	90735591	90736717	-	Pola1	0x0
35963	chrX	90822336	90823537	-	Pola1	0x0
35964	chrX	90830661	90831844	-	Pola1	0x0
35965	chrX	90848338	90849535	-	Pola1	0x0
35966	chrX	90992273	90995234	+	Pcyt1b	0x0
35967	chrX	91001044	91002713	-	Pdk3	0x0
35968	chrX	91005160	91006364	-	Pdk3	0x0
35969	chrX	91006630	91010783	-	Pdk3	0x0
35970	chrX	91162737	91163927	-	Pdk3	0x0
35971	chrX	91214589	91215780	+	AU015836	0x0
35972	chrX	91216669	91217849	+	AU015836	0x0
35973	chrX	91218814	91221279	+	AU015836	0x0
35974	chrX	91319665	91322108	-	Zfx	0x0
35975	chrX	91322151	91323298	-	Zfx	0x0
35976	chrX	91326238	91327336	-	Zfx	0x0
35977	chrX	91343137	91344670	-	Zfx	0x0
35978	chrX	91352292	91353476	-	Zfx	0x0
35979	chrX	91434182	91435991	-	Eif2s3x	0x0
35980	chrX	91783482	91784659	-	Maged1	0x2
35981	chrX	91784797	91785832	-	Maged1	0x2
35982	chrX	91973201	91974426	+	Zxdb	0x0
35983	chrX	92037976	92039186	-	Zxda	0x0
35984	chrX	92039923	92041110	-	Zxda	0x0
35985	chrX	92193093	92194257	-	Spin4	0x0
35986	chrX	92615261	92616701	-	Amer1	0x0
35987	chrX	92616981	92619079	-	Amer1	0x0
35988	chrX	92619114	92620212	-	Amer1	0x0
35989	chrX	92623048	92624229	-	Amer1	0x0
35990	chrX	92834756	92836177	-	Zc4h2	0x0
35991	chrX	93135229	93136399	-	Las1l	0x0
35992	chrX	93142024	93143236	-	Las1l	0x0
35993	chrX	93343814	93344915	+	Msn	0x2
35994	chrX	93349106	93350257	+	Msn	0x2
35995	chrX	93358239	93359372	+	Msn	0x2
35996	chrX	93361817	93364345	+	Msn	0x2
35997	chrX	94528502	94531102	-	Eda2r	0x1
35998	chrX	94531108	94534588	-	Eda2r	0x1
35999	chrX	94538194	94540500	-	Eda2r	0x1

