



US 20030120057A1

(19) **United States**

(12) **Patent Application Publication**

Reddy et al.

(10) **Pub. No.: US 2003/0120057 A1**

(43) **Pub. Date: Jun. 26, 2003**

(54) **COMPOSITION FOR DETECTION OF
GENES ENCODING
MEMBRANE-ASSOCIATED PROTEINS**

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(21) Appl. No.: **10/313,542**

(22) Filed: **Dec. 5, 2002**

Related U.S. Application Data

(63) Continuation of application No. 09/495,050, filed on
Jan. 31, 2000, now Pat. No. 6,492,505.

(60) Provisional application No. 60/118,318, filed on Feb.
1, 1999.

Publication Classification

(51) **Int. Cl.⁷** **C07H 21/04**

(52) **U.S. Cl.** **536/23.5; 536/24.3**

(57) **ABSTRACT**

The present invention relates to a composition comprising a
plurality of polynucleotide sequences. The composition can
be used as probes or array elements.

1514470CT1	GCAGGGCCAGTCCC	TCCACCCCTCAACT	CAGCCTCCATCTG	GCAGGGCAATGG	CCCCCTTCCCTCAGATTG				
1513293H1	GCAGGGCCAGTCCC	TCCACCCCTCAACT	CAGCCTCCATCTG	GCAGGGCAATGG	CCCCCTTCCCTCAGATTG				
1514470F6	GCANGGCCAGTCCC	TCCACCCNCAACT	CANCTCCATCTG	GCAGGGCAATGG	CCCCCTTCCCTCAGATTG				
1514470H1	GCAGGGCCAGTCCC	TCCACCCCTCAACT	CAGCCTCCATCTG	GCAGGGCAATGG	CCCCCTTCCCTCAGATTG	70			
		10	20	30	40	50	60		
1514470CT1	CCTGTCCCCTCGTGG	TGCCTTCTCCCTTCA	TCAGGCAACCTATA	TTCTTGTGGAAGG	GAGGACGGCGCTG				
1513293H1	CCTGTCCCCTCGTGG	TGCCTTCTCCCTTCA	TCAGGCAACCTATA	TTCTTGTGGAAGG	GAGGACGGCGCTG				
1514470F6	CCTGTCCCCTCGTGG	TGCCTTCTCCCTTCA	TCAGGCAACCTATA	TTCTTGTGGAAGG	GAGGACGGCGCTG				
1514470H1	CCTGTCCCCTCGTGG	TGCCTTCTCCCTTCA	TCAGGCAACCTATA	TTCTTGTGGAAGG	GAGGACGGCGCTG	140			
		80	90	100	110	120	130		
1514470CT1	TCCCCGGGCCCCCT	CTGATGGTTCCTTACC	CTTAGGGTGGACCA	AAATTGTGGTTCGG	GGGCCCCGGGACAG				
1513293H1	TCCCCGGGCCCCCT	CTGATGGTTCCTTACC	CTTAGGGTGGACCA	AAATTGTGGTTCGG	GGG				
1514470F6	TCCCCGGGCCCCCT	CTGATGGTTCCTTACC	CTTAGGGTGGACCA	AAATTGTGGTTCGG	GGGCCCCGGGACAG				
1514470H1	TCCCCGGGCCCCCT	CTGATGGTTCCTTACC	CTTAGGGTGGACCA	AAATTGTGGTTCGG	GGGCCCCG	210			
		150	160	170	180	190	200		
1514470CT1	GAAGGCCCGGAGAG	GGCGACAAGGGGCC	CTCCACCGGAGGT	GGTGGATGAAATCAG	CATGATGGGA				
1514470F6	GAAGGCCCGGAGAG	GGCGACAAGGGGCC	CTCCACCGGAGGT	GGTGGATGAAATCAG	CATGATGGGA	280			
		220	230	240	250	260	270		

FIGURE 1A

1514470CT1	CGCGTGGTCAAGGTGGAGAAGCAGGTGCAAGTCCATCGAGCACAAAGCTGGACCTGCTGTGGGGCTTCTATT	
1514470F6	CGCGTGGTCAAGGTGGAGAAGCAGGTGCAAGTCCATCGAGCACAAAGCTGGACCTGCTGTGGGGCTTCTATT	
3372628H1	GCCCCGT...CCCCAGGTGCAGTCCATCGAGCACAAAGCTGGACCTGCTGTGGGGCTTCTATT	290 300 310 320 330 340 350
1514470CT1	CGCGTGCCTGCGCTCTGGCACCTCGGCCAGCCTGGGGCGCGGTGCAAGTGC	
1514470F6	CGCGTTCCTGCGCTCTGGCACCTCGGCCAGCCTGGGGCGCGGTGCAAGTGC	
3372628H1	CGCGTGCCTGCGCTCTGGCACCTCGGCCAGCCTGGGGCGCGGTGCAAGTGC	360 370 380 390 400 410 420
1514470CT1	CACCTCCGACTACCACAGCTCTGTGGACCACGAGGACATCTCCGTCTCTGCACAGACGCTCAGCATCTCC	
3372628H1	CACCTCCGACTACCACAGCCCCCTGTGGACCACGAGGACATCTCCGTCTCCGCACAGACGCTCAGCATCTCC	430 440 450 460 470 480 490
1514470CT1	CGCTCGGTCAGCA.CAACATGGAGTGAAGG.CTTCTCAGAGGCA.GGCAGCA.ACGG.CAG.CTCGCGG.	
3372628H1	CGCTCGGTCAGCACCAACATGGAGTGAAGGACITCTCAGAGGAGGGCAGGCACACGCGCCAGCCCCGCGGC	500 510 520 530 540 550 560
1514470CT1	CTGG	
3372628H1	CTGGCGCTCCGA	570

FIGURE 1B

4970006CT1	GGAAAAGGGCAAATCACATCAGATAAGAAGAGCCGAGAGAAATTAACAGCAGAAACATGAGACCAACAGACG	10	20	30	40	50	60	70
4970006F6	GGAAAAGGGCAAATCACATCAGATAAGAAGAGCCGAGAGAAATTAACAGCAGAAACATGAGACCAACAGACG							
4970006H1	GGNNNAGGGCAAATCACATCAGATAAGAAGAGCCGAGAGAAATTAACAGCAGAAACATGAGACCAACAGACG							
4970006CT1	ATCTCAGTATGCTCGGTCGGGTGGTCAAGGTTGAAAAACAGGTACAGTCCATAGAAATCCAAGCTGGACTG	80	90	100	110	120	130	140
4970006F6	ATCTCAGTATGCTCGGTCGGGTGGTCAAGGTTGAAAAACAGGTACAGTCCATAGAAATCCAAGCTGGACTG							
4970006H1	ATCTCAGTATGCTCGGTCGGGTGGTNNAGGTTGAAAAACAGGTACAGTCCATAGAAATCCAAGCTGGACTG							
4970006CT1	CCTACTAGACATCTATCAACAGGTCCCTTCGGAAAGGCTCTGCCCTCAGCCCTCGCTTTGGCTTCATTCCAG	150	160	170	180	190	200	210
4970006F6	CCTACTAGACATCTATCAACAGGTCCCTTCGGAAAGGCTCTGCCCTCAGCCCTCGCTTTGGCTTCATTCCAG							
4970006H1	CCTACTAGACATCTATCAACAGGTCCCTTCGGAAAGGCTCTGCCCTCAGCCCTCGCTTTGGCTTCATTCCAG							
4970006CT1	ATCCCAACCTTTTGAAATGTGAACAGACATCTGACTATCAAGCCCTGTGGATAGCAAAGATCTTTTCGGGTT	220	230	240	250	260	270	280
4970006F6	ATCCCAACCTTTTGAAATGTGAACAGACATCTGACTATCAAGCCCTGTGGATAGCAAAGATCTTTTCGGGTT							
4970006H1	ATCCCAACCTTTTGAAATGTNAACAGACATCTGACTATCAAGCCCTGTGGATAGCAAAGATCTTTTC							

FIGURE 2A

4970006CT1	CCGCACAAAACAGTGGCTGCTTATCCAGATCAACTAGTGCCAAACATCTCGAGAGGCCCTGCAGTTCAITCT	290	300	310	320	330	340	350
4970006F6	CCGCACAAAACAGTGGCTGCTTATCCAGATCAACTAGTGCCAAACATCTCGAGAGGCCCTGCAGTTCA							
4970006CT1	GACGCCAAATGAGTTAGTGCCCGAGACTTTCTACGCGCTTAGCCCTACTATGCACAGTCAAGCAACACAG	360	370	380	390	400	410	420
4970006F6	GACGCCAAATGAGTTAGTGCCCGAGACTTTCTACG. GCTTAG. CCTACTATGCACAGTCAAGCAACACAG							
4970006CT1	GTGCCAATTAGTCAAAAGCGATGGCTCAGCAGTGGCAGCCACCAACACCATTTGCCAAACCAATAAATACGG	430	440	450	460	470	480	490
4970006F6	GTGCCAA. TAGTCAAAAGCGATGGCTCAGCAGTGGCAGCCACCAACACCATTTGC. AACCAAAATTAATACGG							
4970006CT1	CACCAAAGCCAGCA. GCCCAACAACCTTTACAGATCTTCCCTCCTCCAGCTCTTGAGGAGCTAGAA. TACAG	500	510	520	530	540	550	560
4970006F6	NACCCAAGCCAGCAGGCCCCACAA. NTTACAG. TC. TCCT. CT. CAGCTCTTGAGGGGTAGGAATTTACAG							
4970006CT1	GGAGATGCCACAT. GCCAGTTAATT	570	580					
4970006F6	GNAGATGCCCCCATGGCCCGTTANTT							

FIGURE 2B

COMPOSITION FOR DETECTION OF GENES ENCODING MEMBRANE-ASSOCIATED PROTEINS

[0001] This application claims the benefit of U.S. Provisional Application No. 60/118,318 our Docket No. PA-0013 P, filed on Feb. 1, 1999.

FIELD OF THE INVENTION

[0002] The present invention relates to a composition comprising a plurality of polynucleotide sequences for use in research and diagnostic applications.

BACKGROUND OF THE INVENTION

[0003] DNA-based arrays can provide a simple way to explore the expression of a single polymorphic gene or a large number of genes. When the expression of a single gene is explored, DNA-based arrays are employed to detect the expression of specific gene variants. For example, a p53 tumor suppressor gene array may be used to determine whether individuals are carrying mutations that predispose them to cancer. The array has over 50,000 DNA targets to analyze more than 400 distinct mutations of p53. A cytochrome p450 gene array is useful to determine whether individuals have one of a number of specific mutations that could result in increased drug metabolism, drug resistance, or drug toxicity.

[0004] DNA-based array technology is especially relevant to screen expression of a large number of genes rapidly. There is a growing awareness that gene expression is affected in a global fashion and that genetic predisposition, disease, or therapeutic treatment may affect, directly or indirectly, the expression of a large number of genes. In some cases the interactions may be expected, such as where the genes are part of the same signaling pathway. In other cases, such as when some of the genes participate in separate signaling pathways, the interactions may be totally unexpected. Therefore, DNA-based arrays can be used to investigate how genetic predisposition, disease, or therapeutic treatment affect the coregulation and expression of a large number of genes.

[0005] It would be advantageous to prepare DNA-based arrays that can be used for monitoring the expression of a large number of membrane-associated proteins. Proteins which span or are associated with cell membranes include receptors, ion channels and symporters, cytokines and their suppressors, monomeric or heterotrimeric G- and ras-related proteins, lectins such as selectin, oncogenes and their suppressors, and the like. Receptors include G protein coupled, four transmembrane, and tyrosine kinase receptors. Some of these proteins may span a cellular membrane and some may be secreted. The secreted proteins typically include signal sequences that direct them to their final cellular or extracellular destination.

[0006] The present invention provides for a composition comprising a plurality of polynucleotide sequences for use in detecting changes in expression of a large number of genes encoding proteins which are membrane-associated proteins, receptors and ion channels. Such a composition can be employed for the diagnosis or treatment of any disease—a pancreatic disease, a cancer, an immunopathology, a neuropathology and the like—where a defect in the expression of a gene encoding membrane-associated proteins is involved.

SUMMARY OF THE INVENTION

[0007] In one aspect, the present invention provides a composition comprising a plurality of polynucleotide sequences, wherein each of said polynucleotide sequences comprises at least a fragment of a gene encoding membrane-associated proteins, receptors and ion channels.

[0008] In one preferred embodiment, the plurality of polynucleotide sequences comprises at least a fragment of one or more of the sequences, SEQ ID NOs:1-305, presented in the Sequence Listing. In a second preferred embodiment, the composition comprises a plurality of polynucleotide sequences comprising at least a fragment of a gene encoding a membrane-associated protein. In a third preferred embodiment, the composition comprises a plurality of polynucleotide sequences comprising at least a fragment of a gene encoding a receptor. In a fourth preferred embodiment, the composition comprises a plurality of polynucleotide sequences comprising at least a fragment of a gene encoding ion channels. In a fifth preferred embodiment, the composition comprises a plurality of polynucleotide sequences comprising at least a fragment of at least one or more of the sequences of SEQ ID NOs:1-288. In a sixth preferred embodiment, the composition comprises a plurality of polynucleotide sequences comprising at least a fragment of at least one or more of the sequences of SEQ ID NOs:289-294. In a seventh preferred embodiment, the composition comprises a plurality of polynucleotide sequences comprising at least a fragment of at least one or more of the sequences of SEQ ID NOs:295-305. In one aspect, the fragment is selected from the group consisting of SEQ ID NOs:295-297, or SEQ ID NOs:298-305. In an eighth preferred embodiment, the composition is a polynucleotide probe. In one aspect, the composition is immobilized on a substrate. In a ninth preferred embodiment, the composition is an hybridizable array element.

[0009] The composition, a hybridizable array element, is useful to monitor the expression of a plurality of expressed polynucleotides. The microarray is used in the diagnosis and treatment of a pancreatic disease, a cancer, an immunopathology, a neuropathology, and the like.

[0010] In another aspect, the present invention provides an expression profile that can reflect the expression levels of a plurality of polynucleotide sequences in a sample. The expression profile comprises a microarray and a plurality of detectable complexes. Each detectable complex is formed by hybridization of at least one probe polynucleotide sequence to at least one target polynucleotide sequence and further comprises a labeling moiety for detection.

DESCRIPTION OF THE SEQUENCE LISTING, FIGURES, AND TABLES

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[0012] The Sequence Listing is a compilation of nucleotide sequences obtained by sequencing and assembling clone inserts (isolates) from various cDNA libraries. Each

sequence is identified by a sequence identification number (SEQ ID NO:) and by clone number.

[0013] FIGS. 1A and 1B are an alignment of SEQ ID NOs:298-302 produced using GELVIEW Fragment Assembly System software (Genetics Computer Group (GCG), Madison Wis.).

[0014] FIGS. 2A and 2B are an alignment of SEQ ID NOs:303-305 produced using GELVIEW Fragment Assembly System software (GCG).

[0015] Table 1 is a list of the sequences disclosed herein. By column, the table contains: 1) SEQ ID NO: as shown in the Sequence Listing; 2) Incyte Clone NO; 3) PRINT ID, designation of the relevant PROSITE group; 4) PRINT DESCRIPTION; 5) PRINT STRENGTH, the degree of correlation to the PROSITE group, >1300 is strong and 1000 to 1300 is weak; 6) PRINT SCORE, where >1300 is strong and 1000 to 1300 is suggestive; 7) TM, the presence of at least one transmembrane domain; and 8) SIGNAL PEP-TIDE, the presence of a signal peptide. The table is arranged so that SEQ ID NOs:1-305 contain at least a fragment of a gene encoding a membrane-associated protein, some of which are receptors, and some, ion channels.

DESCRIPTION OF THE INVENTION

[0016] Definitions

[0017] The term “microarray” refers to an ordered arrangement of hybridizable array elements. The elements are arranged so that there are preferably at least one or more different elements, more preferably at least 100 elements, even more preferably at least 1,000 elements, and most preferably at least 10,000 elements on a one cm² substrate surface. The maximum number of array elements is unlimited, but is at least 100,000. Furthermore, the hybridization signal from each array element is individually distinguishable. In a preferred embodiment, the array elements comprise polynucleotide sequences.

[0018] A “polynucleotide” refers to a chain of nucleotides. Preferably, the chain has from about five to 10,000 nucleotides, more preferably from about 50 to 3,500 nucleotides. The term “probe” refers to a polynucleotide sequence capable of hybridizing with a target sequence to form a polynucleotide probe/target complex under hybridization conditions. A “target polynucleotide” refers to a chain of nucleotides to which a polynucleotide probe can hybridize by base pairing. In some instances, the sequences will be completely complementary (no mismatches) when aligned; in others, there may be up to a 10% mismatch.

[0019] A “plurality” refers preferably to a group of at least one or more members, more preferably to a group of at least about 100, even more preferably to a group of at least about 1,000 members, and most preferably to a group of at least about 10,000 members. The maximum number of members is unlimited, but is at least about 100,000 members.

[0020] A “fragment” means a stretch of at least about 100 consecutive nucleotides. A “fragment” can also mean a stretch of at least about 100 consecutive nucleotides that contains one or more deletions, insertions or substitutions. A “fragment” can also include the entire open reading frame of a gene. Preferred fragments are those that lack secondary structure as identified by using computer software programs

such as OLIGO 4.06 Primer Analysis software (National Biosciences, Plymouth Minn.), LASERGENE software (DNASTAR, Madison Wis.), MACDNASIS (Hitachi Software Engineering Co., Ltd., San Bruno Calif.) and the like.

[0021] The term “gene” or “genes” refers to polynucleotide sequence which may be the partial or complete and may comprise regulatory, untranslated, or coding regions. The phrase “genes encoding membrane-associated proteins, receptors, or ion channels” refers to genes comprising sequences that contain conserved protein motifs or domains that were identified by BLAST (Basic Local Alignment Search Tool; Altschul (1993) J Mol Evol 36:290-300; and Altschul et al. (1990) J Mol Biol 215:403-410), PRINTS, or other analytical tools. Additionally, “genes encoding membrane-associated proteins, receptors, or ion channels” refers to genes which may produce proteins which span the cell membrane or have signal sequences which direct them to their final cellular or extracellular destination.

[0022] The Invention

[0023] The present invention provides a composition comprising a plurality of polynucleotide sequences comprising at least a fragment of a gene encoding a protein which is a receptor, ion channel, or associated with cell membrane. Preferably, the plurality of polynucleotide sequences comprise at least a fragment of one or more of the sequences (SEQ ID NOs:1-305) presented in the Sequence Listing. In one preferred embodiment, the composition comprises a plurality of polynucleotide sequences, wherein each sequence comprises at least a fragment of a sequence selected from the group consisting of SEQ ID NOs:1-294. In a second preferred embodiment, the composition comprises a plurality of polynucleotide sequences, wherein each sequence comprises at least a fragment of a sequence selected from the group consisting of SEQ ID NOs:295-305.

[0024] A microarray can be used for large scale genetic or gene expression analysis of a large number of polynucleotide sequences. Such an analysis can be used in the diagnosis of diseases and in the monitoring of treatments where altered expression of genes encoding receptors, ion channels, or membrane-associated proteins cause disease, such as pancreatic disease, cancer, an immunopathology, neuropathology, and the like. Further, the microarray can be employed to investigate an individual's predisposition to a disease, such as pancreatic disease, cancer, an immunopathology, or a neuropathology. Furthermore, the microarray can be employed to investigate cellular responses to infection, drug treatment, and the like.

[0025] When the composition of the invention is employed as hybridizable array elements in a microarray, the array elements are organized in an ordered fashion so that each element is present at a specified location on the substrate. Because the array elements are at specified locations on the substrate, the hybridization patterns and intensities (which together create a unique expression profile) can be interpreted in terms of expression levels of particular genes and can be correlated with a particular disease or condition or treatment.

[0026] The composition comprising a plurality of polynucleotide sequences can also be used to purify a subpopulation of mRNAs, cDNAs, genomic fragments, and the like, in a sample. Typically, samples will include polynucleotides

of interest and additional nucleic acids which may contribute to background signal in a hybridization. Therefore, it may be advantageous to remove these additional nucleic acids before hybridization. One method for removing the additional nucleic acids is to hybridize the sample containing probe polynucleotides with immobilized polynucleotide targets. Those nucleic acids which do not hybridize to the polynucleotide targets are washed away. At a later point, the immobilized target polynucleotides can be released in the form of purified target polynucleotides.

[0027] Method for Selecting Polynucleotide Sequences

[0028] This section describes the selection of the plurality of polynucleotide sequences. In one embodiment, the sequences are selected based on the presence of shared signal sequence motifs. For example, signal sequences generally contain 15 to 60 amino acids and are located at the N-terminal end of the protein. The signal sequence consists of three regions: 1) an n-region located adjacent to the N-terminus which is composed of one to five amino acids and usually carries a positive charge, 2) the h-region which is composed of 7 to 15 hydrophobic amino acids and creates a hydrophobic core; and 3) the c region which is located between the h-region and the cleavage site and is composed of three to seven polar, but mostly uncharged, amino acids. The signal sequence is removed from the protein during posttranslational processing by cleavage at the cleavage site.

[0029] A transmembrane protein is characterized by a polypeptide chain which is exposed on both sides of a membrane. The cytoplasmic and extracellular domains are separated by at least one membrane-spanning segment which traverses the hydrophobic environment of the lipid bilayer. The membrane-spanning segment is composed of amino acid residues with nonpolar side chains, usually in the form of an α helix. Segments which contain about 20-30 hydrophobic residues are long enough to span a membrane as an α helix, and they can often be identified by means of a hydropathy plot.

[0030] Receptor sequences are recognized by one or more hydrophobic transmembrane regions, cysteine disulfide bridges between extracellular loops, an extracellular N-terminus, and a cytoplasmic C-terminus. For example, in G protein-coupled receptors (GPCRs), the N-terminus interacts with ligands, the disulfide bridge interacts with agonists and antagonists, the second cytoplasmic loop has a conserved, acidic-Arg-aromatic triplet which may interact with the G proteins, and the large third intracellular loop interacts with G proteins to activate second messengers such as cyclic AMP, phospholipase C, inositol triphosphate, or ion channel proteins (Watson and Arkininstall (1994) *The G-protein Linked Receptor Facts Book*, Academic Press, San Diego Calif.). Other exemplary classes of receptors such as the tetraspanins (Maecker et al. (1997) *FASEB J* 11:428-442), calcium dependent receptors (Speiss (1990) *Biochem* 29:10009-18) and the single transmembrane receptors may be similarly characterized relative to their intracellular and extracellular domains, known motifs, and interactions with other molecules.

[0031] An ion channel is a transmembrane protein that forms a hydrophilic pore through which ions can cross the lipid bilayer of the membrane. An ion channel usually shows some degree of ion specificity, and up to a million ions per second may flow down their electrochemical gradients

through the open pore. Ion channels are gated and allow ions to pass only under defined circumstances. Gated channels may be either voltage-gated, such as the sodium channel of neurons, or ligand-gated, such as the acetylcholine receptor of cholinergic synapses.

[0032] Membrane-associated proteins, receptors or ion channels may act directly as inhibitors or as stimulators of cell proliferation, growth, attachment, angiogenesis, and apoptosis, or indirectly by modulating the effects of transcription factors, matrix and adhesion molecules, cell cycle regulators, and other molecules in cell signaling pathways. In addition, cell signaling molecules may act as ligands or ligand cofactors for receptors which modulate cell growth, proliferation, and differentiation. These molecules may be identified by sequence homology to molecules whose function has been characterized, and by the identification of their conserved domains. Membrane-associated proteins, receptors or ion channels may be characterized using programs such as BLAST, PRINTS, or Hidden Markov Models (HMM). Fragments which include characterized, conserved regions of membrane-associated proteins, receptors, or ion channels may be used in hybridization technologies to identify similar proteins.

[0033] A large number of clones from a variety of cDNA libraries can be screened using software well known in the art to discover sequences with conserved protein domains or motifs. Such sequences may be screened using the BLOCK 2 Bioanalysis program (Incyte Pharmaceuticals, Palo Alto Calif.), a motif analysis program based on sequence information contained in the SWISSPROT and PROSITE databases, which is useful for determining the function of uncharacterized proteins translated from genomic or cDNA sequences (Bairoch et al. (1997) *Nucleic Acids Res* 25:217-221; Attwood et al. (1997) *J Chem Inf Comput Sci* 37:417-424). PROSITE is particularly useful to identify functional or structural domains that cannot be detected using common motifs because of extreme sequence divergence. The method, which is based on weight matrices, calibrates the motifs against the SWISS-PROT database to obtain a measure of the chance distribution of the matches. Similarly, databases such as PRINTS store conserved motifs useful in the characterization of proteins (Attwood et al. (1998) *Nucl Acids Res* 26:304-308). These conserved motifs are used in the selection and design of probes. The PRINTS database can be searched using the BLIMPS search program. The PRINTS database of protein family "fingerprints" complements the PROSITE database and utilizes groups of conserved motifs within sequence alignments to build characteristic signatures of different polypeptide families. Alternatively, HMMs can be used to find shared motifs, specifically consensus sequences (Pearson and Lipman (1988) *Proc Natl Acad Sci* 85:2444-2448; Smith and Waterman (1981) *J Mol Biol* 147:195-197). Although HMMs were initially developed to examine speech recognition patterns, they have been used in biology to analyze protein and DNA sequences and to model protein structure. HMMs have a formal probabilistic basis and use position-specific scores for amino acids or nucleotides. The algorithms are flexible in that they incorporate information from newly identified sequences to build even more successful patterns. HMMs are useful to identify the transmembrane regions and signal peptides.

[0034] In another embodiment, the sequences disclosed in the Sequence Listing can be searched against GenBank and SWISSPROT databases using BLAST. Then, the descriptions of those sequences with homology to the disclosed sequences may be scanned using keywords such as receptor, transmembrane, receptor, channel, oncogene, inhibitor, and the like.

[0035] Sequences identified by the methods described above are provided in SEQ ID NOs:1-305 in the Sequence Listing. Table 1 provides the annotation to the referenced PRINTS sequences and specifies whether they possess transmembrane and signal peptide motifs. The resulting composition can comprise polynucleotide sequences that are not redundant, i.e., there is no more than one polynucleotide sequence to represent a particular gene. Alternatively, the composition can contain polynucleotide probes or microarray elements that are redundant, i.e., a gene is represented by more than one polynucleotide sequence.

[0036] The selected polynucleotide sequences may be manipulated further to optimize their performance as hybridization probes. To optimize probe selection, the sequences are examined using a computer algorithms, which are well known in the art, to identify fragments of genes without potential secondary structure. Such computer algorithms are found in OLIGO 4.06 Primer Analysis software (National Biosciences) or LASERGENE software (DNASTAR). These programs can search nucleotide sequences to identify stem loop structures and tandem repeats and to analyze G+C content of the sequence (those sequences with a G+C content greater than 60% are excluded). Alternatively, the probes can be optimized by trial and error. Experiments can be performed to determine whether the probes hybridize optimally to target sequences under experimental conditions.

[0037] Where the greatest numbers of different polynucleotide sequences are desired, the sequences are extended to assure that different polynucleotide sequences are not derived from the same gene, i.e., the polynucleotide sequences are not redundant. The probe sequences may be extended utilizing the partial nucleotide sequences derived from clone isolates by employing methods well known in the art. For example, one method which may be employed, "restriction-site" PCR, uses universal primers to retrieve unknown sequence adjacent to a known locus (Sarkar (1993) PCR Methods Applic 2: 318-322).

[0038] Polynucleotide Sequences

[0039] This section describes the polynucleotide sequences. The polynucleotide sequences can be genomic DNA, cDNA, mRNA, or any RNA-like or DNA-like material, such as peptide nucleic acids, branched DNAs, and the like. The polynucleotide sequences can be sense or antisense, complementary sequences. Where target polynucleotides are double stranded, the probes may be either sense or antisense strands. Where the target polynucleotides are single stranded, the probes are complementary single strands.

[0040] In one embodiment, the polynucleotide sequences are cDNAs, the size of which may vary, and are preferably from 1000 to 10,000 nucleotides, more preferably from 150 to 5000 nucleotides. In a second embodiment, the polynucleotide sequences are contained within plasmids. In this case,

the size of the inserted cDNA sequence, excluding the vector DNA and its regulatory sequences, may vary from about 50 to 12,000 nucleotides, more preferably from about 150 to 5000 nucleotides.

[0041] The polynucleotide can be prepared by a variety of synthetic or enzymatic schemes which are well known in the art. Sequences can be synthesized, in whole or in part, using chemical or enzymatic methods well known in the art (Caruthers et al. (1980) Nucl Acids Symp Ser (7) 215-233; Ausubel et al. (1997) *Short Protocols in Molecular Biology*, John Wiley & Sons, New York N.Y.).

[0042] Nucleotide analogues, which can base pair with the target nucleotide sequences, can be incorporated into the probe sequences by methods well known in the art. For example, certain guanine nucleotides can be substituted with hypoxanthine which hydrogen bonds with cytosine, but these bonds are less stable than those formed between guanine and cytosine. Alternatively, adenine nucleotides can be substituted with 2, 6-diaminopurine which forms stronger bonds with thymidine than those between adenine and thymidine. Additionally, the polynucleotide sequences can include nucleotides that have been derivatized chemically or enzymatically. Typical chemical modifications include derivatization with acyl, alkyl, aryl or amino groups.

[0043] The polynucleotide sequences can be immobilized on a substrate. Preferred substrates are any suitable rigid or semi-rigid support including membranes, filters, chips, slides, wafers, fibers, magnetic or nonmagnetic beads, gels, tubing, plates, polymers, microparticles and capillaries. The substrate can have a variety of surface forms, such as wells, trenches, pins, channels and pores, to which the polynucleotide sequences are bound. Preferably, the substrates are optically transparent.

[0044] Sequences can be synthesized, in whole or in part, on the surface of a substrate using a chemical coupling procedure and a piezoelectric printing apparatus, such as that described in PCT publication WO95/251116 (Balteschweiler et al.). Alternatively, the target can be synthesized on a substrate surface using a self-addressable electronic device that controls when reagents are added (Heller et al. U.S. Pat. No. 5,605,662).

[0045] Complementary DNA (cDNA) can be arranged and immobilized on a substrate. The sequences can be immobilized by covalent means such as by chemical bonding procedures or UV. In one such method, a cDNA is bound to a glass surface which has been modified to contain epoxide or aldehyde groups. In another case, a cDNA target is placed on a polylysine coated surface and UV cross-linked (Shalon et al. WO95/35505). In yet another method, a DNA is actively transported from a solution to a given position on a substrate by electrical means (U.S. Pat. No. 5,605,662). Alternatively, individual DNA clones can be gridded on a filter. Cells are lysed, proteins and cellular components degraded, and the DNA coupled to the filter by UV cross-linking.

[0046] Furthermore, the sequences do not have to be directly bound to the substrate, but rather can be bound to the substrate through a linker group. The linker groups are typically about 6 to 50 atoms long, and they provide exposure to the attached polynucleotide sequence. Preferred linker groups include ethylene glycol oligomers, diamines,

diacids and the like. Reactive groups on the substrate surface react with one of the terminal portions of the linker to bind the linker to the substrate. The other terminal portion of the linker is adapted to bind the polynucleotide sequence.

[0047] The polynucleotide sequences can be attached to a substrate by dispensing reagents for target synthesis on the substrate surface or by dispensing preformed DNA fragments or clones on the substrate surface. Typical dispensers include a micropipette delivering solution to the substrate with a robotic system to control the position of the micropipette with respect to the substrate. There can be a multiplicity of dispensers so that reagents can be delivered to the reaction regions simultaneously.

[0048] Sample Preparation

[0049] In order to conduct sample analysis, a sample containing nucleic acids is provided. The samples can be obtained from any bodily fluid (blood, urine, saliva, phlegm, gastric juices, etc.), cultured cells, biopsies, or other tissue preparations. DNA or RNA can be isolated from the sample according to any of a number of methods well known to those of skill in the art. For example, methods of purification of nucleic acids are described in Tijssen (1993; *Laboratory Techniques in Biochemistry and Molecular Biology: Hybridization With Nucleic Acid Probes, Part I. Theory and Nucleic Acid Preparation*, Elsevier Science, New York N.Y.). In one case, total RNA is isolated using the TRIZOL reagent (Life Technologies, Gaithersburg Md.), and mRNA is isolated using oligo d(T) column chromatography or glass beads. Alternatively, when probe polynucleotides are derived from an mRNA, the probe polynucleotides can be DNA reverse transcribed from the mRNA, an RNA transcribed from that cDNA, a DNA amplified from that DNA, an RNA transcribed from the amplified DNA, and the like. When the target polynucleotide is derived from cDNA, the target polynucleotide can be DNA amplified from DNA or DNA reverse transcribed from RNA. In yet another alternative, the polynucleotide sequences are prepared by more than one method.

[0050] When polynucleotide sequences are amplified, it is desirable to amplify the nucleic acid sample and maintain the relative abundances represented in the original sample including low abundance transcripts. Total mRNA can be amplified by reverse transcription using a reverse transcriptase and a primer consisting of oligo d(T) and a sequence encoding the phage T7 promoter to provide a single stranded DNA template. The second DNA strand is polymerized using a DNA polymerase and a RNase which assists in breaking up the DNA/RNA hybrid. After synthesis of the double stranded DNA, T7 RNA polymerase can be added, and RNA transcribed from the second DNA strand template (Van Gelder et al. U.S. Pat. No. 5,545,522). RNA can be amplified in vitro, in situ or in vivo (Eberwine U.S. Pat. No. 5,514,545).

[0051] It is also advantageous to include quantitation controls within the sample to assure that amplification and labeling procedures do not change the true distribution of probe polynucleotides in a sample. For this purpose, a sample is spiked with a known amount of a control probe polynucleotide and the composition of target polynucleotide sequences includes reference target sequences which specifically hybridize with the control probe polynucleotides. After hybridization and processing, the hybridization signals

obtained should reflect accurately the amount of control probe polynucleotides added to the sample.

[0052] Prior to hybridization, it may be desirable to fragment the probe polynucleotides. Fragmentation improves hybridization by minimizing secondary structure and cross-hybridization to polynucleotides in the sample with low or no complementarity. Fragmentation can be performed by mechanical or chemical means.

[0053] The probe polynucleotides may be labeled with one or more labeling moieties to allow for detection of hybridized probe/target polynucleotide complexes. The labeling moieties can include compositions that can be detected by spectroscopic, photochemical, biochemical, bioelectronic, immunochemical, electrical, optical or chemical means. The labeling moieties include radioisotopes, such as ^{32}P , ^{33}P or ^{35}S , chemiluminescent compounds, labeled binding proteins, heavy metal atoms, spectroscopic markers, such as fluorescent markers and dyes, magnetic labels, linked enzymes, mass spectrometry tags, spin labels, electron transfer donors and acceptors, and the like.

[0054] Exemplary dyes include quinoline dyes, triaryl-methane dyes, phthaleins, azo dyes, cyanine dyes and the like. Preferably, fluorescent markers absorb light above about 300 nm, preferably above 400 nm, and usually emit light at wavelengths at least greater than 10 nm above the wavelength of the light absorbed. Preferred fluorescent markers include fluorescein, phycoerythrin, rhodamine, lissamine, and Cy3 and Cy5 (Amersham Pharmacia Biotech, Piscataway N.J.).

[0055] Labeling can be carried out during an amplification reaction, such as polymerase chain and in vitro transcription reactions, or by nick translation or 5' or 3'-end-labeling reactions. In one case, labeled nucleotides are used in an in vitro transcription reaction. When the label is incorporated after or without an amplification step, the label is incorporated by using terminal transferase or by kinasing the 5' end of the polynucleotide sequence and then incubating overnight with a labeled oligonucleotide in the presence of T4 RNA ligase.

[0056] Alternatively, the labeling moiety can be incorporated after hybridization once a probe/target complex has formed. In one case, biotin is first incorporated during an amplification step as described above. After the hybridization reaction, unbound nucleic acids are rinsed away so that the only biotin present is attached to probe polynucleotides complexed with the target polynucleotides. An avidin-conjugated fluorophore, such as avidin-phycoerythrin, that binds with high affinity to biotin is added. In another case, the labeling moiety is incorporated by intercalation into bound probe/target complexes. In this case, an intercalating dye such as a psoralen-linked dye can be employed.

[0057] Under some circumstances it may be advantageous to immobilize the probe polynucleotides on a substrate and have the polynucleotide targets bind to the immobilized probe polynucleotides. In such cases the probe polynucleotides can be attached to a substrate as described above.

[0058] Hybridization and Detection

[0059] Hybridization causes a denatured polynucleotide probe and a denatured complementary target to form a stable duplex through base pairing. Hybridization methods are well

known to those skilled in the art. (See, e.g., Ausubel, supra, units 2.8-2.11, 3.18-3.19 and 4-6-4.9.) Conditions can be selected for hybridization where completely complementary probe and target can hybridize, i.e., each base pair must interact with its complementary base pair. Alternatively, conditions can be selected where probe and target have mismatches but are still able to hybridize. Suitable conditions can be selected, for example, by varying the concentrations of salt in the prehybridization, hybridization, and wash solutions or by varying the hybridization and wash temperatures. With some membranes, the temperature can be decreased by adding formamide to the prehybridization and hybridization solutions.

[0060] Hybridization can be performed at low stringency with buffers, such as 5×SSC with 1% sodium dodecyl sulfate (SDS) at 60° C., which permits hybridization between probe and target sequences that contain some mismatches to form probe/target complexes. Subsequent washes are performed at higher stringency with buffers such as 0.2×SSC with 0.1% SDS at either 45° C. (medium stringency) or 68° C. (high stringency), to maintain hybridization of only those probe/target complexes that contain completely complementary sequences. Background signals can be reduced by the use of detergents such as SDS, Sarcosyl, or Triton X-100, or a blocking agent, such as salmon sperm DNA.

[0061] Hybridization specificity can be evaluated by comparing the hybridization of control probe sequences to control target sequences that are added to a sample in a known amount. The control probe may have one or more sequence mismatches compared with the corresponding control target. In this manner, it is possible to evaluate whether only complementary probes are hybridizing to the targets or whether mismatched hybrid duplexes are forming.

[0062] Hybridization reactions can be performed in absolute or differential hybridization formats. In the absolute hybridization format, probe polynucleotides from one sample are hybridized to microarray elements, and signals detected after hybridization complexes form. Signal strength correlates with probe polynucleotide levels in a sample. In the differential hybridization format, differential expression of a set of genes in two biological samples is analyzed. Probe polynucleotides from the two samples are prepared and labeled with different labeling moieties. A mixture of the two labeled probe polynucleotides is hybridized to the microarray elements, and signals are examined under conditions in which the emissions from the two different labels are individually detectable. Targets in the microarray that are hybridized to substantially equal numbers of probes derived from both biological samples give a distinct combined fluorescence (Shalon WO95/35505). In a preferred embodiment, the labels are fluorescent labels with distinguishable emission spectra, such as a lissamine conjugated nucleotide analog and a fluorescein conjugated nucleotide analog. In another embodiment Cy3/Cy5 fluorophores (Amersham Pharmacia Biotech) are employed.

[0063] After hybridization, the microarray is washed to remove nonhybridized nucleic acids, and complex formation between the hybridizable array elements and the probe polynucleotides is examined. Methods for detecting complex formation are well known to those skilled in the art. In a preferred embodiment, the probe polynucleotides are labeled with a fluorescent label, and measurement of levels

and patterns of fluorescence indicative of complex formation is accomplished by fluorescence microscopy, preferably confocal fluorescence microscopy. An argon ion laser excites the fluorescent label, emissions are directed to a photomultiplier, and the amount of emitted light is detected and quantitated. The detected signal should be proportional to the amount of probe/target polynucleotide complexes at each position of the microarray. The fluorescence microscope can be associated with a computer-driven scanner device to generate a quantitative two-dimensional image of hybridization intensity. The scanned image is examined to determine the abundance/expression level of each hybridized probe polynucleotide.

[0064] Typically, microarray fluorescence intensities can be normalized to take into account variations in hybridization intensities when more than one microarray is used under similar test conditions. In a preferred embodiment, individual polynucleotide probe/target complex hybridization intensities are normalized using the intensities derived from internal normalization controls contained on each microarray.

[0065] Expression Profiles

[0066] Expression profiles using the composition of this invention may be used to detect changes in the expression of genes implicated in disease. These genes include genes whose altered expression is correlated with pancreatic disease, cancer, immunopathology, neuropathology, and the like.