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
36000	chrX	95733072	95734254	-	Ophn1	0x0
36001	chrX	96139978	96141214	+	Yipf6	0x0
36002	chrX	96142013	96144233	+	Yipf6	0x0
36003	chrX	96268157	96269483	+	Stard8	0x2
36004	chrX	96342913	96344153	+	Efnb1	0x0
36005	chrX	97042635	97043750	+	Tmem28	0x0
36006	chrX	97291311	97292462	+	Eda	0x0
36007	chrX	97330858	97332009	+	Eda	0x0
36008	chrX	97347075	97348190	+	Eda	0x0
36009	chrX	97506186	97507321	+	Eda	0x0
36010	chrX	97592473	97593595	+	Eda	0x0
36011	chrX	97594299	97595564	+	Eda	0x0
36012	chrX	97625196	97626898	+	Otud6a	0x0
36013	chrX	97697834	97698998	+	Igbp1	0x0
36014	chrX	97800893	97802114	-	P2ry4	0x0
36015	chrX	97813653	97814809	-	Pdzd11	0x0
36016	chrX	97819046	97820270	-	Pdzd11	0x0
36017	chrX	98007143	98008252	+	Dlg3	0x2
36018	chrX	98011925	98013998	+	Dlg3	0x2
36019	chrX	98274042	98275317	-	Slc7a3	0x0
36020	chrX	98383738	98384872	-	Snx12	0x0
36021	chrX	98394551	98395615	-	Snx12	0x0
36022	chrX	98396595	98398479	-	Snx12	0x0
36023	chrX	98399172	98400370	-	Snx12	0x0
36024	chrX	98407058	98408280	-	Snx12	0x0
36025	chrX	98410274	98411504	-	Snx12	0x0
36026	chrX	98416251	98417381	-	Snx12	0x0
36027	chrX	98437565	98438765	+	Foxo4	0x1
36028	chrX	98453021	98454517	+	Foxo4	0x1
36029	chrX	98454589	98456510	+	Foxo4	0x1
36030	chrX	98471589	98472688	+	Med12	0x2
36031	chrX	98599573	98601504	-	Zmym3	0x0
36032	chrX	98613662	98614788	-	Zmym3	0x0
36033	chrX	98636407	98637642	+	Nono	0x2
36034	chrX	98638195	98639312	+	Nono	0x2
36035	chrX	98642494	98643942	+	Nono	0x2
36036	chrX	98722586	98723883	+	Taf1	0x2
36037	chrX	98741808	98742993	+	Taf1	0x2
36038	chrX	98747161	98748352	+	Taf1	0x2
36039	chrX	98751943	98753181	+	Taf1	0x2
36040	chrX	98794971	98796499	+	Taf1	0x2
36041	chrX	98835031	98836169	+	Ogt	0x0
36042	chrX	98855630	98856738	+	Ogt	0x0
36043	chrX	98858700	98859788	+	Ogt	0x0
36044	chrX	98877768	98880258	+	Ogt	0x0
36045	chrX	99081144	99082330	+	Nhsl2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
36046	chrX	99206776	99207939	+	Nhsl2	0x0
36047	chrX	99273067	99274243	+	Nhsl2	0x0
36048	chrX	99276551	99277653	+	Nhsl2	0x0
36049	chrX	99280708	99282188	+	Nhsl2	0x0
36050	chrX	99284024	99285249	+	Nhsl2	0x0
36051	chrX	99337446	99339237	-	Ercc6l	0x0
36052	chrX	99379694	99380799	-	Rps4x	0x0
36053	chrX	99382595	99383836	-	Rps4x	0x0
36054	chrX	99699972	99701132	-	Hdac8	0x0
36055	chrX	99708889	99711656	-	Phka1	0x0
36056	chrX	99810719	99811865	-	Phka1	0x0
36057	chrX	99918692	99919891	-	Gm9112	0x0
36058	chrX	100219031	100220218	-	Gm5126	0x0
36059	chrX	100358335	100359973	-	Nap1l2	0x0
36060	chrX	100381256	100382394	-	Nap1l2	0x0
36061	chrX	100422571	100424801	-	4930519F16Rik	0x0
36062	chrX	100435567	100436764	-	4930519F16Rik	0x0
36063	chrX	100454292	100455449	-	4930519F16Rik	0x0
36064	chrX	100461000	100462225	-	4930519F16Rik	0x0
36065	chrX	100462867	100464094	-	4930519F16Rik	0x0
36066	chrX	100468952	100470091	-	4930519F16Rik	0x0
36067	chrX	100472904	100474071	-	4930519F16Rik	0x0
36068	chrX	100475377	100476476	-	4930519F16Rik	0x0
36069	chrX	100491649	100493050	-	4930519F16Rik	0x0
36070	chrX	100493911	100495007	-	4930519F16Rik	0x0
36071	chrX	100585440	100587524	+	Chic1	0x0
36072	chrX	100588924	100591863	+	Chic1	0x0
36073	chrX	100644774	100645891	+	Tsix	0x0
36074	chrX	100654965	100656064	+	Tsix	0x0
36075	chrX	100656129	100657241	+	Tsix	0x0
36076	chrX	100659168	100660316	+	Tsix	0x0
36077	chrX	100666882	100668018	+	Tsix	0x0
36078	chrX	100674444	100675711	+	Tsix	0x0
36079	chrX	100676086	100677178	-	Xist	0x4
36080	chrX	100677258	100678511	-	Xist	0x4
36081	chrX	100914813	100915921	-	Slc16a2	0x0
36082	chrX	100957609	100958745	-	Slc16a2	0x0
36083	chrX	101148627	101149853	+	Zcchc13	0x0
36084	chrX	101153301	101156003	-	Rlim	0x0
36085	chrX	101170770	101171898	-	Rlim	0x0
36086	chrX	101272732	101273839	-	C77370	0x0
36087	chrX	101275249	101276379	-	C77370	0x0
36088	chrX	101326267	101327461	-	Mir672	0x0
36089	chrX	101372830	101374042	-	C77370	0x0
36090	chrX	101475802	101478592	-	Abcb7	0x0
36091	chrX	101496629	101497800	-	Abcb7	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
36092	chrX	101541766	101543607	-	Abcb7	0x0
36093	chrX	101701445	101704531	+	Uprt	0x0
36094	chrX	101777287	101778508	-	Zdhhc15	0x0
36095	chrX	102278610	102283795	+	Pbdc1	0x0
36096	chrX	102300547	102301706	+	Magee1	0x0
36097	chrX	102773640	102774857	-	5330434G04Rik	0x0
36098	chrX	102919973	102921215	-	Atrx	0x2
36099	chrX	102992540	102995591	-	Atrx	0x2
36100	chrX	103008422	103009615	-	Atrx	0x2
36101	chrX	103015546	103016749	-	Atrx	0x2
36102	chrX	103038101	103039268	-	Atrx	0x2
36103	chrX	103040303	103041450	-	Atrx	0x2
36104	chrX	103046164	103047270	-	Atrx	0x2
36105	chrX	103061364	103062581	-	Atrx	0x2
36106	chrX	103071516	103073090	-	Atrx	0x2
36107	chrX	103119677	103120909	-	Atrx	0x2
36108	chrX	103122648	103123819	-	Atrx	0x2
36109	chrX	103163167	103166852	-	Magt1	0x0
36110	chrX	103228068	103229171	+	Atp7a	0x0
36111	chrX	103321138	103322358	+	Atp7a	0x0
36112	chrX	103382465	103383644	+	Pgk1	0x0
36113	chrX	103393641	103394740	+	Pgk1	0x0
36114	chrX	103398262	103399514	+	Pgk1	0x0
36115	chrX	103478944	103480170	-	Fnd3c2	0x0
36116	chrX	104060978	104062126	+	Lpar4	0x0
36117	chrX	104592073	104593346	-	Itm2a	0x0
36118	chrX	105010499	105011677	-	2610002M06Rik	0x0
36119	chrX	105930758	105931855	-	Brwd3	0x0
36120	chrX	105932399	105933480	-	Brwd3	0x0
36121	chrX	105934883	105937293	-	Brwd3	0x0
36122	chrX	105955121	105956311	-	Brwd3	0x0
36123	chrX	106199531	106200810	-	Hmgn5	0x0
36124	chrX	106355827	106358126	+	Sh3bgrl	0x0
36125	chrX	106584587	106586108	-	Hmgn5	0x0
36126	chrX	107817642	107818863	-	Rps6ka6	0x1
36127	chrX	108501378	108503396	-	Rps6ka6	0x1
36128	chrX	108517731	108518877	-	Rps6ka6	0x1
36129	chrX	108767694	108768868	-	Hdx	0x0
36130	chrX	109485590	109486783	+	Apool	0x0
36131	chrX	110154630	110156736	-	Chm	0x0
36132	chrX	111443703	111444844	-	Chm	0x0
36133	chrX	111826343	111827478	-	Chm	0x0
36134	chrX	114431168	114432359	-	Tgif2lx2	0x0
36135	chrX	114434494	114435658	-	Tgif2lx2	0x0
36136	chrX	115557244	115558465	+	Tgif2lx2	0x0
36137	chrX	119801748	119802922	+	3110007F17Rik	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
36138	chrX	120027509	120028635	-	Nap1l3	0x0
36139	chrX	120263765	120264958	-	Nap1l3	0x0
36140	chrX	125082247	125083478	-	4932411N23Rik	0x1
36141	chrX	126336497	126337732	+	Diap2	0x0
36142	chrX	126357740	126358888	+	Diap2	0x0
36143	chrX	126358962	126360090	+	Diap2	0x0
36144	chrX	126361829	126363026	+	Diap2	0x0
36145	chrX	126405250	126406441	+	Diap2	0x0
36146	chrX	126516242	126517359	+	Diap2	0x0
36147	chrX	126568967	126570119	+	Diap2	0x0
36148	chrX	126713197	126714401	+	Diap2	0x0
36149	chrX	126911494	126912640	+	Diap2	0x0
36150	chrX	126995875	126997561	+	Diap2	0x0
36151	chrX	126997640	127000810	+	Diap2	0x0
36152	chrX	130118285	130119445	-	Pcdh19	0x0
36153	chrX	130119712	130120861	-	Pcdh19	0x0
36154	chrX	130425178	130426801	-	Tspan6	0x0
36155	chrX	130618837	130619970	+	Cstf2	0x0
36156	chrX	130620169	130621877	+	Cstf2	0x0
36157	chrX	130757548	130758698	-	Trmt2b	0x0
36158	chrX	130854448	130855547	+	Cenpi	0x0
36159	chrX	130876578	130877745	+	Cenpi	0x0
36160	chrX	130878552	130879660	+	Cenpi	0x0
36161	chrX	131071574	131072783	-	Timm8a1	0x0
36162	chrX	131121964	131123151	+	Rpl36a	0x0
36163	chrX	131139948	131141117	+	Hnrnph2	0x0
36164	chrX	131207651	131208849	-	B230119M05Rik	0x0
36165	chrX	131220485	131221654	+	Armcx4	0x0
36166	chrX	131226673	131228190	+	Armcx4	0x0
36167	chrX	131338232	131339432	-	Armcx2	0x0
36168	chrX	132298393	132299543	+	Gprasp1	0x0
36169	chrX	132299819	132301576	+	Gprasp1	0x0
36170	chrX	132335916	132337015	+	Gprasp1	0x0
36171	chrX	132412228	132413463	-	Tmsb15a	0x0
36172	chrX	132424897	132426113	+	Bhlhb9	0x0
36173	chrX	132430409	132431527	+	Bhlhb9	0x0
36174	chrX	132460053	132461191	+	Bhlhb9	0x0
36175	chrX	132502027	132503161	+	Arxes2	0x0
36176	chrX	132528599	132530374	+	Arxes2	0x0
36177	chrX	132568209	132569331	+	Arxes1	0x0
36178	chrX	132674165	132675421	+	Bex4	0x0
36179	chrX	132704512	132705738	-	Tceal8	0x0
36180	chrX	132748017	132749640	-	Bex1	0x1
36181	chrX	132780716	132781968	+	Wbp5	0x0
36182	chrX	132805626	132806877	+	Ngfrap1	0x0
36183	chrX	133267108	133268728	-	Morf4l2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
36184	chrX	133269752	133270926	-	Morf4l2	0x0
36185	chrX	133294488	133295604	+	BC065397	0x0
36186	chrX	133360930	133362034	+	Plp1	0x0
36187	chrX	133532573	133533720	-	Slc25a53	0x0
36188	chrX	133615120	133616259	+	Fam199x	0x0
36189	chrX	133649710	133650887	-	Esx1	0x0
36190	chrX	133670799	133672013	-	Esx1	0x0
36191	chrX	135804215	135805350	-	C330013F16Rik	0x0
36192	chrX	135867869	135869430	+	Trap1a	0x0
36193	chrX	135872022	135873261	+	Trap1a	0x0
36194	chrX	136248218	136249385	-	Ripply1	0x0
36195	chrX	136355975	136357554	-	Morc4	0x0
36196	chrX	136476155	136477351	-	Rbm41	0x0
36197	chrX	136477712	136479871	-	Rbm41	0x0
36198	chrX	136540846	136542239	-	Nup62cl	0x0
36199	chrX	136996775	136997939	+	Prps1	0x2
36200	chrX	137009371	137011233	+	Prps1	0x2
36201	chrX	137245839	137247038	+	Mid2	0x0
36202	chrX	137331711	137333811	+	Mid2	0x0
36203	chrX	137332217	137333662	-	Tex13	0x0
36204	chrX	137483104	137484254	-	Psmd10	0x0
36205	chrX	138160439	138161546	+	Col4a5	0x0
36206	chrX	138414176	138417319	+	Nxt2	0x0
36207	chrX	138660820	138661969	+	Nxt2	0x0
36208	chrX	138672288	138673575	+	Nxt2	0x0
36209	chrX	138673601	138674727	+	Nxt2	0x0
36210	chrX	138752135	138754981	-	Acsl4	0x0
36211	chrX	139129318	139130483	+	Tmem164	0x0
36212	chrX	139268470	139271135	+	Tmem164	0x0
36213	chrX	139271153	139273168	+	Tmem164	0x0
36214	chrX	139286763	139288665	-	Ammecr1	0x0
36215	chrX	139390180	139391366	-	Ammecr1	0x0
36216	chrX	140667216	140668447	-	Trpc5	0x0
36217	chrX	140720978	140722162	-	Trpc5	0x0
36218	chrX	140758920	140760152	+	Alg13	0x0
36219	chrX	140763086	140765211	+	Alg13	0x0
36220	chrX	140766298	140767472	+	Alg13	0x0
36221	chrX	140772494	140773593	+	Alg13	0x0
36222	chrX	140784457	140785628	+	Alg13	0x0
36223	chrX	140796064	140797237	+	Alg13	0x0
36224	chrX	140802752	140803862	+	Alg13	0x0
36225	chrX	140807949	140809507	+	Alg13	0x0
36226	chrX	140816709	140817869	+	Alg13	0x0
36227	chrX	143904611	143905798	-	Lrch2	0x0
36228	chrX	143906081	143907350	-	Lrch2	0x0
36229	chrX	143914234	143915411	-	Lrch2	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
36230	chrX	146851860	146852987	-	Tmem29	0x0
36231	chrX	146871162	146872301	-	Tmem29	0x0
36232	chrX	146899360	146900550	+	Alas2	0x0
36233	chrX	146911816	146913006	-	Tmem29	0x0
36234	chrX	146936607	146937723	-	Tmem29	0x0
36235	chrX	146947012	146948251	-	Tmem29	0x0
36236	chrX	147005776	147006947	-	Apex2	0x0
36237	chrX	147017936	147019137	-	Apex2	0x0
36238	chrX	147088300	147089448	-	Tro	0x2
36239	chrX	147357643	147358974	-	Gnl3l	0x0
36240	chrX	147417435	147420983	-	Gnl3l	0x0
36241	chrX	147426366	147427437	-	Gnl3l	0x0
36242	chrX	147439794	147440946	-	Gnl3l	0x0
36243	chrX	147514110	147515310	+	Fgd1	0x2
36244	chrX	147516465	147517567	+	Fgd1	0x2
36245	chrX	147521547	147522752	-	Tsr2	0x0
36246	chrX	147522010	147523216	+	Fgd1	0x2
36247	chrX	147523282	147524543	+	Fgd1	0x2
36248	chrX	147523930	147525079	-	Tsr2	0x0
36249	chrX	147632289	147633518	+	Wnk3	0x0
36250	chrX	147644886	147646037	+	Wnk3	0x0
36251	chrX	147728489	147730840	+	Wnk3	0x0
36252	chrX	147752818	147754779	+	Wnk3	0x0
36253	chrX	147904583	147905682	+	Fam120c	0x0
36254	chrX	147906046	147907618	+	Fam120c	0x0
36255	chrX	147927032	147928333	-	A230072E10Rik	0x0
36256	chrX	148066093	148068776	+	Phf8	0x0
36257	chrX	148269227	148270393	+	Huwe1	0x0
36258	chrX	148277017	148278256	+	Huwe1	0x0
36259	chrX	148284758	148286308	+	Huwe1	0x0
36260	chrX	148290539	148291930	+	Huwe1	0x0
36261	chrX	148293661	148295832	+	Huwe1	0x0
36262	chrX	148305592	148306728	+	Huwe1	0x0
36263	chrX	148310291	148311467	+	Huwe1	0x0
36264	chrX	148316666	148318307	+	Huwe1	0x0
36265	chrX	148325032	148326979	+	Huwe1	0x0
36266	chrX	148327855	148328961	+	Huwe1	0x0
36267	chrX	148332475	148333700	+	Huwe1	0x0
36268	chrX	148337926	148340519	+	Huwe1	0x0
36269	chrX	148341043	148342439	+	Huwe1	0x0
36270	chrX	148342834	148344546	+	Huwe1	0x0
36271	chrX	148348358	148349499	+	Huwe1	0x0
36272	chrX	148349749	148350802	+	Huwe1	0x0
36273	chrX	148351230	148352389	+	Huwe1	0x0
36274	chrX	148352473	148354847	+	Huwe1	0x0
36275	chrX	148362291	148365328	+	Huwe1	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
36276	chrX	148366639	148367788	+	Huwe1	0x0
36277	chrX	148368368	148369968	+	Huwe1	0x0
36278	chrX	148467747	148468916	+	Smc1a	0x0
36279	chrX	148680304	148681457	+	Kdm5c	0x2
36280	chrX	148682371	148683853	+	Kdm5c	0x2
36281	chrX	148687487	148688631	+	Kdm5c	0x2
36282	chrX	148700828	148702022	+	Kdm5c	0x2
36283	chrX	148705418	148706674	+	Kdm5c	0x2
36284	chrX	148707218	148709191	+	Kdm5c	0x2
36285	chrX	148712212	148713549	+	Kdm5c	0x2
36286	chrX	148750134	148751930	-	2900056M20Rik	0x0
36287	chrX	148760000	148761215	-	2900056M20Rik	0x0
36288	chrX	149044045	149047291	-	Shroom2	0x0
36289	chrX	149095217	149096411	-	Shroom2	0x0
36290	chrX	149124461	149125640	-	Shroom2	0x0
36291	chrX	149167326	149168474	-	Shroom2	0x0
36292	chrX	149343993	149345156	-	Mageh1	0x0
36293	chrX	149574176	149575356	+	Rragb	0x0
36294	chrX	149828194	149830777	+	Klf8	0x0
36295	chrX	149934861	149936442	+	Ubqln2	0x0
36296	chrX	150166226	150167396	+	2210013O21Rik	0x0
36297	chrX	151977289	151978465	+	Acot9	0x0
36298	chrX	153302431	153303629	+	4930503H13Rik	0x0
36299	chrX	153450000	153451198	-	Phex	0x0
36300	chrX	153881282	153883774	-	Sms	0x0
36301	chrX	153905752	153906856	-	Sms	0x0
36302	chrX	153985686	153987058	-	Mbtps2	0x0
36303	chrX	153987412	153989440	-	Mbtps2	0x0
36304	chrX	153992315	153993509	-	Mbtps2	0x0
36305	chrX	154017194	154018374	-	Mbtps2	0x0
36306	chrX	154028809	154030048	-	Mbtps2	0x0
36307	chrX	155271439	155272612	+	Rps6ka3	0x2
36308	chrX	155694664	155695833	+	Rps6ka3	0x2
36309	chrX	155748891	155750040	+	Rps6ka3	0x2
36310	chrX	155755289	155756485	+	Rps6ka3	0x2
36311	chrX	155803818	155806090	+	Rps6ka3	0x2
36312	chrX	155813801	155814907	+	Eif1ax	0x0
36313	chrX	155823491	155825890	+	Eif1ax	0x0
36314	chrX	155896809	155898008	+	Map7d2	0x0
36315	chrX	155935271	155936926	+	Map7d2	0x0
36316	chrX	155970891	155972085	+	A830080D01Rik	0x0
36317	chrX	155997783	155998908	+	A830080D01Rik	0x0
36318	chrX	156003552	156004956	+	A830080D01Rik	0x0
36319	chrX	156019201	156020350	+	A830080D01Rik	0x0
36320	chrX	156027299	156028442	+	A830080D01Rik	0x0
36321	chrX	156029953	156031249	+	A830080D01Rik	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
36322	chrX	156109624	156110763	+	Sh3kbp1	0x0
36323	chrX	156224453	156225597	+	Sh3kbp1	0x0
36324	chrX	156264299	156265476	+	Sh3kbp1	0x0
36325	chrX	156514078	156515230	+	Map3k15	0x0
36326	chrX	156559778	156562205	-	Pdha1	0x0
36327	chrX	156560482	156561653	+	Map3k15	0x0
36328	chrX	156569418	156570704	-	Pdha1	0x0
36329	chrX	157241802	157242958	-	Cdkl5	0x0
36330	chrX	157243325	157244467	-	Cdkl5	0x0
36331	chrX	157514225	157515447	+	Scml2	0x0
36332	chrX	157539602	157540745	-	Cdkl5	0x0
36333	chrX	157662301	157663426	+	Scml2	0x0
36334	chrX	157694685	157695832	+	Scml2	0x0
36335	chrX	158389538	158390717	-	Nhs	0x0
36336	chrX	158591856	158593015	-	Nhs	0x0
36337	chrX	159215852	159217095	+	Rbbp7	0x1
36338	chrX	159216773	159218548	-	Txlng	0x0
36339	chrX	159226755	159228856	-	Txlng	0x0
36340	chrX	159240927	159242356	-	Txlng	0x0
36341	chrX	159282532	159283735	+	Ctps2	0x0
36342	chrX	159292626	159293810	-	Syap1	0x0
36343	chrX	159294730	159295873	-	Syap1	0x0
36344	chrX	159364699	159365951	+	Ctps2	0x0
36345	chrX	159374123	159375289	+	Ctps2	0x0
36346	chrX	159622438	159623582	+	Ctps2	0x0
36347	chrX	160275872	160277071	-	1700045I19Rik	0x0
36348	chrX	160365071	160367738	+	Ap1s2	0x0
36349	chrX	160375094	160376289	-	Zrsr2	0x2
36350	chrX	160390444	160391798	-	Zrsr2	0x2
36351	chrX	160487189	160488491	-	Siah1b	0x1
36352	chrX	160509121	160510222	-	Siah1b	0x1
36353	chrX	160513133	160514294	-	Siah1b	0x1
36354	chrX	160870210	160872322	+	Piga	0x0
36355	chrX	161374100	161376381	-	Mospd2	0x0
36356	chrX	162852390	162853536	-	Ofd1	0x0
36357	chrX	162881269	162882370	+	Trappc2	0x0
36358	chrX	162938359	162940113	-	Tceanc	0x0
36359	chrX	163644588	163645962	-	Tmsb4x	0x0
36360	chrX	163783946	163785686	-	Prps2	0x0
36361	chrX	163785827	163787334	-	Prps2	0x0
36362	chrX	163808148	163809290	-	Prps2	0x0
36363	chrX	163811348	163812624	-	Prps2	0x0
36364	chrX	165088684	165089877	-	Msl3	0x0
36365	chrX	165091968	165093084	-	Msl3	0x0
36366	chrX	165749196	165750666	-	Hccs	0x0
36367	chrX	165757481	165758630	-	Hccs	0x0