[0067] The expression profile comprises the polynucleotide sequences of the Sequence Listing. The expression profile also includes a plurality of detectable complexes. Each complex is formed by hybridization of one or more polynucleotide sequences or array elements to one or more complementary probe polynucleotides. At least one of the polynucleotide sequences, preferably a plurality of polynucleotide sequences, is hybridized to a complementary target polynucleotide forming at least one, and preferably a plurality, of complexes. A complex is detected by the incorporation of at least one labeling moiety, described above, in the complex. Expression profiles provide "snapshots" that reflect unique expression patterns that are characteristic of a disease or condition.

[0068] After performing hybridization experiments and interpreting the signals produced by complexes on a microarray, particular polynucleotide sequences can be identified based on their expression patterns. Such polynucleotide sequences can be used to clone a full length sequence for the gene, to produce a polypeptide, to develop a diagnostic panel for a particular disease, to choose a gene for potential therapeutic use, and the like.

[0069] Additional Utility of the Invention

[0070] Microarrays containing the sequences of the Sequence Listing can be employed in several applications including diagnostics, prognostics and treatment regimens, drug discovery and development, toxicological and carcinogenicity studies, forensics, pharmacogenomics and the like. In one situation, the microarray is used to monitor the progression of disease. Researchers can assess and catalog the differences in gene expression between healthy and diseased tissues or cells. By analyzing changes in patterns of gene expression, disease can be diagnosed at earlier stages

before the patient is symptomatic. The invention can also be used to monitor the efficacy of treatment. For some treatments with known side effects, the microarray is employed to “fine tune” the treatment regimen. A dosage is established that causes a change in genetic expression patterns indicative of successful treatment. Expression patterns associated with undesirable side effects are avoided. This approach may be more sensitive and rapid than waiting for the patient to show inadequate improvement, or to manifest side effects, before altering the course of treatment.

[0071] Alternatively, animal models which mimic a disease can be used, rather than patients, to characterize expression profiles associated with a particular disease or condition. This gene expression data may be useful in diagnosing and monitoring the course of disease in the model, in determining gene that are candidates for intervention, and in testing novel treatment regimens. Subsequently, the expression profile following protocols and treatments successful in the model system may be used on and monitored in human patients.

[0072] The expression of genes encoding membrane-associated proteins, receptors, and ion channels was highly associated with pancreatic tissue; ~45% of the sequences of the Sequence Listing were expressed in pancreatic tissues. In particular, the microarray and expression profile is useful to diagnose a conditions of the pancreas such as diabetes, pancreatitis, pancreatic cholera, hyperlipidemia, fibrocystic disease, and cancers and tumors of the pancreas.

[0073] The expression of genes encoding membrane-associated proteins, receptors, and ion channels is closely associated with immune conditions, disorders and diseases; ~20% of the sequences of the Sequence Listing were expressed in tissues from patients with immunological conditions such as AIDS, Addison’s disease, ARDS, allergies, ankylosing spondylitis, amyloidosis, anemia, asthma, atherosclerosis, autoimmune hemolytic anemia, autoimmune thyroiditis, bronchitis, cholecystitis, contact dermatitis, Crohn’s disease, atopic dermatitis, dermatomyositis, diabetes mellitus, emphysema, erythroblastosis fetalis, erythema nodosum, atrophic gastritis, glomerulonephritis, Goodpasture’s syndrome, gout, Graves’ disease, Hashimoto’s thyroiditis, hypereosinophilia, irritable bowel syndrome, multiple sclerosis, myasthenia gravis, myocardial or pericardial inflammation, osteoarthritis, osteoporosis, pancreatitis, polymyositis, psoriasis, Reiter’s syndrome, rheumatoid arthritis, scleroderma, Sjögren’s syndrome, systemic anaphylaxis, systemic lupus erythematosus, systemic sclerosis, thrombocytopenic purpura, ulcerative colitis, uveitis, Werner syndrome, complications of cancer, hemodialysis, and extracorporeal circulation, viral, bacterial, fungal, parasitic, protozoal, and helminthic infections, and trauma.

[0074] The expression of genes encoding membrane-associated proteins, receptors, and ion channels is closely associated with cancers; ~10% of the sequences of the Sequence Listing were expressed in cancerous tissues. In particular, the microarray and expression profile is useful to diagnose a cancer such as adenocarcinoma, leukemia, lymphoma, melanoma, myeloma, sarcoma and teratocarcinoma. Such cancers include, but are not limited to, cancers of the adrenal gland, bladder, bone, bone marrow, brain, breast, cervix, colon, gall bladder, ganglia, gastrointestinal tract,

heart, kidney, liver, lung, muscle, ovary, pancreas, parathyroid, penis, prostate, salivary glands, skin, spleen, testis, thymus, thyroid and uterus.

[0075] The expression of genes encoding membrane-associated proteins, receptors, and ion channels is also closely associated with the immune response. Therefore, the microarray can be used to diagnose immunopathologies including, but not limited to, AIDS, Addison’s disease, adult respiratory distress syndrome, allergies, anemia, asthma, atherosclerosis, bronchitis, cholecystitis, Crohn’s disease, ulcerative colitis, atopic dermatitis, dermatomyositis, diabetes mellitus, emphysema, atrophic gastritis, glomerulonephritis, gout, Graves’ disease, hypereosinophilia, irritable bowel syndrome, lupus erythematosus, multiple sclerosis, myasthenia gravis, myocardial or pericardial inflammation, osteoarthritis, osteoporosis, pancreatitis, polymyositis, rheumatoid arthritis, scleroderma, Sjögren’s syndrome, and autoimmune thyroiditis; complications of cancer, hemodialysis, extracorporeal circulation; viral, bacterial, fungal, parasitic, and protozoal infections; and trauma.

[0076] Neuropathologies are also effected by the expression of genes encoding membrane-associated proteins, receptors, and ion channels; in fact, ~1% of the sequences of the Sequence Listing were expressed in neuronal tissues. Thus, the microarray can be used to diagnose neuropathologies including, but not limited to, akathisia, Alzheimer’s disease, amnesia, amyotrophic lateral sclerosis, bipolar disorder, catatonia, cerebral neoplasms, dementia, depression, Down’s syndrome, tardive dyskinesia, dystonias, epilepsy, Huntington’s disease, multiple sclerosis, neurofibromatosis, Parkinson’s disease, paranoid psychoses, schizophrenia, and Tourette’s disorder.

[0077] Also, researchers can use the microarray to rapidly screen large numbers of candidate drug molecules, looking for ones that produce an expression profile similar to those of known therapeutic drugs, with the expectation that molecules with the same expression profile will likely have similar therapeutic effects. Thus, the invention provides the means to determine the molecular mode of action of a drug.

[0078] It is understood that this invention is not limited to the particular devices, machines, materials and methods described. Although preferred embodiments are described; devices, machines, materials and methods similar or equivalent to these embodiments may be used to practice the invention. The preferred embodiments are not intended to limit the scope of the invention which is limited only by the appended claims.

[0079] The singular forms “a”, “an”, and “the” include plural reference unless the context clearly dictates otherwise. All technical and scientific terms have the meanings commonly understood by one of ordinary skill in the art. All patents mentioned herein are incorporated by reference for the purpose of describing and disclosing the devices, machines, materials and methods which are presented and which might be used in connection with the invention. Nothing in the specification is to be construed as an admission that the invention is not entitled to antedate such disclosure by virtue of prior invention.

EXAMPLES

[0080] For purposes of example, the preparation and sequencing of the PANCNOT07 cDNA library is described.

Preparation and sequencing of cDNAs in libraries in the LIFESEQ database (Incyte Pharmaceuticals) have varied over time, and the gradual changes involved use of kits, plasmids, and machinery available at the particular time the library was made and analyzed.

[0081] I cDNA Library Construction

[0082] The PANCNOT07 cDNA library was constructed from pancreas tissue obtained from a 25-week-old Caucasian male fetus. The frozen tissue was homogenized and lysed using a POLYTRON homogenizer (PT-3000; Brinkmann Instruments, Westbury N.J.) in guanidinium isothiocyanate solution. The lysate was centrifuged over a 5.7 M CsCl cushion using an SW28 rotor in a L8-70M ultracentrifuge (Beckman Coulter, Fullerton Calif.) for 18 hours at 25,000 rpm at ambient temperature. The RNA was extracted with acid phenol (pH 4.7), precipitated using 0.3 M sodium acetate and 2.5 volumes of ethanol, resuspended in RNase-free water, and treated with DNase at 37° C. Extraction and precipitation were repeated as before. The mRNA was isolated with the OLIGOTEX kit (Qiagen, Chatsworth Calif.) and used to construct the cDNA library.

[0083] The mRNA was handled according to the recommended protocols in the SUPERSCRIPTM Plasmid system (Life Technologies). The cDNAs were fractionated on a SEPHAROSE CL4B column (Amersham Pharmacia Biotech), and those cDNAs exceeding 400 bp were ligated into pINC⁺Y1 plasmid (Incyte Pharmaceuticals). The plasmid was then transformed into DH5 α competent cells (Life Technologies).

[0084] II Isolation and Sequencing of cDNA Clones

[0085] Plasmid DNA was released from the cells and purified using the REAL Prep 96 plasmid kit (Qiagen). This kit enabled the simultaneous purification of 96 samples in a 96-well block using multi-channel reagent dispensers. The recommended protocol was employed except for the following changes: 1) the bacteria were cultured in 1 ml of sterile Terrific Broth (Life Technologies) with carbenicillin at 25 mg/L and glycerol at 0.4%; 2) after inoculation, the cultures were incubated for 19 hours; and at the end of incubation, the cells were lysed with 0.3 ml of lysis buffer; and 3) following isopropanol precipitation, the DNA pellet was resuspended in 0.1 ml of distilled water. After the last step in the protocol, samples were transferred to a 96-well block for storage at 4° C.

[0086] The cDNAs were sequenced by the method of Sanger and Coulson (1975, *J Mol Biol* 94:441-448). A MICROLAB 2200 (Hamilton, Reno Nev.) in combination with DNA Engine thermal cyclers (PTC200; MJ Research, Watertown Mass.) were used to prepare the DNA. After thermal cycling, the A, C, G, and T reactions with each DNA template were combined. Then, 50 μ l 100% ethanol was added, and the solution was spun at 4° C. for 30 min. The supernatant was decanted, and the pellet was rinsed with 100 μ l 70% ethanol. After being spun for 15 min, the supernatant was discarded and the pellet was dried for 15 min under vacuum. The DNA sample was dissolved in 3 μ l of formaldehyde/50 mM EDTA and loaded into wells in volumes of 2 μ l per well for sequencing on ABI 377 DNA Sequencing systems (PE Biosystems, Foster City Calif.).

[0087] Most of the sequences were sequenced using standard ABI protocols and kits (Cat. Nos. 79345, 79339, 79340,

79357, 79355; PE Biosystems) at solution volumes of 0.25 $\times$ -1.0 $\times$ concentrations. Some of the sequences were sequenced using solutions and dyes from Amersham Pharmacia Biotech).

[0088] III Characterization of cDNA Clones

[0089] The nucleotide sequences of the Sequence Listing, as well as the amino acid sequences deduced from them, were used as query sequences against GenBank, SwissProt, BLOCKS, and PRINTS databases. The sequences in these databases, which contain previously identified and annotated sequences, were searched for regions of similarity using BLAST or FASTA (Pearson, W. R. (1990) *Methods Enzymol* 183:63-98; and Smith and Waterman (1981) *Adv Appl Math* 2:482-489).

[0090] VII. Extension of cDNA Sequences

[0091] The original nucleic acid sequence was extended using the Incyte cDNA clone and oligonucleotide primers. One primer was synthesized to initiate 5' extension of the known fragment, and the other, to initiate 3' extension of the known fragment. The initial primers were designed using OLIGO 4.06 software (National Biosciences), or another appropriate program, to be about 22 to 30 nucleotides in length, to have a GC content of about 50% or more, and to anneal to the target sequence at temperatures of about 68° C. to about 72° C. Any stretch of nucleotides which would result in hairpin structures and primer-primer dimerizations was avoided.

[0092] Selected cDNA libraries, such as a pancreas library, were used to extend the sequence. If more than one extension was necessary, additional or nested sets of primers were designed. Preferred libraries are ones that have been size-selected to include larger cDNAs. Also, random primed libraries are preferred because they will contain more sequences with the 5' and upstream regions of genes. A randomly primed library is particularly useful if an oligo d(T) library does not yield a full-length cDNA. Genomic libraries are useful for extension 5' of the promoter binding region to obtain regulatory elements.

[0093] High fidelity amplification was obtained by PCR using methods well known in the art. PCR was performed in 96-well plates using the DNA ENGINE thermal cycler (MJ Research). The reaction mix contained DNA template, 200 nmol of each primer, reaction buffer containing Mg²⁺, (NH₄)₂SO₄, and β -mercaptoethanol, TAQ DNA polymerase (Amersham Pharmacia Biotech), ELONGASE enzyme (Life Technologies), and Pfu DNA polymerase (Stratagene, San Diego Calif.), with the following parameters for primer pair PCI A and PCI B: Step 1: 94° C., 3 min; Step 2: 94° C., 15 sec; Step 3: 60° C., 1 min; Step 4: 68° C., 2 min; Step 5: Steps 2, 3, and 4 repeated 20 times; Step 6: 68° C., 5 min; Step 7: storage at 4° C. In the alternative, the parameters for primer pair T7 and SK+ were as follows: Step 1: 94° C., 3 min; Step 2: 94° C., 15 sec; Step 3: 57° C., 1 min; Step 4: 68° C., 2 min; Step 5: Steps 2, 3, and 4 repeated 20 times; Step 6: 68° C., 5 min; Step 7: storage at 4° C.

[0094] The concentration of DNA in each well was determined by dispensing 100 μ l PICOGREEN quantitation reagent (0.25% v/v; Molecular Probes, Eugene Oreg.) dissolved in 1 $\times$ TE and 0.5 μ l of undiluted PCR product into each well of an opaque fluorimeter plate (Corning Costar, Acton Mass.) and allowing the DNA to bind to the reagent.

The plate was scanned in a Fluroscan II (Labsystems Oy, Helsinki, Fla.) to measure the fluorescence of the sample and to quantify the concentration of DNA. A 5 μ l to 10 μ l aliquot of the reaction mixture was analyzed by electrophoresis on a 1% agarose mini-gel to determine which reactions were successful in extending the sequence.

[0095] The extended nucleotides were desalted and concentrated, transferred to 384-well plates, digested with CviJI cholera virus endonuclease (Molecular Biology Research, Madison Wis.), and sonicated or sheared prior to religation into pUC18 vector (Amersham Pharmacia Biotech). For shotgun sequencing, the digested nucleotides were separated on low concentration (0.6 to 0.8%) agarose gels, fragments were excised, and agar digested with AGARACE enzyme (Promega, Madison Wis.). Extended clones were religated using T4 ligase (New England Biolabs, Beverly Mass.) into pUC18 vector (Amersham Pharmacia Biotech), treated with Pfu DNA polymerase (Stratagene) to fill-in restriction site overhangs, and transfected into competent *E. coli* cells. Transformed cells were selected on antibiotic-containing media, and individual colonies were picked and cultured overnight at 37° C. in 384-well plates in LB/2 $\times$ carbenicillin liquid media.

[0096] The cells were lysed, and DNA was amplified by PCR using TAQ DNA polymerase (Amersham Pharmacia Biotech) and Pfu DNA polymerase (Stratagene) with the following parameters: Step 1: 94° C., 3 min; Step 2: 94° C., 15 sec; Step 3: 60° C., 1 min; Step 4: 72° C., 2 min; Step 5: steps 2, 3, and 4 repeated 29 times; Step 6: 72° C., 5 min; Step 7: storage at 4° C. DNA was quantified using PICOGREEN reagent (Molecular Probes) as described above. Samples with low DNA recoveries were reamplified using the same conditions described above. Samples were diluted with 20% dimethylsulphoxide (1:2, v/v), and sequenced using DYENAMIC energy transfer sequencing primers and the DYENAMIC DIRECT cycle sequencing kit (Amersham Pharmacia Biotech) or the ABI PRISM BIG-DYE Terminator cycle sequencing kit (PE Biosystems). The extended sequences were assembled with the original clone using CONSED, PHRAP or GELVIEW software (GCG) and reanalyzed using BLAST, FASTA, or similar sequence analysis programs well known in the art. (See, e.g., Ausubel, supra, unit 7.7, pp. 7.65-69.)

[0097] IV Selection of Sequences

[0098] The sequences found in the Sequence Listing were selected because they possessed annotation, motifs, domains, regions or other patterns consistent with genes encoding proteins associated with membranes, receptors, or ion channels. The PRINTS database was searched using the BLIMPS search program to obtain protein family "fingerprints". The PRINTS database complements the PROSITE database and contains groups of conserved motifs within sequence alignments which are used to build characteristic signatures of different polypeptide families. For PRINTS analyses, the cutoff scores for local similarity were >1300=strong, 1000-1300=suggestive; for global similarity, $p < \exp^{-3}$; and for strength (degree of correlation), >1300=strong, 1000-1300=weak.

[0099] PRINTS screening was carried out electronically to identify those sequences shown in the Sequence Listing with similarity to membrane-associated proteins, receptors, and ion channels. The protein groupings screened included

extracellular messengers (including cytokines, growth factors, hormones, neuropeptides, oncogenes, and vasomediators), receptors (including GPCRs, tetraspannins, receptor kinases and nuclear receptors), ion channels, and proteins associated with signaling cascades (including kinases, phosphatases, G proteins, and second messengers such as cyclic AMP, phospholipase C, inositol triphosphate, and the like).

[0100] VIII Labeling of Probes and Hybridization Analyses

[0101] Blotting

[0102] Polynucleotide sequences are isolated from a biological source and applied to a solid matrix (a blot) suitable for standard nucleic acid hybridization protocols by one of the following methods. A mixture of target nucleic acids, a restriction digest of genomic DNA, is fractionated by electrophoresis through an 0.7% agarose gel in 1 $\times$ TAE [Tris-acetate-ethylenediamine tetraacetic acid (EDTA)] running buffer and transferred to a nylon membrane by capillary transfer using 20 $\times$ saline sodium citrate (SSC). Alternatively, the target nucleic acids are individually ligated to a vector and inserted into bacterial host cells to form a library. Target nucleic acids are arranged on a blot by one of the following methods. In the first method, bacterial cells containing individual clones are robotically picked and arranged on a nylon membrane. The membrane is placed on bacterial growth medium, LB agar containing carbenicillin, and incubated at 37° C. for 16 hours. Bacterial colonies are denatured, neutralized, and digested with proteinase K. Nylon membranes are exposed to UV irradiation in a STRATALINKER UV-crosslinker (Stratagene) to cross-link DNA to the membrane.

[0103] In the second method, target nucleic acids are amplified from bacterial vectors by thirty cycles of PCR using primers complementary to vector sequences flanking the insert. Amplified target nucleic acids are purified using SEPHACRYL-400 (Amersham Pharmacia Biotech). Purified target nucleic acids are robotically arrayed onto a glass microscope slide (Coming Science Products, Acton Mass.). The slide was previously coated with 0.05% aminopropyl silane (Sigma-Aldrich, St. Louis Mo.) and cured at 110° C. The arrayed glass slide (microarray) is exposed to UV irradiation in a STRATALINKER UV-crosslinker (Stratagene).

[0104] Probe Preparation

[0105] cDNA probe sequences are made from mRNA templates. Five micrograms of mRNA is mixed with 1 μ g random primer (Life Technologies), incubated at 70° C. for 10 minutes, and lyophilized. The lyophilized sample is resuspended in 50 μ l of 1 $\times$ first strand buffer (cDNA synthesis system; Life Technologies) containing a dNTP mix, [α -³²P]dCTP, dithiothreitol, and MMLV reverse transcriptase (Stratagene), and incubated at 42° C. for 1-2 hours. After incubation, the probe is diluted with 42 μ l dH₂O, heated to 95° C. for 3 minutes, and cooled on ice. mRNA in the probe is removed by alkaline degradation. The probe is neutralized, and degraded mRNA and unincorporated nucleotides are removed using a PROBEQUANT G-50 micro-column (Amersham Pharmacia Biotech). Probes can be labeled with fluorescent markers, Cy3-dCTP or Cy5-dCTP (Amersham Pharmacia Biotech), in place of the radionuclide, [³²P]dCTP.

[0106] Hybridization

[0107] Hybridization is carried out at 65° C. in a hybridization buffer containing 0.5 M sodium phosphate (pH 7.2), 7% SDS, and 1 mM EDTA. After the blot is incubated in hybridization buffer at 65° C. for at least 2 hours, the buffer is replaced with 10 ml of fresh buffer containing the probe sequences. After incubation at 65° C. for 18 hours, the hybridization buffer is removed, and the blot is washed sequentially under increasingly stringent conditions, up to

40 mM sodium phosphate, 1% SDS, 1 mM EDTA at 65° C. To detect signal produced by a radiolabeled probe hybridized on a membrane, the blot is exposed to a PHOSPHORIMAGER cassette (Amersham Pharmacia Biotech), and the image is analyzed using IMAGEQUANT data analysis software (Molecular Dynamics). To detect signals produced by a fluorescent probe hybridized on a microarray, the blot is examined by confocal laser microscopy, and images are collected and analyzed using GEMTOOLS gene expression analysis software (Incyte Pharmaceuticals).

TABLE I

SEQ ID NO	INCYTE CLONE NO	PRINT ID	PRINT DESCRIPTION	PRINT STRENGTH	PRINT SCORE	TM	SIGNAL PEPTIDE
SEQ ID NO:1	8915	PR00554C	ADENOSINE A2B RECEPTOR SIGNATURE	1189	1319	yes	yes
SEQ ID NO:2	68454	PR00572B	INTERLEUKIN 8A RECEPTOR SIGNATURE	1120	1184		
SEQ ID NO:3	98991	PR00897E	VASOPRESSIN VIB RECEPTOR SIGNATURE	1159	1135		
SEQ ID NO:4	121140	PR00247B	CAMP-TYPE GPCR SIGNATURE	1230	1244	yes	
SEQ ID NO:5	129059	PR00535A	MELANOCORTIN RECEPTOR SIGNATURE	1169	1120		
SEQ ID NO:6	222732	PR00580	PROSTANOID EP1 RECEPTOR SIGNATURE	1278	1114		
SEQ ID NO:7	222748	PR00635A	AT1 ANGIOTENSIN II RECEPTOR SIGNATURE	1280	1356	yes	yes
SEQ ID NO:8	224587	PR00555C	ADENOSINE A3 RECEPTOR SIGNATURE	1332	1341	yes	
SEQ ID NO:9	225146	PR00522G	CANNABINOID RECEPTOR TYPE 1 SIGNATURE	1341	1282		
SEQ ID NO:10	225640	PR00592B	EXTRACELLULAR CALCIUM-SENSING RECEPTOR SIGNAT	1421	1279		
SEQ ID NO:11	225650	PR00648D	GPR3 ORPHAN RECEPTOR SIGNATURE	1146	1302	yes	
SEQ ID NO:12	226179	PR00641H	EB11 ORPHAN RECEPTOR SIGNATURE	1259	1215		
SEQ ID NO:13	226815	PR00644E	GPR ORPHAN RECEPTOR SIGNATURE	1453	1250		yes
SEQ ID NO:14	227559	PR00554G	ADENOSINE A2B RECEPTOR SIGNATURE	1259	1234		
SEQ ID NO:15	227799	PR00366A	ENDOTHELIN RECEPTOR SIGNATURE	1337	1279	yes	
SEQ ID NO:16	227892	PR00531A	HISTAMINE H2 RECEPTOR SIGNATURE	1183	1197	yes	
SEQ ID NO:17	228282	PR00565C	DOPAMINE 1A RECEPTOR SIGNATURE	1221	1213		
SEQ ID NO:18	229665	PR00648D	GPR3 ORPHAN RECEPTOR SIGNATURE	1146	1233	yes	
SEQ ID NO:19	229779	PR00537C	MU OPIOID RECEPTOR SIGNATURE	1348	1216	yes	
SEQ ID NO:20	240829	PR00856I	PROSTACYCLIN (PROSTANOID IP) RECEPTOR SIGNATU	1131	1273		yes
SEQ ID NO:21	341490	PR00531A	HISTAMINE H2 RECEPTOR SIGNATURE	1183	1256	yes	yes
SEQ ID NO:22	402456	PR00555F	ADENOSINE A3 RECEPTOR SIGNATURE	1259	1121		
SEQ ID NO:23	420765	PR00536E	MELANOCYTE STIMULATING HORMONE RECEPTOR SIGNA	1313	1170		
SEQ ID NO:24	481770	PR00558B	ALPHA-2A ADRENERGIC RECEPTOR SIGNATURE	1519	1108		
SEQ ID NO:25	548654	PR00531A	HISTAMINE H2 RECEPTOR SIGNATURE	1183	1240		yes
SEQ ID NO:26	632097	PR00715E	CATION-DEPENDENT MANNOSE-6-PHOSPHATE RECEPTOR	1440	1300	yes	yes
SEQ ID NO:27	647580	PR00586B	PROSTANOID EP4 RECEPTOR SIGNATURE	1452	1317		yes
SEQ ID NO:28	647628	PR00514D	5-HYDROXYTRYPTAMINE 1D RECEPTOR SIGNATURE	1252	1263	yes	yes
SEQ ID NO:29	647931	PR00596D	URIDINE NUCLEOTIDE RECEPTOR SIGNATURE	1255	1221		
SEQ ID NO:30	648153	PR00647I	SENR ORPHAN RECEPTOR SIGNATURE	1291	1213		
SEQ ID NO:31	648838	PR00751E	THYROTROPHIN-RELEASING HORMONE RECEPTOR SIGNA	1433	1221		
SEQ ID NO:32	649152	PR00554G	ADENOSINE A2B RECEPTOR SIGNATURE	1259	1078		
SEQ ID NO:33	649682	PR00255B	NATRIURETIC PEPTIDE RECEPTOR SIGNATURE	1264	1213		
SEQ ID NO:34	649917	PR00596D	URIDINE NUCLEOTIDE RECEPTOR SIGNATURE	1255	1154		
SEQ ID NO:35	650726	PR00490C	SECRETIN RECEPTOR SIGNATURE	1238	1195		
SEQ ID NO:36	652013	PR00491C	VASOACTIVE INTESTINAL PEPTIDE RECEPTOR SIGNAT	1121	1155	yes	
SEQ ID NO:37	738964	PR00542F	MUSCARINIC M5 RECEPTOR SIGNATURE	1218	1185		
SEQ ID NO:38	743323	PR00899G	FUNGAL PHEROMONE STE3 GPCR SIGNATURE	1132	1218		
SEQ ID NO:39	753592	PR00587A	SOMATOSTATIN RECEPTOR TYPE 1 SIGNATURE	1312	1121		
SEQ ID NO:40	797777	PR00512F	5-HYDROXYTRYPTAMINE 1A RECEPTOR SIGNATURE	1388	1257		yes
SEQ ID NO:41	885098	PR00642C	EDG1 ORPHAN RECEPTOR SIGNATURE	1193	1213		
SEQ ID NO:42	947812	PR00636C	AT2 ANGIOTENSIN II RECEPTOR SIGNATURE	1317	1277		
SEQ ID NO:43	948051	PR00554A	ADENOSINE A2B RECEPTOR SIGNATURE	1109	1255		
SEQ ID NO:44	948581	PR00539E	MUSCARINIC M2 RECEPTOR SIGNATURE	1322	1244	yes	
SEQ ID NO:45	948700	PR00554C	ADENOSINE A2B RECEPTOR SIGNATURE	1189	1316		
SEQ ID NO:46	948883	PR00531E	HISTAMINE H2 RECEPTOR SIGNATURE	1324	1241	yes	
SEQ ID NO:47	948935	PR00663D	GALANIN RECEPTOR SIGNATURE	1168	1282		
SEQ ID NO:48	949387	PR00639D	NEUROMEDIN B RECEPTOR SIGNATURE	1198	1216	yes	
SEQ ID NO:49	951797	PR00900G	PEROMONE A RECEPTOR SIGNATURE	996	1211	yes	
SEQ ID NO:50	997947	PR00928E	GRAVES DISEASE CARRIER PROTEIN SIGNATURE	1410	1283	yes	
SEQ ID NO:51	1212964	PR00564D	BURKITT'S LYMPHOMA RECEPTOR SIGNATURE	1295	1291	yes	

TABLE I-continued

SEQ ID NO	INCYTE CLONE NO	PRINT ID	PRINT DESCRIPTION	PRINT STRENGTH	PRINT SCORE	TM	SIGNAL PEPTIDE
SEQ ID NO:52	1214535	PR00527A	GASTRIN RECEPTOR SIGNATURE	1327	1185		
SEQ ID NO:53	1219856	PR00587A	SOMATOSTATIN RECEPTOR TYPE 1 SIGNATURE	1312	1181		
SEQ ID NO:54	1288503	PR00663G	GALANIN RECEPTOR SIGNATURE	1160	1452	yes	yes
SEQ ID NO:55	1298179	PR00666C	PINEAL OPSIN SIGNATURE	1257	1296	yes	
SEQ ID NO:56	1305513	PR00639D	NEUROMEDIN B RECEPTOR SIGNATURE	1198	1238		yes
SEQ ID NO:57	1318926	PR00639D	NEUROMEDIN B RECEPTOR SIGNATURE	1198	1299	yes	
SEQ ID NO:58	1328744	PR00641A	EBI1 ORPHAN RECEPTOR SIGNATURE	1325	1267	yes	yes
SEQ ID NO:59	1328845	PR00554D	ADENOSINE A2B RECEPTOR SIGNATURE	1208	1221	yes	yes
SEQ ID NO:60	1329044	PR00900G	PHEROMONE A RECEPTOR SIGNATURE	996	1235	yes	yes
SEQ ID NO:61	1329081	PR00522G	CANNABINOID RECEPTOR TYPE 1 SIGNATURE	1341	1249	yes	
SEQ ID NO:62	1329095	PR00639D	NEUROMEDIN B RECEPTOR SIGNATURE	1198	1137		
SEQ ID NO:63	1329404	PR00637D	TYPE 3 BOMBESIN RECEPTOR SIGNATURE	1131	1246		
SEQ ID NO:64	1329477	PR00517F	5-HYDROXYTRYPTAMINE 2C RECEPTOR SIGNATURE	1259	1310	yes	
SEQ ID NO:65	1329584	PR00856I	PROSTACYCLIN (PROSTANOID IP) RECEPTOR SIGNATU	1131	1176		
SEQ ID NO:66	1329652	PR00646B	RDC1 ORPHAN RECEPTOR SIGNATURE	1307	1226	yes	yes
SEQ ID NO:67	1329778	PR00562F	BETA-2 ADRENERGIC RECEPTOR SIGNATURE	1360	1292	yes	
SEQ ID NO:68	1329830	PR00642B	EDG1 ORPHAN RECEPTOR SIGNATURE	1218	1325	yes	
SEQ ID NO:69	1329851	PR00582B	PROSTANOID EP3 RECEPTOR SIGNATURE	1750	1276	yes	yes
SEQ ID NO:70	1329862	PR00580C	PROSTANOID EP1 RECEPTOR SIGNATURE	1278	1253		yes
SEQ ID NO:71	1329971	PR00547A	X OPIOID RECEPTOR SIGNATURE	1342	1233		
SEQ ID NO:72	1329994	PR00564D	BURKITT'S LYMPHOMA RECEPTOR SIGNATURE	1295	1315	yes	yes
SEQ ID NO:73	1329995	PR00490F	SECRETIN RECEPTOR SIGNATURE	1239	1275		yes
SEQ ID NO:74	1330007	PR00899K	FUNGAL PHEROMONE STE3 GPCR SIGNATURE	1057	1244	yes	
SEQ ID NO:75	1330016	PR00514D	5-HYDROXYTRYPTAMINE ID RECEPTOR SIGNATURE	1252	1255	yes	
SEQ ID NO:76	1330023	PR00647I	SENR ORPHAN RECEPTOR SIGNATURE	1291	1258	yes	
SEQ ID NO:77	1330061	PR00586H	PROSTANOID EP4 RECEPTOR SIGNATURE	1526	1219		
SEQ ID NO:78	1330108	PR00424B	ADENOSINE RECEPTOR SIGNATURE	1339	1240	yes	yes
SEQ ID NO:79	1330215	PR00642B	EDG1 ORPHAN RECEPTOR SIGNATURE	1218	1237	yes	
SEQ ID NO:80	1330424	PR00248F	METABOTROPIC GLUTAMATE GPCR SIGNATURE	1498	1262	yes	
SEQ ID NO:81	1330429	PR00568D	DOPAMINE D3 RECEPTOR SIGNATURE	1445	1226	yes	yes
SEQ ID NO:82	1330478	PRO0571G	ENDOTHELIN-B RECEPTOR SIGNATURE	1420	1253	yes	
SEQ ID NO:83	1330641	PR00424F	ADENOSINE RECEPTOR SIGNATURE	1205	1241		
SEQ ID NO:84	1330656	PR00554B	ADENOSINE A2B RECEPTOR SIGNATURE	1090	1227	yes	
SEQ ID NO:85	1330683	PR00699F	C.ELEGANS INTEGRAL MEMBRANE PROTEIN SRG SIGNA	1214	1220	yes	
SEQ ID NO:86	1330740	PR00639D	NEUROMEDIN B RECEPTOR SIGNATURE	1198	1209		yes
SEQ ID NO:87	1330847	PR00641F	EBI1 ORPHAN RECEPTOR SIGNATURE	1290	1260	yes	yes
SEQ ID NO:88	1330861	PR00424B	ADENOSINE RECEPTOR SIGNATURE	1339	1310		yes
SEQ ID NO:89	1330882	PR00559C	ALPHA-2B ADRENERGIC RECEPTOR SIGNATURE	1284	1208		
SEQ ID NO:90	1330907	PR00568A	DOPAMINE D3 RECEPTOR SIGNATURE	1427	1248		yes
SEQ ID NO:91	1330918	PR00908H	THROMBIN RECEPTOR SIGNATURE	1409	1300	yes	yes
SEQ ID NO:92	1330930	PR00645I	LCR1 ORPHAN RECEPTOR SIGNATURE	1511	1272	yes	yes
SEQ ID NO:93	1330957	PR00261E	LOW DENSITY LIPOPROTEIN (LDL) RECEPTOR SIGNAT	1459	1236	yes	
SEQ ID NO:94	1330969	PR00515C	5-HYDROXYTRYPTAMINE 1F RECEPTOR SIGNATURE	1351	1264		
SEQ ID NO:95	1331030	PR00715E	CATION-DEPENDENT MANNOS-6-PHOSPHATE RECEPTOR	1440	1300	yes	
SEQ ID NO:96	1331172	PR00667B	RETINAL PIGMENT EPITHELIUM-RETINAL GPCR SIGNA	1190	1237	yes	
SEQ ID NO:97	1331278	PR00854B	PROSTAGLANDIN D RECEPTOR SIGNATURE	1257	1288		yes
SEQ ID NO:98	1331316	PR00596D	URIDINE NUCLEOTIDE RECEPTOR SIGNATURE	1255	1294		
SEQ ID NO:99	1331330	PR00699E	C.ELEGANS INTEGRAL MEMBRANE PROTEIN SRG SIGNA	1137	1196	yes	
SEQ ID NO:100	1331371	PR00240D	ALPHA-1A ADRENERGIC RECEPTOR SIGNATURE	1470	1238	yes	
SEQ ID NO:101	1331411	PR00542F	MUSCARINIC M5 RECEPTOR SIGNATURE	1218	1284	yes	
SEQ ID NO:102	1331481	PR00641B	EBI1 ORPHAN RECEPTOR SIGNATURE	1354	1244		
SEQ ID NO:103	1331917	PR00572B	INTERLEUKIN 8A RECEPTOR SIGNATURE	1120	1229	yes	yes
SEQ ID NO:104	1332023	PR00240D	ALPHA-1A ADRENERGIC RECEPTOR SIGNATURE	1470	1307	yes	yes
SEQ ID NO:105	1332138	PR00752F	VASOPRESSIN V1A RECEPTOR SIGNATURE	1304	1226	yes	
SEQ ID NO:106	1332171	PR00715I	CATION-DEPENDENT MANNOS-6-PHOSPHATE RECEPTOR	1392	1205		
SEQ ID NO:107	1332391	PR00522G	CANNABINOID RECEPTOR TYPE 1 SIGNATURE	1341	1285		yes
SEQ ID NO:108	1332480	PR00643D	G1D ORPHAN RECEPTOR SIGNATURE	1317	1210		
SEQ ID NO:109	1332803	PR00258D	SPERACT RECEPTOR SIGNATURE	1254	1230		yes
SEQ ID NO:110	1332830	PR00652F	5-HYDROXYTRYPTAMINE 7 RECEPTOR SIGNATURE	1488	1194		
SEQ ID NO:111	1332955	PR00639D	NEUROMEDIN B RECEPTOR SIGNATURE	1198	1295	yes	yes
SEQ ID NO:112	1332966	PR00574D	BLUE-SENSITIVE OPSIN SIGNATURE	1263	1300	yes	
SEQ ID NO:113	1332981	PR00589E	SOMATOSTATIN RECEPTOR TYPE 3 SIGNATURE	1340	1253		yes
SEQ ID NO:114	1333006	PR00643H	G10D RECEPTOR SIGNATURE	1453	1285		yes