SEQ ID NO.	Chromosome	Start (bp)	Stop (bp)	strand	Nearest gene	Gene category
36368	chrX	166422387	166423533	+	Mid1	0x0

OTHER EMBODIMENTS

It is to be understood that while the invention has been described in conjunction with the detailed description thereof, the foregoing description is intended to illustrate and not limit the scope of the invention, which is defined by the scope of the appended claims. Other aspects, advantages, and modifications are within the scope of the following claims.

WHAT IS CLAIMED IS:

1. An inhibitory nucleic acid that specifically binds, or is complementary to, a region of an RNA that is known to bind to Polycomb repressive complex 1 (PRC1), preferably wherein the sequence of the region is selected from the group consisting of SEQ ID NOs:1 to 5893 (human), 5894 to 17415 (human), and 17416 to 36368 (mouse) as set forth in Tables 1-3, for use in the treatment of disease, wherein the treatment involves modulating expression of a gene targeted by the RNA, wherein the inhibitory nucleic acid is between 5 and 40 bases in length, and wherein the inhibitory nucleic acid is formulated as a sterile composition.

2. A process of preparing an inhibitory nucleic acid that specifically binds, or is complementary to, an RNA that is known to bind to Polycomb repressive complex 1 (PRC1), preferably selected from the group consisting of SEQ ID NOs:1 to 5893 (human), 5894 to 17415 (human), and 17416 to 36368 (mouse) as set forth in Tables 1-3, the process comprising the step of designing and/or synthesizing an inhibitory nucleic acid of between 5 and 40 bases in length, optionally single stranded, that specifically binds to a region of the RNA that binds PRC1.

3. The process of claim 2, wherein the sequence of the designed and/or synthesized inhibitory nucleic acid is a nucleic acid sequence that is complementary to said RNA sequence that binds to PRC1, or is complementary to a portion thereof, said portion having a length of from 5 to 40 contiguous base pairs.

4. The process of any one of claims 2 to 3, wherein the inhibitory nucleic acid is for use in the manufacture of a pharmaceutical composition or medicament for use in the treatment of disease, optionally wherein the treatment involves modulating expression of a gene targeted by the RNA binds to PRC1.

5. The inhibitory nucleic acid or process of any of claims 1-4 wherein the modulation is increasing expression of a gene and the region of the RNA that binds PRC1 can be in intergenic space mapping to a noncoding RNA, antisense to the coding gene, or in the promoter, 3'UTR, 5'UTR, exons, and introns of a coding gene.

6. The inhibitory nucleic acid or process of any of claims 1-4 wherein the modulation is decreasing expression of a gene and the region of the RNA that binds PRC1 can be in

intergenic space mapping to a noncoding RNA, antisense to the coding gene, or in the promoter, 5' UTR, exons, introns, and especially the 3' UTR of a coding gene.

7. The inhibitory nucleic acid or process of any of claims 1-4 wherein the modulation is to influence gene expression by altering splicing of a gene and the region of the RNA that binds PRC1 can be in intergenic space mapping to a noncoding RNA, antisense to the coding gene, or in the promoter, 3'UTR, 5'UTR, exons, and introns of a coding gene.

8. A sterile composition comprising an inhibitory nucleic acid that specifically binds, or is complementary to, an RNA sequence of any one of SEQ ID NOs:1 to 5893 (human), 5894 to 17415 (human), and 17416 to 36368 (mouse) and is capable of modulating expression of a gene targeted by the RNA as set forth in Tables 1-3.

9. The sterile composition of claim 8 which is for parenteral administration.

10. The sterile composition of claim 8 or 9 wherein the RNA sequence is in the 3'UTR of a gene, and the inhibitory nucleic acid is capable of upregulating or downregulating expression of a gene targeted by the RNA.

11. An inhibitory nucleic acid for use in the treatment of disease, wherein said inhibitory nucleic acid specifically binds, or is complementary to, an RNA sequence of any one of SEQ ID NOs:1 to 5893 (human) or 5894 to 17415 (human), and wherein the treatment involves modulating expression of a gene targeted by the RNA according to Tables 1-3.

12. A method of modulating gene expression in a cell or a mammal comprising administering to the cell or the mammal an inhibitory nucleic acid that specifically binds, or is complementary to, an RNA sequence of any one of SEQ ID NOs:1 to 5893 (human) or 5894 to 17415 (human) or 17416 to 36368 (mouse), in an amount effective for modulating expression of a gene targeted by the RNA according to Table 1-3.

13. An inhibitory nucleic acid of about 5 to 50 bases in length that specifically binds, or is complementary to, a fragment of at least five consecutive bases within any of SEQ ID NOs:1 to 5893 (human) or 5894 to 17415 (human) or 17416 to 36368 (mouse), optionally for use in the treatment of disease, wherein the treatment involves modulating expression of a gene targeted by the RNA.

14. A method of modulating expression of a gene comprising administering to a mammal an inhibitory nucleic acid of claim 13 in an amount effective for modulating expression of a gene targeted by the RNA as set forth in Tables 1-3.

15. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the modulation is upregulating or downregulating gene expression, optionally wherein the gene targeted by the RNA is selected from the group set forth in Tables 1-3, and wherein the RNA sequence is listed in the same row as the gene.

16. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid is 5 to 40 bases in length (optionally 12-30, 12-28, or 12-25 bases in length).

17. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid is 10 to 50 bases in length.

18. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid comprises a base sequence at least 90% complementary to at least 10 bases of the RNA sequence.

19. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid comprises a sequence of bases at least 80% or 90% complementary to, e.g., at least 5-30, 10-30, 15-30, 20-30, 25-30 or 5-40, 10-40, 15-40, 20-40, 25-40, or 30-40 bases of the RNA sequence.

20. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid comprises a sequence of bases with up to 3 mismatches (e.g., up to 1, or up to 2 mismatches) in complementary base pairing over 10, 15, 20, 25 or 30 bases of the RNA sequence.

21. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid comprises a sequence of bases at least 80% complementary to at least 10 bases of the RNA sequence.

22. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid comprises a sequence of bases with up to 3 mismatches over 15 bases of the RNA sequence.

23. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid is single stranded.

24. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid is double stranded.

25. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid comprises one or more modifications comprising: a modified sugar moiety, a modified internucleoside linkage, a modified nucleotide and/or combinations thereof.

26. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid is an antisense oligonucleotide, LNA molecule, PNA molecule, ribozyme or siRNA.

27. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid is double stranded and comprises an overhang (optionally 2-6 bases in length) at one or both termini.

28. The inhibitory nucleic acid, process, composition or method of any of the preceding claims wherein the inhibitory nucleic acid is selected from the group consisting of antisense oligonucleotides, ribozymes, external guide sequence (EGS) oligonucleotides, siRNA compounds, micro RNAs (miRNAs); small, temporal RNAs (stRNA), and single- or double-stranded RNA interference (RNAi) compounds.

29. The inhibitory nucleic acid, process, composition or method of claim 27 wherein the RNAi compound is selected from the group consisting of short interfering RNA (siRNA); or a short, hairpin RNA (shRNA); small RNA-induced gene activation (RNAa); and small activating RNAs (saRNAs).

30. The inhibitory nucleic acid, process, composition or method of claim 28 wherein the antisense oligonucleotide is selected from the group consisting of antisense RNAs, antisense DNAs, and chimeric antisense oligonucleotides.

31. The inhibitory nucleic acid, process, composition or method of claim 24 wherein the modified internucleoside linkage comprises at least one of: alkylphosphonate,

phosphorothioate, phosphorodithioate, alkylphosphonothioate, phosphoramidate, carbamate, carbonate, phosphate triester, acetamidate, carboxymethyl ester, or combinations thereof.

32. The inhibitory nucleic acid, process, composition or method of claim 24 wherein the modified sugar moiety comprises a 2'-O-methoxyethyl modified sugar moiety, a 2'-methoxy modified sugar moiety, a 2'-O-alkyl modified sugar moiety, or a bicyclic sugar moiety.

33. The inhibitory nucleic acid, process, composition or method of claim 24 comprising: 2'-OMe, 2'-F, LNA, PNA, FANA, ENA or morpholino modifications.

34. A sterile composition comprising an isolated nucleic acid that is a mouse RNA sequence of any one of any one of SEQ ID NOs:1 to 5893 (human) or 5894 to 17415 (human) or 17416 to 36368 (mouse), or a fragment thereof at least 20 bases in length that retains PRC1-binding activity.

35. An isolated nucleic acid for use in a method of decreasing expression of an oncogene, comprising an RNA sequence as set forth in Tables 1-3 that targets a proto-oncogene or oncogene as set forth in Tables 1-3, or a fragment thereof at least 20 bases in length that retains PRC1-binding activity.

36. A method of decreasing expression of an oncogene in a cell, the method comprising contacting the cell with an RNA sequence as set forth in Tables 1-3 that targets an oncogene as set forth in Tables 1-3, or a fragment thereof at least 20 bases in length that retains PRC1-binding activity.

37. A method of inducing expression of a target gene in a cell, the method comprising delivering to the cell a single stranded oligonucleotide of 5 to 40 nucleotides in length having a region of complementarity that is complementary with at least 5 contiguous nucleotides of a PRC1-binding RNA that inhibits expression of the target gene, wherein the oligonucleotide is complementary to and binds specifically to the PRC1-binding RNA, and wherein the PRC1-binding RNA is transcribed from a sequence of the chromosomal locus of the target gene.

38. The method of claim 37, wherein the RNA is a non-codingRNA.

39. The method of claim 37, further comprising detecting expression of the PRC1-binding RNA in the cell, wherein expression of the PRC1-binding RNA in the cell indicates

that the single stranded oligonucleotide is suitable for increasing expression of the target gene in the cell.

40. The method of claim 37 further comprising detecting a change in expression of the target gene following delivery of the single stranded oligonucleotide to the cell, wherein an increase in expression of the target gene compared with an appropriate control cell indicates effectiveness of the single stranded oligonucleotide.

41. The method of claim 37, further comprising detecting a change in recruitment of PRC1 to the target gene in the cell following delivery of the single stranded oligonucleotide to the cell, wherein a decrease in recruitment compared with an appropriate control cell indicates effectiveness of the single stranded oligonucleotide.

42. The method of claim 37, wherein the cell is in vitro.

43. The method of claim 37, wherein the cell is in vivo.

44. The method of claim 37, wherein at least one nucleotide of the oligonucleotide is a modified nucleotide.

45. The method of claim 37, wherein the PRC1-binding RNA is transcribed from the same strand as the target gene in a genomic region containing the target gene.

46. The method of claim 37, wherein the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to an exon.

47. The method of claim 37, wherein the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from the same strand as the target gene within a chromosomal region within -2.0 kb to +0.001 kb of the transcription start site of the target gene.

48. The method of claim 37, wherein the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from the opposite strand of the target gene within a chromosomal region within -0.5 to +0.1 kb of the transcription start site of the target gene.

49. The method of claim 37, wherein the oligonucleotide has complementarity to the PRC1-binding RNA in a region of the PRC1-binding RNA that forms a stem-loop structure.

50. The method of claim 37, wherein at least one nucleotide of the oligonucleotide is an RNA or DNA nucleotide.

51. The method of claim 37, wherein at least one nucleotide of the oligonucleotide is a ribonucleic acid analogue comprising a ribose ring having a bridge between its 2'-oxygen and 4'-carbon.

52. The method of claim 50, wherein the ribonucleic acid analogue comprises a methylene bridge between the 2'-oxygen and the 4'-carbon.

53. The method of claim 37, wherein at least one nucleotide of the oligonucleotide comprises a modified sugar moiety.

54. The method of claim 53, wherein the modified sugar moiety comprises a 2'-O-methoxyethyl modified sugar moiety, a 2'-methoxy modified sugar moiety, a 2'-O-alkyl modified sugar moiety, or a bicyclic sugar moiety.

55. The method of claim 37, wherein the oligonucleotide comprises at least one modified internucleoside linkage.

56. The method of claim 55, wherein the at least one modified internucleoside linkage is selected from phosphorothioate, phosphorodithioate, alkylphosphonothioate, phosphoramidate, carbamate, carbonate, phosphate triester, acetamidate, carboxymethyl ester, and combinations thereof.

57. The method of claim 37, wherein the oligonucleotide is configured such that hybridization of the single stranded oligonucleotide to the PRC1-binding RNA does not activate an RNAse H pathway in the cell.

58. The method of claim 37, wherein the oligonucleotide is configured such that hybridization of the single stranded oligonucleotide to the PRC1-binding RNA does not induce substantial cleavage or degradation of the PRC1-binding RNA in the cell.

59. The method of claim 37, wherein the oligonucleotide is configured such that hybridization of the single stranded oligonucleotide to the PRC1-binding RNA interferes with interaction of the RNA with PRC1 in the cell.

60. The method of claim 37, wherein the target gene is a protein-coding gene.

61. The method of claim 37, wherein the chromosomal locus of the target gene is an endogenous gene of an autosomal chromosome.