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SEQ ID NO	INCYTE CLONE NO	PRINT ID	PRINT DESCRIPTION	PRINT STRENGTH	PRINT SCORE	TM	SIGNAL PEPTIDE
SEQ ID NO:115	1333107	PR00539E	MUSCARINIC M2 RECEPTOR SIGNATURE	1322	1371		
SEQ ID NO:116	1333116	PR00568D	DOPAMINE D3 RECEPTOR SIGNATURE	1445	1206		
SEQ ID NO:117	1333133	PR00643H	G10D ORPHAN RECEPTOR SIGNATURE	1453	1246		
SEQ ID NO:118	1352448	PR00527I	GASTRIN RECEPTOR SIGNATURE	1633	1234	yes	yes
SEQ ID NO:119	1385827	PR00539E	MUSCARINIC M2 RECEPTOR SIGNATURE	1322	1368	yes	yes
SEQ ID NO:120	1385922	PR00571G	ENDOTHELIN-B RECEPTOR SIGNATURE	1420	1193		
SEQ ID NO:121	1386485	PR00574D	BLUE-SENSITIVE OPSIN SIGNATURE	1263	1317		
SEQ ID NO:122	1386553	PR00857C	MELATONIN RECEPTOR SIGNATURE	1472	1238		yes
SEQ ID NO:123	1386660	PR00647I	SENR ORPHAN RECEPTOR SIGNATURE	1291	1251		
SEQ ID NO:124	1386859	PR00645G	LCR1 ORPHAN RECEPTOR SIGNATURE	1454	1230		
SEQ ID NO:125	1387302	PR00592B	EXTRACELLULAR CALCIUM-SENSING RECEPTOR SIGNAT	1421	1203		yes
SEQ ID NO:126	1388063	PR00665G	OXYTOCIN RECEPTOR SIGNATURE	1246	1335	yes	
SEQ ID NO:127	1422814	PR00647I	SENR ORPHAN RECEPTOR SIGNATURE	1291	1292		
SEQ ID NO:128	1423820	PR00574D	BLUE-SENSITIVE OPSIN SIGNATURE	1263	1177	yes	
SEQ ID NO:129	1429651	PR00554G	ADENOSINE A2B RECEPTOR SIGNATURE	1259	1275	yes	yes
SEQ ID NO:130	1436525	PR00568D	DOPAMINE D3 RECEPTOR SIGNATURE	1445	1216		yes
SEQ ID NO:131	1453124	PR00649G	GPR6 ORPHAN RECEPTOR SIGNATURE	1103	1292	yes	
SEQ ID NO:132	1460891	PR00854B	PROSTAGLANDIN D RECEPTOR SIGNATURE	1257	1245		
SEQ ID NO:133	1465590	PR00539E	MUSCARINIC M2 RECEPTOR SIGNATURE	1322	1229	yes	yes
SEQ ID NO:134	1466523	PR00560D	ALPHA-2C ADRENERGIC RECEPTOR SIGNATURE	1642	1319		
SEQ ID NO:135	1466902	PR00240D	ALPHA-1A ADRENERGIC RECEPTOR SIGNATURE	1470	1271		
SEQ ID NO:136	1468040	PR00537C	MU OPIOID RECEPTOR SIGNATURE	1348	1316	yes	
SEQ ID NO:137	1480833	PR00571G	ENDOTHELIN-B RECEPTOR SIGNATURE	1420	1325		
SEQ ID NO:138	1516908	PR00530I	HISTAMINE H1 RECEPTOR SIGNATURE	1295	1276		yes
SEQ ID NO:139	1518320	PR00343A	SELECTIN SUPERFAMILY COMPLEMENT-BINDING REPEA	1245	1412		yes
SEQ ID NO:140	1529624	PR00522G	CANNABINOID RECEPTOR TYPE 1 SIGNATURE	1341	1350		
SEQ ID NO:141	1590311	PR00639D	NEUROMEDIN B RECEPTOR SIGNATURE	1198	1168		
SEQ ID NO:142	1590335	PR00666B	PINEAL OPSIN SIGNATURE	1253	1224		
SEQ ID NO:143	1590422	PR00240F	ALPHA-1A ADRENERGIC RECEPTOR SIGNATURE	1323	1226		
SEQ ID NO:144	1590455	PR00637D	TYPE 3 BOMBESIN RECEPTOR SIGNATURE	1131	1182		
SEQ ID NO:145	1590464	PR00637D	TYPE 3 BOMBESIN RECEPTOR SIGNATURE	1131	1268		yes
SEQ ID NO:146	1590496	PR00908H	THROMBIN RECEPTOR SIGNATURE	1409	1226	yes	
SEQ ID NO:147	1590713	PR00641F	EBI1 ORPHAN RECEPTOR SIGNATURE	1290	1211		
SEQ ID NO:148	1590769	PR00572B	INTERLEUKIN 8A RECEPTOR SIGNATURE	1120	1122		
SEQ ID NO:149	1590779	PR00642C	EDG1 ORPHAN RECEPTOR SIGNATURE	1193	1246		
SEQ ID NO:150	1590931	PR00646F	RDC1 ORPHAN RECEPTOR SIGNATURE	1188	1165		
SEQ ID NO:151	1590958	PR00261C	LOW DENSITY LIPOPROTEIN (LDL) RECEPTOR SIGNAT	1576	1234		
SEQ ID NO:152	1590973	PR00350C	VITAMIN D RECEPTOR SIGNATURE	1416	1283	yes	yes
SEQ ID NO:153	1591090	PR00643G	G10D ORPHAN RECEPTOR SIGNATURE	1383	1292		
SEQ ID NO:154	1591713	PR00553B	ADENOSINE A2A RECEPTOR SIGNATURE	1258	1292	yes	yes
SEQ ID NO:155	1642794	PR00527B	GASTRIN RECEPTOR SIGNATURE	1431	1353		
SEQ ID NO:156	1687080	PR00855A	PROSTAGLANDIN F RECEPTOR SIGNATURE	1361	1248	yes	yes
SEQ ID NO:157	1722845	PR00248C	METABOTROPIC GLUTAMATE GPCR SIGNATURE	1402	1328	yes	yes
SEQ ID NO:158	1732911	PR00587A	SOMATOSTATIN RECEPTOR TYPE 1 SIGNATURE	1312	1221		
SEQ ID NO:159	1785913	PR00554C	ADENOSINE A2B RECEPTOR SIGNATURE	1189	1201		
SEQ ID NO:160	1809069	PR00643G	G10D ORPHAN RECEPTOR SIGNATURE	1383	1367	yes	yes
SEQ ID NO:161	1867626	PR00665F	OXYTOCIN RECEPTOR SIGNATURE	1290	1353	yes	
SEQ ID NO:162	1880501	PR00715I	CATION-DEPENDENT MANNOSE-6-PHOSPHATE RECEPTOR	1392	1257	yes	yes
SEQ ID NO:163	1881009	PR00531A	HISTAMINE H2 RECEPTOR SIGNATURE	1183	1269		yes
SEQ ID NO:164	1909132	PR00637D	TYPE 3 BOMBESIN RECEPTOR SIGNATURE	1131	1221		yes
SEQ ID NO:165	1955094	PR00580	PROSTANOID EP1 RECEPTOR SIGNATURE	1160	1197		yes
SEQ ID NO:166	1955688	PR00647I	SENR ORPHAN RECEPTOR SIGNATURE	1291	1193	yes	
SEQ ID NO:167	1956694	PR00517F	5-HYDROXYTRYPTAMINE 2C RECEPTOR SIGNATURE	1259	1255		
SEQ ID NO:168	1957189	PR00366A	ENDOTHELIN RECEPTOR SIGNATURE	1337	1232		
SEQ ID NO:169	1957920	PR00350B	VITAMIN D RECEPTOR SIGNATURE	1494	1267		
SEQ ID NO:170	1957977	PR00559C	ALPHA-2B ADRENERGIC RECEPTOR SIGNATURE	1284	1157		yes
SEQ ID NO:171	1958505	PR00571G	ENDOTHELIN-B RECEPTOR SIGNATURE	1420	1188		
SEQ ID NO:172	1972687	PR00553B	ADENOSINE A2A RECEPTOR SIGNATURE	1258	1275	yes	yes
SEQ ID NO:173	1975013	PR00554D	ADENOSINE A2B RECEPTOR SIGNATURE	1208	1312	yes	
SEQ ID NO:174	2010369	PR00645I	LCR1 ORPHAN RECEPTOR SIGNATURE	1511	1277	yes	yes
SEQ ID NO:175	2019581	PR00641A	EBI1 ORPHAN RECEPTOR SIGNATURE	1325	1178		
SEQ ID NO:176	2022460	PR00574D	BLUE-SENSITIVE OPSIN SIGNATURE	1263	1279	yes	
SEQ ID NO:177	2022624	PR00857C	MELATONIN RECEPTOR SIGNATURE	1472	1232	yes	yes
SEQ ID NO:178	2022628	PR00244A	NEUROKININ RECEPTOR SIGNATURE	1316	1174		
SEQ ID NO:179	2022630	PR00525E	DELTA OPIOID RECEPTOR SIGNATURE	1139	1261		yes
SEQ ID NO:180	2022631	PR00645I	LCR1 ORPHAN RECEPTOR SIGNATURE	1511	1299	yes	yes
SEQ ID NO:181	2023275	PR00667B	RETINAL PIGMENT EPITHELIUM-RETINAL GPCR SIG	1190	1217		

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SEQ ID NO	INCYTE CLONE NO	PRINT ID	PRINT DESCRIPTION	PRINT STRENGTH	PRINT SCORE	TM	SIGNAL PEPTIDE
SEQ ID NO:182	2023747	PR00568D	DOPAMINE D3 RECEPTOR SIGNATURE	1445	1244		
SEQ ID NO:183	2044305	PR00751B	THYROTROPHIN-RELEASING HORMONE RECEPTOR SIGNA	1443	1209	yes	yes
SEQ ID NO:184	2069971	PR00644E	GPR ORPHAN RECEPTOR SIGNATURE	1453	1307	yes	
SEQ ID NO:185	2070872	PR00245C	OLFACTORY RECEPTOR SIGNATURE	1364	1286	yes	yes
SEQ ID NO:186	2202228	PR00553A	ADENOSINE A2A RECEPTOR SIGNATURE	1377	1218	yes	
SEQ ID NO:187	2085633	PR00752E	VASOPRESSIN V1A RECEPTOR SIGNATURE	1193	1250		yes
SEQ ID NO:188	2088104	PR00641A	EBI1 ORPHAN RECEPTOR SIGNATURE	1325	1305	yes	yes
SEQ ID NO:189	2091133	PR00562C	BETA-2 ADRENERGIC RECEPTOR SIGNATURE	1457	1302		
SEQ ID NO:190	2123514	PR00587A	SOMATOSTATIN RECEPTOR TYPE 1 SIGNATURE	1312	1252	yes	
SEQ ID NO:191	2150261	PR00176C	SODIUM/NEUROTRANSMITTER SYMPORTER SIGNATURE	1414	1576	yes	yes
SEQ ID NO:192	2170670	PR00896H	VASOPRESSIN RECEPTOR SIGNATURE	1331	1271	yes	yes
SEQ ID NO:193	2199484	PR00559B	ALPHA-2B ADRENERGIC RECEPTOR SIGNATURE	1285	1195		yes
SEQ ID NO:194	2204242	PR00896H	VASOPRESSIN RECEPTOR SIGNATURE	1331	1305		
SEQ ID NO:195	2236316	PR00554B	ADENOSINE A2B RECEPTOR SIGNATURE	1090	1192	yes	
SEQ ID NO:196	2237722	PR00855H	PROSTAGLANDIN F RECEPTOR SIGNATURE	1467	1218		
SEQ ID NO:197	2238625	PR00585A	PROSTANOID EP3 RECEPTOR TYPE 3 SIGNATURE	1230	1237		yes
SEQ ID NO:198	2242277	PR00255B	NATRIURETIC PEPTIDE RECEPTOR SIGNATURE	1264	1180	yes	
SEQ ID NO:199	2244782	PR00590A	SOMATOSTATIN RECEPTOR TYPE 4 SIGNATURE	1253	1260		
SEQ ID NO:200	2272244	PR00568D	DOPAMINE D3 RECEPTOR SIGNATURE	1445	1365	yes	yes
SEQ ID NO:201	2284108	PR00652F	5-HYDROXYTRYPTAMINE 7 RECEPTOR SIGNATURE	1488	1317	yes	yes
SEQ ID NO:202	2287109	PR00641H	EBI1 ORPHAN RECEPTOR SIGNATURE	1259	1305		
SEQ ID NO:203	2289873	PR00596D	URIDINE NUCLEOTIDE RECEPTOR SIGNATURE	1255	1254	yes	yes
SEQ ID NO:204	2375491	PR00592B	EXTRACELLULAR CALCIUM-SENSING RECEPTOR SIGNAT	1421	1286		
SEQ ID NO:205	2376547	PR00539E	MUSCARINIC M2 RECEPTOR SIGNATURE	1322	1222		
SEQ ID NO:206	2377774	PR00240F	ALPHA-1A ADRENERGIC RECEPTOR SIGNATURE	1323	1215	yes	yes
SEQ ID NO:207	2378093	PR00854A	PROSTAGLANDIN D RECEPTOR SIGNATURE	1169	1350	yes	yes
SEQ ID NO:208	2378367	PR00571A	ENDOTHELIN-B RECEPTOR SIGNATURE	1357	1278		yes
SEQ ID NO:209	2378405	PR00647I	SENR ORPHAN RECEPTOR SIGNATURE	1291	1195		
SEQ ID NO:210	2378406	PR00555C	ADENOSINE A3 RECEPTOR SIGNATURE	1332	1369		
SEQ ID NO:211	2381364	PR00666B	PINEAL OPSIN SIGNATURE	1253	1249		yes
SEQ ID NO:212	2381732	PR00663D	GALANIN RECEPTOR SIGNATURE	1168	1242		
SEQ ID NO:213	2383045	PR00522C	CANNABINOID RECEPTOR TYPE 1 SIGNATURE	1317	1223		
SEQ ID NO:214	2470285	PR00373D	GLYCOPROTEIN HORMONE RECEPTOR SIGNATURE	1458	1537	yes	yes
SEQ ID NO:215	2488060	PR00558G	ALPHA-2A ADRENERGIC RECEPTOR SIGNATURE	1396	1282	yes	yes
SEQ ID NO:216	2503084	PR00752E	VASOPRESSIN V1A RECEPTOR SIGNATURE	1193	1235	yes	
SEQ ID NO:217	2511221	PR00565B	DOPAMINE 1A RECEPTOR SIGNATURE	1289	1266	yes	yes
SEQ ID NO:218	2512109	PR00636B	AT2 ANGIOTENSIN II RECEPTOR SIGNATURE	1305	1267		
SEQ ID NO:219	2553280	PR00530I	HISTAMINE H1 RECEPTOR SIGNATURE	1295	1275	yes	
SEQ ID NO:220	2603450	PR00373D	GLYCOPROTEIN HORMONE RECEPTOR SIGNATURE	1458	1419	yes	yes
SEQ ID NO:221	2605934	PR00539C	MUSCARINIC M2 RECEPTOR SIGNATURE	1365	1286	yes	
SEQ ID NO:222	2674641	PR00752E	VASOPRESSIN V1A RECEPTOR SIGNATURE	1193	1228	yes	yes
SEQ ID NO:223	2681738	PR00258C	SPERACT RECEPTOR SIGNATURE	1220	1307	yes	yes
SEQ ID NO:224	2723293	PR00554B	ADENOSINE A2B RECEPTOR SIGNATURE	1090	1240	yes	
SEQ ID NO:225	2762348	PR00560D	ALPHA-2C ADRENERGIC RECEPTOR SIGNATURE	1642	1284	yes	yes
SEQ ID NO:226	2773609	PR00854B	PROSTAGLANDIN D RECEPTOR SIGNATURE	1257	1269		
SEQ ID NO:227	2776266	PR00854B	PROSTAGLANDIN D RECEPTOR SIGNATURE	1257	1269		
SEQ ID NO:228	2777115	PR00527A	GASTRIN RECEPTOR SIGNATURE	1327	1286		
SEQ ID NO:229	2812882	PR00566B	DOPAMINE 1B RECEPTOR SIGNATURE	1121	1215		yes
SEQ ID NO:230	2821121	PR00560D	ALPHA-2C ADRENERGIC RECEPTOR SIGNATURE	1642	1251	yes	yes
SEQ ID NO:231	2848989	PR00561F	BETA-1 ADRENERGIC RECEPTOR SIGNATURE	1445	1293		
SEQ ID NO:232	2854471	PR00643C	G1D ORPHAN RECEPTOR SIGNATURE	1286	1051		
SEQ ID NO:233	2854670	PR00571A	ENDOTHELIN-B RECEPTOR SIGNATURE	1357	1222	yes	
SEQ ID NO:234	2855520	PR00590C	SOMATOSTATIN RECEPTOR TYPE 4 SIGNATURE	1325	1255		
SEQ ID NO:235	2855815	PR00558G	ALPHA-2A ADRENERGIC RECEPTOR SIGNATURE	1396	1184		yes
SEQ ID NO:236	2857653	PR00854B	PROSTAGLANDIN D RECEPTOR SIGNATURE	1257	1302	yes	yes
SEQ ID NO:237	2866122	PR00350C	VITAMIN D RECEPTOR SIGNATURE	1230	1214	yes	yes
SEQ ID NO:238	2925464	PR00585A	PROSTANOID EP3 RECEPTOR TYPE 3 SIGNATURE	1230	1214	yes	yes
SEQ ID NO:239	2954714	PR00241C	ANGIOTENSIN II RECEPTOR SIGNATURE	1246	1213		
SEQ ID NO:240	2986560	PR00855A	PROSTAGLANDIN F RECEPTOR SIGNATURE	1361	1330		
SEQ ID NO:241	3068234	PR00642D	EDG1 ORPHAN RECEPTOR SIGNATURE	1208	1319	yes	yes
SEQ ID NO:242	3077943	PR00647I	SENR ORPHAN RECEPTOR SIGNATURE	1291	1268		
SEQ ID NO:243	3144006	PR00715G	CATION DEPENDENT MANNOSE-6-PHOSPHATE RECEPTOR	1366	1247		
SEQ ID NO:244	3226980	PR00527A	GASTRIN RECEPTOR SIGNATURE	1327	1222	yes	
SEQ ID NO:245	3290614	PR00522G	CANNABINOID RECEPTOR TYPE 1 SIGNATURE	1341	1263		
SEQ ID NO:246	3291235	PR00240D	ALPHA-1A ADRENERGIC RECEPTOR SIGNATURE	1470	1269		yes
SEQ ID NO:247	3324775	PR00490F	SECRETIN RECEPTOR SIGNATURE	1239	1217		yes
SEQ ID NO:248	3333159	PR00581A	PROSTANOID EP2 RECEPTOR SIGNATURE	1113	1243	yes	
SEQ ID NO:249	3393404	PR00343A	SELECTIN SUPERFAMILY COMPLEMENT-BINDING REPEA	1245	1606	yes	yes

TABLE I-continued

SEQ ID NO	INCYTE CLONE NO	PRINT ID	PRINT DESCRIPTION	PRINT STRENGTH	PRINT SCORE	TM	SIGNAL PEPTIDE
SEQ ID NO:250	3429408	PR00643G	G10D ORPHAN RECEPTOR SIGNATURE	1383	1204		
SEQ ID NO:251	3447545	PR00642E	EDG1 ORPHAN RECEPTOR SIGNATURE	1216	1341		
SEQ ID NO:252	3486012	PR00343C	SELECTIN SUPERFAMILY COMPLEMENT-BINDING REPEA	1254	1343		
SEQ ID NO:253	3513925	PR00261C	LOW DENSITY LIPOPROTEIN (LDL) RECEPTOR SIGNAT	1576	1256		
SEQ ID NO:254	3542591	PR00573C	INTERLEUKIN 8B RECEPTOR SIGNATURE	1042	1231		yes
SEQ ID NO:255	3556218	PR00373F	GLYCOPROTEIN HORMONE RECEPTOR SIGNATURE	1570	1293	yes	
SEQ ID NO:256	3665056	PR00366A	ENDOTHELIN RECEPTOR SIGNATURE	1337	1251	yes	
SEQ ID NO:257	4043152	PR00514D	5-HYDROXYTRYPTAMINE 1D RECEPTOR SIGNATURE	1252	1304		yes
SEQ ID NO:258	4080842	PR00424B	ADENOSINE RECEPTOR SIGNATURE	1339	1117		
SEQ ID NO:259	4081268	PR00564G	BURKITT'S LYMPHOMA RECEPTOR SIGNATURE	1305	1216		yes
SEQ ID NO:260	4082591	PR00640F	GASTRIN-RELEASING PEPTIDE RECEPTOR SIGNATURE	1243	1311		
SEQ ID NO:261	4084463	PR00539C	MUSCARINIC M2 RECEPTOR SIGNATURE	1365	1258	yes	
SEQ ID NO:262	4085069	PR00663E	GALANIN RECEPTOR SIGNATURE	1216	1210		
SEQ ID NO:263	4129226	PR00250F	FUNGAL PHEROMONE MATING FACTOR STE2 GPCR SIGN	1166	1178		
SEQ ID NO:264	4129407	PR00564D	BURKITT'S LYMPHOMA RECEPTOR SIGNATURE	1295	1222		
SEQ ID NO:265	4130289	PR00539E	MUSCARINIC M2 RECEPTOR SIGNATURE	1322	1236	yes	yes
SEQ ID NO:266	4130748	PR00751E	THYROTROPHIN-RELEASING HORMONE RECEPTOR SIGNA	1433	1245		
SEQ ID NO:267	4131249	PR00240F	ALPHA-1A ADRENERGIC RECEPTOR SIGNATURE	1323	1305	yes	
SEQ ID NO:268	4132125	PR00581E	PROSTANOID EP2 RECEPTOR SIGNATURE	1195	1157		
SEQ ID NO:269	4132371	PR00350C	VITAMIN D RECEPTOR SIGNATURE	1416	1321		yes
SEQ ID NO:270	4132403	PR00248E	METABOTROPIC GLUTAMATE GPCR SIGNATURE	1306	1167		
SEQ ID NO:271	4132547	PR00559E	ALPHA-2B ADRENERGIC RECEPTOR SIGNATURE	1546	1214		
SEQ ID NO:272	4133631	PR00928F	GRAVES DISEASE CARRIER PROTEIN SIGNATURE	1555	1238		
SEQ ID NO:273	4166159	PR00855H	PROSTAGLANDIN F RECEPTOR SIGNATURE	1467	1236		
SEQ ID NO:274	4167883	PR00537C	MU OPIOID RECEPTOR SIGNATURE	1348	11185		
SEQ ID NO:275	4220523	PR00537C	MU OPIOID RECEPTOR SIGNATURE	1348	1227	yes	
SEQ ID NO:276	4220713	PR00366G	ENDOTHELIN RECEPTOR SIGNATURE	1420	1276		
SEQ ID NO:277	4220819	PR00855H	PROSTAGLANDIN F RECEPTOR SIGNATURE	1467	1263		
SEQ ID NO:278	4220939	PR00571A	ENDOTHELIN-B RECEPTOR SIGNATURE	1357	1235	yes	
SEQ ID NO:279	4221286	PR00574D	BLUE-SENSITIVE OPSIN SIGNATURE	1263	1254	yes	
SEQ ID NO:280	4221314	PR00530I	HISTAMINE H1 RECEPTOR SIGNATURE	1295	1263	yes	yes
SEQ ID NO:281	4222520	PR00350C	VITAMIN D RECEPTOR SIGNATURE	1416	1202		
SEQ ID NO:282	4223468	PR00592A	EXTRACELLULAR CALCIUM-SENSING RECEPTOR SIGNAT	1379	1206		
SEQ ID NO:283	4223734	PR00652F	5-HYDROXYTRYPTAMINE 7 RECEPTOR SIGNATURE	1488	1213		
SEQ ID NO:284	4224867	PR00244E	NEUROKININ RECEPTOR SIGNATURE	1282	1266		
SEQ ID NO:285	4256014	PR00665F	OXYTOCIN RECEPTOR SIGNATURE	1290	1353	yes	
SEQ ID NO:286	4352201	PR00643H	G10D ORPHAN RECEPTOR SIGNATURE	1453	1297		
SEQ ID NO:287	4355247	PR00536E	MELANOCYTE STIMULATING HORMONE RECEPTOR SIGNA	1313	1353	yes	
SEQ ID NO:288	4608111	PR00596A	URIDINE NUCLEOTIDE RECEPTOR SIGNATURE	1217	1273	yes	yes
SEQ ID NO:289	319589	PR00635F	AT1 ANGIOTENSIN II RECEPTOR SIGNATURE	1424	1398	yes	yes
SEQ ID NO:290	884692	PR00255B	NATRIURETIC PEPTIDE RECEPTOR SIGNATURE	1264	1239		yes
SEQ ID NO:291	1262948	PR00248C	METABOTROPIC GLUTAMATE GPCR SIGNATURE	1402	1369	yes	yes
SEQ ID NO:292	1876370	PR00343A	SELECTIN SUPERFAMILY COMPLEMENT-BINDING REPEA	1245	1616	yes	yes
SEQ ID NO:293	2088868	PR00522G	CANNABINOID RECEPTOR TYPE 1 SIGNATURE	1341	1329	yes	yes
SEQ ID NO:294	3550808	PR00594B	P2U PURINOCEPTOR SIGNATURE	1452	1255	yes	yes
SEQ ID NO:295	1328883	PR00169H	POTASSIUM CHANNEL SIGNATURE	1749	1204		
SEQ ID NO:296	3458089	PR00169G	POTASSIUM CHANNEL SIGNATURE	1540	1390	yes	no
SEQ ID NO:297	1329138	PR00168F	SLOW VOLTAGE-GATED POTASSIUM CHANNEL SIGNATUR	1307	1176		
SEQ ID NO:298	1514470	PR00944B	COPPER ION BINDING PROTEIN SIGNATURE	1319	1255	no	yes
SEQ ID NO:299	1513293	PR00944B	COPPER ION BINDING PROTEIN SIGNATURE				
SEQ ID NO:300	1514470	PR00944B	COPPER ION BINDING PROTEIN SIGNATURE				
SEQ ID NO:301	1514470H1	PR00944B	COPPER ION BINDING PROTEIN SIGNATURE				
SEQ ID NO:302	3372628	PR00944B	COPPER ION BINDING PROTEIN SIGNATURE				
SEQ ID NO:303	4970006	PR00944B	COPPER ION BINDING PROTEIN SIGNATURE	1319	1255	no	no
SEQ ID NO:304	4970006H1	PR00944B	COPPER ION BINDING PROTEIN SIGNATURE				
SEQ ID NO:305	4970006FG	PR00944B	COPPER ION BINDING PROTEIN SIGNATURE				

SEQUENCE LISTING

<160> NUMBER OF SEQ ID NOS: 305

<210> SEQ ID NO 1

<211> LENGTH: 893

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 008915CB1 Contig5

<400> SEQUENCE: 1

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ttctctcccc aaatcctgta ttgaaaaaa taactttaac ataacgtttg gcattaactt      120
atatttgctc atcataaaaa accaaaagaa atttttatat ctcaaattgg taaactttac      180
aaaatatttta acatattgagg aagaggtata tcttacagaa ttatttggct atgtcataag      240
gcagtaatga agatggaatt tttcctatca taaatctgac ataagtgaag gtctataaca      300
tggtcattct ccataaatct gaaagcttgt tggttacagc aatatgatca tgccacactg      360
tcgtcgttat tgaactttga tgaaagtaga ctgaatgaga aaggaacaaa ttggtgcct      420
gcaccaacgt agaatttggt ctgaaattct acccagtga ggcgtagtgc gtgaagaaac      480
gcagaaagcc cttccatgat cagaaggatg aaaatggtca aaactgcaaa gagcgcgata      540
accgggagca gtagcaagac gccatagggt gtgtcaacgc ggaggccac gcgcatcagc      600
atggcccaca ggacatcaga caactgtgcy tgagccaggc taagcgccca gagcctcagg      660
taggaggcgg tgttgagat gcattcccaga cagtactcga tggaatggat tacttgggggt      720
cattaatatt tctccaaaat taaactcttc acacgccatt tctctacatc catcttccac      780
ctggtgattt ccctcttcta tatcttggt tccagcaat gaaacttctt cctcactatc      840
tttccttata agtgtgtagc cactccggtt caccgccaac caactacgcc cat          893
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<210> SEQ ID NO 2

<211> LENGTH: 144

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 068454H1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 41, 59, 102, 105, 142

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 2

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tccatcaaag aagacaggac tcacttggt ggctgctgcc anttntgctt acatcagccg      120
gtaagattta catggagaaa gnca          144
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<210> SEQ ID NO 3

<211> LENGTH: 337

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 098991H1

<220> FEATURE:

<221> NAME/KEY: unsure

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<222> LOCATION: 25, 27, 29, 34, 44, 47, 54, 103, 122, 161, 169, 188-189, 204-206, 215, 222-224, 226-227, 231, 242, 253, 257, 264, 266, 270, 273, 276, 279, 306, 308, 312, 322, 330, 334

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 3

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taatcaaagc gttaatctga taccngncng accntctgag gggnggnggc ccnngtaccc      60
aatttcgccc ctataggtga gtccgtatta caattcactg gtncgttggt ttacaacggt      120
gngacttggg aaaaccctgg ggttacccaa ctttaaatcg nctttcagna caattccctt      180
ttcgccannc ttgggtaata gcgnnngagg ccccntactt tnnngnnctt nccaacagtt      240
gngcagcctg tanaggngta atgngnaaan ttnttnagnc gagaaataat tttttgtttt      300
aaaaantncc cngtttaaaa tntttttgtn taanaat                                337
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<210> SEQ ID NO 4

<211> LENGTH: 1051

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 121140CT1

<400> SEQUENCE: 4

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aacttgacat ttatttgaga cattaagcta ctttctggta atatattagg catttctgca      120
atagctcttt caggtaactg aatattatta agcatagttt tatcttgctt tgattaaacc      180
tcttaggcaa aaaatggaac ttcataagct aatacattag aaagggggtta tgattataaa      240
tcagaaatgc ttgtgacatt aagaaatgag gcacttgta aatttctttg aaatagccag      300
ctcctctaata gtgtcttcaa aatataaaagt gattcacaaa ggcatgcac acacctattt      360
gtagcagccc attcattaca taaaccaggg catacctgtg tgggctctgt gagtgaaggg      420
agggttcact actttctgtg agcagtaagg actgggtatct ttctgtgagc aataaggact      480
ggataaagac tgcatatcct tgtgtcgtgt cagcaccaat acaataagga gggttttaat      540
gtgaagcagg caatcttcca gcccttctgt gtcttgatg aaatagttgt acagagtatt      600
gcacaaaaaa tacacaatgg aggctgaaaa gttcaacata ttttaagtca attaatcaaa      660
ttgcattgat tcttgatgct ttcttagagg cctacatgat ttcttagatt gctctgataa      720
actatcataa ggggtccacc tcccctcatt tagctcccc agggatttct tttcccccat      780
gtcacacacc cagtcctaaa tcaacccccca aggctatcct tccatccctt ctgcagaggg      840
aacttttgtc agactctgca acaaactcct agctctatcc agagtgtcct ctgctgctaa      900
gattggtatc tttctctca aaagcctgga tggggaatgg ggggtgcatta gtcagaattc      960
tccagagaaa cagaaaaaat aagattcgcg tgtgtgtgca aacatatata taaataaata     1020
aaaatatatt tattttaaaa aaaaaaaaaa a                                1051
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<210> SEQ ID NO 5

<211> LENGTH: 86

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 129059H1

<220> FEATURE:

<221> NAME/KEY: unsure

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<222> LOCATION: 13, 53, 57, 60, 74, 76, 81
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 5

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ttacaacggtt tgtnantttt ngaaac 86

<210> SEQ ID NO 6
<211> LENGTH: 56
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 222732H1

<400> SEQUENCE: 6

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<210> SEQ ID NO 7
<211> LENGTH: 1280
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 222748CT1

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gaggacccag ctgtggatgt gatcaggaag ctctgcaac ttcccaacac aaaatggcca 120
acccaccatt gtgacaaaga tccgtcccag acaggcttca agcgacatcg gtgccagcca 180
gaaaactctg ggaagaaggc tgtaccacgt gccagtgccta cctctgcagg cagggatttt 240
aaggggatca tcttgacctt cctctgggag agcagtgaga acctgctgac agtcgcagag 300
gagttctacc gtaaagaaaa acgcccagtc accaggcctg actgcatgtg tgacaccttt 360
gaccagtgcg ccgagaacat tagcaaaaag atcctggagt atcagagcca ggcaataaag 420
taccacaact cctgcctcat agaattacgg atccagatca ggagatttga ggagctgctg 480
ccccaagtgt gttggctggt gatggagaat ttcaaggaac accactggaa aaagtttttc 540
acctctgtga aggagatccg aggacagttc gaggaacagc agaagcggct ggagaaaaga 600
aaggacaaaa atgcccagaa gctccatcta aatcttgac accccgtaca tttccaagaa 660
atggagtctc tacacttaag tgaagaggaa aggcaggaag agctggacag catgattagg 720
atgaacaagg agaagctgga ggaatgtacc agaaggaatg gccaggtttt cataaccaac 780
ttggccacct tcaccgagaa gttcctactg cagttggatg aggtggtcac cattgacgat 840
gtccagggtg caaggatgga gccccccaaa cagaaattat caatgctcat acgaaggaaa 900
ctcgtgtggc tctccctgaa ggaagagagt gagaaacccc tgattgaacg tggaagcagg 960
aagtggccag ggatcaaaac caccgaagtc accatccaaa acaagattct tctccagcca 1020
acatcatcga tttccaccac caaaaccacc ctggggccacc tggcggccgt ggaagcccga 1080
gatgctgtgt acctgaaata tttagcatca tttgaggagg agctaaagag gatccaggat 1140
gactgtacat ctcagataaa ggaggctcag cgctggaagg acagctggaa gcagtccttg 1200
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tacagaaaaa aaaaaaaaaa 1280

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<210> SEQ ID NO 8
<211> LENGTH: 789
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 224587CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 455-594, 610, 619, 624, 631, 636-637, 651, 665, 675,
689, 703, 729, 741, 759, 761, 777, 785-786
<223> OTHER INFORMATION: a, t, c, g, or other

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tttgtaacat attgggaatt ctcttctata gctagattat acagtgcctt cctctttcac 180
tgataatacc aactattaag catccacagt gtgccaggga actgtattag gtagtgagca 240
caaattggta aacaatggat aaaggtccct gcccttattt gacttaaacy ttgtagcaa 300
caacagtaaa ctattaggaa actgaaacga acaggatttt ccagaacgtt taagctgttt 360
ttattcattt tttcctcaaa gcctaaataa cataggatag gaggaatggt ttctatcagt 420
ccctagttagg ttaatcctaa aaagcactgc tggcnnnnnn nnnnnnnnnn nnnnnnnnnn 480
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 540
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnaggctt 600
ggccgtggtg gggcaccanc tggnatcccc nacctnncct tggggggcct naaggggtggg 660
aggggnccaac ccganccaat gggggggcna agggccacct gcnaattggg tacaaagggg 720
ggggccttnc ccaaatttaa nggggaaaaa aaaggccent nataactccc caccgccggg 780
gaaannggg 789

<210> SEQ ID NO 9
<211> LENGTH: 708
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
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<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 225146CT1

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gaaacttaca agctgcattc tactaaggat accatttctt catctccctt ccttttttta 180
gtgaaaataa tattaataat taagagaggg ctgtctaggg ggattgtttt gtgattgact 240
gatattaaaa tagaatccat tttaggccgg gcacggtggc tcacacctgt aatcctaaca 300
ctttaggagg ccgaggtgag tggatcactt tagtcaggga tttcaagacc agcctggaca 360
acatggcaaa accccgtctg tactaaaaat acaaaaatta gccgggcgtg gtggtgcacg 420
actgtaaatg cagctactta ggaagctaag gcaggagaac cgattgaacc agggaggata 480
gaggttgcaa tgagccaag tcaattccac tgcaattcca aaccggggc aattagagcc 540
gaggagtctt ctacaaagaa aaaagaaat agaaaaaacc ttcgaaggag aaggagagcc 600

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cgggttaccc caaagttata gaccactta tgaaggaagg aggtagcgaa tattaccaca 660

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<210> SEQ ID NO 10

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<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 225640CT1

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tttttttttt tatgaagatg cccaaggctg aagcagccag ccgtgggtga gggtaggggg 180

tgtctttatt gcacagtacc aatgtcaggt tggggagtta ccacctgaaa agctcctgtt 240

ttcaaaaga acttgacctt gtcactcaga tccaccaaag gggccaggat ccacctctgg 300

gcggcccctg gtccatgctc taggctgatg gccctgccca ggacatctaa cttctgccag 360

gcaagaccag caaactgttc aacggcatct ggttcatgct gtggcatcca cagccacctt 420

agcaccaggc ccatggaggg gtgactaagg caggaagagt agtcaccagc cttccagggg 480

gctttcttca ccacttccca aggccacaaa gggcttcttg cacagatccc caggttgtgc 540

tagctcctga gctctggggc ccccagggtc ttggtcagga gcctccctct ttcgcttggtg 600

caaggaaggg ctctcctcac ccagccgacc ctcaggaggg ccctggctcc gcagacagac 660

gatggctgca gcctgctccg ccagtttctt ggacttgtcc cacaaggtag actgatactt 720

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<210> SEQ ID NO 11

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<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 225650CT1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 448

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 11

ccagtagata actttactag taagtaaaga ttagaggata tgtaagaaa acagtttaag 60

atagaacaga acccatagag tgggatcagt atacaaaac atatactctg gctttatcag 120

ctcccatcca cagacaacac actcagcttc tgcctcctcc tgggtcggga cctctctgga 180

tagcccaggc tggcctgtct gtcatttctt tctgtgtgtg tcagctttac actggctata 240

aactgctgct gctctgagac ctaccctttg aaaacttact taagaggcct ttattagggc 300

aaaaggagag gaataataac tgtgcttatt ttataattat aagtaatgtt ataatcctta 360

gtgttaaggt gctaaatgca tataaaagt gtactgaggc caagtgtggt ggcttacacc 420

tgtaatccca gcactttggg aggctgancg gggcggatca cttgaggtcg ggaggtttag 480

accacctgg cgaaacctg tctctactag aagcacaat actagctggg cgtggtgtgt 540

gacctgtagc ccagctactg ggaagcctga gccgagaatc gcttactcca ggggctgttt 600

gtgtgacctg gatcgaccac gg 622

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<210> SEQ ID NO 12
<211> LENGTH: 495
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 226179CT1

<400> SEQUENCE: 12

aaacaatcca gatgtccatc agtaggggat tagtcaaaga aattatggaa aaaccatata	60
atggaatacc atgcagctgt aagaaaaagg caaaattctg gggctgcata atttatattc	120
atattttttt tacactcaca aacttggaag ggatggacaa ggaatctta acatgcgtta	180
cctggagaaa ggggagagga actgaatacg tggaaagatt gggagggagg cttttttggt	240
ttgttttgtc ttgagacaga gtttcgcttg gagtgcatg gcgtgatctc agctcactac	300
aatgtctgcc tcccacattc aagtgattct cctgcctcag cctctcgagt agccgggatt	360
acaggcatcc caccacgcca ggctaatttc tggactatta cgaagaatgg tgtttcacca	420
tggtgttggc caggctggtc tcgaactcct acccaagggg attcgccggt ttttcccccc	480
agaggggggg gaaat	495

<210> SEQ ID NO 13
<211> LENGTH: 803
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 226815CT1

<400> SEQUENCE: 13

agagtagaaa ggaacattg agtttgggtc tggacatttt agaatggggc acccaaatgg	60
agagaaccag cagacggaaa catattcaca tgtgtgtgaa tgggtgagat tatataagga	120
gagcttgctg agcaaaacga gagagggtca tgcagaggac tctgggacac tccaacattt	180
aaagggcaca ctggggaaaa gagccattta agaacagttt caaaaggaga gatagccaca	240
agaggtcaag ctgagatgag caggaatacg aagccattgg aacagagtga gaccctgtct	300
caaacaaa caaacacaaa caaaactttt tcaaaagaat ttgttgtaag atttttaaaa	360
ataccaagca cttttcagta tgtgtgtgtg tagcgggggt aaatatatac ataacataaa	420
ctttaccatt taatcattct tgagtggttt ttttggcatt aagtacattc acattgttgt	480
gcaaccatta ccaccatata tctccagaac cttttcactt tccatgattg aaactctggc	540
tgggcgtggt ggctcacgcc tgtaatccca gcgctttggg aggccaaaggc aggcggatcg	600
cgaggtcggg agttcgggac caccctgacc aacgtggtga agccctgtct ctactaaaaa	660
tataaaaatt agcagggcgt ggtgtgctgc acctgtgatc ccagctactc ggggggctga	720
ggcgggagag tcgcttgaac ccgggggggt gaggttgcgg tgagccggga tcacgccacc	780
acattccagt ctggacgaga gtg	803

<210> SEQ ID NO 14
<211> LENGTH: 607
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature

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<223> OTHER INFORMATION: Incyte ID No: 227559CB1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 292, 384
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 14

cattataaga atggaatcct tatctggatt acaaaaatgt gaaaagcaga ggtttctctt	60
ttaaaaaaat ttgtagtaga tttcctgtag caattttatg gcacggaatt caccagaagg	120
taggtttatc aagtgtggtt attactagaa gtattaaaaa ataattggta taggccgggc	180
gcagttgctc aagcctgtaa tcccagcact ttgggaggcc gatgcaggcg gatcataagg	240
tcaggaggtc gagaccatcc tggctaacac ggtgaaacc tgtctctact anaaatacaa	300
aaaaattagc tgggagtggt ggcgggcgtc tgtagtccca gctactcagg aggtctgaggt	360
aggagaatgg tgtgaaccgc ggangtggag cttgcagtga gctgagacca cgccactgca	420
ctccggcctg ggcgacagag cgagactctg tctcaaaaaa caaaaaaaaaa actcgggggg	480
ggcccgtaac cattcgccta taggggtcga atacaatcac tggcgtcgtt tacacgtcgt	540
actgggaaac ctgcgtacca ttaatggctg agaaatccct tgcagtgcgt atacaaagcc	600
gacgtgc	607

<210> SEQ ID NO 15
<211> LENGTH: 676
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 227799CB1

<400> SEQUENCE: 15

attttttcct atatatccaa catagtcatg agaaaaacaa gatttgcttt tattcttaaa	60
tttgaagaca aatgctattt taattgctag agaattggcc actaatatac aatatataat	120
agtggaattt ttttacacaa attttgtttt tatggaacag tactttttcc tttcttttgc	180
aactttttgc ggcttctttt tcttgaagc ataagcattt acactgccat atattgacat	240
gaggtttttc tttagtgttt ggctgttgtt gggaagaata ttattaaaat gctttccatt	300
accatatcta tagtcttttg tgccaacata ttcattgata tgactgtaat atgtaagtta	360
aagtctctct aagagaaatg ttttctacac atataaggag acaaaaggcc agacatggtg	420
gtcatgcct gtaattccag cacgttggga ggccgagggt ggccagatcac ttgaggccag	480
gagttcgaga tcagcaggcc aacatgggga aactcagtct ctactaaaaa tacaaaaatc	540
agccaggctt ggtggcacat tcctgtaatc ccagctacta gggcagctga ggcaggagaa	600
ttgcttgaac caggggaggcg gaggttgtag tgagccgaga tcgcaccact gcaacttagc	660
atggcaacag agcaag	676

<210> SEQ ID NO 16
<211> LENGTH: 493
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 227892CT1

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<400> SEQUENCE: 16

atagaagtag	tccaagaaga	gttttgtaag	aatggcaga	gaagagtga	agtaatttgg	60
catggtaatg	tgtgtaagaa	aatggaaaagc	tgatgggttg	gctacctgaa	caattatgtc	120
tggaatctca	gccagcagag	aacagagagac	tggttggttt	ggtagagttg	ttaacaaaac	180
tttctggtgt	tttgagtttt	ggtctacatt	ttaggaatta	tagcctttca	taatagaatg	240
aatataaatc	aacccttgag	ggttataggc	tttcaaattg	gtggtgggta	aatataatat	300
tctcaagatt	ctatgatggg	agtcccagcc	tggctcttgg	aaagaagatc	tcattgtaca	360
ggtgtacttc	acctgaccca	atgatgtgtt	ctcaaagatt	tgtgtgagaa	ttggcctcca	420
aatttaggat	gaaataggag	agcttgccat	ttctagtaat	gctattatga	atcattttct	480
aaggaaaaaa	tct					493

<210> SEQ ID NO 17

<211> LENGTH: 495

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 228282CT1

<400> SEQUENCE: 17

tccatttttt	aaagactaaa	ccatctcaca	gattgttctg	tatcagtaaa	taaagatctt	60
tccccacccc	ttgcccagtg	tgtcattgtc	ttaatagacc	attattagtt	ccctattggg	120
ggacacttaa	tggcttttat	ttttctgttg	taagcaaaac	tgcatatata	gcatccttgg	180
ctttaggcac	atgtgcaaga	tatttataag	gtaattctca	ggctgggcac	agtggctcat	240
gcctgtaatc	ccagcacttt	gggaggccga	ggtgggtgga	tcatttgagg	tcaggagtgc	300
gagaccagcc	tggtaacat	agtgaacccc	cacctctact	aaaaatacca	aaataattag	360
ccagcatgat	ggagggcacg	tgtagtccca	gctactcagg	aggccgaggc	aggagaaatt	420
gcttgaacct	gggagatgaa	ggttgcaatg	agctgagatt	gcaccactgc	actgcagact	480
ggcgggacga	cgagt					495

<210> SEQ ID NO 18

<211> LENGTH: 305

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 229665CT1

<400> SEQUENCE: 18

tttctacttc	gttttgtctc	atgagaaaac	atagtctgat	tatcaattgg	ggatcctttg	60
aatatcttcc	cacttgctcc	tagattttct	agcaagatga	taattagcac	ttgccgtggc	120
acaaagggca	ctcgctcact	catttattga	aagtgtatcc	attgtacttg	cagtccctgt	180
attcctagaa	accctcaaac	tatatatgtg	catgtgtgtc	taagtgtaaa	tatgtatgca	240
cacatttgta	ttgatgttta	tttttatatc	tatatagaat	atcatgaggt	cgggccaggt	300
atggt						305

<210> SEQ ID NO 19

<211> LENGTH: 741

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<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 229779CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 492, 502, 538, 547, 559, 566, 574, 584, 592, 599-600,
604-605, 611-614, 623, 645, 649, 658, 660, 671-672, 676, 678, 681,
685, 695, 698, 705-707, 709, 719, 724
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 19

tttaaatcaa ccctcaccat aagtgttaatt tggaggccac gtattgaaaa aatatattag	60
taacattagt gctcaataaa tacttccaga acctaaaata tgctgatgga ctgtttcttt	120
caagccaaga agggatgctc tcctaatactc actaacaggt tgttaccagt aagtgtagta	180
gcatgaacca atggcctaac attttaatgt ctcgtgtgga tgactaaacc aagaaggcc	240
aatgagtctg cctgcccatc ctcagtcaca gctaaccag ttcttattcc agtttaccaa	300
accatttttt attgcatggt gactggttta cagctgactc ttcgaggcat gagtgaagcg	360
ttagttgaca agcgggttgc tccggccctg ttaccttgtc cagtgtacct gaattgtgag	420
tttcacagac tgcggcctta agttatcctg tctgtctttt tgagcattct ccttggctg	480
cttttttaaa tntatttaat tngcaatgct agagcctaata acaggatatt accctggnac	540
ttacttnaat atacatttna ataaanaccc cggnggtcca accncaaaaa cntccaggnn	600
cccnccccgg nnnnaaaatc cnaaacaag gtcctggcca agggnttgnc caacaaantn	660
cccaggccct nngggnancc naatnaatgg ggaancangg gaaannncna aaaggggng	720
ggtncctgg gaaaggagg g	741

<210> SEQ ID NO 20
<211> LENGTH: 689
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 240829CT1

<400> SEQUENCE: 20

tttttttttt tttttttttt ttaacaaaac taagatggac atttcacaca acgcagagct	60
acgagaacat ctcttatgct ccttgccatg ggattttaat gccccagggt tcataactac	120
agcaaagaaa gtaagtcaaa aataaactga gcttaaagaa ggtggcaggc caattttccc	180
aaaaagactg tggactgtgg gctgtgtgtg agcctttgct acaaggctga ggaagcagaa	240
gaaagatgaa ttgggcaatt ggtgatgaaa agtatgtgcc attttcaaag gcttctcagt	300
gtggccatag attttgctag tcaattttta aaaaattata tttttagctc aacacacagc	360
tctaagcagc ggttcagtgt agtgtgttct ctaccgaaat ggttatatac agatggtatg	420
gaaatggttt taaagattac tcataaacta tccttttaaa gaaaaactag actcggtcac	480
atttggttaa atgagcaatg tcaccaaaca gaaatgtagg tgggaaatac tgaaccacaa	540
acatttggag ttgcaggcat agactagcag agcatgaata gtcactactg tttctataat	600
actgaacac tcaaactgtt ttctgaggtt taaaacacag agctatatta tattcataaa	660
cttccccctc cacttaagtt atatttgcc	689

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<210> SEQ ID NO 21
<211> LENGTH: 1130
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 341490CT1

<400> SEQUENCE: 21

catacttcaa ttctcatggg atttcttgag ctaggaaagg tggttggctt acggcacagt	60
agagagcttc cagggtctgc tggcgtggga taccctgacc acagaaatgc agggaccatt	120
gcttcttcca ggcctctgct ttctgtgag cctctttgga gctgtgactc agaaaaccaa	180
aacttcctgt gctaagtgcc ccccaaatgc ttctgtgtc aataaacctc actgcacctg	240
caaccatgga tatacttctg gatctgggca gaaactattc acattcccct tggagacatg	300
taacgacatt aatgaatgta caccacccta tagtgtatat tgtggattta acgctgtgtg	360
ttacaatgtc gaaggaagtt tctactgtca atgtgtccca ggatatagac tgcattcttg	420
gaatgaacaa ttacgtaatt ccaatgagaa cacctgtcag gacaccacct cctcaaagac	480
aaccagggc aggaaagagc tgcaaaagat tgtggacaaa tttgagtcac ttctcaccaa	540
tcagacttta tggagaacag aaggagagaca agaaatctca tccacagcta ccaactattc	600
ccgggatgtg gaatcgaag ttctagaaac tgccttgaaa gatccagaac aaaaagtctt	660
gaaaatccaa aacgatatgt tagctattga aactcaagcg attacagaca attgctctga	720
agaaagaaag acattcaact tgaacgtcca aatgaactca atggacatcc gttgcagtga	780
catcatccag ggagacacac aaggctccag tgccattgcc tttatctcat attcttctct	840
tggaaacatc ataaatgcaa ctttttttga agagatggat aagaaagatc aagtgtatct	900
gaactctcag gttgtgagtg ctgctattgg acccaaaagg aacgtgtctc tctccaagtc	960
tgtgacgctg actttccagc acgtgaagat gacccccagt accaaaaagg tcttctgtgt	1020
ctactggaag agcacagggc agggcagcca gtggtccagg gatggctgct tcttgataca	1080
cgtgaacaag agtcacacca tgtgtaattg tcagtcacct gtccagcttc	1130

<210> SEQ ID NO 22
<211> LENGTH: 279
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 402456H1

<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 10, 14, 23-24, 44, 51, 59, 69, 89, 102, 104, 108, 129,
139-141, 159, 171, 201, 225-226, 239, 265, 268, 273
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 22

ggtaacccan ggtnggccta ttnntcccg gcttcttccc aaanttaagg nttttgttna	60
agggcctcng tgggttttta ccattggng atggtggtt tnanggcng cccgtaccca	120
attggcctnt agtggctcgn ntacaattca ttggccgtn ttttaaaagt ngtgacttgg	180
gaaaacctgg ggtaacccaa ntaatggct ttcaagaaca tccnntttg gccagttng	240
taatagcgag ggggcccgaa ccgtnccncc ttnccaaaa	279

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<210> SEQ ID NO 23
<211> LENGTH: 285
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 420765CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 148
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 23

tctcatttcc aatacagga actcggatag cttctctg cataatagag aaagagtga 60
tgacactcta cctgagtgat ctctgtgaaa tttagaaacc tgcaggaacc ctaacaaaaa 120
ctggcaagtc ttttcagagg acgatgttct catcttccac ctttgtcttg aatggccgga 180
gacataattt gtggtggaaa gagctggatg agagaatcct cctgtgatgg cttctgtctc 240
ccatcacaaa cagcttttca gccccttgct cttagcttaa ttaac 285

<210> SEQ ID NO 24
<211> LENGTH: 223
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 481770H1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 8, 14, 22, 33, 41, 68, 72, 94, 101, 132, 145, 165, 178,
189-190, 196, 203, 211
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 24

aggttttncg atanccatgg ancctggagg ggnaaaaccc ntacccaa at tggcctattg 60
tgagtgggat tnccaattaa ttgacctgg tttncacgg nggtgacttg ggaaaaccct 120
gggtaaccca anttaatggc cttgnagaac atcccccttg gccantgggt ataggganag 180
acccgaacnn attgcntttc cancattggg nctaaatggg aat 223

<210> SEQ ID NO 25
<211> LENGTH: 672
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 548654CT1

<400> SEQUENCE: 25

cccacgcgtc cgccggcggg cgcagagcca ggaggcggag gcgcgcgggc cagcctgggc 60
cccagcccac accttcacca gggcccagga gccacatgt ggcgatgtcc actggggcta 120
ctgctgttgc tgccgctggc tggccacttg gctctgggtg cccagcaggg tcgtgggcgc 180
cgggagctag caccgggtct gcacctgcgg ggcacccggg acgcgggagg ccggtactgc 240
caggagcagg acctgtgctg ccgcggccgt gccgacgact gtgccctgcc ctacctgggc 300
gccatctgtt actgtgacct cttctgcaac cgcacggtct ccgactgctg ccctgacttc 360
tgggacttct gcctcggcgt gccacccct tttccccga tccaaggatg tatgcatgga 420
ggtcgtatct atccagtctt gggaacgtac tgggacaact gtaaccgttg cacctgccag 480

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gagaacaggc agtggcagtg tgaccaagaa ccatgccttg tggatccaga catgatcaaa	540
gccatcaacc aggggcacta tggctggcaa gctgggaaca cagcgcttct ggggcattac	600
accggattag ggcattcgta ccgccctggg accattcggc catcttcttc ggtcaatgac	660
atgcattgaa tt	672

<210> SEQ ID NO 26
 <211> LENGTH: 2339
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 632097CB1

<400> SEQUENCE: 26

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tttagcattc tcccctcatt tgtcaattac tttattatatt gagaattaat accccacatg	120
aagacaatat cacttgccaa agtccttcct ctgacgtggt taagtcgtat caaatccaca	180
ggctgacgtc caaataatac acagtttcat gcttcaggtg agccaagaac aaccttccca	240
ttgagcgctt tgcaggggct gatatcaaag acaagactga acttccttca ttggcatggt	300
gaccaccgtg ggaggtgcag ccctcagcct actcctcggc tgtgccatcc aggatgtgtt	360
taaaggagaa tggagaaaaa ttgtaacct ccccgacata gaacttggtc tggaaactcaa	420
cccagtgacg tcgcagggcg tgcaggaaa gagagaggcc ctccatgac agaaggatgg	480
ctactgtcag gacagcaaat acggcaaaaa taataaaaac cccgacgatt cctccccagc	540
ctcgcgtctg aaggccgctg ttcataacca tagtcagag cacttcagac agttgtgcat	600
gagccaggct gagggcccg agccgcaggt aggaggctgt gtttgaaatg cagcccaggc	660
agtactcgat ggtgtggatg gcttggtgga caaagacgtc tccaaagttg aactcttctc	720
catggtcgtc cagagccccg tgggtatctg cagaagtcct ctggccagaa cggctagaag	780
ggctggagct atcaccttca atgttctcag tggcatcttc ttggatcctg gatgcctgca	840
gctgggattt ccgatgactg gctctaagaa taaacggctt aatcagaagc atccacggca	900
cagaaatcaa agccataacc acaaagaaac tttggacttc ttgctgatgt ttgtagagg	960
gtgcgttggga agagtcactg tagttaaaca gaaacatgtt gatgaagtgg atgaggatgc	1020
tgggggctgt ctgagatacg tggacgtcaa agcagcacca tttgaaaatg atcatgaaaa	1080
ccaggtatcc aaacagacac aggataaaaa tcatctcagg gataaattgc agaattgtgt	1140
tgagagtctt tctgaagtat atgtgattga aaaggctgag gatgacacca aaaaccatct	1200
ggacaattcc caggatcacc gacatcttca tttatacga gttcagaaat gtgagtttgt	1260
ttgaagccaa gttccaaatc ggatcaatcc caaacgggta tggatttcca aaatacactc	1320
ctgggtatggc tgggtccagc tgcagatata gactttcctc cattacatga gtattccatg	1380
tgccgtttct gaacatgggt tggacactcc aagaagagcc aaagatgttc aaggacttgg	1440
agaagcagtc attgtagatc aaaccgtgt agatggagaa gatgcccata agtaggatca	1500
gatagcgccc gtggaagaag gtgttccaaa tctcattgtc tgtcttcttg gagagcaagc	1560
gtctctcatt cagaatcctc caaagtgcag ccaggagcat cagggttcca tgaccacagt	1620
ctccaaacat cacagcgaac aggaagggga aagtgatgat ggtgtagggg gctgggttta	1680

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tctccccgta gctgccgaca ccatagggcat caacaatatt ctggaagcca gctgtgaatt	1740
tattggtcct gttaaatgtg ggaggggctg ttttagattg cactgtggtc atgatggggg	1800
ccatggagga gccacttagt tccatgcctt gctccagtgc cctcttgata cgtgtggcat	1860
ctgccaccgg gaaccagatc tcggcgatga cacactgctg ggtgacgtcg atgttgacaca	1920
tgttcaggat gtggtagaca gctttcatct tctgcacctt gatgagccag gagtgccagt	1980
tggcagcggc ttctgcagc aggcgctggc ggtgagactc tgtttggtt atgacgggtga	2040
ttaaatcttc cagcctcaca ttgacgtctt ccaacatctc tctgcgctcc accgcaggct	2100
ctgggcaagg gtagacagtg gctcgaaacc tgtgtttaat atattccaaa ggaaacagg	2160
gagttcttgc tgcaaagcat tctgcatccc cttttctgct aagacatcgt ttgctgactt	2220
tagttagatg gccagcctat cctagaataa ctgcgtcttt ggccactgga aaaggagtcc	2280
cagcctcgtg ccgaattctt gcctcgaggg ccaaattccc tatagttagt cgattaaat	2339

<210> SEQ ID NO 27
 <211> LENGTH: 530
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 647580CT1
 <220> FEATURE:
 <221> NAME/KEY: unsure
 <222> LOCATION: 465
 <223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 27

gggttggtg ggaacgttcc ccatatatga cagcctctct gctctggtgg agtgcacctt	60
tgttttatcac caaaggcgtg tctccttctt tgcaaactgc ttgotgaaat gaagtctctt	120
tctcttttaa atgggactcc tttttagtga aagtgttaag agtgtgtagt aggctatacc	180
atctaggttt tgtaagtaca ctttatgatg ttgcacaaat gatgacatca cctaatgatg	240
catttctcag tgacacagga ctggaggtaa ttggccccag attacagcta ataattgatg	300
gggctgagaa tcaagcctgc tggattgga ccctcaagcc ctgggtcttt ccattaaaca	360
catgggctat tagctgctgc cattcccaga gggcacttta aaaacacaag ggaaattgca	420
ttgacgcaca gccagagcag tttcatggca gttcatcact cctancaagc ttttactcct	480
aggaaggctc caaggctcga taaatctttg cacatggtct ttattcgtcc	530

<210> SEQ ID NO 28
 <211> LENGTH: 948
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 647628CT1

<400> SEQUENCE: 28

tttcttttgt cttgtcttag agatgagggg gctacagcag catcatgcaa agagggaag	60
atgaagggat agaagaagag aaaatcccc tgttctgata ggaacggcct gttccattgt	120
taaatggcaa atggccaat ttaagggtt tggtctaat ttgcctctga tgtttccttt	180
ggaaacattt aggaatat ttctccccct accccataaa ttgtgtagca ctttttattc	240
catttgcttt caaatgacta cactaagcct aataatacaa gctccagtgt tatacaataa	300

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cccatcagtg attggggaat caaacatttt ggtttaaaaa acatgattat ttaaaactgg 360
aaactaaaaa gaatcaaatt gaattaaagc tatataaaca cagttaaccc ttgtaaataga 420
gtaaacaaat ttttacatgt aagattctct aattgtcata ttttactttt taggattccc 480
taatagtggg ctgtttattht gcagtgtatt tgcttctcat gaactatttc tcgtacaaat 540
cattaaatag ttcattggat gaggtcgggt gacatttccc aggacagcat ggtgaacatt 600
accaggcatg ctagctggcc cgtgtaatcc caagacaagg aaaacattcg ttttcctcat 660
gggtccttcca agaaatgagc tattttattg atgccattaa aaagcaagtt gcgatggttt 720
tgtatagcca ggagttttatt gtgattaaac atcaaagaaa caggtagaaa gcctggggtt 780
ctggctgcta gcgttatagc atccatgaca cagaactcat tacggacatt ccacacttcc 840
aggggtgcaca tggtaaatct gaagcccaga atttctctca agctgcgtgg gttactggag 900
agaatgagtt ggatagcaca ggctccggta atttggtagg actgtgga 948

```

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<210> SEQ ID NO 29
<211> LENGTH: 249
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 647931H1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 39, 43-44, 61, 115, 153, 213, 217, 221, 225
<223> OTHER INFORMATION: a, t, c, g, or other

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<400> SEQUENCE: 29
aagatatgcc agataaaaaa atatgaaaca cccttttttna tgnntaaacg ggtttataag 60
naagaaaggg aaacctccag gggcaaaaa acaagaggca actgaaagta gaggnattgg 120
acatgggcga agtgccctac caagtgtgag ggntgggttac tatgagcccc gggaatctac 180
aactgttggc ttcattgcaag gggttaagta cgnnggncca ncttnagccc atgagagatg 240
aaaagtcag 249

```

```

<210> SEQ ID NO 30
<211> LENGTH: 548
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 648153CT1

```

```

<400> SEQUENCE: 30
ggaagatcca gcagggttta ttgatgtcc acaatgaggc aaatggcatc aagattgggc 60
cccaacagtc aatttcaaca tcagtgggac ccagtgcctc ccagcggaac tctcgtgaca 120
tagggtccea ctctggctgc tgctgaacat ctggcttgaa ctttttttgt cttccttgga 180
atagctttag atcaataggg ttaatgaaag aggtctttct tgctttggct gagagcagcc 240
tctttttaaa gtgtgatgtt ttgcctttcc acctaaagac caggagagaa tttgggccct 300
tactgacctg tcctccttca gggacatgag cattccctat agattaaggt tcctcttatc 360
ccccaataca aaattcctta aattgttagg ggtcaaaatg ctgggattaa caggtgggtt 420
agcccccccg ttgccccggg ggcttaaaaa taaaaataaa ttttccggtg aaggcattat 480

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caccccaatc ccaacttttc ccccaactta aaagaacatc tcaggggggc gaaaacgccc 540

gctccccc 548

<210> SEQ ID NO 31

<211> LENGTH: 612

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 648838CB1

<400> SEQUENCE: 31

ctgacactga ggaggagcaa actgaagggg agagtgggca cattccttgt tggctgctgt 60

ggtagagcagc agctggctgt tgtcagtcaa gctccggacc actctgatga tgctcactgc 120

atthttgatgg agtaagccag ggacattacc actgtgtttg agccatctga agtattcctg 180

ggtagggtctg cagttggcag cccgtgatcc tttttccatt caaggatgat gcaaaggtaa 240

ggggccaagg ctgagctctg tagatgcctg tgagagcctc ctggtctcaa gaggtcatac 300

caagggcctt ggccacgaag gtttcgtgag gaccttgagg tggtttcgcc atcacaatgt 360

cagacgtgtc acacaccatc tggtagtacc tcaactgtata gaggaagaag ggccccagtg 420

gtgaattatc tacaagtttg tagcaagcta atactcagac tccctctaca gccttgctac 480

tcagtgtagt ctgtggtccg gcaatgtcac acaactgggg gtcttaaccg aaatgcaagc 540

tctaagggtc aattcagatc tccttaatta aaggcttggt tttttggtgg gttggttggt 600

ggtttgaaaa ag 612

<210> SEQ ID NO 32

<211> LENGTH: 61

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 649152H1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 37

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 32

tggtaaatgt tatgtatatt ttactacaat taatttnaaa aaccacacac acacaaggac 60

c 61

<210> SEQ ID NO 33

<211> LENGTH: 266

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 649682CT1

<400> SEQUENCE: 33

ccatcatcga gaggccggtc cggcggagcc tcaagacacc ggaagaaata gaaagattga 60

cagtcgatga agacctcagt gatattgaaa gggctgttta tctgctcagt gctggtcaag 120

atgtccaagg aacaagtgtg attgcaaato toccattttt gatgcgacag aatcccactg 180

-continued

agacgcttcg gagagtgttg ccaaaagtca gatgtcttcc aagggtccatg aggatgcaca 240

cttatattatc cagagagtat ggatct 266

<210> SEQ ID NO 34

<211> LENGTH: 276

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 649917H1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 19, 21, 48, 59, 63, 74, 77, 80, 95, 115, 121, 125-127,

130, 132, 146, 148, 159, 229, 244, 249

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 34

ccgacgtcga ggtcatctnc naaacctttg aatctgggaa gccttctncg gctgcogtnt 60

gnccggttac ccnnttnccn cagctcactg taaanacttt ttatttaagt acctntgaga 120

naccnnntan cnttatgctg ggtgcntnng ggcagaggnc agtgaattgt aaacgtccgg 180

agccctggaa tgcggtccaa gcgaaaagg caccgcggtg ttggggggng gcggtccgag 240

agtncaggnc cgaggggtgg cgactggcgc tgggga 276

<210> SEQ ID NO 35

<211> LENGTH: 167

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 650726H1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 2, 9-10, 15, 19, 33, 41, 44-48, 51, 53, 58

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 35

cnctgcgcn tctcncognc atcaccgtcc cgnattcccc ngtnnnnngg nngngcanca 60

ttcgcccttc attcctgacg gctcaccgcc tggccaccgc gtgcggcgta ttcccattcc 120

acttcggtgg gcaggcgcac aaaaccagg ccgccgtcgt cggccga 167

<210> SEQ ID NO 36

<211> LENGTH: 118

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 652013H1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 61, 81, 92

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 36

gagttattaa gcagcggact ttggtttgaa atctatattg aatgatccca ttatccacat 60

ncttactttt atgcattcag ntttacaaa gncacttgat ggaatttctt atactacc 118

<210> SEQ ID NO 37

<211> LENGTH: 57

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

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<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 738964H1

<400> SEQUENCE: 37

gttttctgaa aagcttactt ttgatatta atttccattt ttaaagaaat accttga 57

<210> SEQ ID NO 38
<211> LENGTH: 809
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 743323CB1

<400> SEQUENCE: 38

tctgctgcc a gggccaggga ggggggcact ggctgcttct gtattttggg gtttggggcc 60
ctggagcttc ccatgcggaa ttgccgtccc tctctctagg cgagtcccag ggcaccccca 120
tcccacaggg acccgggcgc cagcttctga aagcatgggg catctgcgga agaactgggt 180
tgtttccagg ctttctgtccc tgcggagggg cgatccggcc cctccatgtc agcagtgttt 240
ggctgtccac atgcttgtca gccccacgct gtgtctctgc gtctcttccc gtctcatcca 300
tctggatgct tgacacctct gacagcatcc ctttctgtc atcttagggc agcttcagga 360
aaccgaaaaa caggcttgtg tccttccatt aacccttta tccacaagtt cagtatcagc 420
atgagccctg gggagctcca aggtgcagc caggagcccc gtagccaggg atggtcctgg 480
ctgtgctgct gcaccagggc cgccttcccc accttttcca gaggaacctg ttctacggcc 540
agaagaacaa gtaccgagca ccccgaggga agccggcccc ggccctcaggg gacaccaga 600
ccccgtcaaa ggggtccagt gtccgggagc ctggggcgag tgggtgtgag gggccacatt 660
ccagctgagt ggcttgctc tgtgtgagcc ccgtgcgagg gccctgcttg tagctggacc 720
ctggaacctt ctgtagctaa gagggaatcc tggccccctc cccagaagcc atttgtcaat 780
aaaccatttc taagaaaaaa aaaaaaaaaa 809

<210> SEQ ID NO 39
<211> LENGTH: 232
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 753592H1

<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 45, 48, 57, 66, 69, 89, 97, 99, 101, 112, 120, 156, 168, 208, 224
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 39

aaagaggagc gtgtctctga actacggcca tcaacttcca gtctnggnag ccagctncgg 60
ttccgncgnc caaccaccg acaaccncg aacctntng nggactaacc angggaccn 120
ctgagcccc cgaccgggtt aggtgtgatt ggggtngggg gcatttgntt tataagtga 180
ggtaggggtg gggaggacca agaccatngg gggagggaaa gggngagggg gt 232

<210> SEQ ID NO 40
<211> LENGTH: 847
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

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<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 797777CT1

<400> SEQUENCE: 40

```
tggccagtgc aagctaaaat taaccctcac taaagggaaat aagcttgctg cgcattcct      60
gcaggggatg actgtgaatg gcttcatcaa cacagtcata acctccctg agcgccgcta      120
tgacctgcac agctaccaga gcgggctcat cgccagctcc tacgacattg ccgcctgcct      180
ctgcctcacc ttcgtcagct acttcggggg ctcagggcac aagccgcgct ggctgggctg      240
gggcgtgctg cttatgggca cggggctcgt ggtgttcgct ctgccccact tcacggctgg      300
ccgctatgag gtggagttag acgcgggtgt caggacgtgc cctgccaacc ccggcgcggt      360
gtgtgcggac agcacctcgg gcctgtcccg ctaccagctg gtcttcatgc tgggccagtt      420
cctgcattgg gtgggtgcc aaccctcta cacgctgggc gtcacctacc tggatgagaa      480
cgtcaagtcc agctgctcgc ccgtctacat tggcatcttc tacacagcgg ccatcctggg      540
gccagctgc cggtacctg attggagtg ccctgctgaa tatctacac gaaatggggc      600
gacggacgga gctgaccacc gagagccac tgtgggtcgg cgcctggtgg gtcggcttcc      660
tggtctcttg ggccgctgct ttcttcaacg ccgttcccat ccttggttaa cctcggcagc      720
tgccaggctc ccaggctacg cggctatgag agcggcgcaa atgcacactt gaaagacagc      780
agccgttggg aagcgagcaa ccgactttg ggaaaacctc cgagacttgc tctctcatt      840
gggtcct                                           847
```

<210> SEQ ID NO 41

<211> LENGTH: 313

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 885098H1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 24, 48, 73, 129, 140, 142, 167, 193, 244, 270

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 41

```
attcaccggt aacactgtct cttnaaagt gattaaatca gagatttnca tataccaagg      60
gaccaagcaa ganaaatctt aggacattag ggcctagaga ccagatttt cttttttaa      120
tttacaganc attaacctan tnttccttta gagtaaagt agatcanaat atgcttactc      180
gtgccataag gtnaatggat aaaaatctgt aagatgttgt tacaatatga aaggaaaatt      240
atgntggtgt catgcaaaa ggaatctgan aaacttacag gaaacaaagt agctttgttt      300
ttgtgttgtg tgt                                           313
```

<210> SEQ ID NO 42

<211> LENGTH: 359

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 947812CT1

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<400> SEQUENCE: 42

```
ctgaccttta gttcttctact gagtgccac tgggttatat tctgggagcc gaggccacag      60
cagtgaacaa agcacacaaa acccccgcac ccatgggggc tccgttctag tgggtccatt      120
tatcatcaaa catctattaa tatctctaga atgtgcccat caggacacca tccagatgct      180
gctgcgcttt tccaggccac acagagggga caccctccag gtgcctcctg catgaatatc      240
aggctcaacc gtgctttcag ggtaggaagc agagggcatt tgaagagtcc tttcccttcc      300
ttcattcatt tgttgtctcc ttgaataaat gctgttgaaa acctaaaaaa aaaaaaaaaa      359
```

<210> SEQ ID NO 43

<211> LENGTH: 449

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 948051CB1

<400> SEQUENCE: 43

```
taaatactga atgaatgaat gaagcactaa actgaatgca tataaggcaa agacacaaat      60
aacttaattt tgtgcagcca aatcagtttg taacttcacc aaacagttca catcaacatt      120
taatgagcgt ccctttgccg aaggcactgg gtgaaggatg aggggggtatt ggtttgtgtt      180
tatgtagaat tttgcagttt gcaaagtccc ttctcttaca tctcttcatt agggtttcac      240
aacgactctg taaggtaggg gttgtcatta ttctgtcttt ccgataagg atacagaagc      300
tcagagaggg cagacatttg acctggagta gaactagggc aagaatacag gccactgtgt      360
gccccctcct cccacgtctt gtttctctct gaagatgacc tggggacagc ataatacaaa      420
gtggatggaa tgggctgaga aaggagaggg                                     449
```

<210> SEQ ID NO 44

<211> LENGTH: 571

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 948581CT1

<400> SEQUENCE: 44

```
tttttttttt tttttttttt tgagtcggag tctcgctctg tcgccaggga gaataagggt      60
tagctcgaac tatcattaac ctttattata tattacacat tttagactct ctagcattga      120
aaggaaaact tctctgtcaa tttttacatg atttttgaga acatttttaa taatattaag      180
acaaaaaaca tttaagaag caaaacacag tggaaagcac acaacagtgg aaagctccac      240
agcaaatggg agcttcctgg tttctgtagg tatttctttt tttttttttt ttttttgaga      300
cagagtctgg ctctgtcgcc caggctggag tgcaatggcg caatctcggc tcaactgcaag      360
ctccgcctca cagggtcaca ccattctcct gcctcagcct ccagagtgga tgggattaca      420
ggcatgagcc actgtgtgcc actttttttt ctgagacagg tctttgtctt attgccaggg      480
cttgagtgca gtggtgcaat ctcaactcac tgaagccttc acctcccaag gtcaaggggt      540
tctcctgcct cagtctccgg gagaactggg a                                     571
```

<210> SEQ ID NO 45

<211> LENGTH: 957

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<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 948700CT1

<400> SEQUENCE: 45

ccaggatgaa actgatatcc ctagtctctc ttccccattht cttctcacac tcccctgcct	60
gagaatcagt tgagttccca atacctcttc cttcagtcct tattcattat atggtctagg	120
ttgagacttc cttggaagca gaacctgagt accaggaact catatthttat aaagtatat	180
tattcctthtt agctgcaaac taacctgacc atgtthttagt gaatgctthta atctgaagat	240
gactttgagc tcattgacca tattaatctt tcatcaaaca aactggatgt tgtthtatta	300
acaaaaaact cctccacacc aaggagtgtt tagtaacttc tgcacagagg actcatccat	360
ctcttgctta tgtttgggac agaaagacac ttctctggct thttactggc ttgaacccaa	420
tgggacagag actctctaga aagthttcagg gctcacattc acttgthttgt caaaaaata	480
thtttgagtg tctcccaagt gccaaacctt ggctactccc acctthtgcct gagcccatga	540
gcggtagtct gggggctgga tgtgaggagt tctgagttgg ctagggaagac acaaggcaca	600
atggacatgg ggcaagtcc acttgctgga cattgggtccc thccactthc aagctgtcca	660
tcaggctgag agatctggaa tgcatacccc acactthtga gatgaggaag ggcgagthtc	720
tcaaagtgtg tgtgtgtgtt tctctthttaa tctgtaatgg thtctgcatt ttgaggtaga	780
aacagaaatc tctthtttga gtgggaccac tcgggtgcgg cthcttagtc ttgttgatat	840
aataaagcac atgcccactc ctcatggagt ggagaggaga aaattctaag ggaactgact	900
ctgaatgcaa atgtthtctga gattaaacac tagtcacttg thaaaaaaa aaaaaaa	957

<210> SEQ ID NO 46
<211> LENGTH: 612
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 948883CT1

<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 543
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 46

tgtctgtgggt tgtccgccac cagctcctgc aggttgcgca ggtcaccaat gatgcggggc	60
ttggccactt cgtaagggtc gaggaatgc tcgtcgccag tgatcagaaa gccacgcagg	120
ccggtthtcca ggtccaccgt cagcttgat gactcattga ggttattgat aacctggtcg	180
gtgtgctcca cccactggat aaccgacagc aaataagtga tcaggcagac gaaaaacacc	240
gcgctgagca cgccgagcc caagggtaac gcgacgtthc ggctcaacag ggtacggaag	300
ctctthttcat cgacggagca cgcgggagtc atgggcatgc cttggccaag tgcggaaaaa	360
gggggagtht gccgaatat cagggggcaa ggctatgtht gtgcgttgth ttgaagcgct	420
ggcctacagg ctgcgagtga gttacacgcc aattcgggcc ggtthcatca gaccttacc	480
atactgcat acagatgcgg cggaactgag gtgaaggtht gcggcactcc ggacagcgcc	540
tcncgaacac ggaagatctt ttggaaggcg tctthtttht ctcccaggt accccaatg	600
agcctaaccg cc	612

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<210> SEQ ID NO 47
<211> LENGTH: 517
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 948935CT1

<400> SEQUENCE: 47

cccacttcca cactaccata tgccctcctgt tttcctctcc ctccactact gccctgccag	60
gtcctgtgtc gcctcttcca aaatttccca aactactcta ggtagaacta gctatataat	120
ttgtggggcc cagtgcacaa tggcccggtg ttcaaaaatt attcaagaat ttcaattcga	180
ctgaacacgg gataaaaaa aaaaaagaac ttcaagacag ccacaggaaa tgatgaaacc	240
aagtgcaggg gccttccaag cacaggctgc acaaccacga agccagccct gggcccaggc	300
ttttttcttg tattcccaca gaccctcaat gggaccatat cgactgcctg ctttggatca	360
aagggttttac ctacatgccc attgtctcct ctaggctgcc atcttcatgg gaaaggagc	420
tcttatctct gcatgtccta aagggtgcat cacaatgcct cgcatgttga gttggtgctc	480
aataaacagt gaattgcatt ataaaaaaaa aaaaaaa	517

<210> SEQ ID NO 48
<211> LENGTH: 533
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 949387CT1

<400> SEQUENCE: 48

acataaaatt tcaattagga ggaataggcc atcaaatcca aatttgagca aaacaccttt	60
tcaggaaaaa ttacaactct aaagactgta tcagaaatct attgcacaat atggtggcta	120
cagttaataa caatgtattg tattcttgaa aaatgctaag agagatttta aatatcctca	180
ccacaaaaaa atgataata tatgatgtaa tacatatgtc aatcagctca atttagccat	240
tccataatgt atgcatgttt caaaacaaca tgtcgtacat aataaatata gataattttt	300
gtcagtgagg ataaatagag tgtaaaaaa aagaaaacaa agaaaaaaag gggggggagc	360
tacagagagg tccagtctta gggaggaaaa aaaagggggg gccctccctg ggggtcccg	420
gctatggatc ggggtgaattg cgggggtcaaa gccctccaa ggggcgcccc caaaatttca	480
ttcgcagggg cgggtcgttt aaaaagggcc ggaatgggg aaacccccgg gtt	533

<210> SEQ ID NO 49
<211> LENGTH: 450
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 951797CT1

<400> SEQUENCE: 49

tgagcaccct tgaccgtttc ctgatttgta ctgttgagat atatcattgt tcctacagct	60
tattgaagat tatgattttt ctgcaaacag agtctatgtc ctagtgggta agcagctaga	120
atagttcacg tctttgtctc ctgaattctt tatattgttg taattcaaaa tattttgtct	180

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attcattcag tgaactaacc aagagcatta tccgtattgt catatttcat gatggtgctt	240
ttgatattca gctattgggtt ttacttagtg ggaataatg aacgtacaag taattgtttc	300
tgtaggtcct aggtatatgt atttagtgcg atgttaatat ggtgaattgg tatgaacctat	360
gcattctcat ctgtaaatca aaaaaaactg gttttcatgg ggattcacta ataaaagggt	420
ggtcttattt caaagtaaaa aaaaaaaaaa	450

<210> SEQ ID NO 50
 <211> LENGTH: 658
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 997947CB1 Contig1

<400> SEQUENCE: 50

tgtttaccct tacacatggg gtggattctc tgacatcgac ctaatggctg atgaaatcgg	60
gctgtgggct gtgtatgcaa ctaaccagaa tgcaggcaat attgtcatca gccaaactaa	120
ccaagatacc ttggaggtga tgaagagctg gagcactggc taccccaaga gaagtgcagg	180
ggaatctttc atgatctgtg ggacactgta tgtcaccaac tcccacttaa ctggagccaa	240
ggtgtattat tcctattcca ccaaacctc cacatatgag tacacagaca tccccttcca	300
taaccaatac ttccacatat ccatgcttga ctacaatgca agagatcgag ctctctatgc	360
ctggaacaat ggccaccagg tgctgttcaa tgtcacccctt ttccatatca tcaagacaga	420
ggatgacaca taggc aaatg tgacatgttt tcattgattt aaacagtgtg atttgtgata	480
aactctataa gacccttcc gtttttttct tcaactattat ttttcatcat ttctccaaag	540
caaagcattt ttattgtaaa gttggtgttt caaaaacata gctgagcttg tctaacttac	600
catgttgtaa acacatctta acttctaaat ttacaaggcc tatcatgtcc ttgtcatg	658

<210> SEQ ID NO 51
 <211> LENGTH: 1773
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 1212964CT1

<400> SEQUENCE: 51

ataacagttt ttgaactgat ccctttagca cctgtgaaac tggaaaaaca tctgcacagt	60
gctagatctg aagaggaag actatattat gatggtgaat ggtatatacy tggacaaaca	120
atatgtattg ataaaaaga tgaatgtcct acaagtgcct taattacaac aattaacctat	180
gatgaagttt ggtttaagag gcctgatgga agcaaatac agctttacat ttacacagcta	240
cagaagagaa aatattcaat taaacattca taatcatgat ttaagtgtta tctaaattta	300
ccctattagt gttaccaa atgtaagtcca tgagagtaaa aaaatgtatt caataactta	360
atattctcac tgaatcatga gagaatgtgt attttaggt agtactctaa atagatctca	420
ttgatattgt attaaaaa acagtaataa aaattttatc acgatcctta cgttgatttg	480
cctcttaggt ccgatgacca ataggtattc tgtatatggt aggggtttct ttctaaacat	540
ttttcttgg ttttaaaaa agttatgcaa atttgtctta tctttagtaa actatgacta	600
catttatctg caatttttaa aattttccat atctttgtca ttcattgtgt gtttgtaaat	660

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aaggccgata gaatgtttcc tataaatggt ttgtactagt acattagtgt taaaccagaa	720
ctgaaattta aacatatata tatatgagga tgtatatatg gcatcatcag cttattttaga	780
actgatggcc atacccttaca atcttggtttt acccaaaatt aagctatttg ggttgaaagc	840
taaaaggagc acttttgtag aatagcaact tttcttttcc tctttcttga ttgtatggtg	900
gggtgggtgac ctattttttac aaattatacc taatgagtaa aattagtgtg aagtataaac	960
atgctttctac ctgtattttct agtgaccctt tagcggcagg tattttatacc tggatattat	1020
gatgcagtat ataagtggtg aacaataact gacagtattg tgcttgctgt acatgtctgg	1080
tcttttgaaa cagatttttag taagcatttt ccagaggtaa aactgtgtcc ttattctaata	1140
tttattccta gggcaaagta gacagggatt atttccttga atctatttcc aaattaatat	1200
ttttttcttt ggtattttcta cactttaagg ccatttggtg caatttagaa agtgttgcc	1260
tcccttcgc tagccacatt caaaattaac ttccaaaacc tcaggaacag tacaagaat	1320
tgaaaccctc aatatggcag cacagccggc tgtagtgtat atttaggta caccaaatca	1380
ggtattcctg gtggtcttgt gcactttaat ttctgttaca atgagttaag aggatgagga	1440
agaaatctac ttattaacac ttactgcaga aatgtctgca ttattccgtt tgttttctta	1500
ttattttacc tctccaaaca tcttcctgtg cagatcacta cttcatagtt gccaaatttt	1560
aaaacactta actgctgaaa ttcagtgtca gcaaagtgat attacgttgt tctgtttcta	1620
attaacctta gcaaatgtac ataatgtcaa aacccaatag tatttgacag tacttatgta	1680
tacaatgttt gataagcatt ttaataaga ttgtatttt taaatttagt atataataaa	1740
aagatgtgtt tcagtgtgaa aaaaaaaaaaaa aaa	1773

<210> SEQ ID NO 52
<211> LENGTH: 177
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1214535H1

<400> SEQUENCE: 52

cctttgagta ccgctacctg gaggaccggg acctccagt acaccccttc ctacacccct	60
tccccgaatg ctgatccct gccaggtga ggccccctg gaagatggag ggaggcccca	120
agccacgggg aatccttttc caggaagaag agggcccagt ttttccttta agcccaa	177

<210> SEQ ID NO 53
<211> LENGTH: 217
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1219856H1

<400> SEQUENCE: 53

ggagactggt cttctgagg ctgctccacg gaggtcagac ctgaggggac cgtgtgctgc	60
tgtgaccacc tgacctttt cgccctgctc ctggtgtctt catctgctgc tggttcacca	120
tcctttacct cccaagtcag agcaccacag tctcctctc tactgcaaga ttggaccagg	180
ccactccgc atctcaagaa taggaaggca cggccct	217

<210> SEQ ID NO 54
<211> LENGTH: 647

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<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1288503CT1

<400> SEQUENCE: 54