62. The method of claim 37, wherein the cell is a cell of a male subject.

63. The method of claim 37, wherein the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to an intron-exon junction or an intron.

64. The method of claim 37, wherein the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to a translation initiation region or a translation termination region.

65. The method of claim 37, wherein the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to a promoter.

66. The method of claim 37, wherein the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to a 5'-UTR.

67. The method of claim 37, wherein the oligonucleotide has complementarity to a region of the PRC1-binding RNA transcribed from a portion of the target gene corresponding to a 3'-UTR.

68. A method of isolating RNA sequences that interact with a selected protein, e.g., with chromatin complexes, in a cell, the method comprising:
providing a cell expressing (i) a biotin ligase, e.g., BirA, and (ii) the protein of interest comprising a biotinylation sequence;
exposing the cells to UV-crosslinking;
lysing the cells,

isolating protein-RNA complexes from the lysed cells, e.g., using avidin purification, e.g., streptavidin beads;
washing the complxes in protein-denaturing conditions, e.g., high salt and detergent, e.g., using 8 M urea + 0.1% SDS; and
isolating the protein-RNA complexes.

69. The method of claim 68, optionally comprising labelling the RNA in the RNA-protein complxes, e.g., by phosphorylation using ^{32}P-ATP.

70. The method of claim 68, further comprising purifying the RNA-protein complexes, preparing cDNA from the RNA, and deep sequencing the cDNA to identify the RNA sequences bound to the protein.

71. A kit for use in the method of claims 68-70, comprising an expression vector comprising a sequence encoding a biotin ligase, and an expression vector comprising a sequence encoding a biotinylation sequence, and optionally one or more buffers.

72. The kit of claim 71, wherein the buffers include one or more of a high stringency denaturing buffer, e.g., comprising 8 M urea (range: 5-10 M, 6-10M, 7-10M, 7-9M, or 7.5-8.5M) plus 0.1% SDS (range: 0.0-2.0%); a wash buffer (e.g., PBS + 2% SDS; and a high salt wash buffer (e.g., PBS + 750 mM NaCl + 1% NP40 + 0.5% NaDeoxycholate + 0.1% SDS).

73. A method for treating a subject with MECP2 Duplication Syndrome, the method comprising administering a therapeutically effective amount of an inhibitory nucleic acid targeting a PRC1-binding region on Mecp2 RNA, preferably wherein the PRC1 binding region comprises SEQ ID NO:5876 or 5877.

74. The method of claim 73, comprising administering an inhibitory nucleic acid targeting a sequence within the 3'UTR of Mecp2.

75. The method of claim 73, wherein the inhibitory nucleic acid comprises any of SEQ ID NOs:36399 to 36404.

76. A method for treating a subject with systemic lupus erythematosis, the method comprising administering a therapeutically effective amount of an inhibitory nucleic acid

targeting a PRC1-binding region on IRAK1 RNA, preferably wherein the PRC1 binding region comprises SEQ ID NO:5874 or 5875.

77. The method of claim 76, comprising administering an inhibitory nucleic acid targeting a sequence within the 3'UTR of IRAK1.

78. The method of claim 76, wherein the inhibitory nucleic acid comprises any of SEQ ID NOs:36396 to 36398.

79. The method of any of claims 73-78, wherein the inhibitory nucleic acid comprises at least one locked nucleotide (LNA).

80. An inhibitory nucleic acid targeting a PRC1-binding region on Mecp2 RNA, preferably an inhibitory nucleic acid targeting a sequence within the 3'UTR of Mecp2, for use in treating a subject with MECP2 Duplication Syndrome, preferably wherein the PRC1 binding region comprises SEQ ID NO:5876 or 5877.

81. The inhibitory nucleic acid for the use of claim 80, comprising any of SEQ ID NOs:36399 to 36404.

82. An inhibitory nucleic acid targeting a PRC1-binding region on IRAK1 RNA, preferably an inhibitory nucleic acid targeting a sequence within the 3'UTR of IRAK1, for use in treating a subject with systemic lupus erythematosus, preferably wherein the PRC1 binding region comprises SEQ ID NO:5874 or 5875.

83. The inhibitory nucleic acid for the use of claim 82, comprising any of SEQ ID NOs:36396 to 36398.

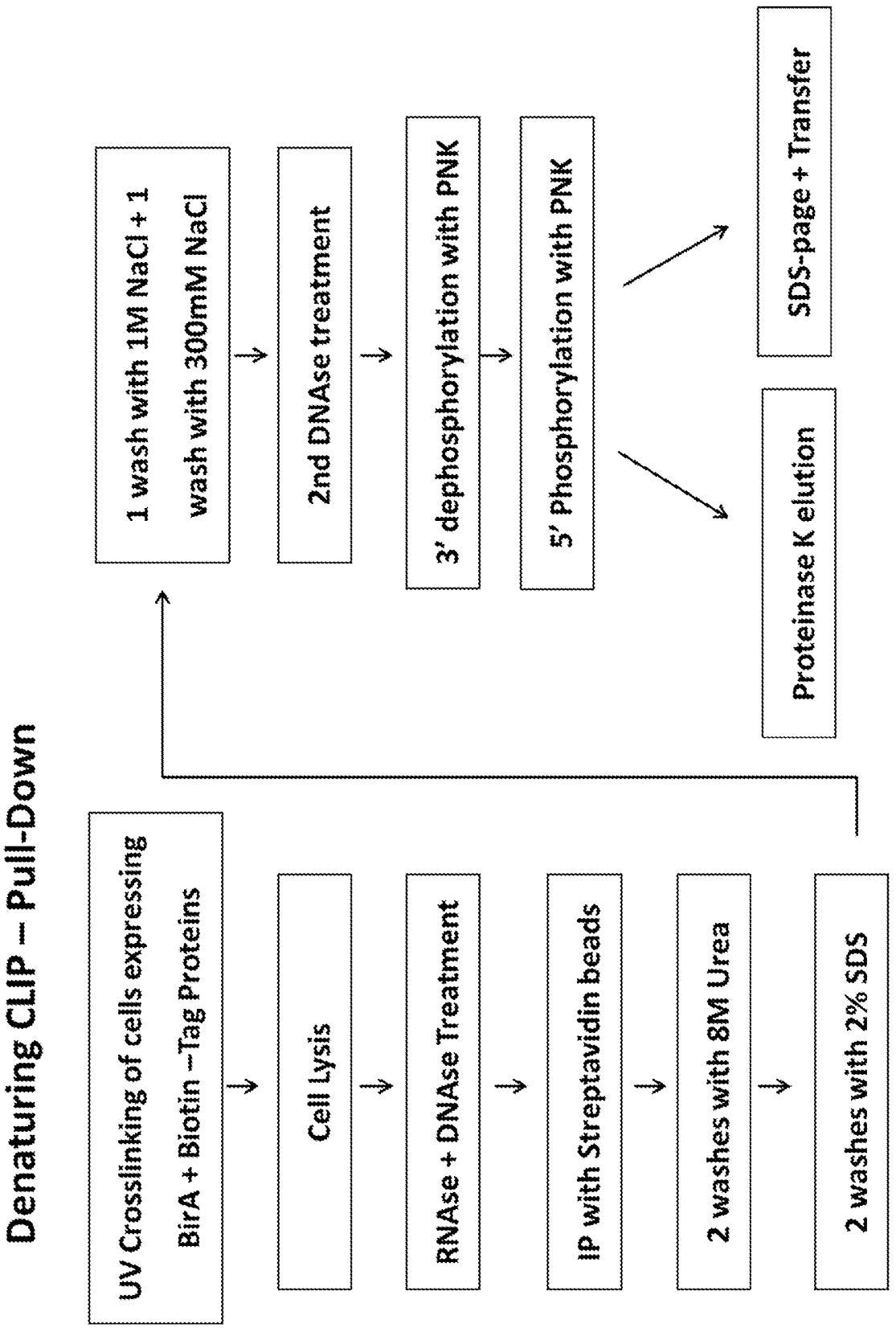

Denaturing CLIP – Pull-Down
UV Crosslinking of cells expressing BirA + Biotin –Tag Proteins
Cell Lysis
RNAse + DNAse Treatment
IP with Streptavidin beads
2 washes with 8M Urea
2 washes with 2% SDS
1 wash with 1M NaCl + 1 wash with 300mM NaCl
2nd DNAse treatment
3' dephosphorylation with PNK
5' Phosphorylation with PNK
SDS-page + Transfer
Proteinase K elution