```
gtctatcttt cattatgtct tttttttttg attttttttt tttttttttt tttttttttt    60
tttttttttt ttttttttaa caggattcat ctcttttatt cataaaattt gaaagttaa    120
atgtatttaa cagtttgata actaaaagat cataaaagat cagcctcaa atcacatga    180
aataactgat tttttttctg agatttgatt gtgttaagtg tctgtgggtc cctcagatta    240
atccttttaa atggatactt ttaccaattt aatggatatt gtatgaattt tgatgcattt    300
aagcatatga catagaagtc tgtttctgca gattaacctt ataatagcaa tgcttttata    360
gcaggaagtg tgaaggtagg gagtctaggc cccttctatt tttttgctcc atcatcttta    420
taggaaagct tttatcttct tgcttgctca atagcagcaa gatgtcttct ctttcatcag    480
ctgtgctgta ggattacatg gccatgcctg gtgccaggga gtccgagaag gtgaatattt    540
tatctggcat aaaatttgag cagcaaggag ctctgtcaca tgcatcacc atctctcaac    600
tctgcacaga ccagtgctg tccctggctc ttgaagacac tggtttc    647
```

<210> SEQ ID NO 55
<211> LENGTH: 866
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1298179CT1

<400> SEQUENCE: 55

```
gacaaggagg ctggaagtc gatgggtgcc atatactcta ttcagatgaa aatatcacta    60
cgattcagtg ctactccctt agtaactatg cagttttaat ggatttgacg ggatctgaac    120
tatacaccca ggcggccagc ctctgcacg ctgtgggtta tactaccgct atcattctcc    180
tcttatgtct cttagccgtc attgtcagtt acatatacca tcacagtttg attagaatca    240
gcctcaagag ctggcacatg cttgtgaact tgtgctttca tattttccta acctgtgtgg    300
tctttgtggg aggaataacc cagactagga atgccagcat ctgccaagca gttgggataa    360
ttcttcacta ttccaccctt gccacagtac tatgggtagg agtgacagct cgaaatatct    420
acaacaagt cactaaaaaa gctaaaagat gccaggatcc tgatgaacca ccacctccac    480
caagaccaat gtcagatgt tacctgattg gtgggtggta tccccatcat tgtttgcggc    540
ataactgcag cagcgaacat taagaattac ggcagtcggc caaacgcacc ctattgctgg    600
atggcatggg aaccctccctt gggagccttc tatgggccag ccagcttcat cacttttgta    660
aactgcattg actttctgag catatttatt cagttgaaaa gacaccctga gcgcaaatat    720
gagcttaagg agcccacgga ggagcaacag agattggcag ccaatgaaaa tggcgaaata    780
aatcatcagg attcaatgtc tttgtctctg atttctacat cagccttgga aaatgagcac    840
acttttcatt ctacgtctt gggggc    866
```

<210> SEQ ID NO 56
<211> LENGTH: 621
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

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<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1305513CT1

<400> SEQUENCE: 56

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ggcagaagaa ggctattggc cttagacgag ttcaaaatgg agaaaagaat cagcagaatg      60
ttctatataa tgacttttct gtttctaacc ttgtggggcc cctacctggt ggctgttat      120
tggagagttt ttgcaagagg gcctgtagta ccagggggat ttctaacagc tgctgtctgg      180
atgagttttg cccaagcagg aatcaatcct tttgtctgca ttttctcaa cagggagctg      240
agcgctgtt  tcagcacaac ctttctttac tgcagaaaat ccaggttacc aagggaacct      300
tactgtgtaa tatgagggag catctgtaaa tctttagcct tgtgaaaact aaccttctct      360
gctgagcaat tgtggcccat agccatattt tgagaagaaa ttcaagaatg gaatcagcag      420
ttttaaggat ttgggcaaca ttctgcagtc tttgcaatag ttcacctata atcctatttt      480
aaatctcaga gtgatcctgc tgactgccag caaaggtttg taattaagaa gggactgaac      540
cactgcccta agtttcttta tgtggtaaaa aactagataa tgaaagtagc aggtgctaag      600
tatgagtgc  aaatgcttct g                                     621
```

<210> SEQ ID NO 57

<211> LENGTH: 222

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1318926H1

<400> SEQUENCE: 57

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ggagctccct ggtcctagca gttattttct gggtggcctt tgacactgcc aaattgggtc      60
aacagcagct ggtgtccttc ggtgggctca taatgtacat tgcctgtta tttctatttt      120
ccaagtaccc aaccagagtt tactggagac ctgtcttatg gggaaatcggg ctacagtttc      180
ttcttgggct cttgattcta aggactgacc ctggatttat ag                               222
```

<210> SEQ ID NO 58

<211> LENGTH: 718

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1328744CT1

<400> SEQUENCE: 58

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tgactctgcc attttctagc ctttttatgt tgggaaagct actttttcta gtctcaattt      60
cctcataata aaatgaaaat caattataag atcgatttcc atagggttgt catgagtttt      120
gagtaaaaaa gtgtatgtaa agttcttacc acaatacctg gcagagagta agtattcaat      180
taatgttagc tattattatc atcataatcg ttgtgttaaa tatattgcc aagataatat      240
gtgggggaa  gtttgtttta tatgcatatt gtatcctgac tgtgtgcaga acacattatg      300
tgtattgc  atatgtaaaa gaagtgtaca aggaagtggc catccttgtt caagttacgt      360
atctagttag aacaacttcc cagtccattg gagttctttg agaagcctca gggaagtagc      420
tctgggtcct tctaataaac ctcccattac tgcgccagta agtttctgtt tcttataaat      480
aaactctttg ctattcagaa aaactcaagg ggccccaca ttcactaagc atgggggctoc      540
```

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taactggggt ccaggtccat agagtgtagg aagaacatat tagaacaata cttgtgctta	600
tttttatcta gcttttttat gtttgtgtat gttttataat ggcataatag tacaatggta	660
catgtacata attttaaata aataaatgaa tgaatgaata aataaaaaaa aaaaaaaa	718
 <210> SEQ ID NO 59 <211> LENGTH: 557 <212> TYPE: DNA <213> ORGANISM: Homo sapiens <220> FEATURE: <221> NAME/KEY: misc_feature <223> OTHER INFORMATION: Incyte ID No: 1328845CT1 <400> SEQUENCE: 59	
gaagcttata atctagttag aaagaaaagg caagctttat acaggacata atcagcaaac	60
tggctagcat ataacgtaac acattgcatg ataggaaata agctaaactg attatcatag	120
ttggcaggat ccaagttata gggcattcag aaacttcctt gagtagagat aggatagatg	180
gttcagataa taaggtttgg cctcctcccc agagtgggat cactaagccg agggaggaat	240
agaaaaatct tcaccatgca gattatgttt gatattcaag ttgctgcatg agaaatgact	300
gggtgggatt gagagcaggg cttctaggca acagttatta ttggaaacca ttgattgagt	360
cattgttcag aaaatgtatt ccagacaaca aagggtcacc agaagcaggg tctagcatgg	420
tggaatggca ggagctagat tagcaagtaa gaaatcatgt gaatagattg aactgtgggc	480
agcatcctga atatcaatgc aacgtagttc tcatgctgca gctgactgtt ccatggggta	540
atgaaagaga aaaggag	557
 <210> SEQ ID NO 60 <211> LENGTH: 1340 <212> TYPE: DNA <213> ORGANISM: Homo sapiens <220> FEATURE: <221> NAME/KEY: misc_feature <223> OTHER INFORMATION: Incyte ID No: 1329044CT1 <400> SEQUENCE: 60	
cacacathtt gaaatatgtg tcaaattttt aggaatacta atttaatcta aaaatccata	60
attgaaatth aaagagttaa aagtacacaa aatagactga aaaattaatt atccaacaat	120
atgaaaaccc caaatgacct atttctcaga caactagggt atctttcaat ctgctgcttt	180
gtatttttct ctgaagagtc aaaaaattat aaaatatact taatagtcta cttgacattt	240
ttgactatgg aaaccaagcc caggaatagt atatacagtg tactaaccga gtcaaccac	300
ccagactttg agtccccacg tacaggagtc cccaacccca gggccgaaga ccagtaccag	360
tttgaggcct attaccgggt cacatagcag gaggtgagca gcgggatgag gcagcattac	420
tgcttgaact ctgcctcctg ttagatcagc agcagcatta ggttctcata ggagtgtgaa	480
ccctattgtg aactgtgcag gtgagggatc taggttgcac gtccttatag agaatactat	540
gcctgatgat ccgagtggga cagtttcato ccaaaacat caccacccac caccctctcc	600
catgtccatg gaaaaactgt ctttgacaaa actggtccct ggtgccaaaa aggttgggga	660
ccgctgccta agtagaccaa gtctatgagt atctaaaccc agcagacaaa gtacacattc	720
acatccaaaa aatgaagagc aggagtaaga tgagcagagc atcagtgagg ctttgggaag	780
gtcaactatt agcatccatt ttgatatgct ggcatttcat tggatatatg acattcacag	840

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catcattctc ttccaggaag ggagaagagc tgtggagtag atctgtgagc aaaagagaaa	900
tggaagacag tggctgatcc caaatacatt tgagtagcag ataattaaga agagttatac	960
aggccagaga caacgaacac aaagaatcta acagtctacc caaaaattat gccctaaaac	1020
agtgacttct caaccagact caatttctct gcaatgtctg gagacattca gtagttgtct	1080
ggagacattc agtagttgtc acaactgagc tggagggtact gtgttgctcc tggcatttag	1140
taggtagaga tcagggatgc tgctaaacac cctacagtgt acaggacagc ccctacaaca	1200
aagaattaac caaaatgtca acaatgctaa ggctgagaaa ctctgacctt aaatgacaat	1260
cattatgact aaccatgtgc atagctgaaa agatccatga aaagccttaa aatagatcgc	1320
aataaacatt atgtagtcaa	1340
<210> SEQ ID NO 61	
<211> LENGTH: 602	
<212> TYPE: DNA	
<213> ORGANISM: Homo sapiens	
<220> FEATURE:	
<221> NAME/KEY: misc_feature	
<223> OTHER INFORMATION: Incyte ID No: 1329081CT1	
<220> FEATURE:	
<221> NAME/KEY: unsure	
<222> LOCATION: 571	
<223> OTHER INFORMATION: a, t, c, g, or other	
<400> SEQUENCE: 61	
gtccaggcta ggttgctggg tgctctgcct agggctcac aaggcagaaa ctgagggtgc	60
atttggggct gaggcctggtt ggcagaattt gtttttttgc agtgggtacga tggaggtttc	120
tgggtttttt tttctggcta ttaactgggg gctgctttca tccttgaggg tcttctactg	180
ctccctggga tgggggtccc ctctacaaca agcagcttgt ctttttaagg caggagaatc	240
cctctccctt caactctcca acgtaagtg cttgcctcat tatatcagac ctgccaggga	300
aaatctctct tttcatgaac ccaaagtcac ctgattaggg actttaattg cagctgtaaa	360
atgagtcatg ggataatatc ccatcatagt cacaagagcc actcatgac aaggagaggg	420
attatgcagg gtgcatatac caggggtggg aatcttgag gccactcaga attctttcta	480
ccaccagggc atgaggcaga tacataatta tattataata tgagacatcc tgacaagcat	540
atttttttag acactctcaa aaaaaaaaa nataaagaaa agaaagaaaa aaggaagata	600
gt	602
<210> SEQ ID NO 62	
<211> LENGTH: 99	
<212> TYPE: DNA	
<213> ORGANISM: Homo sapiens	
<220> FEATURE:	
<221> NAME/KEY: misc_feature	
<223> OTHER INFORMATION: Incyte ID No: 1329095H1	
<400> SEQUENCE: 62	
gtctctgctc taacaaagag agtaaactag gtaggctaca aagtcataat ttattttgag	60
cttgtagaa ctgaagttac aaggtagca ggtaaactg	99
<210> SEQ ID NO 63	
<211> LENGTH: 192	
<212> TYPE: DNA	
<213> ORGANISM: Homo sapiens	
<220> FEATURE:	

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<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1329404CT1

<400> SEQUENCE: 63

```
gttaccacct attgataaaa tggaatagta caagatttgt gcaagacatt cactaagaca    60
gccgggagcg gtggctcacg cctgtagacc cggcacttta ggaggccgag gtgggcagat    120
cacgaggta gtagatcgag accatcctgg ctacaccgt taaaccccg ctctactaaa    180
aaaaaaaaaa aa                                                         192
```

<210> SEQ ID NO 64

<211> LENGTH: 563

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1329477CT1

<400> SEQUENCE: 64

```
ggaatggctc accaaatgaa tccctatgga aaaagatgca cttaatccct ccctcacgtt    60
ataaagaaaa tcaataatg gccttacagt aatattgttt gacttattgt aaacaatgac    120
ttaataagtt gaaagagata aatatctttt agaccctaag gaaatattaa gacacaagca    180
ttcatatatt tgaccatatt aaaatacttt tgttcattga gaacttttac tcactaaaag    240
gcaattttaa gaaagtgaag agacgatgca taaacaaact tggagaagggt aatcataata    300
tctacctaca cttgacagag gattattatc aagaatacag agtatattat catagttaaa    360
aataaaaatt tttaaaagat cacataaaga actttttttt gagatggagt ctactctgt    420
cgcccagcct ggagtacagt gatgtgatct cgactcattg caacctccg ctcccgggtt    480
caagcgattc tccctgctca gcctcctgaa gggccgggaa tgccggcgtg gtggcacaca    540
cctgtggtcc cagctactcg gaa                                                         563
```

<210> SEQ ID NO 65

<211> LENGTH: 388

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1329584CT1

<400> SEQUENCE: 65

```
gccacgtgaa cctgaggcat gaaagtcctt gccagcccca cagggtactg ctccagctgc    60
cgctccagg ggcctgtccc tctgcaggtc cccagctctg tctctccctc cctctcctgc    120
tcaggctgag acttgtgttt tcccggggaa gccaaactcca agaccctctc tcctgagtc    180
ctgcccggat aacaggctct ctctctggaa tgttttcctt acaatcctca tgagaacacg    240
ctatgtgacc ttgagcaagt tactcaacct ctccatgcct ctgactctc taccaagagg    300
ggataataac atacctacct ccctggaact gtgctgtgag gcctcaatgg aaaccaagca    360
aagcacttag aacctgcct gcctatag                                                         388
```

<210> SEQ ID NO 66

<211> LENGTH: 788

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

-continued

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1329652CT1

<400> SEQUENCE: 66

```
ctttgcattgt tctaatttgc catgacgtgg tcaagtgtcg ttcccttcct gttgcttgca      60
agcctatgct agagataagg atacatttca gtgcattaaa aaagaagcca ctgaagacag      120
gcttaagcat ggtaattttt aaaacatttt acttatcaga agccttttta aagaacagaa      180
agagtgggct ttaatttctg cttattttta aaagatttaa aaatacttct tactaaactt      240
taaatgtatt tgatttttaa tccttatata aatcctctta aaggtgaaaa tatatacggt      300
gtgaaattac tcattgggta gcagtttcta tgtatgtgct ttgctgagtt ggtgaaaaga      360
aggaaattgt ttatatatcc ttatttgcga ttacaaccct cattattgct ggggtttttt      420
gacctttttt ttttttttaa tattgagtac ttttaacagt agtttaactg gagagtgggg      480
gagagaggca taattttcag tagtgacaga tgatccttagc aggagcaaac tgttcaaata      540
aaatatgtaa cttttaaaaa agagcgtatg tgcattagtc gtgtcgattt tatttaaaaa      600
cgtaataaat aaaaaaatgc ttttagcgata ctgccctctg tatcagttat tataccttaa      660
gtgggtgatt gctttttcat aactaatctg agcctttgtt ttttaggcca agaagcttga      720
gagaagaaaa atttcagaaa aattgtctca atttgactag aatatcaatg aaccaggaaa      780
actgaagc                                     788
```

<210> SEQ ID NO 67

<211> LENGTH: 566

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1329778CT1

<400> SEQUENCE: 67

```
acaaagaaaa atatttcctt ttggattgaa actagtctta gaatctcata atatattctt      60
caaacatctt aggtatthaat ccaaatttac ttatacaaaa attcaaacaa ggcaaaaaat      120
aaaataaaca acaaaaaaag gaaaattcaa ctctcaagga aaagataata acaaatgcca      180
actccaagat gacaaagata ttggaattat ctgtaaaata aagggtaaac gttcttcaaa      240
caaatggaaa agtgaaatat ctacgcaaaa aaaatagaag atagaaagga aaaccaata      300
gaaattttaa aactgaaaaa tatactgtcc aaactaaaaa attcactgga tagatccaat      360
agcagaacag agataacaga ataaagagtc agtaaaactta aaaatagatt aatggaaatt      420
acacaaaatt tatttataat tattaatatt attaataaat attacccaag agggagacaa      480
cattttttta aataagcaga acttagggag ctatgagaaa taccaaagtt cttacatcaa      540
tgtcatgtca tcagttttac aagacc                                     566
```

<210> SEQ ID NO 68

<211> LENGTH: 553

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1329830CT1

-continued

<400> SEQUENCE: 68

```
ggggaataaa caatcacttt tcttaagcta agatttagaa agtttttttt ccaaagggcat    60
tggaattata cctcaaagct tgtactagta gttctttgac cttttctttc agcacatatt    120
tactaatttt taatccttat aaatccttag ggaaatatat attttggtaa ccgtttaaga    180
ggagctgctc tgttacattc ccagctcttt aataagtggg gaatttggtc tctgtggtcc    240
aaaatgttct ctgaaaaaga tctccttggt ttcccaaag attctcttag aaaggaaact    300
tgatcattct gctttgttct ggagtgttac acaagtgtta tacctttggt ctggtgttat    360
acctgtttct ggtgttatata ctttgttctg gtaggtagta ctaccaaag agaacttgag    420
aaatatatccc ttgggtgaa gatggtttgt ttcaagtttt tttttttttt ttccctcca    480
gcacactctc tgccttttta atttgtaact ttctgcatcc tggtaataca agaaatttct    540
aagatggcca cct                                                    553
```

<210> SEQ ID NO 69

<211> LENGTH: 503

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1329851CB1

<400> SEQUENCE: 69

```
gtgaaaacca gtacaccta atcattaatt aaggcaaact gtactagtaa tcattgtaca    60
gtttccatt gaacaacata ggtctgacct ttgtgggtcc atgtatacat gaattttctt    120
ccatacacag caagaccacc aactccctaa gttttgggag ggtcaaaaat tatatgcagg    180
tttttgattg tgtgatgggt tgggtgcctgt aacacctgtg ttattcaaaa gtcaactgta    240
tttttaatgc cacacacca cagttaaaaa aaaaaatcag ttttacctaa tgtgcacatt    300
aaaagcagta aaaaaaaaaa agaaaagaaa agaaaagaaa aattgattct ggtgtggtag    360
ctcacacctg taatccaac acttttgag gctgaggtgg ttggattgct tgagcccagg    420
agtttgagac cagcctgggc agcatggtaa accttgcttc tcaaaaaaaaa aaataggggg    480
ggccccccat ttgtgtcct gtc                                                    503
```

<210> SEQ ID NO 70

<211> LENGTH: 704

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1329862CT1

<400> SEQUENCE: 70

```
cagttccttc ccagggtctc ttcagcttgc tggttggacc tcttagcctg cttatgaagc    60
ctgaattgac atcatgccaa ctggtctcct gctgataagt gattccttaa cttcctcggy    120
agcagcagaa acttgttttg aaaaaatca gattctaat ctttacagct gtttacttct    180
gcaagcacaa tggccgtagt aaggaattca agtcacagcg cagcgtggc aggggaaggct    240
ctgcatggag tcacaggaca aagcctgtcc tggaaactg ctggaaggaa gtcggcctca    300
ttctttacga cgggcagcag ctccaaatga gaaaccaagg ggcttggtc tgggtcagta    360
gcatctgcct ggcatgcggt gccagctgtg gagaccagtg aggtggcagc agctgcactg    420
```

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ggctcctggg gtgtgcgtgg ggacctcagg ggttaggag ctgatatact tttggttctc	480
atcatcttgt gtgttccttg cagacacaga atgttcagct taacaaagaa atgacacttg	540
ccagcaaccg gagcctggca gaaggaaacc ttttgtacca gcccagctg gacacgttga	600
aagcagcgtt gaccagaaa taccaggaac tccaggttct ctttgaagcc tatcagataa	660
agaagaccaa attaggtaac tttttaaggg tgatcattcg agaa	704

<210> SEQ ID NO 71
<211> LENGTH: 573
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1329971CT1

<400> SEQUENCE: 71

tttttagtag agacgcgttt caccatgtta gccaggctgg tcttgaactc ctgaattcaa	60
atgatctgcc cacctcaacc tcccaaatg ctgcgattac attttaaac tctacctttt	120
aaaaattaga acctggacaa agaggtatta aagaatgtgt ctcttattaa tttattatgg	180
taatgagaag agtttggtt tggacctacc taggtttttc ttctctccag ctccgccacc	240
ccaactcctt actcatgctt cctctgtaaa atgatactc cccagtttga cagggaatgc	300
ccttgaatc ccatctgggtg ttctaattgt taccaaatcc aggcaaatct tgcctgtgat	360
acagtggttg aagctactgg atagaactgg agcatctaac tgggtgtgaga tgggatctca	420
ttgtgggttt gaatttgcat ttctctgat gggccaatgg atgattgagc aattgtttca	480
atgtggcctg ttgggctcgc ataaaagggc cgtctttttg aagaagtgtt ccggattcat	540
aacccttcgg gcccaacttt ggggtggaga tga	573

<210> SEQ ID NO 72
<211> LENGTH: 597
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1329994CT1

<400> SEQUENCE: 72

gtctgggaga aattggaaat aagattccgg agtttgcaa gatgcctggg cctgagatgt	60
agctccaggt gccaggtgga agacaggcac atggataaag aggccattg agaagattta	120
gcaagaaaac cagcaaggct gaccagcagc agaactctgt ggagcatcaa catttaagta	180
ctttggctca tgaattatag tttatcaaac caaccaaact atgctgaag tttacttaat	240
gaacacccat ttgctaaga tattacttgt gaaatagtat ctgagtgtt gctgtatgcc	300
agggactgtt tcaccagatt gtttaccgtc ttccaaattg gcacaaaat gtttgataat	360
gaagttagaa gaaagaacag aacacaaaag gctttgaaaa gtaatgtttg cattgggtgt	420
aacagtgttt tcttcgaagt ttgatgatac aatgtgctgt gtgaaggttt atgcctaata	480
cgggggtaaa aagaacagat ggacctactc aaaacctgca gtgaggggtc ttcactgaac	540
ttagatagag caagaaaact cttttacatt catttgcttt gtggagtctc tcacaga	597

<210> SEQ ID NO 73
<211> LENGTH: 823

-continued

<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1329995CT1

<400> SEQUENCE: 73

attaatacga gcactatagg gaatttggcc ctcgaggaag taattcggca cgagtgaat	60
gacagataaa gccataccat ataacaactt attgaagata tattaactt ggcagggttaa	120
cccacatcta gagccagaaa gcataaatat ttttgacatt gattgtcaca aagaaataat	180
gtgaaagtat aggggtatttt ggcatacaaa ttttgtgtaa atgtcaagaa ttcaaaggct	240
tttatatctt tgttttttgg gaggaattac taatactaaa caactttgta ttatcagata	300
ttaagactcc ttttcattct cactaatgtt catcttaatg ttttccaaac tacactttta	360
aaccagagct gcaattttcta ccacactaat gggaaaattt ctggcaataa cttttttgct	420
tttataagat aaaatattgg tgaatgatca atatgtgatc aacagtcttc tgcagtctat	480
ttagtataaa actgcctgtt tggtttttaa actggaacca ctatttaca aggatgactt	540
taattggcta attcagaaaa atgcagaatt acaaaataat caacaaatat ctgtcaagta	600
ccacctcgtt gtgtcatttg ccatgggata tataaaatca agtgtaaga tatggtcctt	660
gctctcaca aacttaccaa ggaactacct aagcaacaaa ataattactt catgaactaa	720
attgcagcaa ttaaagccag gtgctgtggt acatgccact gcttaggaag ctgaggctca	780
ggagtttgag gccagcctgg acaacgtaac aagacttcat gtc	823

<210> SEQ ID NO 74
<211> LENGTH: 627
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1330007CT1

<400> SEQUENCE: 74

tgatgtttgg ttttgcgtca cgcttttaat ttttttttt ttttttttt gagacggagt	60
cttgctctgt caccaggct gagattgtgc cactgtactt tagcatgggc aacggagcaa	120
gactctctca aaaaaataaa taaataagag agaaagatag tggtggggtt ggagaaagta	180
agattttttt ttaatgaggt ggaaaaatag acaaatagca atgattatga gaaggagtgt	240
tgtagagact agagtacagt ggaacttaaa tggcatgagt tgccctccaa accagtaatt	300
ctctatagcc aagaaaaaga gaaatagggt taatcaaaag ttaggaatta gtggaagact	360
gcagttgtaa ggtgttcaac atgtaataa atgtgttcaa catgtaatgt gttcaacatg	420
taaaataaaa gcaaagttag aaaaagaga ttgtcatata aaattccaaa taacttaaag	480
tcagtttaca agaggttgat ttccaaagtt aattaaacac attggacttc acagtttctt	540
ggaaatgtgc ataaactaag atctctgagc catggtagat actaaaccag cactaggtga	600
gacctgttag cctgggcaac agagatg	627

<210> SEQ ID NO 75
<211> LENGTH: 554
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

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<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1330016CT1

<400> SEQUENCE: 75

cggtctgagg	ttttatagcc	ttacatgttt	ctaacaacaa	aagaagtatc	ttctaactga	60
aggagaaaa	acacagatat	gcatacataa	taaaatccgt	aagtcagtgt	agctctacct	120
gaaacctgtg	cccaaattca	ttcactcttc	tgcatcacac	accacacctt	aggccaagcc	180
actgtctgtt	ctcacctgca	ccattgcaac	agtctcttcg	ctgtctgtgt	ccttaccctt	240
ttagcttcat	tatacaaatt	gtagccaaag	tagtcttcaa	aatgtcaa	cgctccacct	300
cttcacaaag	gatttcccat	tggtttcctg	ttgcatctgg	aatacaatct	aaagtccctca	360
ctaagtcctg	taaaatgc	tattaggtgt	tttcattgag	ggctccttct	gttcattctt	420
gtatcagctc	agatgtcacc	tgtttagaaa	gacctccttc	acccaatcag	tccatttagc	480
ataatagtcg	tataataaca	gcacattggt	ttttattcct	tataactgtg	catctttcac	540
attcttaaca	tggt					554

<210> SEQ ID NO 76
<211> LENGTH: 490
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1330023CB1

<400> SEQUENCE: 76

ggctgatgtt	tgtattttta	ctatagacat	ggtttcacca	tgttggccag	gctggttttg	60
aactcctgac	ctcagatgat	ccaccacct	cagcttccca	aagttctggg	attataggca	120
ggagccacca	tgcccggcca	gttttttttt	aaaagaaaga	aaaagataaa	ggaaataacc	180
ctgttgatat	ttagctgggg	cgaggataag	gtgggagggg	aaaagcagta	gaagtgtttt	240
cctgagtacc	acaactgtga	ggaaaattga	gctcactcca	gttcacaaca	agctaaacat	300
tttcaaaatt	atgctagaaa	cagtagggga	aacgaggagg	atatacattt	gcagtgcgag	360
tagcgaggtt	catagaagat	attccctctg	atactgggaa	atgaaaaata	gaacattaca	420
gctggggaag	ttctttatag	tttacttggt	ctgatatctt	ccctttccct	agggggaaat	480
tgggactgca						490

<210> SEQ ID NO 77
<211> LENGTH: 399
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1330061CT1

<400> SEQUENCE: 77

ggccttgctg	ctttttttta	acatacatca	ggagatacag	aggaagcttt	tggttttcgg	60
tggcaaatcc	agcaagtcca	gcttgcaaca	tgagttgcag	gcaattggaa	gaggataaac	120
ctctgtctgt	ccccagctca	cgtgtcattg	ggagcctcca	gagcagaagg	agtgccccag	180
agtcattggt	gtatgccatg	ctgcactgca	gtgggcagca	gagattcgac	tcttcattcc	240
aaatggctgc	cgggccagat	gttaaccag	gtttacggaa	agtgtgcctt	gagagattgc	300

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cgctgtgcct gtgctgcaga tcccctgttt gcttacatac ttgggttatc tgtttgaggg	360
gaaataaaaa gggtaaaaca ctccaaaaaa aaaaaaaaaa	399

<210> SEQ ID NO 78
 <211> LENGTH: 512
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 1330108CB1

<400> SEQUENCE: 78
 ctccatccca aaaaataaat aaaaataaat aaaatcagac aaaatagact ttaaaaacaa 60
 accatgttat tagagatact gagaagcatt ttacaatgac aaaagggaaa atttaacagg 120
 aagaaataga aatcataaac agaagtcata aagaaataaa aatttataac agctaaaaac 180
 acagccctga agtatatgaa ataaaactgt cagaaatgaa gagagaaaca gacaattgaa 240
 caataataga caactcaaca ataatagtag taactcttgt tgattttctg tcttggtgtt 300
 ctatcaatta ttcagagtga gttattgaac tattacccaa ctactattct tggatgaaat 360
 ggtgggaggt gagggctgga ctctgcttaa taccctcccc tgttctggtg tcagggagac 420
 aaatgtggag ctgacttttc gtcagaaaca gtggtaccca gaaagtagtg gggtaacaga 480
 tcccaagtgc tcaaagtaaa aaaaaaaaaa aa 512

<210> SEQ ID NO 79
 <211> LENGTH: 259
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 1330215CT1

<400> SEQUENCE: 79
 aaatcatcca tgttattttt ctctcagctt ttaaaaaatg tgtttagaat tgctctctct 60
 acctttttac caaccagtta tagttttttt acaatctgat gttttcctca taccattcta 120
 cttgtggtgt ttcataataa tatccagtgg ctttttctca gttottaccc ctctacccca 180
 gtttatttat agccagattg ggggaacaga aagcataaat acggaaagat gtcctggtgt 240
 gttaggtaaa atctctgag 259

<210> SEQ ID NO 80
 <211> LENGTH: 830
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 1330424CT1

<400> SEQUENCE: 80
 ggtagcctta gacagccatc aagaagtatc cagtgaaga aaaataaata aaaaataaaa 60
 taaaataaaa taaaataaaa acaatgaaaa agaggcatcc agtgaaggcg attgcctcac 120
 tgagaaaatg atcacctttt atgttgtcaa cactttaaaa cttaacggaa atgttcat 180
 gacctgagta gataatcctg gaaagagagt aaaagatgca gactagtgtt gaaaggagtc 240
 tgccatcatg attgtcagca tcttcccttc atttattgaa cacctattat gtgttctctg 300
 aaaaacactt tccatactgt acatttaato taaataacaa tactttaatt aaagttcca 360

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tgaagaaaca atgtcttaca gaggagaaag aacttgttta ggcatacaa caagatttta 420
taaattgcagg ctaataacctg tctgtctctt tatggtgccc tgaattcttt ccattatatt 480
aaaaataact tctccccatc tctctctccc tgcaccatt ttgaacatta ctaatcaata 540
atttccacgg agcatagttt cagaatcctt ttcagcatat tatagaacac cactaccaac 600
tgatcaatga atatttctgg agaaaacaat tcccccaaca tggtgaaacc ctgtctgtac 660
caaaaatata aaaattaatt ggcatgttg gtggacacct gtaatccag ctactaggga 720
ggctgaggca ggagaattgc ttgaacctgg gagggaggg ttgcagtga ccaatgcact 780
ccagcctgat gacagagcaa gactcagtct caaaaataaa tacagccata 830

<210> SEQ ID NO 81
<211> LENGTH: 548
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1330429CT1

<400> SEQUENCE: 81

tatcaatgct cgggccaggc cacaccaaca gaagacacag taagagacag aacttaggt 60
ctatccacgg cgacagctac aaatacaagg aaaagggta agttcaggca ctgatgatgt 120
tggcatggga ttttccagaa tggcaactga ctctcagtga agcgtgaac caaagaacaa 180
tcttctctag agtcacacag atgggatatt cttgtattag aacaacattt taaacacttg 240
ttaatgcttt catttaaaag cataaaaatc tagaccaggc acagagtggc tcacacctgt 300
aaaccgcga ccttgggagg ctgagttggg aagatcacct gaggtcagga gtttgagacc 360
agcctggcta acatgggtgaa accctgtctc tactaaaaat acaaaaatta gctgggcgca 420
gtgacacatg cctgtattcc cagctactcg ggaggctgag gtgggagaat tccttgaacc 480
cggggagatg gaggttgtag tgagccaaag tcacaccact gcactccaac ctggcgacag 540
agtgattc 548

<210> SEQ ID NO 82
<211> LENGTH: 745
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1330478CT1

<400> SEQUENCE: 82

attaataata tagcatgact aggtaaggtt tattctagga tgtaaggata ttttaccacc 60
aggatatttc agtatacttc attgctgaat gaatgaaagg ttaaaatcat gtgattttat 120
tatatgataa agtggacatt tgatagaatt tagtctttcc cagtaaaagt tctaagtaaa 180
atacagatag gaagaaattg cctaactctg ataaaaatta gttactaaaa tttaaagtaa 240
atattgcatt aaatattgga gtactgaagc tacttgcggt taaataggaa acaagacagt 300
cccataacta ctttgagact tatgcaggag agactttgtg cagtgtotta agaaatgaa 360
taattgatac taatgttaga agaaaacaaa tacactattg gaccacagag gacttgggct 420
attctggtta aaacttaacc acagaggacc tgggctattc tggttaaaac ttaaccacag 480
aggacctggg ctattctggt taaaacttaa gttgaataga gcagttggga aaaaaacttt 540

-continued

gttctcaaaa ctgttgatc agtgtgaatg gtgggctctc atagttgata atgttttaac 600
ttttatgagc actacagcag cctttcccaa atagatttcc aggctgtgta aattagaagt 660
ttgacaaaag gcattctgtg gtcaataaaa tttgagaagc tttgaatgtt atattccaag 720
accagtgata cacaataaac attga 745

<210> SEQ ID NO 83
<211> LENGTH: 500
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1330641CT1

<400> SEQUENCE: 83

gaaggaatgt catttgtatt tgctcttata gatgtaagg tagacaagaa actcagttgg 60
aatgacagag tataatttct acatttaaaa tgttgtgttg actaatgcaa ttaatttgta 120
ctcagttata agtagaggcg atgagtacca aggcataatga tcagtgcagg tataccctg 180
agacaatata attttcaggg aatcaaaata atcagcaaga gagcatatat ttccttaatg 240
gagtactgag agtttattag ctctactgag agtgctgatt aagaaaaagg agaaaagagg 300
ttcagttgag tttttaaaact gcagttaaat aaaaagattt tgcctatggt atttgcatgg 360
ttaatgtatc tagaagggtt aattttatat tgaagaaaca agttagtagta ttatagacat 420
gaatataaat attaccagtg gatitgagga attaaatgt cacagtttca tttattactt 480
tactatatca gacctgtgtt 500

<210> SEQ ID NO 84
<211> LENGTH: 494
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1330656CT1

<400> SEQUENCE: 84

ttacaactga taattaactt ggtctaaaaa gaatcttaat agatttcaaa agtagaaaac 60
ttccaggctt ccttcataaa acaataagat atattgaaaa ttagcctcta aaagacaatc 120
gcatagaaat ttaacaatc gaaactcttc taagtaattc ttagatcaat gaatagatta 180
aatttgacat ttcagattat atattgatta gcgaaaatga aaatacttca tatcaaaact 240
tgagataagg ttaaaaactgt gcccgagga aaactgtag tctattttta aagcacttta 300
ggttttgaca taaatatga aagagtaaaa taattaaaat aaaagtccat taaaaaata 360
attgaggctg ggatggtctc gaactccttg gtctgaagcc accctcctgc ctgggcctct 420
caaagttttg ggattatagg tgtgagccat ggtgccaggc ctgagaccct gttactaaca 480
aaaaaaaaaa aaaa 494

<210> SEQ ID NO 85
<211> LENGTH: 548
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1330683CT1
<220> FEATURE:
<221> NAME/KEY: unsure

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<222> LOCATION: 461

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 85

```
gaaaaaaaaa tttgtgaaat tcagtgata gaattttcta agattcaatg aaatcactaa    60
agaacatact gacagatttg agttaaactc atatacttca taaaaggtaa tcaaaatgta    120
aagatcatta acctttagag gaatttcgag aaaagaatta acatcttcag tataaggaaa    180
ataaacaaat tttaaaactg atactataat cgagttctca tattctggcc caagaatagg    240
ttgcatcaga tttagtttca agttagatt cctgtcctct gtcaaactct tctgccaagt    300
cttcagcctc caaagggttg gatcctttct cttctctggc agaaggcatt cattcatgtg    360
aggggtacaaa agaggaagga atggatatg gttaacagga aaatggaagt caataatgtg    420
caaaagaaaa ggacgagatc attttgtatc aaggtatcca ngagaaaatt tgtaagacc    480
gggtccatata ggagattaag attttctct agcttagtcg gaaaaaagg ggggcccccg    540
gctttgta                                         548
```

<210> SEQ ID NO 86

<211> LENGTH: 563

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1330740CB1 Contig1 1

<400> SEQUENCE: 86

```
tggtgtccag cgtacttttg gagtccgagc atttcttgg gcctgggagg tcgaggcaca    60
ggcgaaccaa gatccagtga accaagatcc agccactgca ctccagcatg ggcaaccaag    120
caagactccg tcccaaaaat aagtaataaa ataaaaaata aaaaagacgg tggatcatgtc    180
tctaccaggc tctcttcccc ttctgttgg cttgaacttg tggacaccta gctgcagcct    240
tgtaggcaca acagtgcctt agtgtgtgtt gagggatcaa gacagaagga atccgggtct    300
caggatgtct gtgtgaatg gagcttcctg ctgacttggg aagttcacca ggcagttaca    360
tggtgagaaa ataaacttcc atcttcttcc atccacagaa tgattgctag gcctctttgt    420
tatagaggct gacgcttacc ctctcttacc aagcacaggg gagaagagca tggcagaacc    480
aaaggcttcc caggctaaca cagcagtcca gccccaggc ctgcatggct gccatggaac    540
atcgccagga ttgcatccca agg                                         563
```

<210> SEQ ID NO 87

<211> LENGTH: 1329

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1330847CT1

<400> SEQUENCE: 87

```
aaaacctact aggagagaaa acaaacaaga agttttgatg tactatgaac ctaatttaca    60
gaaggcacta ttgagaatt ttcttttcca ttcacgcaa tacagagggt caagagtgtg    120
taacctcagc aattaattgt tatttctgt atgttaatta cgccatgaag caacatccat    180
tctgtatgat gcctccatta agtattatgc ccaactcttt tcattttctc tgtttataca    240
aatataattt cttgattatc ccatgtagggt aagcctgcct cacagttggc ccatacttct    300
```


-continued

ccatgtctta atatggccca aagatagcta gatttaattc tttttcatgg aatgatttag	360
tggttttttt gaatgaccaa atacctgtta ttatttctgt atgcctaagg aaataaatgt	420
tcccttcttc tacctgaagc tgctctgctg tgtgtacatg agcattcttg tgtgtatggg	480
tgtacgtgtg tctgtgtgtc tgtctcacct ccagggaaac ctaacactat cgttttatac	540
cataactgaa taaatcacag cagtcagaga gatgtgaacc caaggaaaat tattataatt	600
aatggaaact tcagggaag atgaataatc caaggagctc agaactaacc caaaatgaaa	660
ataataatag taaatgcagc atcctctctg ataaaatctt gggcccaaaa ctgcaacaaa	720
atgagaaact ccatttaggt ggaacatggg tgttttatct tacctctttg aatgttgaag	780
gaaatctgct ccagtagaat gaggttacttt gtatgagata gaagggtgaaa aagagagaag	840
aaattggcaa cactcttagc ccactgaaag cagcctgctt cagaacctaa ggccttggtg	900
ttatttttac tcgcttgcaa aagtggaggaa ggatgttata ggtctctttg agcctctttg	960
cttttacctt ttatttctat atgatctaca tttatattaa taaattatta catgccatat	1020
aagttccaga atcattcctt ttgacagtcc catgggattt aatcccctcc taaatcccaa	1080
aatatagaaa gagaaaaatg ttgggtacag cactggggca tcatgcatac tgaatattca	1140
acaataacca ttggaatgag tggatgattt gggggtcatt ccttactatg tgactgctct	1200
tctctcaggc agtcttagtc cctgtgtcac tctcctagtg ttagccggg ctgctgcctg	1260
agtgtaatcc tagcctttca agataacat ttattatatg gtgtgaccc ctaacaacac	1320
aagccaggg	1329

<210> SEQ ID NO 88
<211> LENGTH: 546
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1330861CT1

<400> SEQUENCE: 88

gaggtgggga agacggagga acagcagacg caaaggctct agccagaaac acttgtcaaa	60
ttcaaggcag ctagaggctg aacatagcaa aaggaggagg agtatgacgt gggccagggg	120
acgggggggtg gtcagaaaag taggaggcag ctggatgatt taataccttt ttaggtatgg	180
taaggagaat tctaatgat tggatgaag tgtgatgaga caatagatgt ttaagcagcg	240
tgacatctga ttgtctttt aaaaggatca ctcaggctgt tctgtggatc agattaaggc	300
agagcaagag tggaagtagg gagaccagtt aagaggctat tccaggaatc caataaagat	360
gtcatagttc ttgaaccaa ggtggagact gtggagacag aagtggatgg ttttggtttt	420
ggttttggtt ttagaggtat aatcagtcac acttgcattg aatggaataa aagtgggcaa	480
gtaaagaaca aacaacaaac aaaaaaaaaa gcaagggaaa ttgatccacc atggtataac	540
cacctt	546

<210> SEQ ID NO 89
<211> LENGTH: 593
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1330882CT1

-continued

<400> SEQUENCE: 89

```
ggtaaaatga agttggttca gcatcctttt ctgaatcttc caattccaat ctgacctcct    60
ggatggttct ttggtttcat ttacagatg gctaactctcc actatgtgca gatttttcta    120
gtttaatttt tagatggaaa tcttattaac tgaccttaac ttttttttg agggttttga    180
ggccccctca tgtattctgt ctccaataa aattttaagc tcctggatag ttccctgcat    240
agataagaaa tgaatgacta tcaaatacat tagatattct atcataacaa agctttttccc    300
cattaaaatt gagtaacagc tatatatcct tgatttgac ttaaaaatta tgcttgattc    360
aattttaaat ttcaaaaagt tggtagaaa tagtttttga caatcaaaag gcataaagaa    420
atgttttttc tcttggaact acaggtgaga agaggagtgt ctgttgatg tgggggagtc    480
aattttggga gcagaaaggt agagcgggcc cgggtgtggt ggcttatgcc tgtaaaccta    540
gcattttggg agggtagagtc gggaggatga cttaaagtca gagttaagt cca          593
```

<210> SEQ ID NO 90

<211> LENGTH: 762

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1330907CT1

<400> SEQUENCE: 90

```
tttgctaag aatatgagtt accttcataa ctgaggaaga ggccataata caaatttatt    60
ctttgtttaa cccttcataa aaaatttaag tatactctgt attttattga ctccatatga    120
attataaatt tgcatttacg aataaaacta atattgagag attaattcag gtggagagaa    180
aatgagtttg agattctggc gggacatctg gcatagctgt ctagtggata tataccaata    240
gatataattg tatcaggttt tctgaagtca agatcagact taaaaatgtt ggaagcagca    300
gtggatttgt ggtggttaat cctgtaaggg tgtaagaaat cattcaagta agtatagtgt    360
aagaagaggg caagaccaag gatggggaac accagcatta agcgtatgggt agagacagcc    420
aaggagtctg aggaagagca tcaggaaagg aggaaatcta gggggcagtg gtctcataga    480
agccaggaga ggagagtttt aacaaggaga gaagtctatc tgggagtcaa gaactgatta    540
cgtgcctatt gtctttggaa gttaggatgg gggctttaac ctcagcagac ataatttaag    600
tacagtgtaa gggtagaagc caagtttgaa tgaatctgag gagagaatag tgattctgca    660
ctcacaagta aatgtgagtt tagaatccgt attttgagaa acaaagggtta gaaggagagg    720
cgatccattg attagggaga tgattaacaa aaaaaaaaaa ag                      762
```

<210> SEQ ID NO 91

<211> LENGTH: 548

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1330918CT1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 481

<223> OTHER INFORMATION: a, t, c, g, or other

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<400> SEQUENCE: 91

tgccaccatg cccggctaga tacgattctt gttcagtaac ttagaataac ttttttttta	60
aaaaggggtgt ttgtgggtga attatgtttg agagacggag tcttacttgt tatccaggct	120
gttctccaac tcctggactc aggtgattct cctgccgcag ctacttgga gactgaggca	180
tgagaactgc ttgaacctgg gaggcggagg ctgtagttag ctgaggttgt gccactgtac	240
tccagcctgg gcaacagagc gagactgtct caaaaacaaa aaaaacaaaa aaaaacaaaa	300
aacccaaaat gtattctgtt ttacttagga agtgaatatc tatttgaaat aaaagtaga	360
ataaataaat tgaataaata aacatctttc tgaactatga aagatttttg tcagcagtgt	420
tcaagtataa aaatattgtg gccagggtgca gtggttcatt cctgtaatcc cagcagttcg	480
ngaaggctga gacaagagga tcgcttgagg ccaggagttt gagaccagcc tgggcaacaa	540
agtgagac	548

<210> SEQ ID NO 92

<211> LENGTH: 422

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1330930CT1

<400> SEQUENCE: 92

caagaaaaaa taaaaataaa cacacaagat aaacgttctt atgctgtcta aagctgcaag	60
aagtatacag tgtgaacaaa gaattctcat caaaaataaa taaaaataca gaccagggtgc	120
agtggtctac tcctttggga tcccaacact ttgggaggct gaggtgggag aatcacttga	180
gcccagaagt ttgagaccag cctgagcaac ataggaagac ctcatctcta caaataataa	240
taataaaaaa aatagctgga tgtggtagtgt tgtgctgta gtaccagcta ctctggaggc	300
tgaggtggga ggattacttg agcctgggag ttcaaggctg cagtcagctg tgagccatga	360
ttgcactact gcactccagc ctggacaaca gagggagacc ttgtctcaaa aaaaaaaaaa	420
aa	422

<210> SEQ ID NO 93

<211> LENGTH: 386

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1330957CT1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 371

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 93

tcaagcataa tcattgtcct cagagacctt ataataaat tgataagtta acatttactg	60
ataaatagtt aagtgttaac ttgtacgcta cctgccaggt aagcttttaa aaagaataaa	120
attgttatgg attggaatga ttaggtcata aaatctttat gaccaagttt gggcattagc	180
tagacctcta agtggcatag cttttcaagg ctggagggga ggaggaacag atcaggggatg	240
gatgatcatg cagtcagtggt tgggactgtg tggacatact tgatttgga agtaggtagt	300

-continued

aatctaggtt gcaagagaaa tttcctgcaa gagactactg agagataaaa ccaggaaaaa 360

aaaaaaaaa naaaaaaaaa aaaaaa 386

<210> SEQ ID NO 94

<211> LENGTH: 736

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1330969CT1

<400> SEQUENCE: 94

tgaaatatatt agctgttgac ttaattgggg ggtggcagaa attcaattac attatttagc 60

ttcacatcac aagaagtga ttactctttc ttttacattt ttagattaaa agtaataaag 120

ttctctaaca gcttaaagtg attcatttca gaagtcttta tcctcaaggt aggcttctta 180

attatttctca gaggaatca aatcattcgt ctaataatta tagggaacct ccatgggtac 240

tcttacatct gtccatttct aaccatcttt actcctatct tagttcttgg ttactacat 300

caggcaccta aagagagatt tctagcatta atctcagttg tctcaagtga ttatctccac 360

ttgtttctca acgatctttc agtggccgtc atttttctaa agtgtaagag ctttgggtact 420

ataatctcat tcccttgaga atgaaacctc gactccttaa ttgtgcaaaa ttatctggtc 480

agcctcactg cttatttctt cgtgcctgcc ctatagcaag cccctccaat tatgttctag 540

cgatattaaa tcaatttgca gatgcccgaag tgttttgtac tccctctgac ctgcctgttc 600

ttcagggtctc acttcagatg ttgtcttttt ctgaaatcc taaaactatt agtcgctcct 660

aacatctgga aacttgata ttgtttcatc atttaagtga atttaatatc aataaatcat 720

ttatgtattt gtaaaa 736

<210> SEQ ID NO 95

<211> LENGTH: 555

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1331030CT1

<400> SEQUENCE: 95

aagtatgact ctgtatgtaa aaaaacagac catgtgtcaa aaagaaacca gaatcattaa 60

aaacacttga ttaattttaa aaggcagaaa agggatgaag ggaattaaat aacagatgtg 120

gtatagaaaa caaatagtaa gatgatagac tcagatgtac tgtatcagta atcacattga 180

atataaatgg tctgaataac catttaaaaa acagagattg tcagattgga tgaaagaatc 240

cctactatat ggtgcctatt aaaaaatgta ctttacagtt agcaacttaa aatagggttaa 300

aagtaagaag aatggaaaaa gataaacttt gttaacactc ataaaaagaa agctggaggg 360

gctgtactaa tagcagacaa aatagacttc agagcaaaga atattaccaa gggtaaagaa 420

agtcatttta tgataaagta ggggtgaaat gttccaacag atataataat tctaacatt 480

tatgcactta gtaacagagt ttcaaattag agcaaataaa acctgataga actgccagag 540

gtagtcaatt acaca 555

<210> SEQ ID NO 96

<211> LENGTH: 555

<212> TYPE: DNA

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<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1331172CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 211-260, 278, 449
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 96

agcaactatc agcttctctt ctacttcagg aaatgaagaa gctgcataca ctacagttat	60
ttttaaaaga ctaataaactt ataggtcattg gtagtttttt tctatagtgt tattaccatt	120
attatcttct acagcagtaa aaattgattg ttgagatgag cagtgtgaga gaccctcaaa	180
ttcaggcacc aggactaat ctcccatcta nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn	240
nnnnnnnnnn nnnnnnnnnn agagtatatt aagctgcnaa ccatcttcct tctttgtaag	300
tttccgacaa attttctgaa tgtccatgga tgtaccacaa tacatccttc aaagtgaagc	360
tgcattttta agttataagt ctttaagtctg tgaccatctg tcacctgttt tggtcctctt	420
taccatattt gcattactgc tataattana ataccctcac acatagctcc acatgtaaga	480
tttgtgtttg tagtaaaactg gctaaatact gtttgggata catactggga tccaggtaaa	540
tgggtgaaaa gggcc	555

<210> SEQ ID NO 97
<211> LENGTH: 400
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1331278CT1

<400> SEQUENCE: 97

cttgaaccca ggaggtggag gttgcagata gccgagatcg caccattgta ctccagcctg	60
gtgacaagag caaaactccg tctcaaaaaa aaagttaaca ggttcacaaa aggttgttta	120
gaagcagcat aggtgtaggg gactggggag aggagaaact ggaaagtgtg taagtaggat	180
gggaggagga aatgaacagg aaataaaaac aaaacacgga cagcaaatag cccatttcat	240
cagttcatga agccactaaa tattttatct actttagcaa attctctgct atatgaaata	300
aacataaaaa agaagtcaag tcttcaaaagc ataactctgag gctttagggt gacagtaata	360
aggaaatagt ttgactttg gagtcaaaaa agactaataa	400

<210> SEQ ID NO 98
<211> LENGTH: 396
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1331316CB1

<400> SEQUENCE: 98

gaaaccatta attctaagag tgtttctgga ataaaagtgc tatatcattt attagattct	60
acttctttga acaagatttg ttgacataaa agtaaaacat ggccaggtaa ggtggctcat	120
gcttataatt cccgtgcttt gggaggcaaa agtaggagga atccttcttg ccaggagttc	180
aagaccagcc tgggcaatat agcaagacct tgtctcttaa aaaaaaaaaa aaaaaaaagt	240
attagctgga tgtggtggca cacacttaca ctcctagcta ctcgggatgc tgaggcagga	300

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ggagtctttg agcccagaag ttcaggctgt agtgagctat ggtcatgctg cagcctggac 360

aatacaggga aacctcatct caaaaaaaaa aaaaaa 396

<210> SEQ ID NO 99

<211> LENGTH: 578

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1331330CT1

<400> SEQUENCE: 99

aaccacccat aagaatgttt atatttaagc tacagtagaa aggagcatgt gagtgactat 60

ttagattata gttactgctt aagaaatact tctcctttcc ctcttttgtg tatatctagt 120

ttagaattga ggccaataag atatcatctc aaaatactcg agtgcttccc attattttatt 180

atctgtaata tactagatat ataatttttg acatcatcct gcagttgaat gttagctaaa 240

ataatcatat tactttgtct aaatgtagta tgagatcctt taaatatatt agtaataaaa 300

cttcctttgg ggccggggcg ggtggctcac gcctgtagtc ccagcacttt gggaggctga 360

ggcggggcga tcacgaggtc aggagatcga gaccatcccg gctaaaacgg tgaaaccccg 420

tctctactaa aaatacaaaa aattagccgg gcatagtggc gggcgccgtg agtcccagct 480

actcgggagg ctgaggcagg agaatggcgt gaacccggga ggcggagctt gcagtgaagg 540

gagatcccg cactgcactc caacctggca gacagagc 578

<210> SEQ ID NO 100

<211> LENGTH: 562

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1331371CT1

<400> SEQUENCE: 100

gttatttttt tatttgcaca tggtaaaatt tgctttttct ggtgtacagt tttgtgagtt 60

tgtacacatg cacagatttt tgtgaccacc aacacaaaca ggatacagaa taactccagc 120

tccccgaagg ccactcttga gctgcccctt tattcagacc ctgccttcaa cccttactcc 180

ctgaactgtg gaaggagtct tcgagccaca cacagccatg gtcaagggtg aaactccgca 240

gctacggggg cttcagcaca acctctggcc actaagtggc ttgtgctgtc ccacaagtga 300

tccctagcga gttagactaa aatataaaaa caaggggaaa atctgagtgg ggctggcagc 360

tgcgcaactgt aggggaatag acttcagaga atcattaata gttcaaccaa gtacccacac 420

aattaagtga cagctgcagg cctctgggaa gtgggagtat cagtgaagcag attgttacag 480

ttattaatta gaagatccag ttttcaatga aaaattataa gacatgtaaa gaaactagct 540

cgtgtgaaca cacatgggcc cc 562

<210> SEQ ID NO 101

<211> LENGTH: 428

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1331411CT1

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<400> SEQUENCE: 101

gcgggtgtga gccacatgc ctggcctaaa tcctgttagt tttgaatga aattttcttt	60
ctttcttttt tttttttctg ggacagattc ttgcttcgag acaatgacaa atacaaacta	120
ggtttactgt aaatatgaga aagggaaaaa atacttttat tgtattagaa gacttgaaat	180
cacatgaagt gataccaatc ttttggtgtt gttggtcaga tgttttagct attttaggtg	240
tttgggtttt ttgtctttct acataactgc taacctgtt agtatctgca gaatgcctta	300
attaggaagg gtattaaccc tatgtgtcag atttgataa ttcattatgc ttacatgga	360
gtcttccaat aaatgtatat ggtataaaaa aaaaaaata gaaagggtt taggagaaaa	420
aaaaaagg	428

<210> SEQ ID NO 102

<211> LENGTH: 769

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1331481CB1

<400> SEQUENCE: 102

tgagagtcac cgtaaacaaa tactgttgga agaagagaa ggagggtgtgt gtggcaggag	60
tgttgagagc cagcaggtgt gtctccatat gacattgcac aggtaggtag gagccagatc	120
tcattgttag ccttgtagag catgatagct tctcacttat cctttggaag ggttttcagt	180
agagaaatga cattatgaga tttatgtttg aaatgttcac tcactacatt tgtgatgaga	240
caagaatgga tgcagataga tcattaggaa agtagtatag tagctcagaa aagaaatgat	300
ggtaattcac tctactgcta gtgtggtagc agtagagaga agtgggttga ttagagaacc	360
ctgtagatca gaaagaaaaa tgaactatgg agttgggtga gatataggaa ggagtaaatg	420
atacaataat gtatcttaca tatgactaga aacggatatt acataaaaact ttctagtggg	480
ccaggcatgg tggctcatgc ttgtaatccc agcatttagc taggctgagg taggaggatc	540
acttgagccc aggagtttga gaccaacctg ggcaacatag tgaactgta tctctacaaa	600
aaaaaaaaat ttttttttagc tagctagggtg tgggtgtgtg cccctggagt cccagctaca	660
tgggtggcct tggcgggcag atggcccag cccaggagtt tgaggctgca gtgagctata	720
atcacaccac tgcactcaa cctgggtgat agcgtgagac ccagactca	769

<210> SEQ ID NO 103

<211> LENGTH: 836

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1331917CT1

<400> SEQUENCE: 103

ctgacttaag ggtcctgcac aaccctgtta atgatatcca cgaataaaga attttctgtc	60
ccctaattgc tgtggtgcag tgagcagtgg ggaataattg ttatcaaaat gaaactaaac	120
cctataagga ttcacagagt cacaatactt ttgaccagca ttcattgaaga agcccttact	180
tatgggtccg aggggcagtg tggaataaat tggccagtag atatggggcc catgaacctc	240
acctcattag tgtccacctg gcaactgactg atcagcacac tataacatca tgagaaagat	300
ggcgggaaga tccctggtaa ttatacatth ttacttacgt agcaacaaag gagagagcgg	360

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gaagctagaa ggcagcagga acgtgaacag cgaaggagag aacaagaaga aaagaggcgt	420
ctagaggagt tggagagaag gcgcaaagaa gaagaggaga ggagacgggc agaagaagaa	480
aagaggagag ttgaaagaga acaggttagt tcacagataa catagcaggc atacacttgt	540
gaagtttgtt actttgcaga gctgggggat ttttagaaag tatacacaca tgtgatgcat	600
acacacatgt acacacatac acatatactt agaacttcag atgtatgaac gtggtgaaac	660
acagttggaa tgacaccaat aaattcagtc tcttgtctta aaaagggttt ataaatcatt	720
acactttagg aacctgttga aaccagttaa gtggtctcta aatagtataa tacctgaaag	780
atgtctgcat gtatcttctc aggcttggct taaatgctgt agaccccaaa tatatg	836

<210> SEQ ID NO 104
<211> LENGTH: 591
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1332023CT1

<400> SEQUENCE: 104

gaaagaaaga aagaaaagaa agagaaagaa aagaaaaaga gaaagggaaa gaaagaaaag	60
gaaggaagga aagaaagaaa aagaaagaaa ggaaaaaaga gagagaaagg gaaagaaaaa	120
gaaaagggaag gaaggaagga aaataaagaa aaaagaaaga agaaagaaga aagaagaaat	180
cagctagctc aacaagcttt cttaacgcta agtgagagaa cttaagggca ctgtccaagc	240
tgaggggaca agtgaacccc agagcctagg attagtatcc agttcgggtc aacgcagaag	300
cccacgcgcc atgtctggctc cctacactgg tggccaccat gagaagcttc ggcctcgtcc	360
ccttgggtct cctcccaggc ctctccctgc cccaaggagg cgaacagggc tctgcttaac	420
gacagctctt gctggaccat catcggcacc gagtcggtgg aattttcctt cagcaccagc	480
ctgggcgtgt acccttgtaa cccggtcact acgggtgcct ctacatcagg cacctaagag	540
ccgagccaac agggggcgac gtaggccacg cttggagctc aacgggagag a	591

SEQ ID NO 105
LENGTH: 538
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc_feature
OTHER INFORMATION: Incyte ID No: 1332138CT1

<400> SEQUENCE: 105

ctaataataa gggtagaatg tggaaagact tagcacaatc attgtctaga tagactgagg	60
aataatcaaa aagattgtag tattttgctc tcccctatca tatggtgcta caaatattaa	120
tagatacatg aaagttttac agcaaatact acctgttcac ttctgtcacc tggcgttctg	180
ccttcccctc aaggaagcaa aacacacaca cacacacaca cacacacaca cacacacaca	240
cacacacaca cacacacaca cacacaccaa acacagagcg tgtcttattt gtggcaacaa	300
ggtaactttg tttccacaat agctagggca acaggagata tattgcagac gcaggaaata	360
taaagctaata aaaatggaat tttcatgctc tgtgtcccat ttgccccatt ttccctgctc	420
ttggaaaaat atgggcttct aaagaattta cagaatgttt ttcaaatgac attttattta	480
gaatatgtgt gctgtctggt tatcttctag cacaatgctt ggcacttagg tgcattgct	538

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<210> SEQ ID NO 106
<211> LENGTH: 568
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1332171CT1

<400> SEQUENCE: 106

gcccagcctg agtagttctg aagagcgtgt aggagtcttc caggctcgact gaatcaggca	60
gagggcctgg caagggtgac agagagaaa gtctagagga ttgggggaa gaggctgagt	120
gtgactcagg gcaagggtgcc ttacacctag aagtttctcc aggcagacct gcccagata	180
tctccatctg tgccatatgt ggctatactg gagggggagg ggagttgaat gtgagaccca	240
gagctcagct gtttcctgtt tccagcctct tctagcacgg gtctggggcc caattcagct	300
aacattttatt gaacagatat gccctgccto tctgtctcac actctatggc tggcattcac	360
ctgtggggcc aggtcgaaac tcctggcttg gccgtcaatg ccttactgga gctgctctgc	420
taacctcctg ctgcttcctc tcggacctcg attcagccat catgaattta ccagcataga	480
gcttggtgatt tcagcactcc aagcttttgc acatgctggt ccctgcccag aaagggtcc	540
tttaagccat gtccaagtcc ttttttct	568

<210> SEQ ID NO 107
<211> LENGTH: 1307
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1332391CT1

<400> SEQUENCE: 107

gctcaaagta gatcaggagg tcctgtaggc ctctgtaatg tagatgtctt atttatctgt	60
ggagatgttt ttaaccttca ctaactggag ttattctgaa cactagccag agaccttagg	120
gaaactgttt tagagcagag ttacacacag agccgggtgg ccctcacggc ctaaggcacg	180
atgacctttg tagacttata aaatggagaa tatgatacat gagtcttagc ttcagcatct	240
ccccagccaa agacctttga gcccagaaga accagacata ccagtgggtg aaacaaggcc	300
gtcttaagat cgtttaaata agagcagtca gcctggggcag aagcccagtc ttcacatttc	360
tcatcttaac caacgctccc aatgcctatg gtctgaatag gctttacagt gtatgaaggt	420
cttttcaagc acattctctg gattttaata gcttccagga ggtggtttgg ttgttgccac	480
tgctgtagaa gcctgcttag agtctcacag ctgatggaag cctccatcac ctcccagaaa	540
gtcagttgta ggctgtgtgc agaggccagc agcagcaaga tagtcacatt ctagcagagt	600
gtctccatcc actggctgct aagccacgga attcactcac cagcatgctg gccagatatt	660
gtgaagcgct cctgatttct ttacagaaac tcacgggata aacttgatag caggatggaa	720
ttttggactc ttaggaggtc tcccagtgtg gccatctca ctagtacat tgctttgaga	780
gtctgttaact aaccacccc caccgaaata agagcctgtc gcatcatttc aggtgcctga	840
tctgtgtaga cagtggaaat ggatggctct tgtcttgcaa agtttgctct ctacataggt	900
gtttaagttg gccctcaagc acgttaaata ttccaagttt gccagggcc atctctatca	960
ctaagtcttc ctggtcctct ttcattcgag ttgaggccgt cttcacctct gggctagtct	1020
aaggagggtg ggtgcttgcc ttgtggcgtt ctctggctgg tggtcagga agtgaacctt	1080

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cagagtttgg atgaactctg tcttatttga aaaggaccag cctggccaac atggtgaaac	1140
cccgtctcta ctgaaaaatg cagaacaatc ggctgggcac ggtggcggat gcctgtggtc	1200
ccagctattc aggaggctga agcaggagaa tcaactgaac ctgggagatg gaggttgacg	1260
cgagccgaga tcgcgccatt gcattccagc ctggatgaca agaaggt	1307

<210> SEQ ID NO 108
<211> LENGTH: 500
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1332480CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 482
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 108

ggaaggtctc ccaggaccca aaccggcat aacctgcctt ttccacctg agtctgcccc	60
agcctactgg ggtctcacag tgccaagacc aggggtccta cttggggaga attctccctt	120
ctgctaattg ctggttgtat tggctgtcac aactgcaggg gatcggggga gaagagtctt	180
attggcgtgg agaggggtga gccacgggac gctgttcagc accctgcagt gtccaggacg	240
gccccacaca tcaggaattg tttatcctga atgtcaacag taccaagggg gctgagcatg	300
gtggctcatt cctgtaatcc caggactttg ggaggccatg gctggaggat cacttgagac	360
caggagtttg agacaagcct gggcaacact gtgagacccc catctctaca aaaaaaaaaa	420
aaagaaaaaa agaaaaactg gccgggcacg gtgactcaca ccagcccag cactttgggg	480
gngcaaggca agcggatcca	500

<210> SEQ ID NO 109
<211> LENGTH: 481
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1332803CT1

<400> SEQUENCE: 109

cctatttgct tttctcctaa caagagcata ggtgttttac tgtgtgatcc ctgggattta	60
ttctacctta gccatttccc tgtacccttt tttaaggggc tcataatttc gttattcagt	120
aatccttagc tgttttcttg cctgtagtct catctcaaac tagcctaacc tacttgtctt	180
tagacttctt ctttacatgt tgctcttttc tggttagtcc cttctgttga aaaactggat	240
gttcataatc gtgagtgcga ttgatgtact tagctgattt tggtaataaa aatcaagtat	300
tttagagttg atctagtctt ttccctaato acataaagca acagttttct tctgaaatgg	360
gctgtatttt ggattacttg acttggttat ttcaattagt ttgcatttta gctaccaggc	420
atttttcttt gtaattatct tttttaaagc attccccctc aaacctaaaa aaaaaaaaaa	480
a	481

<210> SEQ ID NO 110
<211> LENGTH: 134
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

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<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1332830CT1

<400> SEQUENCE: 110

ctggctagca gttgagccag atttaagccc aggcccttga attcctgaag cctgaagtct	60
ttctacaaca ctgctggtcc caaccctggc catgcagcag gataatctgg tgaattacca	120
aaaaaaaaaaaa aaaa	134

<210> SEQ ID NO 111
<211> LENGTH: 563
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1332955CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 488
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 111

gctccctctg taggtttgca gggaggaaaa aagaatcact agccagatag gaattaaatg	60
caaacaaacc ctgaactgta aataattggg tcacatatga gctcatgatg tcttcatatt	120
agtatctgtc acagcaagtt ggacagtttc ttatgaaaat tggagtctcg gctgggcgca	180
gtggctcatg cctgtaatcc cagcactttg ggaggacaag gtgggtggat catgaggtca	240
ggagttcgag accagcctga ccaacatgga gaaaccccg tctgtctaaa aatacaaaat	300
tagctgggca tgggtggcgca tgctgtaac ccagctact cgggaggctg agacaggaga	360
atcacttgaa cctggggaggc agaggttgcg gtgagccaag atcacaccat tgcactccag	420
cctaggcaaa aagagtgaac ctccatctca aaaaaaaact aaaaaaaaaa aaagaaagaa	480
aatggcgnaa aaaaggggga gaaagatctc ttgaagaatg tggagggaga gaggagtggg	540
gggcatagta ggagactgga ggt	563

<210> SEQ ID NO 112
<211> LENGTH: 632
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1332966CB1

<400> SEQUENCE: 112

caagtactcc atagccacac gtggctagt gctagcccat ctctgcttgc tggttagggc	60
cttgcgaggc tgaatgttg gctcttattt tctcatttgc ctcagaatcc aaagctgggc	120
tttaggctgt cagctgttaa ggcattctaga gaaaggttg ctggagtgc gcgtgggttg	180
gcaccagtaa ccaaactctg ccgttctgta gaaccaggct tgtggggtgt ctctggaaa	240
gggaggtggg gtgtgtggct gataaggatc ttatctttag agattctctt aggcacccctg	300
tggttgatga gtgcttccca gatctttaa caaataaaa caaacaccc acacaaacat	360
tttacaaga aaaagaacaa atccatactt agaagtagaa tgtccactag gtcaaagtaa	420
gaacaagaga tgtgccagc ccaggactc atggaaatta gatcatgttg tcagagttga	480
tatcaaatag ggggaacata gcaaagatc ttcttcttat cccacaggac tctagttagg	540

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caaattctta tgttttaaag ccagctagga aatgcgtaaa taggggtgaa tgcccatggc	600
aagaaacagg aatcaggaaa aaaaaaaaaa aa	632

<210> SEQ ID NO 113
<211> LENGTH: 977
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1332981CB1 Contig6
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 972
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 113

gcaagaaaa aatcctggat catttaacat tcaatggata tttattgagg agcacttctt	60
aaacaccaga tactgtgctg ggtactagag cttcagtctt ttgatcatat tgcacaaat	120
gttattaatg gaacattaac atttgattct atttcagtgt aagctctttt agcccaaac	180
gttatacagc ttggtccata aaccttcagt tggttcagcc tgttcactta tgtttgtgtt	240
cagttgttga atgtttatgt gtaacaggca acatatgttg ggtgctcaga cagttttgaa	300
gatgaacaag aattggagag agttctccaa ttctctagct ggttgactgg aatttaccag	360
gtagatctgg cagctgtcta gtttgctggg attcctccca gaggagagta tagtcagcag	420
caatgtatcc cctttcctta ttctgttttg attgggccct tccctttgcc ctttacacct	480
tctccctaata cctgtctctt aaatttgaga caaatgaaaa ttagctcctt tgtattaagt	540
ttgggcagct ccacaggac agcacttccc tgatgatgcc ctaaagttag aaaccttcc	600
aggagaatct ctgttgccat gtaatcccag cactttggga ggccaaggca ggaggattgc	660
ttgaggccag gacttcaata ccagcctagg caacaaagtg agacccaat ctctttattt	720
tttgtttttc gacatagagt ctactcttg tcatccaggc tggagtgcag tgccgtgac	780
tcagctcatt gcaactccgc tcccggttc aagcaattct gcttcagcct cccaagtagc	840
tgggatgaca ggcatgtgc accatgcccg gctaattttt tttttttttt cttgtatttt	900
tagtagagac aaggtttcac catgttggcc agctggtcct gaactcctga gtgcaggcct	960
gtgccgaatc tnccttc	977

<210> SEQ ID NO 114
<211> LENGTH: 482
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1333006CT1

<400> SEQUENCE: 114

caggaaagaa gtggcagact gtcactctgag cccggcctgt cctgctgtct gctctctcca	60
gagagcatcc ttcatctga taaacaggct gcgagctgga catgtgactg agctccttaa	120
gacatgagtc ttcagtcctc tgccctcagc tttagctgaa gctggatgac agccacatta	180
agaggctttc tgcaagtggc ttttgatga aaagggggcc tctcaggtag tccactctca	240
cgttgcaggc tctgcagcag ctggtctatc tgggtggcact gggagtaagt agtatgggag	300
acctctccat gccggggctc cctggagtgt cctcctcata gcgtgagggt tcttctcagg	360

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gatactgagg ataattcaca atggctttgt agttgcaata ttcttttttt atttcttaag	420
tttctgtgtc ccaaatttta gtacaaataa acatttatat acatggcaaa aaaaaaaaaa	480
aa	482

<210> SEQ ID NO 115
<211> LENGTH: 417
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1333107CT1

<400> SEQUENCE: 115

gtgccactga agtcatctgt gtagtacata aaaaattgaa agtgctccaa ggtcctctga	60
gacaggagaa ttagattttt attctgtaag cttataaatt ttcgttgatt ccaactggtt	120
atctgaggca catgcaagtg ggggggggtt tctgcaaatg aacactaaat tttaattttc	180
ctctttttcc tcgatttagc ttgggacatc tgggtctggc ttttcttatt gtagttaagc	240
tgaatatatg gtgttgagtg tttctgtagt atataacaga gtctttcctt caactgaatc	300
tgaaccctt ccaagtcag aaggagaaaa aaaaactaac cctgaaagaa atcacttggt	360
tgactgtaat aatctgcaga aactgggttaa agcattaaac aaaaaaaaaa aaaaagg	417

<210> SEQ ID NO 116
<211> LENGTH: 603
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1333116CT1

<400> SEQUENCE: 116

gtcggggcgc ggcgttggcg ttggattgag ttctgtgagt tgactgggca ttctgcatca	60
caagggtgtg ctgggcactg gaacagccga agtcacctgg gagctgactg ggttggaactg	120
tccaggatgg ttactccta cgacagtgga tgctcaactg gggctgtcaa ctggagcccc	180
catagtgcct ttgtgaacat ggggttcccc aagttttcag cgggtgaagc cagcaggcaa	240
cagctcacac tggcattttg tcagtcgggc accttcatct tggcatttgg gcttccatcc	300
aggctgcctc agctcttttg aatgaacatg gctgcaaata agttcatcca cagagctggc	360
ttggcaggcg aaggcttctc agcccaagca gggggctcga tctgctgct ctcttttctg	420
tggcctcgga tccagccctc acttcttacc tccaccagat ttggagtttt cagagctaac	480
tgaggcttcg ggaaaagtgc tgtgtttgga caaagctttg caataaggca gatctgggtt	540
tgaatcatca atttatttta tcctgaaaac ctcaatttta tctgtaaaat aaagatgatg	600
att	603

<210> SEQ ID NO 117
<211> LENGTH: 409
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1333133CT1

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<400> SEQUENCE: 117

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ggaaagtcaa agaatgaaca aatagacact tcttatctag tgagcaaagc ttgagctctc      60
cctccatttc ttggagatct gaggcattgt ttacataact agtgtgaaaa tctttctggg      120
ctggcatagg agttacacag ttaattagat cataccctaa atatttaatg acaacaatat      180
gttctaacaa tattgtagaa atatttaatt ggagagaggt atatcagggg atctaaaacc      240
gattgcagaa aagatatagt tatctgagac tgccaacac agcaaggcat ttctcctggg      300
cagttcctat ggtttttagat attgaatatt gcttgatttc ttacacttgg ttaagaaac      360
tactaatgat ctcatcatgg taaacaccca aaggagaaga aaaaaaagg      409
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<210> SEQ ID NO 118

<211> LENGTH: 455

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1352448CT1

<400> SEQUENCE: 118

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tttcataacg actgccccct cttcggtctt tttgtccaag gttacggcat ttctctcttc      60
tgccgcctac tttctggggg tgggattgga gggcccatcc ccattgtctt ctccattttc      120
tccgagtttc tggcccagga gaaacgaggg gagcatttga gctggctctg catgttttgg      180
atgattgggt gcgtgtacgc agctgctatg gcctgggcca tcatcccca ctatgggtgg      240
agttttcaga tgggttctgc ctaccagttc cacagctgga gggctctcgt cctcgtctgc      300
gcctttcctt ctgtgtttgc cattggggct ctgaccacgc agcctgagag ccccgtttc      360
ttcctagaga atggaaagca tgatgaggcc tggatggtgc tgaagcaggt ccatgatacc      420
aacatgcgag ccaaaggaca tcctgagcga gtgtt      455
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<210> SEQ ID NO 119

<211> LENGTH: 471

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1385827CT1

<400> SEQUENCE: 119

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caaatattta acagaactaa tggaactatt ttagtatgct tccccctggg ctggagtgtg      60
ggctaagact ttattttaat acaggatgga tgggtgtttg actgaagatg cctccaactt      120
ttgctcttct gttttttatt tgatgtgctc aagcttctaa tccccctttt tgttgttgtt      180
gttggtgatt tttgggtttt gagactccgg cctgggtgat ggagcaagac ctcgtctcag      240
aaaattggaa actattgact aagagaagtt tctaggtttg cactgaattg tcttttgtac      300
atacagttaa ttgttttctg gttctcccca ctccatatta atgcaggagc caggttggtc      360
tgtttaggat acaaaagggt gaggggaggg caggattcgt gcatctgggg gccaaacaca      420
tgttccgtct tgattgcctt aagagttact agcgaggcca gtgttaggct t      471
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<210> SEQ ID NO 120

<211> LENGTH: 242

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

-continued

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1385922CT1

<400> SEQUENCE: 120

```
tgggtcatgtg agttaaattc gaatcctcta cttgtatgac cctaggaata gattggaata    60
ctgcagagga ccaaagctga ggcattgctaa acagctgctt ggaggtggaa gcaagttcag    120
tcacctactc agcttcctct ctccaccacc cagttcctcc ctcatgtatca cattatTTTT    180
ttctttctgct ttctattaac ctaactcatc tcatcagtac aaccattttc ttattctcta    240
ag                                                                    242
```

<210> SEQ ID NO 121

<211> LENGTH: 234

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1386485CT1

<400> SEQUENCE: 121

```
cataaaccta ctttatcatc ctctcctaaa gaagagaaga tttagctaga ataattatta    60
acagaagatg tggagatata gaagaaacta gaaaatatct cacaatcaat acatctttca    120
agcagtcaat cattttgtcac tcatattgct tttttaaac cagctttaca tggaaggaa    180
aaatggaact ccagtttggt ttttcttctt ttttttttt tctgttaagg caga        234
```

<210> SEQ ID NO 122

<211> LENGTH: 486

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1386553CT1

<400> SEQUENCE: 122

```
gtattatatg gttaagtcag cctatcaata gggctttgag aaattgaaaa atagccccag    60
ttaaataaca acattaagcc agtctcagtc tcccaaagtg ttgggattac aggtgtgaac    120
cactgcacct ggcccaaat ctcttgattg atacagtcct ctttattttt caagatcaag    180
ttatgatacc ttaccacaac gtcatacatt cttttggaac ttgcacaat agtcatatgt    240
tcttttagaa ctttacactt ctattcttta ttgccctgta ttataattgc ttgtatgcct    300
gactcctcta catgactgta tggtttgaac caaagtgtac gggatgtcgc acagtgtcta    360
gtagtgtcac acaacaagta ataggtatto agtaagttag ttaagatgaa atagtaacat    420
gaaagagtgc ttgaaagca gttttttaaa gagtttctgt tctgctaatt gtaagccatt    480
tttaaa                                                                    486
```

<210> SEQ ID NO 123

<211> LENGTH: 250

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1386660CT1

-continued

<400> SEQUENCE: 123

```
gtctgtgtac catcttacct ggaatagaga ttgtgttaaa ttaacagatc atctgactga      60
gagggtttttt tccccaaaa cagaagcaaa taaacattat tttgttcctt tggataact      120
ttcattgaac agttatatag tgctttggaa gtatcaagtc ctgtgctaaa taaatgctgg      180
agatacaaaa gcccttgacc tcagaatgtc atagtcttgg ggtaagaaaa aattcattct      240
gtgcccaggg                                     250
```

<210> SEQ ID NO 124

<211> LENGTH: 270

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1386859CT1

<400> SEQUENCE: 124

```
ggaaactcca ggctcctggg ttttccttgg gcggggaaaag agaagactga aacatctgtg      60
tgacattcag atttttcaga ggtctgccca agggctctggg ttttattttg cttgaatata      120
agttctgaca ggaaagggca ccagggttgcg gggtcattga aaacaaagt gacagtttag      180
attagcaggc actcaccatg gtccctcccc ctccctcagc atgaaaccag caggagaaaa      240
tcttcagctc tgggcttccc ctggggaaga                                     270
```

<210> SEQ ID NO 125

<211> LENGTH: 238

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1387302CT1

<400> SEQUENCE: 125

```
agcgatcaaa tcggaaagggt aaagatgaaa tgcttttcct gtttcttgat ttttatctac      60
cagcaataat atgaggcaca ctcgtaaagt aaaggtttgc attatattta caattaaact      120
ctagaaaagc ataattctga gctaaatatt ctgcctaaag aatctctttc acataatcct      180
tcctggtcac ttgctccttg cactcacaat ttgtttctta attoctatgc tttttatc      238
```