FIG. 1A

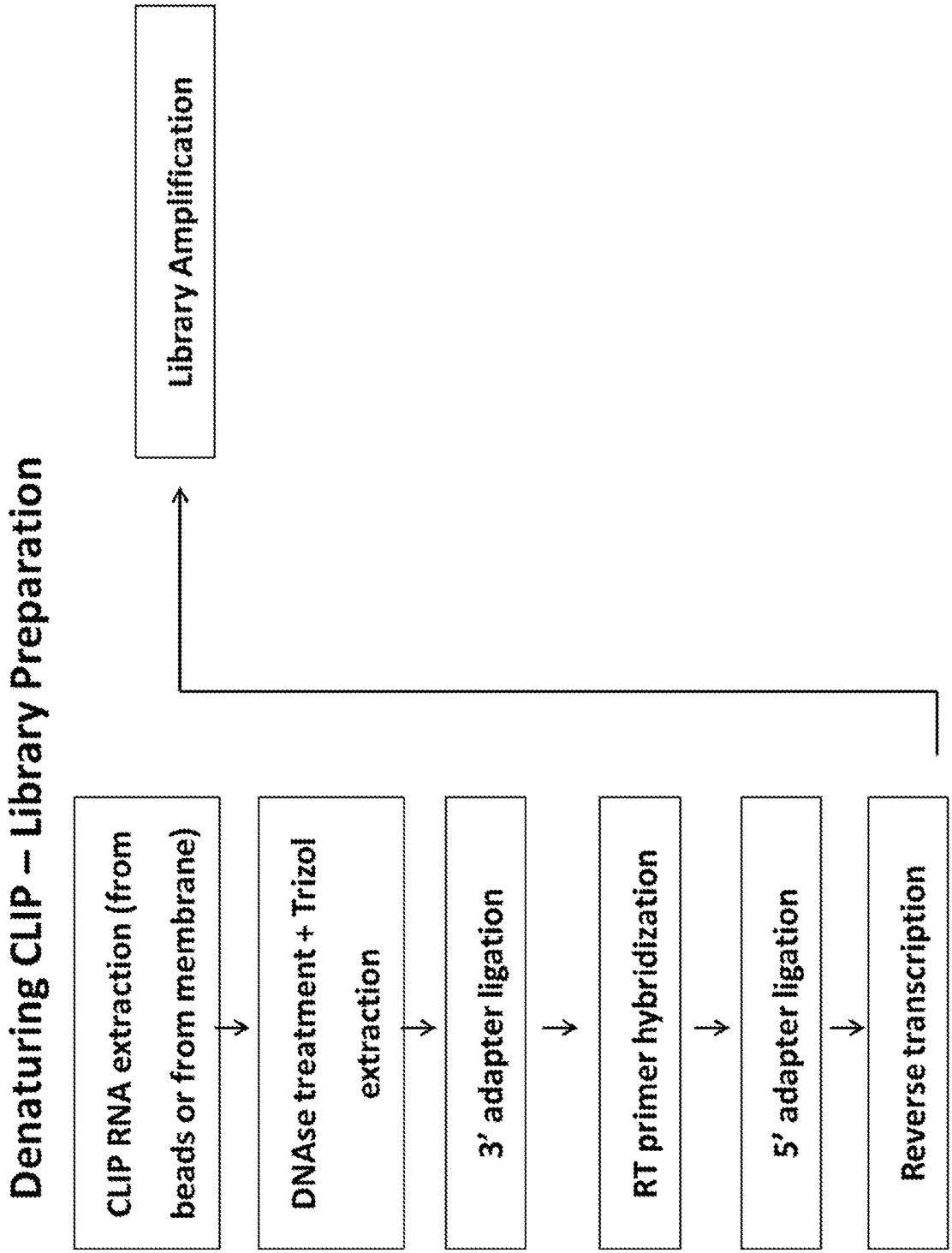

Denaturing CLIP – Library Preparation
CLIP RNA extraction (from beads or from membrane)
DNAse treatment + Trizol extraction
3' adapter ligation
RT primer hybridization
5' adapter ligation
Reverse transcription
Library Amplification

FIG. 1B

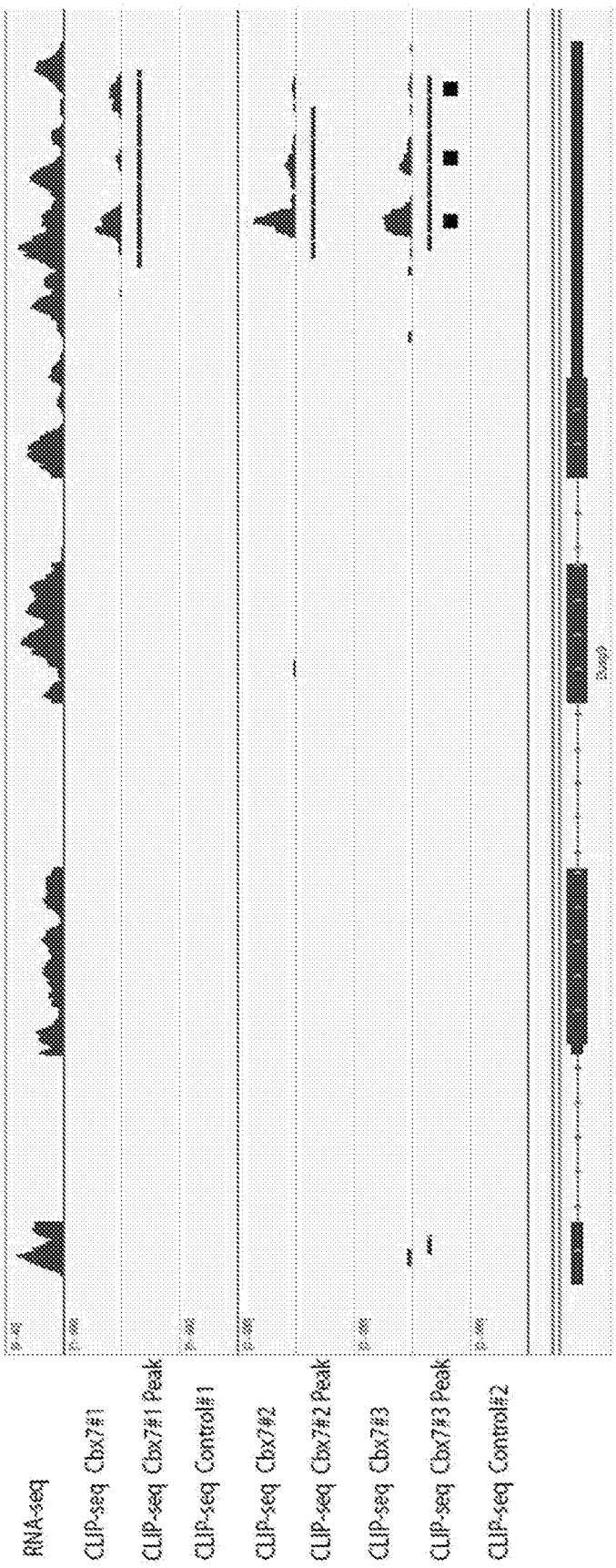

RNA-seq
CLIP-seq Cbx7#1
CLIP-seq Cbx7#1 Peak
CLIP-seq Control#1
CLIP-seq Cbx7#2
CLIP-seq Cbx7#2 Peak
CLIP-seq Cbx7#3
CLIP-seq Cbx7#3 Peak
CLIP-seq Control#2

FIG. 2A

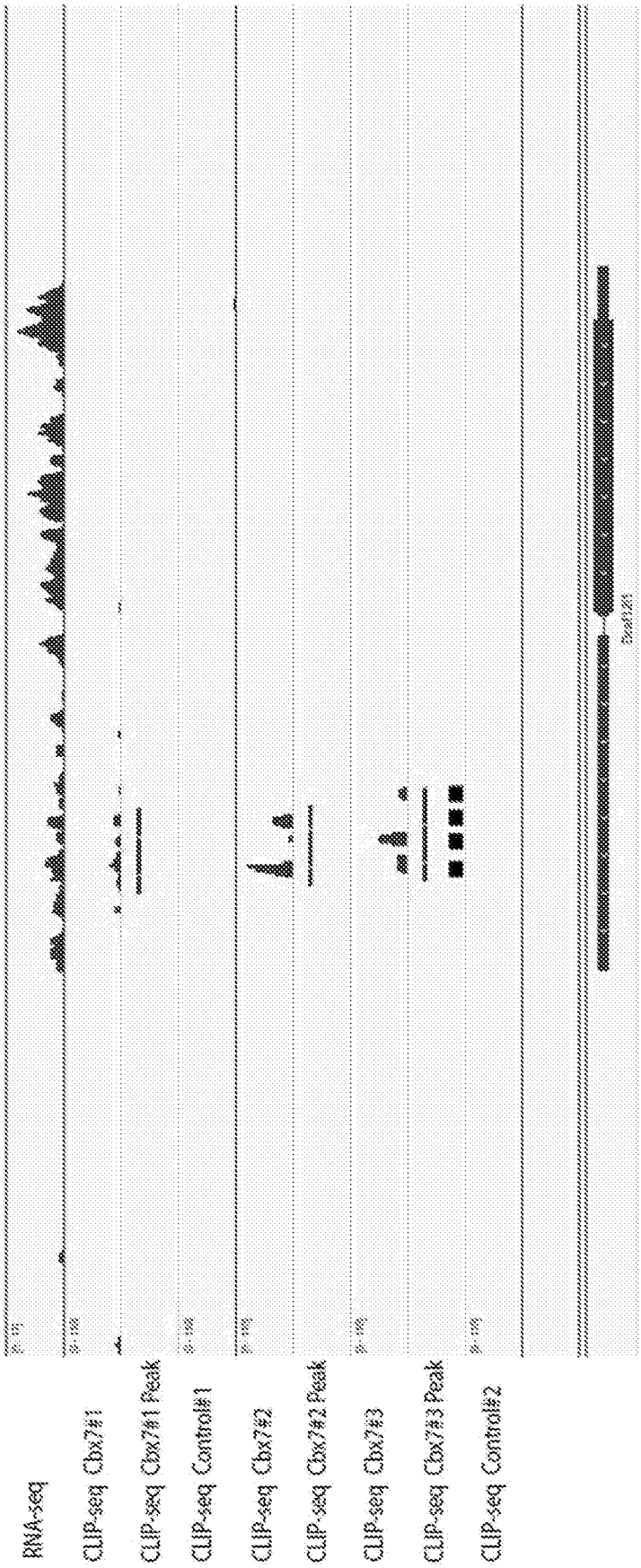

RNA-seq
CLIP-seq Cbx7#1
CLIP-seq Cbx7#1 Peak
CLIP-seq Control#1
CLIP-seq Cbx7#2
CLIP-seq Cbx7#2 Peak
CLIP-seq Cbx7#3
CLIP-seq Cbx7#3 Peak
CLIP-seq Control#2

FIG. 2B

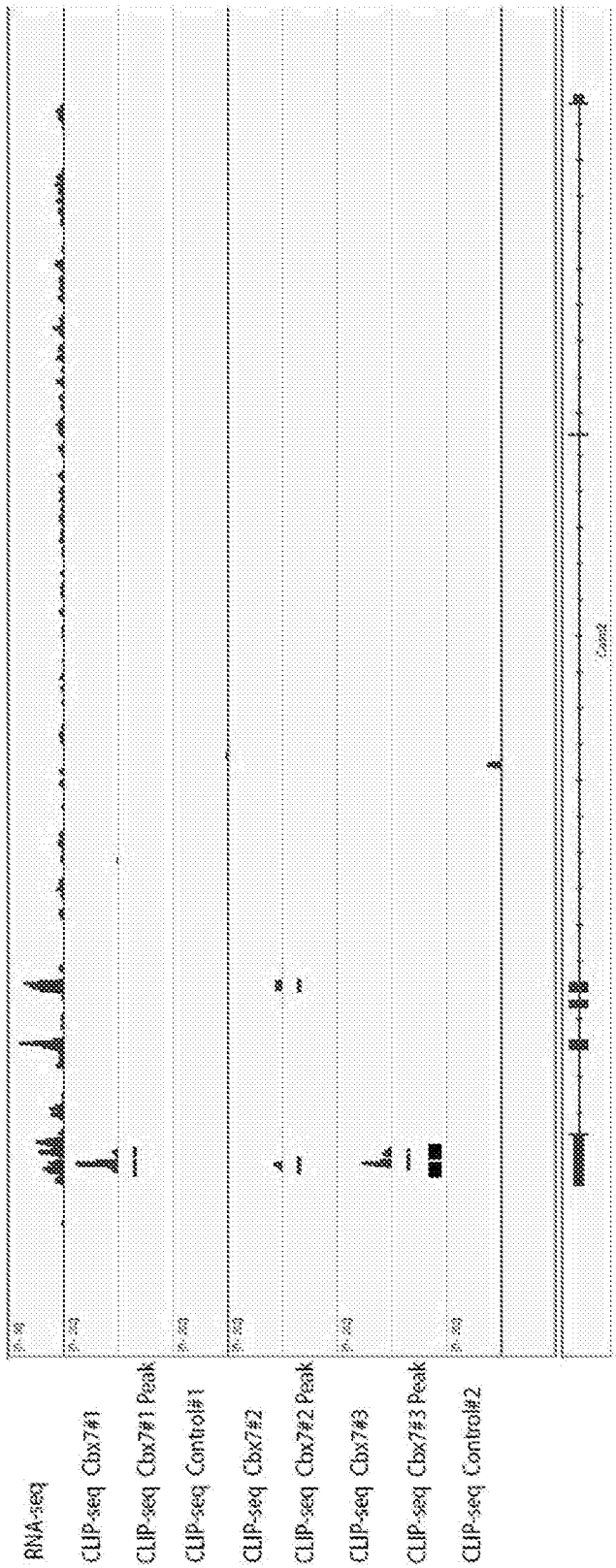

RNA-seq
CLIP-seq Cbx7#1
CLIP-seq Cbx7#1 Peak
CLIP-seq Control#1
CLIP-seq Cbx7#2
CLIP-seq Cbx7#2 Peak
CLIP-seq Cbx7#3
CLIP-seq Cbx7#3 Peak
CLIP-seq Control#2

FIG. 2C

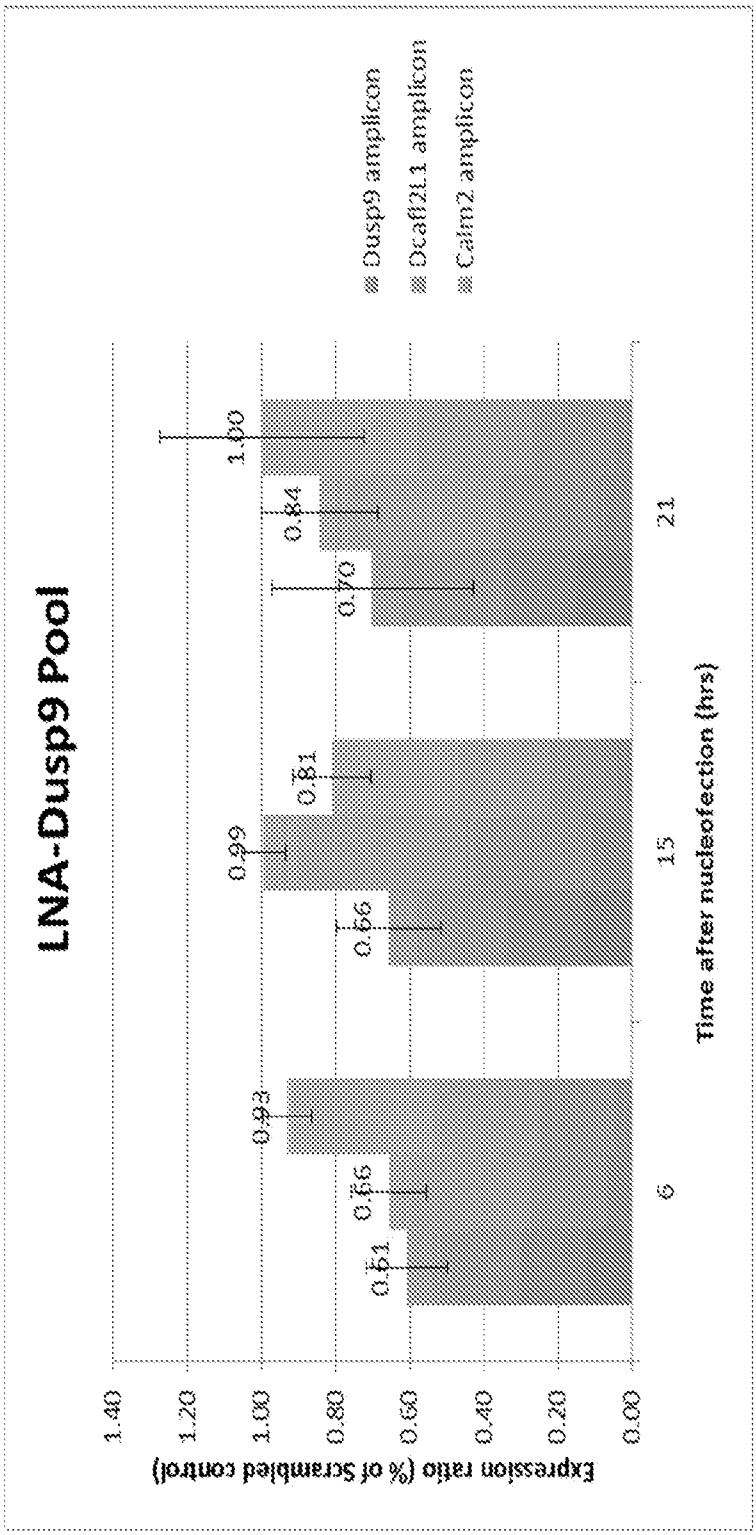

LNA-Dusp9 Pool
Dusp9 amplicon
Ocaf2l1 amplicon
Calm2 amplicon
Expression ratio (% of Scrambled control)
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.93
0.66
0.61
0.99
0.81
0.66
1.00
0.84
0.70
6
15
21
Time after nucleofection (hrs)

FIG. 3A

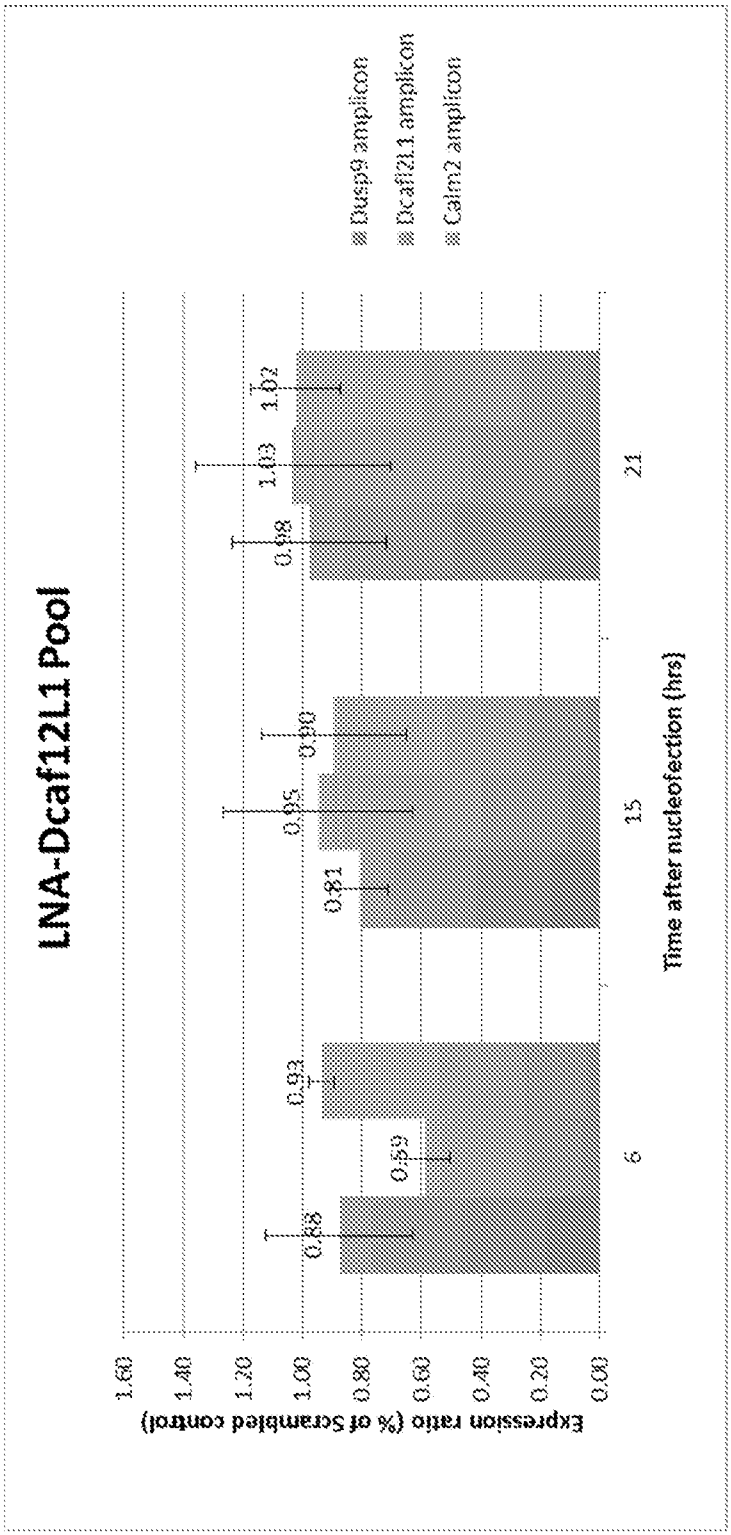

LNA-Dcaf12L1 Pool
Expression ratio (% of Scrambled control)
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.88
0.59
0.93
0.81
0.95
0.90
0.98
1.03
1.02
6
15
21
Time after nucleofection (hrs)
Dusp9 amplicon
Dcaf12L1 amplicon
Calm2 amplicon