<210> SEQ ID NO 126

<211> LENGTH: 457

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1388063CT1

<400> SEQUENCE: 126

```
cacaagttaa aacttcccat gtataaaaac acttacattt taaaacatca ctgccaaactg      60
tgtgtctatg tgggagtaca gatgtgtata tacagacatg tacattttta aagacttggg      120
tgtctctgca gtgaagacaa tatgttttat tttttattcc atatacttct ctgtattttc      180
tatattttgct tcaataagct ggtgtaactt ttaatttttt taattaaaaa aaatttagcg      240
taaaattaca cttaaacatt agcagctgct gctgggaaaa catggacaaa ttgcccaggc      300
agccacatta gaagaagaca gtcatttgaa tacagttata tacttatttt tattgagaca      360
```


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catcttgctg tttcacccag ggttttgctc tgttgccaca gcttaactgc gccgtgaacc 420

gggctcaagt gatccctccc aactcaggcc cccttcc 457

<210> SEQ ID NO 127

<211> LENGTH: 694

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1422814CT1

<400> SEQUENCE: 127

tttcctaat atttaaatta ttccttataa accagtagaa aagctttaac aacataacag 60

aaaaaatggga aaagactatg aatagacggg acccagaaaa gcacatacaa ataagtggct 120

attttactac acctttactt tggaaaactt caaacctgta ctaaaataga atagggcagt 180

gaacctccct gcctgcaccc atcactcagc gtcaacattg atcaactcat gggcaatctt 240

gttttatcta ttaccactcc ccctgcccc cgcctccctg acagctccct cagaaatacc 300

atttccacct accagattga caaagattta aaaaattgac agactttggt aaagaaaaag 360

ttaaaaaaac aggaagtctc atacattgct agaaggaatg taaattaatt acaatcccta 420

tagagagcaa tttgttctta cccatcaaaa ctctaaacac ttctatccag aaattctgct 480

tcaatgattt tattatgcag ctgtacttgc acgtgtgcaa acagcacatc cacagtattt 540

aattataata gccaatattt ggaaatacct aaaatgtgaa aactttgcag ctctgaacaa 600

aaataaggaa actatattga tatggagtgt totccaaggt gtattggggt gaaatgcaag 660

gtgcagaaca gtgcaagcaa tgtaagtccg caga 694

<210> SEQ ID NO 128

<211> LENGTH: 80

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1423820H1

<400> SEQUENCE: 128

atgacattgg ttgcctcagc cctgaaaagc tatgtctctg cattcttagt tttctttggt 60

tttctttttt ctttttcttt 80

<210> SEQ ID NO 129

<211> LENGTH: 521

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1429651CB1

<400> SEQUENCE: 129

gagaacttta cgcttgatc tcatctaact gacacagaaa cctgtaagg atccagaggt 60

ctcgttcagg accatggaga gcggcaccag cagccctcag cctccacagt tagatcccct 120

ggatgcgttt cccagaagg gcttgaggcc tggggacatc gcggtgctag ttctgtactt 180

cctctttgtc ctggctgttg gactatggto cacagtgaag accaaaagag acacagtgaa 240

aggctacttc ctggctggag gggacatggt gtggtggcca gtgggtgcat ccttgtttgc 300

-continued

cagcaatggtt ggaagtggac atttcattgg cctggcaggg tcaggtgctg ctacgggcat	360
ttctgtatca gcttatgaac ttaatggctt gttttctgtg ctgatgttg cctggatctt	420
cctaccctac tacattgctg gtcaggtcac cacgatgcca gaatacctac ggaagcgctt	480
cggtggcatc agaatcccca tcactctggc tgtactctac t	521

<210> SEQ ID NO 130
 <211> LENGTH: 548
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 1436525CT1
 <220> FEATURE:
 <221> NAME/KEY: unsure
 <222> LOCATION: 462, 477, 493, 496, 499, 520, 528
 <223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 130

cttctagcta aagcttcgga tcattttggc aaattccaaa aaatgtcttg ttggacagct	60
tttggttggtg attgcattgg atttataatt taatctagag gactaatgac aaaacaactt	120
tcagccattg tggctaacct ttatcatgt cctggaacgt cttggacata gtctaattgt	180
ccacctcatg tacgccatc tgaatgacac aatgccagg ctttggctta ctttggctcc	240
ctttgtgcag gtgacatctg agtgcatagc acctacaact tgccagccct gaaacagctg	300
tcataagaat ctcaattgta ctcaaacag ttcttcagct tagatcattg tcctgtgtta	360
cctaatacagg ctcaaaaga tgaattagt accacaaagt taaagaacta gtacatggtg	420
gctgagattt aagccagatc ctttgtgact ccaaaagctt antttcccct ttcaatncac	480
ttggtgttat ttncnaanc ccccttgggt aattaaaaan cccttctnac ctgggataca	540
ggttactt	548

<210> SEQ ID NO 131
 <211> LENGTH: 567
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 1453124CT1

<400> SEQUENCE: 131

tgactctggg gaacattcta cccgtttcca aaaatggaaa tgctcaggtc aatggacctg	60
tgatatccac ggttattcaa aactattcca taaatgaagt ttctctattt ttttccaaga	120
tagagtcaaa cctgagccag cctcattgtg tgttttggga ttccagtcac ttgcagtggg	180
acgatgcagg ctgccaccta gtgaatgaaa ctcaagacat cgtgacgtgc caatgtactc	240
acttgacctc cttctccata ttgatgtcac cttttgtccc ctctacaatc ttccccgttg	300
taaaatggat cacctatgtg ggactgggta tctccattgg aagtctcatt ttatgcctga	360
tcacgcaggc ttgtttttgg aagcagatta aaaaaagcca aacctctcac acacgtcgta	420
tttgcatggt gaacatagcc ctgtccctct tgattgctga tgtctggttt attgttggtg	480
ccacagtggg caccacggtg aaccctctg gagtctgcac agctgctgtg ttctttacac	540
acttcttcta cctctctttg ttctctg	567

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<210> SEQ ID NO 132
<211> LENGTH: 566
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1460891CT1

<400> SEQUENCE: 132

```
aaaagacaat ctttacatat taggtaactt tatgcaatta aaatgcttct cttcacaaaa    60
attaaaaatgc ctttccatgt ttccgcacta catctgcaca ctgaagcaac cacatttgct    120
gttagaaaaag tactcctact acctaatttc tggttaaacc aaggcctgat gttttctgct    180
tccatttgta gtgaggggtac ttgtatcct ataagcgagg gactataggg gtttctttgt    240
tcaaattttt cccacatccc tgagaggctg acatgtgttg ctgtgaccac ttaattgatc    300
ccagcacttt gggaggccaa ggtggatgga tcacctgagg tcaggagtgc gagaccagcc    360
tggcgaacat ggtgaaaccc tatctctact aatgatacaa aaatcagcct gttgtggtgg    420
caggctcttg tagtcccagc tacttgggag gctgaggcag gaaaattgct tgaaccagg    480
aggcaaaagt tgcaatgagc caatattgtg ccactacact ccagcctggg caacagagtg    540
agactccatc tcaaaaaaaaa aaaaaa    566
```

<210> SEQ ID NO 133
<211> LENGTH: 632
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1465590CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 559
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 133

```
cccacgcgtc cgtattacta atatgtatac tagtgttatc ctacaatacg tttctatttt    60
tttttttagc ttcaataata tagaaaaatt gtatgtgttg gtgttcttaa ctggatactc    120
ttttaaggtc acttgtttcc attttacttt tgatttttag agtttgcggt tttaaaatga    180
gttttataat tggtatgtat tatttatatt tgtatgtttc ataattaact ctttttaaaa    240
aaatagagggt ttagtcattc tttcagaaaa tgttgagatt agcaaactcat gctcaaagat    300
aggaattaaa ggttgtaaaa caaaaaaaag aaaagaaagc gcagaagaag aggaaaggaa    360
cggtagacag aagaagagaa cagtagattg cgagagaagg gagaggaagg cgagagtcac    420
cggaagagaa agaacagagg ggcgccgcgc cctctggggg gtcccagggt gtttgtaggg    480
ggtcgcgttat gggggggcat agggcctctc ccagagaggg ccccgccaga atttcagtg    540
ccggggggcg ggtcggttnt caaaagggcc gggaactgtg gaaaaccctc ggggggtgtcc    600
ccacacttta aaggcccttg ggggggggca ga    632
```

<210> SEQ ID NO 134
<211> LENGTH: 395
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

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<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1466523CT1

<400> SEQUENCE: 134

```
gactggctca tggcctctgt aaatggctgc tggcgggact gtctgcctag cgggtgccct    60
tggaacctag cccttggtgg gttttgagga aatgattcct gaatgaggag tcgattgccg    120
tgtgaagggc tggtggcacg gcaccgcgt gagctacgcg tgccctcagt gcgcttctgg    180
attgactggc catgggtgct cacagacatg cacattgtgc caccacattg cagtaacccc    240
catgcttttg taggctgaag atgaggaggg gtacgcaagc tcatcgacca gaagaaggac    300
aagcgcttgg cctaccatct tgcagcagac agacgagtac gtggctaacc tcacggagct    360
ggtgcggcac acaaggctgc ccaggctgcc aagga                                395
```

<210> SEQ ID NO 135

<211> LENGTH: 480

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1466902CT1

<400> SEQUENCE: 135

```
caagataca gccgttgtat ttaaggggtt gagggacaaa gtagtgaaga actgtaagat    60
attcaatata gtgtattgat gaattagaat tgtatggaaa gataaaccgc agaaggtagag    120
agtcttgtat aagtaaatcc ttacacatat aactttgctc ccaagtaaca tggaacacga    180
ggaattctgt gtgaatcagt gaggaccata tctcataagg ctaaatactc ttactaaccg    240
atagcgcata gtaccgtgag ggaagggtga aaagaacccc tggaggggag tgaaatagaa    300
cctgaaattg tgtgcttaca agcggtcaga gcccattagg gtgatggcgt gccttttgga    360
gaatgatcct gcgagttacg ttaaaccggc aggttaagta taacggagcc gaagggaaac    420
caagtcttaa tagggcgata tagtcgtttg gcgtagacgc gaaacctggt gatctaaacc    480
```

<210> SEQ ID NO 136

<211> LENGTH: 502

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1468040CT1

<400> SEQUENCE: 136

```
atcaccttac aacctatttc tcagaacatg tttctattgt taaacaacac acaactattt    60
tatttatgtg ttttatttat gcctgatcac caatatcaat aactgaaaca cagcagttta    120
gtaataatth aatacacacc ataacctgcc tattgagaat ggcattatat ttgttttcat    180
tgtagtggtt ccatccaaaa taaaatgatt tttttccttc cttcaggatg aaggcaagca    240
tttattccta cggctctggat tcctcatatc acctacaagt taactgcttt tgtgttctaa    300
gagaggaaaa atgaagtcaa cttatttgaa aaacaaggag gaaaactaag gaacatgctt    360
ttgcttttga ggttctagtc cagaagtcac aagctgtaac ttgtccaagt tatggccaag    420
cagatatgth ttgtttggcc cacatggagt atattttttc taattgaatc aacattttta    480
aatatgatga ttttaatatth at                                502
```

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<210> SEQ ID NO 137
<211> LENGTH: 978
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1480833CB1

<400> SEQUENCE: 137

aaaaaattga aaaggcaaat gtgattgaat atctgaaaag ctttaaaagt ggcctttctg	60
ttacgtctgt ggcacaaatg gctcatgagc gcaggacact tatggtcttg tgcctatac	120
ttcatgtgtg atgccaccag aaatgttatg gattccgtat tgaacacact gagagtggta	180
tgagccctca ggactgcacc acagagtaaa cacaaccttg atatggtggc gaatatgtgt	240
gtctttcttg tttcatttgt ggttggggac aaaatcgatg tatttgtcta aatagtcgat	300
attcatctta acatggttgg ttgtgtaatc accagctata ttgtgaactg tgcaataaaa	360
cagaagcggt ttgtgtatata attaccttg gatacctgaa attoccaaagc ttggttacia	420
tgtaatgctc agtataaggc tgtgcaaaca tgtaaggga taatggtggt cgatgggata	480
tatgaaatgg gatctagagg gcttcgagtg aagccaatca tgttgaacga acactggttc	540
agtgtagatg aagtagagtg aggcgtatgc agtcataaaa tgaagggtgg acaggagatt	600
acatttgaag aaaggataag cactcagact tggctctctt taaattaaaa tatttctttt	660
ctcatgtgca aatgtatatc aaagacttga acaggatttc tcttgaaatt tgaggatttt	720
tagtttttaa tgctgtcttt gcttaatat aaatatgtgt tgcctatttg ctcccaaatt	780
gtgtgggagt ctctaaatgt ttccctcttg aggttcatta ttgaaagtgg ttaagtgcac	840
aatgctattt ttgtttgata gtttgagttt tatgacccta tgagtttaaa tgaaatctgt	900
taaatgtttc agagttaaca cttttttttt gataatttgg aataaagttt gttttttaag	960
ccccaaaaaa aaaaaaaa	978

<210> SEQ ID NO 138
<211> LENGTH: 851
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1516908CB1

<400> SEQUENCE: 138

gtggcatcca ccattaaggt taagtgtggt gtgccctgtg agtctgaatg tctacttaag	60
aaccttaagt agacattaag aaccttaaga aggttttttg tttgttttg tttttttgtt	120
gttgagatgg agccttgctc cgttgcccag gctggagagc agtggcgcaa tctcagctca	180
ctgcaacctc tgctctccag gttcaagcaa ttctcctgtc tcagcctccc gagtagctgg	240
gactgcaggc gcctgcccc aagcccggct aatttttggt tttttagtag aaatgggggt	300
tcaccttggt ggtcaggctt gtctcaaact cctgacctca ggtgatccac ccacctcggc	360
ctcccaaagt gctgggatta caggcatgag ccactgtgcc tggccaacca gtgttttttg	420
ttgttgtttt gttttgtttt gttttggaga tggagtctct ctctgtcgcc aggttgaggt	480
gcagtgcgc catctcagct cactgcaacc tcacctccc aggtgcaagc gattctcctg	540
catcagcttc ctgtgtagca cctgggatta cgggcgcgca ccacctgcc caagtaattt	600

-continued

ttatatTTTT agtagagaca gggtttcacc atgttagcca ggatggtctc gatctcttga	660
ccttgatgac caccacctc agcctccaa agtgctggga ttacaggagt gagtactac	720
acctggctgg ccgccagtgt tttttttttt acctccatgt ggtccctccc tgggaggcct	780
cctttgagaa acataactga caagtccatt ttgtccagcc agggctcctt ttattcattc	840
aggggtgggt t	851

<210> SEQ ID NO 139
 <211> LENGTH: 1760
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 1518320CT1

<400> SEQUENCE: 139

cccagttcca aatgaggccc ggggaactg ctcccacccc ttcggtgcct ttaggtacca	60
gtcagtcctgc agcttcacct gcaatgaagg cttgctcctg gtgggagcaa gtgtgctaca	120
gtgcttggtct actggaaact ggaattctgt tcctccagaa tgccaagcca ttccctgcac	180
acctttgcta agcctcaga atggaacaat gacctgtgtt caacctcttg gaagttccag	240
ttataaatcc acatgtcaat tcatctgtga cgaggatat tctttgtctg gaccagaaag	300
attggattgt actcgatcgg gacgctggac agactcccca ccaatgtgtg aagccatcaa	360
gtgcccagaa ctctttgccc cagagcaggg cagcctggat tgttctgaca ctctggaga	420
attcaatggt ggctccacct gccatttctc ttgtgacaac ggctttaagc tggaggggcc	480
caataatgtg gaatgcacaa cttctggaag atggtcagct actccaccaa cctgcaaagg	540
catagcatca cttcctactc caggggtgca atgtccagcc ctccacctc ctgggcaggg	600
aaccatgtac ttaggtcatc atccgggaac ctttggtttt aataccactt gttactttgg	660
ctgcaacgct ggattcacac tcataggaga cagcactctc agctgcagac cttcaggaca	720
atggacagca gtaactccag catgcagagc tgtgaaatgc tcagaactac atgttaataa	780
gccaatagcg atgaactgct ccaacctctg gggaaacttc agttatggat caatctgctc	840
tttccattgt cttaggggcc agttacttaa tggctctgca caaacagcat gccaaagaaa	900
tggccactgg tcaactaccg tgccaacctg ccaagcagga ccattgacta tccaggaagc	960
cctgacttac tttggtggag cgggtgcttc tacgataagg ctgataatgg gtgggacgct	1020
cctggccttg ctaagaaagc gtttcagaca aaaagatgat gggaaatgcc cttgaaatcc	1080
tcacagccac cttaggaacat atggagtgtt tacaaacgct gcatttgacc cgagtcctta	1140
aggtttccat aaacacccat gaatcaaaga catggaatta ccttagatta gctctggacc	1200
agcctgttgg acccgctctg gaccaaccct gtttctgag tttgggattg tggtaacaac	1260
tcaaattctc aacctaccac cccttctgt cccacctctt ctcttctgt aacacaagcc	1320
acagaagcca ggagcaaat tttctgcagt agtctctgtg ctttgactca cctgttactt	1380
gaaataccag tgaaccaaag agactggagc atctgactca caagaagacc agactgtgga	1440
gaaataaaaa tacctcttta ttttttgatt gaaggaaggt tttotccact ttgttgaaa	1500
gcaggtggca tctctaattg gaagaaatc ctgtagcatc tctggagtc tccagtgggt	1560
gctgttgatg aggcctcttg gacctctgct ctgaggcttc cagagagtcc tctggatggc	1620
accagaggct gcagaaggcc aagaatcaag ctagaaggcc acatgtcacc gtggaccttc	1680

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ctgccaccag tcactgtccc tcaaattgacc caaagaccaa tattcaaatg cgtaattaaa 1740
agaattttcc ccaaaaaaaaaa 1760

<210> SEQ ID NO 140
<211> LENGTH: 600
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1529624CT1

<400> SEQUENCE: 140

ctagttctag atcgcgagct gccgccttt ttttttttt ttggttggtt gcttggttga 60
agtttaataa ataattgatt tctgtttaca aaaataaaac tggaaaaaat taaataatta 120
ccattgatct gaagcaccgc gcaaagccca acgcccgcatt ctgagattct ggactcaaaa 180
gagttgtgag ttgggggctg ccggctggcc gcgggaggac gaagtattgg atcaccgcca 240
gtgccttctc agcaggctac tatcgtgtgt catgcgactc cgggcccggc tccggtggac 300
tcccagatcc gtaacctctc ccccccttt ttttctccc cccccgcacg gggcccattt 360
cccccccgcg gggccccgag cggacctctc tgccctggcct gcgttgcccc gctgtgcgcc 420
catgccctct ccgcctgtca ctacgctgc cgctcccgcg aggcgggctc ctatcttctc 480
gtcatccctg ccccccggc gctctcggtg gccctgctct ctccccccc tctctcctgg 540
cggcctgccc cgaacgccag ctgcgctcgt tccgctccc tcgggtccgc cgcttgggcc 600

<210> SEQ ID NO 141
<211> LENGTH: 203
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1590311CT1

<400> SEQUENCE: 141

ggcccttgga accaggtggc tgatctccct ggtaacagtt gctaggacaa ctaggactct 60
catcagggag cccaagatgg agggggctgg ccgaagtcca aagtcggggt gaagtatcag 120
actgagcccc aaccagaca aactctcac cttctcctcc cctactcggg caggggcgac 180
cccggaggcc tgagcggcac ctg 203

<210> SEQ ID NO 142
<211> LENGTH: 219
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1590335CT1

<400> SEQUENCE: 142

cttccagact ggagccaagg tgacctttct gctagagttt gagtttagct gctcctctct 60
cctggagcca ggtcttcgtg aagctgactg ccagcagtga cagcctggag agaaatggga 120
cccttcaaga taacacagcc cagacctcag cctacatcca atatgagccc cacctcctgt 180
tctctagtga gtctaccctg caccgctatg aggttcacc 219

<210> SEQ ID NO 143
<211> LENGTH: 209
<212> TYPE: DNA

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<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1590422CT1

<400> SEQUENCE: 143

```
tgctgtgggga tccagcagag agcctcgggtg ggggtggggtg gccctgggca ggcggcaagg      60
actccaggcc cagccttgtc tccccctgca ggtgacctgg tggtgagggc gcccagtgcc      120
aaacccccgc cagacagcct gatgtgcagt gggtgagccc ccatccctta cctctgtatt      180
ttaggggaga gaaactgtgg ccttggaag                                           209
```

<210> SEQ ID NO 144
<211> LENGTH: 148
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1590455CT1

<400> SEQUENCE: 144

```
ttcactcttc aaatgtttgc ttctgtttcc tgctaccctg aacctgtctg ttgaggggtt      60
ctagtgtcta caaggaacc gctgccacca cgaggaataa cacagtgtc ttacagcctg      120
ttccaagtgt ggcttaatcc gtctccac                                           148
```

<210> SEQ ID NO 145
<211> LENGTH: 723
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1590464CT1

<400> SEQUENCE: 145

```
catgtcctaa atgaacacag ctctgttgct gaccgtccta gccactctgc ttctcttccc      60
tctcccgctg ttggtcagcc cttttccac ttggtgttca agttctgacc cagggtctgag      120
cacccaaggg ctctcaaggt ggggcatcac ctacagtcac catggaacac agtggaatgg      180
tgctctaaag cctgggtgtgg aggatgtacg gcagcttgat aggaccagag gcagccagtt      240
tgtctgggag gtcttttgcca ccacttttcc ctgtcccgct agcccccttg gtgcatggga      300
ctctctgcaa agccccctga gaggagccat cccaacatgc taggcccttg acttctatcc      360
tccagtgtcc agctaactta gctgagggat gggctgcccc agccccctgag tccctggaac      420
cctaagccac ttgccccctt gcatggcgct gctcagatgc ccagagccag cagtctgctg      480
tgatcccttt gacgtgagca taggctctcc tgtctggtga tgcaccaggc tgatgctgag      540
tctctgtgca acctcagatg agcagctggg gtttgagggc atgtagcaat gcagttgccg      600
agtgcagtgg ctcgatctca gctcactgca ccctctgctg cctgagttca agcgatTTTT      660
gtttctcagc ctctgagta gctgggatta caggcatgca ccaccgacat gcaaaaaaaaa      720
cag                                                                           723
```

<210> SEQ ID NO 146
<211> LENGTH: 200
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1590496CT1

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<400> SEQUENCE: 146

```
gaataataga aaatgactat aaataggaga ttgtataata tagtataata gtcttttgag      60
cagttaccta tttttagtaa attttttaag gtcttgggat tttatttttc ttacaagga      120
atattttggg ttacttttagg tgcagaaaag actgactcat tttatcattc ttctgggtggg      180
ctggagttaa atggagaacc                                          200
```

<210> SEQ ID NO 147

<211> LENGTH: 201

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1590713H1

<400> SEQUENCE: 147

```
ccagtatccc atccatcaga gcaagaaaat gtcagtcctt ctggggcaga gccagctctg      60
aaaccagcac aacgcaggct ttgaccccaa ggcaaggtca tccttctaaa gttccccaga      120
gacaagtaga gataaataag aacttgagct ggtatttatg tctactagaa atgaagcaga      180
cctgaatttg agttatggct c                                          201
```

<210> SEQ ID NO 148

<211> LENGTH: 89

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1590769H1

<400> SEQUENCE: 148

```
gaaataaggt ctcttgtgtc acccaggctg gagccttcct attgtcatga tcccgcgccc      60
tctgcagcaa ggcatgaagg acctcaact                                          89
```

<210> SEQ ID NO 149

<211> LENGTH: 114

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1590779H1

<400> SEQUENCE: 149

```
tttttatatg tacattgaaa gacataaaac ttgatacaga gaaagtcaaa ttttaaattg      60
ttaaggatta tcaaattgaa ttggccatgt agttcacagt ttccaacaaa atgt          114
```

<210> SEQ ID NO 150

<211> LENGTH: 203

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1590931CT1

<400> SEQUENCE: 150

```
ctctgcccc tcgattgtaa actcctcagg ggcagaggta acagctttgc agccctggga      60
gttaggtttg cttaagggac cagaacaggt gtgactggca gggagcgaag tctggagctt      120
tgtctgaggg gctgataggt ggatcggcgg aaggacgcgg aacctggaca ggtcggaaat      180
aaagccgggc gacagctct gtg                                          203
```

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<210> SEQ ID NO 151
<211> LENGTH: 225
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1590958CT1

<400> SEQUENCE: 151

ggagaatgtg acatagattt gctggcacat gggtttccta tgagcaaacc ccagaattgg 60
acacacgtat ctggtgtctg attggaatca tccgaaaaaa ccaaggcttg cattgcatat 120
ctatctgtctg tctgtctgaag gagccctgtc tgtgtgccca aggaagtgc atccttgcca 180
agggctgtcc ctgttcagag agatgaagga gccctgtcta tgtgc 225

<210> SEQ ID NO 152
<211> LENGTH: 200
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1590973CT1

<400> SEQUENCE: 152

ggggactgct gattttcata acaaaatctt cagaagtatt tgctttaaac tactaatatc 60
agttggccaa aaatatccag agttttgtgg tacgtgcta ccagtggat gctgataaat 120
tggtgacaac cagccctcca aaggaaaaaa taagcgacat aattcgaaac atttgctaat 180
ttctgtggtg taaattattc 200

<210> SEQ ID NO 153
<211> LENGTH: 200
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1591090H1

<400> SEQUENCE: 153

ctggaagcct ctgaatggct caacttcccc ctccaggcct gtccttccat cagctgggag 60
gccctgaggt ggaaggctga gaggggacgg gaatgccacg gacagaagat ttgtggagc 120
tggttcaggt gagagccggg acagaacctc acgtgtgccca gaacccccgt aatccaacag 180
tgacacttca cagactcacc 200

<210> SEQ ID NO 154
<211> LENGTH: 1340
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1591713CB1

<400> SEQUENCE: 154

ggccagacgg tgctgggaag gcagttgttc attgggaggg tgagggttcc ggttcggccg 60
tgggatggct tccttccctg gggttttctg cctgtgtcac cttggtgcc gtcttggggc 120
ctctccacac atgccctttg ttggggccga gccgtccctg gcagagccct cgtgcattga 180
cttgacagcc tctccggcag cacaggccta gctggttctg ggttgaggt ggctctggat 240
agggtagtgc accaggcctg gactgaaggc agttattttt attattatta ttatttgcga 300
tgagagagat ggttggtccc gaatgaggct catgggaggt ttggacgggt gctgtgccgc 360

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atgtcgaggc cgatttgtgt ccaggcgggt cgggacgtgc ctcccgtgtg ttatttaatc	420
ccttcaggag ccacacaagat ggggtgttatt ctcatTTTtac agaggaggga ggggagacgc	480
gaagggattg cctgggtctaa gggcaccag cagcagagct aggacttccg ccctaaggct	540
gtgcctcact gccaccaggc acagccgcct cgggaatgca caggcgagtc cctgccctcc	600
ctcccaggcc gcacaggctc tgccaagcct cacggagcac gggggagtct gtggtggcca	660
gtttacctgg gcatctggct gagaggaaga aaggccaacc tgatcctgag gggaccaga	720
catatccttt gactgtccc tagagggcg atgagctttg cagcattaaa aaatggtgaa	780
ggggggaaa attttgaacc aaagacaaa tgttaggccg ccgttatatt tgcagaagct	840
ttgagaacca tgcgtatagc ctctgcatt ctccctctc ctaggagctc ttttgtctct	900
gtccttacga ggcgtcatac agaggcagt ggggtggcac agatgagcag agtgatggt	960
tcggtgggtc ccacagaggc gagtgggtgt catatgtgat ggcacgtgtt cacacacct	1020
cctgtgtacc cccccagggt caccgaagtc ccacacgct ggctctccac acccctcctg	1080
ttccagaaa catgtccgaa agcagtcag gagattatta aggggtcgcc atgaatccac	1140
tttggtttta aaaccattcc cgaatgtcct agtggattgt gttgtgctgc ctaagctgcc	1200
ggctgcagga gccagagaag tgacccccg gggagcagcg gcagggtgat ctccacggtg	1260
gtcgcgtttg tttttgtttt gttttttctt ttaagacgga gtctcgctct gtcgccgagt	1320
ttggagtgtg ttggcgcgat	1340

<210> SEQ ID NO 155

<211> LENGTH: 2277

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1642794CB1

<400> SEQUENCE: 155

agtgagtggg gctggcttta gcccttctag caagatggaa ggtggcact ttgtgcctcc	60
tggaagacc acagctggct cgggtgactg gactgaccag ctgggtctca ggaacttggg	120
agtgctccag tgtgtgggtt ctgggggctc gagcgaggcc agggagagtg ccgtgggaca	180
gatgggctgg tcagggtggc tgagcttgag agacatgaac ctgaccggct gtttggaag	240
tggagggtct gaagagccgg ggggaatcgg agttggggag aaggactgga cttctgatgt	300
taatgtgaag agcaaagatt tggctgaggt cggggaggga ggaggccaca gccaggccag	360
agagagtggc gtggggcaga ctgactggtc aggtgtggag gccggagagt tccttaaata	420
aaggagcgt ggagtggac aggcagactg gacacctgac cttgggctga gaaacatggc	480
cccgaggcca gtctgcagtc ctggagagtc caaagagctt ggggtgggcc agatggactg	540
gggtaacaat ctgggcctga gggatttgga ggtgacctgt gaccagact ctggagggtc	600
tcaggggcta cggggatgtg gagtggggca gatggactgg acccaggact tggcgcccca	660
gaatgtggag ctctttggg ctccaagtga agccaggag catggggtg gcgggtgag	720
ccagtgccca gagccgggct tgaggcaca tggcagcttg tctcctggcc tggaggccag	780
agacccttg gagccaggg agctgggggt tggtagaca agtgggccag agaccaggg	840
tgaagattac tcctgtctt ccttgagacc acacctgca gacctggaa tggagacagg	900

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agaagccctc agcttcggag caagccctgg caggtgcccg gcccgccccc caccctccgg	960
ctcccagggc ctgctggagg agatgctggc agccagcagc tccaaggcgg tggctcggag	1020
ggagtcacgg gcctcggggc ttgggggcct gttggaggag gaaggagccg gggcagggtgc	1080
tgcccaagag gagggtgctgg agcctggcag ggactctcca ccctcctgga ggcgcagcc	1140
tgatggtagg gccagccaga cagaagacgt ggatggcacc tggggctctt cagcagccag	1200
gtggagcgat caggggccag cacagacttc tcggcgaccc tccaaggcc ctctgccag	1260
atcccccagt caggacttct ccttcattga ggacaccgag atcctcgaca gtgccatgta	1320
tcggagccgt gccaaattgg ggcgcaagcg tgggcaccgg gcccggtca ttcggcctgg	1380
gggtaccttg ggctgtcgg aggcagcaga ctcgatgca cacctgttcc aggactctac	1440
agagccacgg gcatctcggg tgccatcttc agatgaagag gtagtggagg aacctcagag	1500
ccgcccggaca cggtatgctg tgggcaccaa ggggctgaaa gtcaacctct ttcctggcct	1560
gagcccccca gccctgaagg ccaagctcgg ccccggaat cgtcagctg aggaggaga	1620
gctggctgag agcaagtcca gccagaagga gtccgcggtc cagcgttcga aatcctgcaa	1680
ggtcccagga ctgggaaagc ccctcacgtt acctccaag ccagagaaat cctcagggtc	1740
agaaggatcg tcgcccact ggcttcaagc cctgaaactg aagaagaaga aggtctgaga	1800
agtcactgag gttcttccca cctggcagtc tcaggcagtg cccattctct tggggtcctt	1860
gggtgaggag acggctggag ccccaccatg cccaggtg cagcctctgt cccctccacc	1920
tctgaggagc gtctggggag gcacatttat gcactttgta tcacctccg aactccccc	1980
acaccttccc ttccctggat ttcatcacta gtggttgaag gttttgtccc ttcctctcct	2040
cttccctct cctctctgc ttccctctcc agcctccctt gggttttctt ttgataccaa	2100
tttatagcat tttttataaa agcctttgat ttttataatg ggtgggactg tatccctgcc	2160
tcaccccagg tctccgtctg ccccgccagg taccacacag agaccaatga cattttgcca	2220
cttgaacaaa taaataaagt tttttgggaa ttggtgctgt ccaaaaaaaaa aaaaaaa	2277

<210> SEQ ID NO 156

<211> LENGTH: 2312

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1687080CT1

<400> SEQUENCE: 156

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ctaaggggga accaagacta gtttcttcag ggcagtggac gtagtagttt gtaaaaacgt	120
tttctatgac gcataagcta gcatgcctat gatttatttc cttcatgaat ttgtcactgg	180
atcagcagct gtggaaataa agcttgtgag ccctctgctg gccacagtga ggaaagtagc	240
acaaatagga tacagttgta ttagtcattt ggcaacaatt gcatacaatt ttactaccaa	300
gagaaggatat agtatggaaa gtccaaatga cttccttgat tggatgttaa cagctgactg	360
gtgtgagact tgaggtttca tctagtcctt caaaactata tggttgccta gattctctct	420
ggaaactgac tttgtcaaat aaatagcaga ttgtagtgc tggtttggtt tggacagtag	480
tgctttctat catattgttg tgtgcaatgg taatttggtt tactggccaa agcctctttc	540
agcagtgccct tgccatcatg cttaaaagtt tggctagtag atcttgctgg atggagcctt	600

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gaactccggc aaggattgaa ccatctgact tccaaatttg ccttcccctc tggacctcac	660
tattaacaag caaacctttc agggccctct tagctctcag aagctatgta tgggctttcc	720
cagattttaa agctgctgcc tcgagaacta ctcatttctc tcctggtcag cagacagaaa	780
tagccatact aatctcatag ggctcaaatg catcttcagg cagcagggaa ccaagcagcg	840
tggcacaggc cttcttgact ggaggaagag cttgctggca tggtgggcag tattccagga	900
gaggccatgt ccgtgttcac ttcttggcac atttcagttc cgttttccctc ttgtttaaaa	960
ctgcctcttt agatgtggat gccttaatgc tgtaacacat ttgaaaacat tggcaatact	1020
taagttgctg ccatgattac agatggaatt attggctacc aaagagacgc aattgatgat	1080
gagaagcatg attcttgctt ccatataacc aaagttaatc ttaattgcaa ttgactccg	1140
tttcttgggt agggatagac ttcttcaga ttccaagtgc tctcttaaat ggcaaattaa	1200
gttaaagaat actactgctc cattcccctc acttattctc cagttaattg cttgtcagtt	1260
ccatttcaag aaagcagtga tgttccaggt ttgattcagt ttctctgtgc acactattgc	1320
caaatttttt tttagcaaaag attctgcact ggaacgtaga cagttggaaa cagtactacc	1380
tacctagagg ttatgtgttt tctctttctc cccgctttca cctctttctt tcccaattca	1440
aaacagccaa gtgagccctg ttctggtatt ttgaatcatt agagaaaaga aaggagtggtg	1500
ctgttttgag ttgtcctttc ttgacagaaa ggagaaaatg tgattgtgtt ttttttttac	1560
cagcctactt ctaagtgtca ctgcctgggt tttctctttt tcaaggatta gaactaagag	1620
gacacaccag catcggagtg tattaagccc ctgaaacaca tggtagctag ggactgaaca	1680
caggaaacctg atgacagcag cacaaacccc caaaggatgt tcctgccttg tgggcccttg	1740
agcccccttg gagactgaga atcatgacca gattcatcca gaactgctgc agtgttaagt	1800
gaaaatcctc tgtagttgtt ctgcagagga accttccttc cattagaaaa tttctgtctc	1860
atacagaatg gtccacatca cccaaagtgc actgttgagg atgctgtgaa attaaaacct	1920
ctttgtacct gagacatcta gattcacctc aggaggcctg aaggaaatgt gtaacttgtg	1980
ggaaagaact agacaacat ttaggaattc tctagatata ctacagcctaa cccagtggct	2040
taacacaagg agattggcct tgatcttttt ttcttgggc atcttccagc aagttagaag	2100
tctcatggga taagactgca gttcccctgg ttcaatagct ggaacagtga ttttaaatgt	2160
ccctttttct ggatcccttg taaacatgaa atcattccat ggatggctgc cttataattt	2220
tgtctctttc cactttaatt gtgaatgggt aaaaaaatgc tgttttctga tattaaattt	2280
ttattagtgc ataccttaaa aaaaaaaaaa aa	2312

<210> SEQ ID NO 157

<211> LENGTH: 2547

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1722845CB1 Contig3

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 2303, 2357, 2379, 2410, 2450, 2477, 2482, 2487-2488, 2496, 2503, 2512, 2515, 2521, 2523, 2527-2528

<223> OTHER INFORMATION: a, t, c, g, or other

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<400> SEQUENCE: 157

ccgctggcct atgatgccat ctgggacttg gcaactggctc tgaacaagtc atctggagga	60
cgcggtcggt ccggcagtg gctggaggac ttcaactaca acaagcagac cattaccgac	120
caaatctacc gggcaatgaa ctcttcgacc tttaggggtg tctctggcca tgtgtgtttt	180
gatgccagcg gctctcggtat ggcattggacg cttatcgagc agcttcaggg tggcagctac	240
aagaagattg gctactatga cagcaccaag gatgatcttt cctgggtcaa aacagataaa	300
tggattgtta tatccagaac tcacagccca acctgaacaa cctgactgct gtgggctgct	360
cactggcttt agctgctgtc ttccccctgg ggctcgatgg ttaccacatt gggaggaacc	420
agtttccttt cgtctgccag gcccgctct ggctcctggg cctgggcttt agtctgggt	480
acggttccat gttcaccaag atttggtggg tccacacggt cttcacaaag aaggagaaga	540
agaaggagtg gaggaagact ctggaaccct ggaagctgta tgccacagt ggctgctgg	600
tgggcatgga tgtctcact ctgccatct ggcagatcgt ggaccctctg caccggacca	660
ttgagacatt tgccaaggag gaacctaaag aagatattga cgtctctatt ctgccccagc	720
tggagcattg cagctccagg aagatgaata catggcttgg cattttctat ggttacaagg	780
ggctgctgct gctgctggga atcttctctg cttatgagac caagagtgtg tccactgaga	840
agatcaatga tcaccgggct gtgggcatgg ctatctacaa tgtggcagtc ctgtgcctca	900
tcactgctcc tgtcaccatg attctgtcca gccagcagga tgcagccttt gcctttgcct	960
ctcttgccat agttttctcc tcctatatca ctctgttgt gctctttgtg cccaagatgc	1020
gcaggctgat cacccgaggg gaatggcagt cggaggcgca ggacaccatg aagacagggt	1080
catcgacca caacaacgag gaggagaagt cccggctgtt ggagaaggag aaccgtgaac	1140
tggaaaagat cattgctgag aaagaggagc gtgtctctga actgcgccat caactccagt	1200
ctcggcagca gctccgctcc cggcgccacc caccgacacc cccagaacct tctggggggc	1260
tgccagggg accccctgag cccccgacc ggcttagctg tgatgggagt cgagtgcatt	1320
tgctttataa gtgagggtag ggtgaggag gacaggccag tagggggagg gaaaggaga	1380
ggggaagggc aggggactca ggaagcagg ggtccccatc cccagctggg aagaacatgc	1440
tatccaatct catctcttgt aaatacatgt cccctgtga gttctgggt gatttgggtc	1500
tctcatacct ctgggaaca gaccttttc tctcttactg cttcatgtaa ttttgtatca	1560
cctcttcaca atttagttcg tacctggctt gaagctgctc actgctcaca cgtgcctcc	1620
tcagcagcct cactgcatct ttctcttccc atgcaacacc ctcttctagt taccacggca	1680
acctctgacg ctctctgccc ttgtgctct gttcctgtcc agcaggggtc tcccaacaag	1740
tgtctttcc accccaaagg ggctctcct tttctccact gtcataatct ctttccatct	1800
tacttgccct tctatacttt ctacatgtg gctccccctg aattttgctt cctttgggag	1860
ctcattcttt tcgccaaggc tcacatgtc cttgcctctg ctctgtgcac tcacgctcag	1920
cacacatgca tcctcccctc tcctgcgtgt gccactgaa catgctcatg tgtacacacg	1980
cttttccctg atgtttctt catgttcagt cacatgtgct ctggggtgcc ctgcattcac	2040
agctacgtgt gccctctca tggatcatgg tctgcccttg agcgtgttg gtaggcatg	2100
tgcaatttgt ctacatgct gagtcatgtc tttcctatct gcacacgtcc atgtttatcc	2160
atgtactttc cctgtgtacc ctccatgtac cttgtgtact ttcttccctt aaatcatggt	2220