FIG. 3B

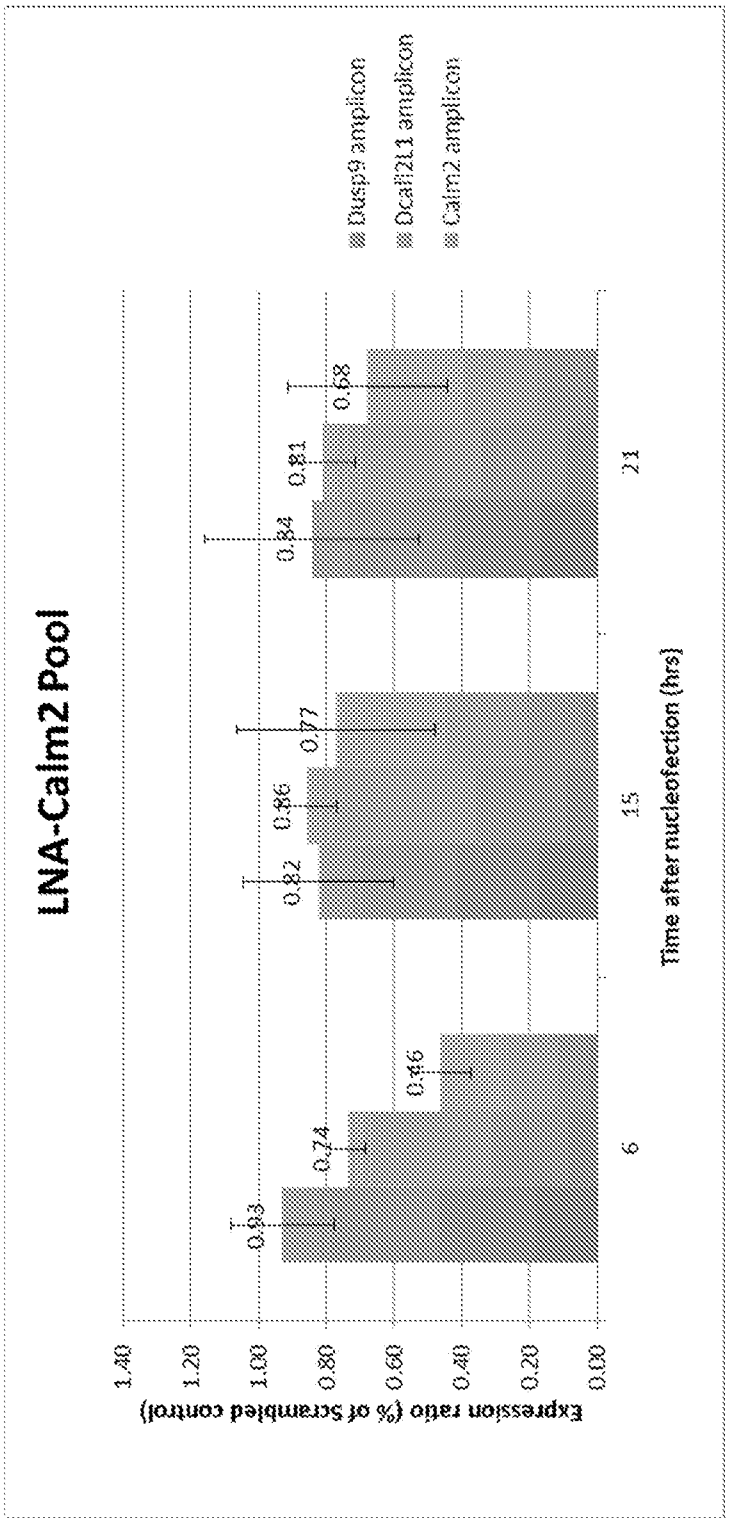

LNA-Calm2 Pool
Expression ratio (% of Scrambled control)
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.93
0.74
0.46
0.82
0.86
0.77
0.84
0.81
0.68
6
15
21
Time after nucleofection (hrs)
Dusp9 amplicon
Ocal1211 amplicon
Calm2 amplicon

FIG. 3C

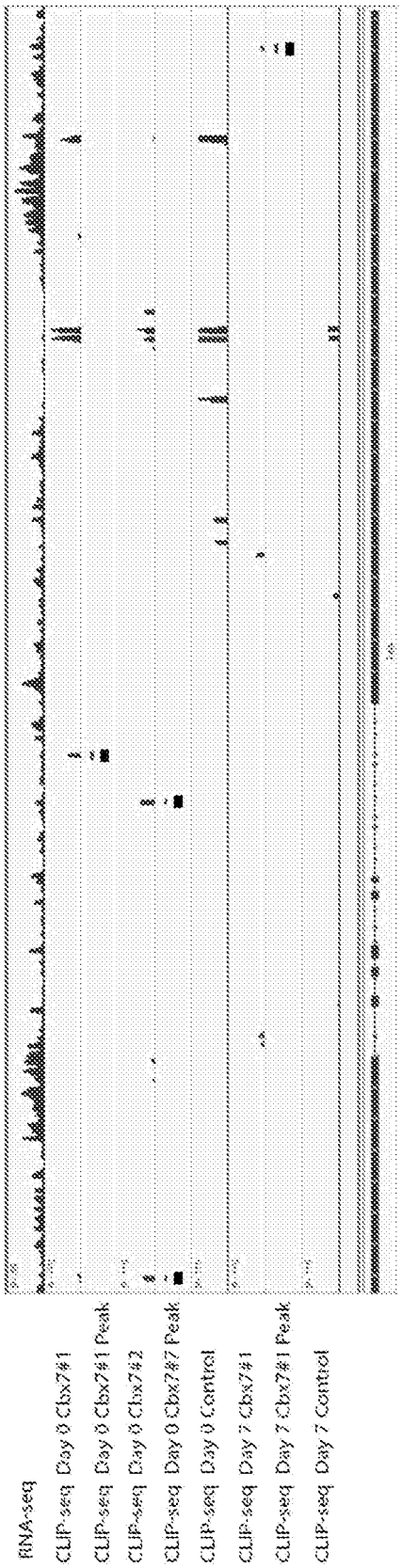

RNA-seq
CLIP-seq Day 0 Cbx7#1
CLIP-seq Day 0 Cbx7#1 Peak
CLIP-seq Day 0 Cbx7#2
CLIP-seq Day 0 Cbx7#7 Peak
CLIP-seq Day 0 Control
CLIP-seq Day 7 Cbx7#1
CLIP-seq Day 7 Cbx7#1 Peak
CLIP-seq Day 7 Control

FIG. 4A

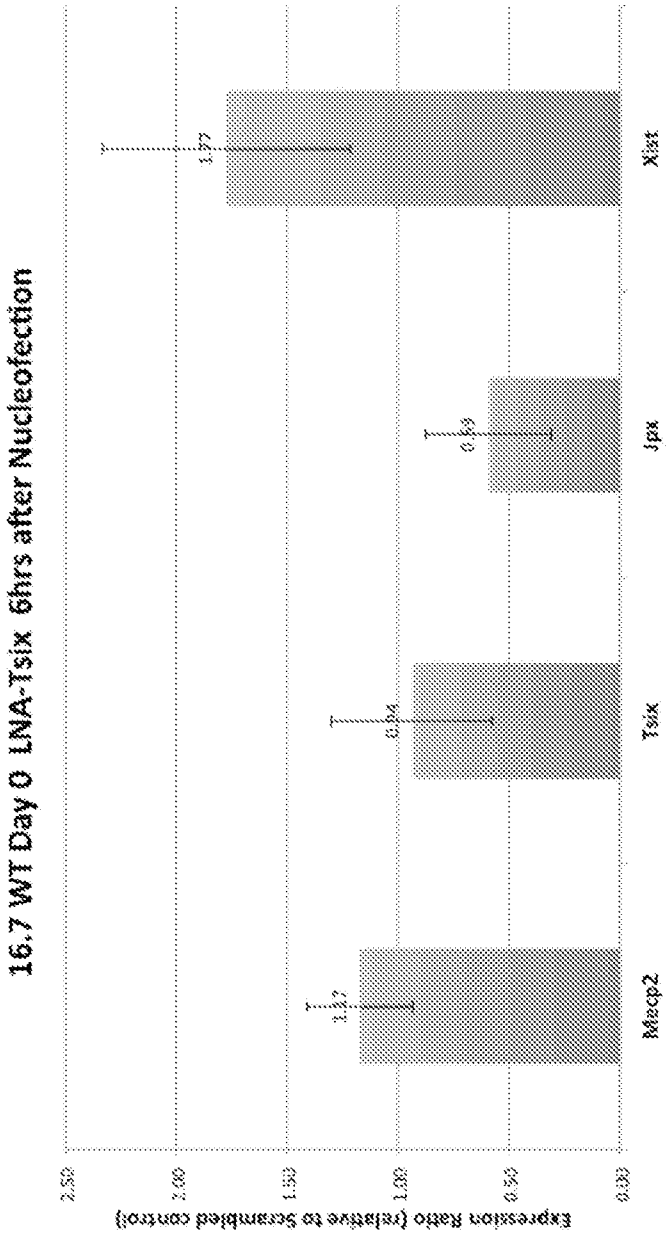


FIG. 4B

INCORPORATED BY REFERENCE (RULE 20.6)