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attcttctga cagagccata tgtaccctac cctgcacatt gttatgcact tttcccaaaa 2280
ttcatgtttg gtgggggcaa tcnacacctc tccttgctac agaattctcca tttctggctc 2340
agaattcccc cccatcntcc aattggcatt caatgtacna accctcaagt ctaacaattc 2400
acaaatcaan cttcgtccca aagactggtt cccctttttg gttttggggn tttttttgaa 2460
gggggaattt aaagggnaaa tnaagtnngg gggganggtt ttngaagaag cnggnttcca 2520
ngnggggnnaa ttgatggga atccccg 2547

<210> SEQ ID NO 158
<211> LENGTH: 658
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1732911CT1

<400> SEQUENCE: 158

ctctcactct ctacccgctg ggcgggtaccc cgcattctgc tctggccgcc ccagaggttc 60
gcggcttctg gacctgctgt gcccctctcc agcctggatc aggacggaga acacccccga 120
aaccacacct accagcacag cgggcggacc cttccggagg tggccgcaga gactagccaa 180
cttgcgcgcc cgccgacccg gaccacagct cccagcacac ctcaagggcc cagcccgcc 240
aggactacaa ttcccgcgct cctccggaag ctcaagtgtc cccaggcgcg gtgcctgctg 300
ggaattgtag ttgacgttgg tcagcacgga ggccacagga tcccagcccc gcctttgttg 360
gactgaggtg gcgctgagtg ggagagcagc aggcgatgcg cgaaaggcgg gacttgagg 420
ttctggatgt tcctgtggat aacctcaagg agcacgggac ctgggacatg actgccccca 480
gcatccttc tggcggcaga cagagtttgt cagttcgcca acatcctgct tcatgagaa 540
cagtttgctg tttgctcaca gagcctccac tgggtatactg agttgggtccg accctcattc 600
ttcgctcca acatctcccc tttgtttttt gcattaattg aataaatgta atttcatg 658

<210> SEQ ID NO 159
<211> LENGTH: 135
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1785913H1

<400> SEQUENCE: 159

agatctaacc agagagaaac aaagatctac atagaaaaca aagatctaaa tccatgtata 60
tggaattgtaa aactcaacat agtaaagata ccagttatcc tcacatagat aaagaagtct 120
aacaattcct atcat 135

<210> SEQ ID NO 160
<211> LENGTH: 1200
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1809069CT1

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<400> SEQUENCE: 160

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tattttaatac gctcactata gggaatttgg ccctcgaggc aagaattcgg cacgaggggt    60
ggcttccacg ctatgaaaac cgagataaca acaactccaa caacagaggc agctacaacc    120
gggctcccca gcaacagccg ccaccacagc agcctccgcc accacagcca caccaccagc    180
agccaccgcc accaccacgc tacagccctg ctcggaaccc cccagggcca gcacctacaa    240
taagaacagc aacatccctg gctcaagcgc caataccagc acccccaccg tcagcagcta    300
cagccctcca cagagctttg gcttttttcc ctccactttc cagccgagtt acagccagcc    360
accctacaac caggggaggtt acagccaggg ctacacagcc ccaccgctc caccctcacc    420
accacctgcc tacaactatg ggagctacgg cggttacaac cgggccccct ataccacc    480
gccaccccc accgcacaga cctacctca gccagctat aaccagtatc agcagtatgc    540
ccagcagtgg aaccagtact atcagaacca gggccagtgg ccgccatact acgggaacta    600
cgactacggg agtactccg ggaacacaca gggtggcaca agtacacagt agccagtgtg    660
accagagggc tcccgagggc ccctgccggc ttctctccacc agcgcctgcc tcggcccctc    720
ctctgcccc gccagatccc gtggtgctgg ggatggggtc atcccagggc tgcctccctc    780
cagcccactg cctccccctc gaggggcttc cttcccctcc atagggccag gcattttttt    840
ctggattcaa acaggcaaca atgacctttt attttctgtt tgtccccacc tcccagcct    900
tccacctcct gttcttccta ctttcttcct ttttgactaa ataatccca cctcccttga    960
tcatacagtg aggtctacagt gactgagggg agaatccct cctgttcact ctccaaccc   1020
tgctccagcc cctcagcttc ccagaccctc atgcagttgg ttgtaaatc tcccaggagc   1080
tgttttactg tctacttttc aggattaaaa aaaaaatcaa aacttaaaaa aaaaaaagtt   1140
taaaaagcaa aatggggagg gggaggaagc agtgactttt ttttgtaat tatgcgcttt   1200
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<210> SEQ ID NO 161

<211> LENGTH: 442

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1867626CB1 Contig1

<400> SEQUENCE: 161

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gacgtagccc ctaccttggc ctcaagaaat tatttctgaa caaccaggag tcctttaggt    60
aagctagctg actctgaagt ctgacttagc tataatcatga tgttttgaat aagatttgtc   120
aaaatacttc atagtgcaca gacaactgtt tggaattagg ttctatttcc tgtcattttc   180
atattagaag ctataattgg ttggaggct atattgcttg tgtagagtca gttattcaga   240
aaatgaataa ctttactaag gtaaaagtgg gcactgtgac ctatttttat ttggttaatg   300
tatgtagtct ctatacttc agtttgacga aaagtttcag gaatttaaag aagctgctcg   360
actagcaaa gaaaaatcac aagagaagat ggaacttacc agtacacctt cacaggtggg   420
tatacatatt ctattcttaa tt                                     442
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<210> SEQ ID NO 162

<211> LENGTH: 360

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

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<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1880501CT1

<400> SEQUENCE: 162

gcgacctgct ctgcgccctg acgtgcccc cgctggccgc ctacctctat ccccccaagc	60
actggcgcta tggggaggcc gcgtgccgc tggagcgctt cctcttcacc tgcaacctgc	120
tgggcagcgt catcttcac acctgcatca gcctcaaccg ctacctgggc atcgtgcacc	180
ccttcttcgc ccgaagccac ctgcgaccca agcacgcctg ggccgtgagc gctgccggct	240
gggtcctggc cgccctgctg gccatgcccc cactcagctt ctcccacctg aagaggccgc	300
agcagggggc gggcaactgc agcgtggcca ggcccaggc ctgcatcaag tgtctgggga	360

<210> SEQ ID NO 163

<211> LENGTH: 2412

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1881009CB1 Contig3

<400> SEQUENCE: 163

cttgaacgt ggtggggccc ctgcagctgc gccaggccct gcgtggctcc ctctactacc	60
tgctcagtc cctgccccag cccaaggccc caggatacat ctgccatggc ctcagtcctg	120
ggggcctctc caatgggagc cgtgaggaat gctactgggg ccacgtcttc tgggaccagg	180
acctctggat gttcccagat atcctgatgt tccaccaga agccgccagg gccatcctgg	240
agtaccgcac ccgcacgctg gacggggccc tggagaacgc ccagaacctg ggctaccagg	300
gagccaagtt tgcttgagg agtcagact ccggcctaga ggtttgccct gaggacattt	360
acggagtcca ggaggtccac gtcaacgggg ccgtgggtgt ggccctcgag ctgtactacc	420
ataccaccca ggacctgcag ctatttcgag aggtcgtgtg ctgggacgtg gtcagggtctg	480
tggccgagtt ttggtgcagt cgtgttgagt ggagccccag ggaggaaaag taccacctga	540
ggggagtcat gtccccgcag gagtaccatt caggggtcaa caactctgtg tacaccaacg	600
tcctggtcca gaacagcctg cgctttgctg ctgccctggc ccaggacctg ggtcttccca	660
tccccagcca gtggctggcg gtggctgaca agatcaaggt accctttgac gtggagcaga	720
acttccaccc ggagttcgat gggatatgac ctggagaggt ggtgaagcag gcagacgtcg	780
tgctcctggg ataccagtc cccttctccc tgagtctga tgttcgcagg aaaaatctgg	840
agatttacga ggctgtgacg tccccccagg gccccgcat gacctggagc atgtttgctg	900
tgggctggat ggagctgaag gacgcagtc gggcccgggg cctcctggac aggagctttg	960
ccaacatggc tgaacccttc aaggtgtgga cggagaatgc agacgggtca ggcgctgtga	1020
acttctgac aggcattggg ggtctcctgc aggcgggtgt cttcggtgc acggggttca	1080
gggtcaccgc agcgggtgtg acctttgacc ctgtgtgtct gtcggggatc tccagagtga	1140
gcgtctccgg catcttctac caggggaaca agctcaactt ctctttttcc gaggactccg	1200
tgacctgga ggtcacagct cgagcagggc cctgggctcc tcacctggag gctgagctgt	1260
ggccatccca gtccccgctc tcctgttgcc caggacacaa ggtctccttt ccccgctcgg	1320
ctggccggat acaaatgtca cccccgaagc tgcttgaag ttccagctcc gaggctcctg	1380
ggaggacttt ttcagatgtt agggaccgcg tcagagccc cctctgggtc accctgggtt	1440

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cctccagccc caccgagtca ctcaactgttg accctgcctc tgaataatca ggaacggtgg 1500
cttcagagac gtctcttggg ccttccctct gccacgtct gcacccaccc ctctggggca 1560
ccctcctagc ctgccatccc tcacctgcag ccaggctctc agggaaggtc catgctgctt 1620
ggcctgagtt caaggctttc tgccctgtagc ctggactccc gtggaccccc gtgggcagggt 1680
ggcttccccg tggcatctcc acaccgcctc tgccctgccc tgtggactga tgctatcgcg 1740
cacggtccca cgacccaccc ccgagctcct gaagccgggg tctgagcctg catcacctct 1800
ggcctctcat cccccactct cctgagagca gtggtcacag cggccggccg ctctgctgag 1860
aaggcagaga ggcaggctca ggccctcagc tggacagcag ggataagggg cacgaaggac 1920
ggggactcgg ccccttcaga attcctcagg actctcaggt gcagctttgc caaaaaggaa 1980
ctttctatgt catgcagttg aggggactta gtctcaatcc caggctcctc ttgactctgg 2040
gcagctttta tcaggttggg cagcctctgc tacagcgtgg agtgggatgg ctctcttccc 2100
tcagccacgc cgcttgtagg gacagagggt ggggagtggg aagtgggaag tcaccagaga 2160
acagagagag gatttgaggg cgcgacccca gcgctctcca cggaccagcc agagggactg 2220
gagccagggt tgcatggggt caaggccctg gccctgccc gcctctgtct tgggagctca 2280
gccccagggt tcggtcgtca gcagtttccc aagaacaaga tgtgatggca tctgctgctg 2340
aaacctgat gaggaccagg cccctgcac cgctgtcagc ctgaggaatt aaagctttgg 2400
tgctgggaag ac 2412

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<210> SEQ ID NO 164
<211> LENGTH: 291
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1909132CT1

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<400> SEQUENCE: 164

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cgccatccca tctccaaaat cctcagtcct gtgatgacct ttccctactt tataggccta 60
agcatgctga ggcacatcag caccgagcgc tgcctgtcca tcctgtggcc catctggtac 120
cactgccgcc gccccagata cctgtcatcg gtcattgttg tcctgctctg ggccctgtcc 180
ctgctgcgga gtatcctgga gtggatgttc tgtgacttcc tgtttagtgg tgctgattct 240
gtttggtgtg aaacgtcaga ttctattaca atcgcgtggc tggttttttt a 291

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<210> SEQ ID NO 165
<211> LENGTH: 145
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1955094H1

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<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 17
<223> OTHER INFORMATION: a, t, c, g, or other

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<400> SEQUENCE: 165

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gacaccatct gcaaaanggg aaaatgttac caccgactcc cagaaactgt aactccccct 60
gagcacactg cccagaggta gtgaatttgc agcagttaat ttcttaggca ccacagtaat 120
gtgatggttg ttaagaccat gatga 145

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<210> SEQ ID NO 166
<211> LENGTH: 516
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1955688CT1

<400> SEQUENCE: 166

ccttgacctc atgaaatagc ttatcatcac accttttcta aagattaaaa aaaaactaaa	60
gcactgagag gttaaataac ttgcccaaga ttacacagcc aataagtgtc agggctgggt	120
tttgaactct gtccttgccct ctggacaagg gttttgtctg catcatgttg ctcatgtgtc	180
ctctagaccg aagctcacct agatggcccc acatatcaca agagatacgt gcacaaaata	240
gagaccccca cactgcacac ggggctaatt ctgcaagata attttgggga ggaatcttaa	300
ctattacttt ttgttttatg ttaatgaatg aatcattctg aatgtgggag gtaaagactc	360
agttccctttc ttgcttccaa ataacagagt gaaaaatatt gtcagtagca tctttgagga	420
ggaagggaga atattttacta agaaatgcag ggaaagaaat aaaactggat tgtcactgaa	480
aatcatatgg tagctcgatt cttctgataa aagttt	516

<210> SEQ ID NO 167
<211> LENGTH: 403
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1956694CT1

<400> SEQUENCE: 167

cggctcgagg aggatggcgt tggcctgggg tgggggtgct cgctttgtct tctgtccttt	60
ggttctcctt ccataatgct cctgtaccca gtttatttac ggggacatgc actggaatag	120
gaaatgtccc ccatctccct tcctgcaccc tgctgtgctc cctccaaacc caccttgctc	180
tgtgtttcca ggccccctg cttttgtctc accaggaccc atacctttca cctgtttccc	240
ttccaccctt ccagttagtc cctatctggg taagggtctt cccttgagct ccaggggggtg	300
gaacccaatg tttacattct cttctgtctc tgccccacc ccatgcagcg ctttgaggaa	360
ttggaaaaga acctgctggt gtacctggaa aaaaaaaaaa aaa	403

<210> SEQ ID NO 168
<211> LENGTH: 339
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1957189CB1

<400> SEQUENCE: 168

cttagtttta ttaatcctct actgttaact tttttgtttc attaatattat cctattattt	60
ctctgtcaaa accacaagct gaactccaat gccttctctt ttttttgaa ataaggctctc	120
actctgtcac ccaggctgga gtacagtggc acgatcacag ctactgtctg tgatcagttt	180
actgaaaaca gccagctctc cctgcctggc acacactaac cagtgggtgc caactgatgt	240
cagtgtgact cccccatct gattaatata cccaaagatg gtatttgttt gttgctgttt	300
gagacaaggt ctactctat caccaggct tcagtgcag	339

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<210> SEQ ID NO 169
<211> LENGTH: 178
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1957920CT1

<400> SEQUENCE: 169
gggtggcaggc acctgtaatc ccagctactc tcaggaggct acggcagaag aaccgcttga 60
ggccgaggca gaggttgtag tgagctaaga tagtgctact gcactccagc ctggccaaca 120
cagcaaaact ccgtctcaaa aaaaaaaaaa agaaaacaac acaaaaaaaaaa aaaaaaaa 178

<210> SEQ ID NO 170
<211> LENGTH: 143
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1957977CT1

<400> SEQUENCE: 170
atatacttgc tgtgtcagtg agttgacctg ttgacctgtt caacaacaag gcttgccaac 60
tgcagaatga gcccatcttc ccgggtgcag caggaaagcc ataagaacaa gtttcttgaa 120
atgctcaaga gaccgcctcg agc 143

<210> SEQ ID NO 171
<211> LENGTH: 244
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1958505CT1

<400> SEQUENCE: 171
tggggattcc ctacctatgt cttcacccca gattagtaaa ggtagaaagc ctcatccctg 60
cccacatgga actcatcatc atcttgggtc aagataaatt aattctgtat tttattgatt 120
tgttcacaac ccctattttt atttagcgcc ataaatttta tgagaggaat ataaaaatga 180
attaagcaag gattcggccc ttacaaagtt tatagcccag tagggaagat gtgtaaatat 240
aaag 244

<210> SEQ ID NO 172
<211> LENGTH: 1108
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1972687CT1

<400> SEQUENCE: 172
ctcggaaattc ggctcctgct tcctagaagg taatgtacga actcgtctcc aaaggatact 60
taggttgacac cagtgtatatt gtaaaacagg agcaaatttg gaccttgccg ggccaaagtc 120
gtgtcacgtg gaacctctta atctcagcat ccggagctcc aggaaggga aatttcaagt 180
cagatagaat tctatatata ccatttcttt ggaaccttca gccctcaaga ttccaacatc 240
atgacctcag ttccaacaca gttgtcctta gtcctcatgt cactgctttt ggtgctgcct 300

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gttgtggaag cagtagaagc cggatgatgca atcgcccttt tgttaggtgt ggttctcagc 360
attacagcca tttgtgcctg cttgggggta tatgcacgaa aaagaaatgg acagatgtga 420
ctttgaaagg cctactgagt caaacctcac cctgaaaacc tttgcgcttt agaggctaaa 480
cctgagattt ggtgtgtgaa aggttccaag aatcagtaaa taagggagtt tcacatTTTT 540
cattgtttcc atgaaatggc aacaaacata catttataaa ttgaaaaaaa aatgttttct 600
ttacaacaaa taatgcacag aaaaatgcag cctataatTT gctagttagg tagtcaaaga 660
agtaagatgg ctgaaatTTa cataagtaat atttcataat cttagaattc tctcaaagca 720
tgtgaaatag gaagaaggaa gttcttgccc agaacttag gaaatcacca ctgttcggtt 780
ataatcactg cctcctgaat cgttgaggag tcttttaaat tagatTTTTg ttttgttgtc 840
tcccaagTTa atattatatt tagatatcag agagtcaggc aaaaaggaaa acttttatct 900
ctaggggaaa aacatttaga aaaatgtatt cagtgtatct aatactgaaa tgcggaaaaa 960
aatttaatgt taaaaaaaaa ctatagacat tgacatggaa aagagattta atgttttgaa 1020
aaaaaacttt atattaactg agtaacatcc tcctgatgag aagtactata ttaaataaa 1080
accattatg ttataaaaaa aaaaacaa 1108

<210> SEQ ID NO 173
<211> LENGTH: 435
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1975013CB1

<400> SEQUENCE: 173

taaagaggta agaaaaagta aagaagagaa aattcagttt gtaatcaaaa aatcagagtct 60
taatcgTTTT tatataattg attgcggact gcaatttcac aggcaaaacg agttcaaggg 120
ttttttggaa gaatattTTa aggacctga aaaaacaaga tggataagat gtgttgcatc 180
gtgaagatgt tcatgtcgaa gttcatcaga ttcacaagag aaaggaaata agagcgaacg 240
gaggatgcct aggccttctg aggcgaagaa ggacgcggca agctgcgaaa agtcacgggt 300
atctgcaacg atgaaatgat ccgtgaatat ccgaatgggg caaccctgtc aggtgaagcc 360
tgcacacctg aataaatcag gggcagacgc agggaaactga aacatcttag tacctgcagg 420
aaaaaaaaaaaa 435

<210> SEQ ID NO 174
<211> LENGTH: 1314
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2010369CT1

<400> SEQUENCE: 174

tggggcgaga ttcgacctc gccgcatccg ggaagaatca gtgatgcttg ggacagtcaa 60
tcctagcacg gggggccctcc cttccagtc cctcatggtt gcagacctag gcgatgtgaa 120
tgtcaatctt tacaaccttc aggcagctg ccggcgaatt caagagcct atgagaaaaa 180
tgtagcagct ggctgtattc ctctgacctt gggtgagat cacacaatca catatcccat 240
attgcaagcg atggcaaaaa agcatggccc agtggggctg ctgcacgttg atgcgcacac 300

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ggacacgacc gacaaggccc taggagagaa gctctaccac ggggcgccct tccgccggtg	360
tgtggatgag ggtctcctgg actgtaagcg tgtggtgcag attggcatcc ggggctcttc	420
cacgaccttg gatccctaca gatacaaccg gagccagggc ttcgggtag tcttggtga	480
agactgctgg atgaagtcgc tggttcctct gatgggggaa gtcaggcagc agatgggagg	540
caaaaccatt tatatcagct ttgatattga cgctctggat cctgcctatg cgccagggac	600
agggacacct gaaattgctg gtctcactcc tagtcaggct ctggagatca tcaggggttg	660
tcaaggcctg aacgtgatgg gctgtgatct tgtcgaagtt tcaccaccgt atgatctttc	720
tgggaacaca gccctgctgg cggttaacct gctgtttgag atgctatgtg ctctcccaa	780
agtgacaacc gtctgagtct tgtgtctctc aagacaaaac agattgcgtc gctgacaagt	840
tctcaagaag aacttatgag taagcagtct gagaactaaa gagtttatgc caagaaaact	900
ttctgctgaa agtgtcattg ctggctgtga agtcgggata atcagtagaa ttctcaccca	960
aacagcaaca tttctaagga acttggaatta attgggggaa aaaaaaagga gtacttgtac	1020
tgctttgatt ttttttcctt tgatgaaaga tggaggataa aggggaagtg aggagaattt	1080
ctttcaagat tatctaaaca ttagaacaat gacatttaaa aaaactaaaa aaaaaaaaaa	1140
aggggggggg taccgacctc gaattcgtaa ccaggtaaaa gctgttcccc gggtaaaaat	1200
tttaaccggc ccacaaatth ccaccccaaa atttcggggc ccgggaagcc ctaaaagtgt	1260
gtaaaacccc tggggggggc ccccaatggg gggttacgcc caacctocca cttt	1314

<210> SEQ ID NO 175
<211> LENGTH: 264
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2019581CT1

<400> SEQUENCE: 175

gtaagacacc acccactcc cttggcctca tttccttttc tgcacaataa gaacagtaga	60
ctagatgagc cccttccaac tccaacatta catgatttgt ctatgtaagc cactaagaat	120
ttggttcaca gtagtgactt ttctttttct ccattgtttc actggtagac aatatgtctt	180
cttgcaatac aagtctcccc taaaggcctg gaatcaggcc tagcacttag taactttttc	240
cttacaacca tctgtacctt gctg	264

<210> SEQ ID NO 176
<211> LENGTH: 586
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2022460CT1

<400> SEQUENCE: 176

aagatatagc ccattacccc acagttacag ttaggtcacc atctccactt gcttcccca	60
ccacccccct tgtctagggg aagagtggct ttcctcctgg taaaggtag tctctgtatc	120
tctctccaga ttcttacctt gtctcttcag ggatctgact tcagaagaat ctatttcctg	180
cctcttgtcc ttagcctat cagtatgctt ggttttctcc agtttaaaaa aaatgacgac	240
cttttcttat accatacaca aaaattgact ccaaatggat cacagacctt actataagag	300

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ctaaaactat aaaattctta gaataaaaca tgggagtaaa tcttcatgat ctcagggttag 360
atgaagcctt cttaagtgtt acaccaaag cacaagtagc aaaagacaaa acaaaacaac 420
aggaaaaaag cacaagcaac caaaatcaca aacaacaaaa gaagacaagc tgggctgcaa 480
tcccagcact ttgggaggcc ccgcaggcag attacttgag cccagaagtt cgagatcagc 540
ctggtcacca tggtgaaacc ctgtctctac aaaaaaaaaa aaaaag 586

<210> SEQ ID NO 177
<211> LENGTH: 594
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2022624CT1

<400> SEQUENCE: 177

ctaaaagaaa aaaaaaattc aaagttgttg ggagtgagag gtagagttcc agcatcataa 60
gattacatct ggcaaacacc tgaatccga aagcgatgca ccaggacttc caaggcataca 120
atatattact aaataacttt ggtaaatat agtactggcc aggcacagtg gctcatgcct 180
gtaatttcag cacttttaga ggccagagca ggaggagcac ttgagcccag gaactgaaga 240
ccagcctggg caacatagtg agatcccatc tctacaaaa caataaataa attagccagg 300
cgtggtgggtg cgcatgtgta gttcagctat ttgggaggct gaggttgag atttgcttga 360
gcctaggaag ttgaagtgc agctattgtg ccactgccct ctaacctagg tgacacagcg 420
agactctgtc tcaaaataaa ataaaatgta gtactttaca acctgtatgg tgggaaattt 480
ggttaagaca actacatgtg tgcttactct ttcacttagc tttcatattt cttgggattt 540
atcttgtaga tacatcttca atagtatcga tttacataga cattgaggtg ttgt 594

<210> SEQ ID NO 178
<211> LENGTH: 506
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2022628CT1

<400> SEQUENCE: 178

cttaattttc ccagcaatga tatgtgacaa cacgtactaa atattaccag ccagaaagct 60
caccctagcc ttgggggtcta ggtttttatt gcatgtcagt cacatagggc aatcacatga 120
ccgacttttag ttacttaatc accagctgct ccagagggtca aaatgataca gcatggccca 180
agggtcccac cataaatcac attattagca caaactatct ggcctggtat ggcccaaggc 240
ctgagggtata caaagacacc cctacttggg aggatattcc aaggacttag aggttatctc 300
ccaggagccc attaaggcca gttttttctt tgagatgtgc tgggtttgga cacttcaagc 360
ctgctgagtt aacccttata gcacagtccc caaatgtga gggaccaact gggcctacaa 420
taagtttgta tctttaaggg ttaagggtgtt ttaccatac ctccttgctt tatatctcat 480
gataatatga ggcttttgga aggcag 506

<210> SEQ ID NO 179
<211> LENGTH: 614
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

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<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2022630CB1

<400> SEQUENCE: 179

gaggggtcttg tctggacctc cagagccccc agccttgctc acttggtctt gcttctgggc	60
aggggtgcctg gcattgctgt tgctggcacc tgccgtgcct tggaggggtc tccagtggga	120
cctctgagca cggctcttcc tgtacttctc agaggtgagc agagggcatt tgtgggagaa	180
ctggaacctg gggaggaaaa accccaaggc tggcaaagac tccctgcagt ctgtccagtg	240
atccactgag gctgagtggg ggaggacatg gagccggcc cgggaccagg acatggaggc	300
cggccaggga cctggggaag agagggcctc agtctggtga gaccagcctg gtgggtgcct	360
ggggaagaga gggcctcagt cctgtgagac cagcctggtg ggtgcctggg gaagagaggc	420
cctcagtcog gtgaggagac cagcctggtg ggtgcaggcc acccttgctt gctgtcaggg	480
cctgcccttc tctccggcct ccagctgctt tgccccagcg atcaggcgcc tgagcttcct	540
ccccgagcc tgagtccagc tgagctccgt gtggctttcc cggtgagca gactctgtct	600
gatttcccaa cggg	614

<210> SEQ ID NO 180
<211> LENGTH: 1750
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2022631CB1

<400> SEQUENCE: 180

agctggggaa ggggtgcaggc gggaagagtg ggctgtcttt ccaggggtga tgcaagcatg	60
ccgcagccct ggaggctggg aatgtggagg ctctgtgagc cctgcagccc tcagaatcag	120
ggccagggat gcagaagatt gagaggatat ggagatggat agagggcagg agacccttag	180
gatagattgt gggaccaggc caggaacagg tgtccacaag aactcaggat ggcacagtt	240
agctcagaag ccacctggaa gacctagtgt ttccatctct ggaatctctg ttttatgcta	300
aatggattta ggaagactgt ttttctttta agggggaaac aaggtagaga aaaggacgaa	360
gaagtgtaa tcccgtgat tctcgggggt aagctcggg tggcaaggac gcgttctgcc	420
tgggcatgta ggggaggtgt ttttgccatc accagtttct caggctgggg agcacagagg	480
ggaggaggag gactaaatga aaagtgttcc ccagcctgca catgaacaca ttcattgacac	540
acaaaactgt ctggaaggag ataagagcac tgggtttgag attccctcca ttaaaacaac	600
caagacaaa aaaggagggg aaaaaaagat aaaaagcaag ccagggttcc ctgccctatt	660
gaaactcaaa ccagactgc cttgggtttt atctttccct taccctggc acctccagag	720
aactgggacc tgaaatagtc cctccgttct cccctttgac catgtaataa atgaaccaga	780
agcactgaga ttaacctatc aacgcctga gaagccttcc agcctgcggt gctgtctgct	840
gggaggtcag ctggtcaagg cagaggagga gaggaggaaa ggaatggggc tgaagagcag	900
aagggagggg agacagaggg gattaaagag gggaggagag agtgcagagc tccaggaaag	960
ggtatcagag ctgcagccag ctctgccctc taccctaggg aggccagaaa gacacaaaca	1020
gccctccggg cctttacgct ggactctggc ttggcaggct ccaggcaggg tcctctggga	1080
agttactcta gaaaacgaag ggaggaggag cacaagatcc tcagcaacga acacctgcac	1140

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ttagaaaaag tggacagctt ctgccaacca caccctaccc atggtactgt atgctattaa	1200
ctcctggaaa cgccccgtaa atgcgagttg tttttgtatt tgtgtgttga gatgggcctt	1260
gtggttttct tgtactcaga gcacatttct tgtaattact attgttattt ttattgtcat	1320
gactgccctt gagctctggt gagaaaagct gaatttacia ggaagggat gaagttaata	1380
tttgcatcac ataattatat cattactgtg tatctgtgta ttgtactaaa tggactgatg	1440
ctgcgcacat gagctgaaaa tgaagagccc tcccatccat tctatgagaa agaaggcac	1500
cctgagtgc ttctgtttca tgatttccca aacaggtttt agagctggaa aaggacttaa	1560
agaaagagac tgggtggtgc ttctagaaa ggaggaagat gggatcagg ggaaggaagg	1620
agttagaggg ctttgtacaa agccgagatt gctcattaaa tgaggaacat cctggcctgt	1680
gggcttgtaa gactgacctt ctgggagctt caggaggatc ttgaactaaa agaaaaaaa	1740
aaaaaaaagg	1750

<210> SEQ ID NO 181
<211> LENGTH: 364
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2023275CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 306
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 181

ttggtcaagt cttcctgtgt gagtgcaccc tacccatggt ttatgcattg ccagtactca	60
atactgaatt acaccaaacc cctctcctta aaatatccct gttattttat ttagtcagat	120
caaggaaata cattaataca gtgtttctca agtgtagtct aatatggtaa atactgaact	180
cgagccccac cttaagaaaa gctctctggg gtacaatttt taagacgggc aaaggaattc	240
ttgagtccaa agagtctgcg agtcgccga ttaataaat gggaagtttc agtttcaggg	300
acttgnatgt ctgctcaatt gtttgaaggc acagggattt ttaaaatga caaccaggg	360
cttt	364

<210> SEQ ID NO 182
<211> LENGTH: 296
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2023747CT1

<400> SEQUENCE: 182

gtgcatctgt atagttgaga atcagcccaa aactgtacat gaataaacta cataaacaag	60
aatattgaga taaatactct ttggcattag tgaaacttaa acagaacaat tagaggattg	120
aatcgttttg tgtaaatgca gatgtactca ggaaggaaaa atatcttttt ctcttttttt	180
ttttgagatg gagttttgct ctgtgtgcc aagctggagt gcagtgagct gagattgcac	240
cgctgggctc cagcttgggt gacagaacga gacttcatct caaaaaaaaa aaaaaa	296

<210> SEQ ID NO 183
<211> LENGTH: 745

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<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2044305CT1

<400> SEQUENCE: 183

atggtttgac tttcttgatga attaaagaga aagtaacata atctgtattt agcagaacca	60
tacctggagt cacttgacca tttcacagtg attttggtt gtatttgac ctttctgagc	120
atttactcca gcagtttaaa ttccttcatt ctttcaatat cttgagccct ctttgccact	180
gattttgtta tttattccaa gagatggcat ggattttgtt agtggttatg gctttatcac	240
ttggctgtcc ttgcttcaag ccacttagag ctcccactca ttttattcat tccagaaata	300
aattactagt attacaatg ggcagcactg tgctagggac acagccttgc actcacagac	360
ttacgtcctg cgtgcataca tctttctgtc tacaggcaat ggcagaatta gagtttaggt	420
gtagtgtgtt gagtgtgtgc gtctgtgacct ccttaatact agccgttaca aaataattta	480
aaaatcatgt tagattagga gcttatttta caaaatgctt aactctgtca tcatcctacg	540
catgtcatca aaaaagcaga actggcagat tcaactgtgtt tgagtggtta ctttgccttc	600
acttcacatc tttattctta ggcacctgtt tcttgccac caccacgttc ccaactggcag	660
ttaacaccaa gcttgattag aaaaatacat ttcccaggtt tgtcaaagta acctgcacaa	720
tgtgcacatt accctaagag ttaag	745

<210> SEQ ID NO 184
<211> LENGTH: 1432
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2069971CB1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 1203, 1232, 1235, 1238, 1263, 1273-1275, 1290, 1304,
1345, 1355, 1359, 1365, 1396, 1406, 1409, 1415, 1418, 1425
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 184

gaaagacata cacacttcat gtaatgctac ctgcaagtct ccctagaaaa gcagtttttg	60
taggtgaaaa caatgaagcc aggtaatat gcaaggaggc tgtaatttta gcagacctac	120
caacaacact gatgtaggaa gctcattatt ttaatttctg gagcctttta attttttctt	180
tagaaagtgt ataaataatt gcagtgtctg tttgcttcca aaactgggca gtgagttcaa	240
caacaacgac aacaacagcc gcagctcatc ctggccgtca tggagtttct tgaaagaacg	300
tatcttgtga atgataaagc tgccaagatg tatgctttca cactagaaag aaggagctgc	360
aatgaacac ttcatagcaa tgtggaactc caacagaaac cgggtaataa agatcagtgt	420
cccagagaga gaccagagga gctggagtca ggaggcatgt accactgcca cagtggctcc	480
aagcccacag aaaagggggc gaatgagtac gcctatgcca agtggaaact ctgttctgct	540
tcagcaatat gcttcatttt catgattgca gaggtcgtgg gtgggcacat tctgtggagt	600
cttgctgttg tcacagatgc tgccacctc ttaattgacc tgaccagttt cctgctcagt	660
ctctctcc tgtgtgtgtc atcgaagcct cctcctaagc ggctgacatt tggatggcac	720
cgagcagaga tccttggtgc cctgctctcc atcctgtgca tctgggtggt gactggcgtg	780

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ctagtgtacc tggcatgtga gcgcctgctg tatcctgatt accagatcca ggcgactgtg	840
atgatcatcg ttccagctg cgcagtggcg gccaacattg tactaactgt ggttttgcac	900
cagagatgcc ttggccacaa tcacaaggaa gtacaagcca atgccagcgt cagagctgct	960
tttgtgcatg cccttgagaga tctatttcag agtatcagtg tgctaattag tgcacttatt	1020
atctacttta agccagagta taaaatagcc gacccaatct gcacattcat cttttccatc	1080
tggtcttggc cagcaacat cactatctta aaggacttct ccatcttact catggaagg	1140
gtgccaaaga gcctgaatta cagtgggtgtg aaagagctta ttttaggcag tcggacgggg	1200
gtncgtgcct gtggcaacag ccctgcaaca anctnggnt tctaaccaat gggaatcaaa	1260
ggnaaatcc tcnnaaagct tcaaaggctn gcttaaaagg aagncaaaac ccggggccca	1320
agcccaagg ggggttccg gagngggaa aatnccctna aaggncctt taaggcaaaa	1380
aggcttttaa cgggtngcaa cttaanntna cccanttnaa gggangggat tc	1432

<210> SEQ ID NO 185
 <211> LENGTH: 821
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 2070872CT1

<400> SEQUENCE: 185

tttttttttt tttttttctc tctttcttga ttttatttta aacaacacac attaacattt	60
taaaatagaa tttaaacagg tgcccagtaa cagaatgaca gacgttaagt gtgaaatcag	120
aaagttaaaa aactaaaccg cagatggtca cctttttatt ttttttaaca tccgcctgcg	180
ctggactgtt aagtggcctc atcactgtca agccaggcag gatttgtaaa gcttgggatg	240
tgtgtattca gagatgacat ttgcttgggt cctttaatga tttctgtaat tagtcattta	300
aacagattgc cctgtgatcc aaaacaggga atacagagag atgagctgag aaaatcattt	360
cctggaggca ctttagagct aattgtggaa aatgaggctt gtctctttgc aagactctct	420
ggatcatatt tcattgggtg gggatggagc tggagagcaa cattctccag gaatctataa	480
aatgtatatg cctgggaggt gtttttcttt ttgacaccac agtgctaaaa gactttgttg	540
ggtcacaaaa tttaacagat attaaagtaag tgatccaaat ttgccactgg caatttagaa	600
accagagaaa gaaatgcacc cggtcagaga aagttgaggc tacatgacag agaaaagcca	660
agaacttgat atttcacagg aatggggtaa gacttgggag acctatgact ttgccttcac	720
tgcaactggc agttgttctt tttattaata aatgtccttg gagtgacaat tctgctcttc	780
aaagataaaa gcggaagctt tcagagacag tcagaaaggg a	821

<210> SEQ ID NO 186
 <211> LENGTH: 832
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <220> FEATURE:
 <221> NAME/KEY: misc_feature
 <223> OTHER INFORMATION: Incyte ID No: 2072228CT1

<400> SEQUENCE: 186

gatagattga ctatagggaa ttggcctcg acatagtaat ttggcagagt aaattottaa	60
aatcatcacc acgattctga ccttatggac tttgaagggc agatgttgtg tctcattgct	120

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ttcgtgtcca caagacctgg cacatagacg atgctcaata aatattattt gaaggagtga	180
atgatggtga catggttctt aggagttaa atgagaaaac ccaaggagcc gaaagcatgt	240
ctctacgggg aaaggttaga gagcactgac tcaaaccatc gtctccaatt atgcagtttt	300
aatgaggaag caagcccaac ctggaacatt atttaagcca gagttatccc aataagcatt	360
ttcctacat gatgtgtaga ttaagtagca ttgagtcag tagtgaaagt aatgtccctt	420
cttcatacca tttcaatgcc tctggaagt caagagaaag tctttgataa tagcctattt	480
ttaaacacctc tcacccttgt ttgtcagaaa gagcagacct cagattcaga gactttagca	540
agcaagata tccagtaaag aaatgaaata atggccgggc acagtggctc acgcctgtaa	600
tcccagcact ttgggagtcc taggcaggcg gatcacgagg ttgggagttc gagaccagcc	660
tgaccaacat ggtgaaaccc cgtctctact aaaaatacag aaaaaaaaaa aattagccgg	720
gcgtggtggt ggcacatgcc tgtaaaccca gctactcagg aggctgaggc aggagaattg	780
cttgaacccg ggaggcggag gttgcagtga gagccgagat tatgccactg ca	832

<210> SEQ ID NO 187

<211> LENGTH: 1249

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2085633CB1

<400> SEQUENCE: 187

tgagatgtcc catgggtagg gatgtcatag acaacaagc actaagccct ggacagggga	60
tggtatgagcc tcccactgag attatttccc tccatcactg aactctaaca agggcctttg	120
atcttgcctt tggcacaagc atgccttcct ctgagcacac tacaagtccc tatggaagag	180
agagtgttct aggcagcagg acaagaagga gcatgacaca ttgggaaaac ggagccacag	240
tgtgaacagg gcgatgctta gatgtgcca gcagaagcac cctgggaaat gaggggtagg	300
gaacaaccaa caaccttgat ctccctgaag actctttctg ctattgagt ggataaggcc	360
ccagagattc agtgtggtt tctggggtt gggcccatca cagagtcaga ttttgggctt	420
taaggaggcc ctccctgtac ctggatgggc tccaaggaca gtctcagctg actgagttag	480
cagggtggcct gcctcaagtc ttcacatgag gccagcaca tgatgagtgt ccagtgggcc	540
ccattgcttg cagacacatc cctctgtgct ctgactttca ctccatctc cttctccac	600
accctgctct cattttaggt tcctgcgcct ctgaactctg aaattccaca aatgcacat	660
tccctctatc ccatctccat gcttttgcct ctccctgtcc cttagcctgg gatgcgttca	720
cttgctttac tgacttgcaa aactcctacc cacgtttcaa atttcatacc actgtgaatc	780
cttccctgac ttcaccaaga gactcagata gaccttctt tctgctcccc ctgcatctgt	840
acatacttct gtctgtatct ttatcatatt gaagtataat aaactgttga tatgttggtg	900
tttacacaag accaagaaat cctcatgggc caagtcctat ccttatttac ttcatgttga	960
atgcacctag catttgagaa ggtggttggt aaagtggctc atgcctgtaa tcccaacagt	1020
ttgggagggt gaggccggca gatcgcttga ggtcaggagt ttgaaaccag cctggccaat	1080
atggcaaac cccatcttta taaaataca gaaattagcc aggtgtggtg gctcatgcct	1140
gtaatcccg gctgtaatc ccagccttg gaggtgagg caggagaatc acttgaatcc	1200
aggaggcaga ggttgcatg aactgagatt ggaccactgc actocaggg	1249

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<210> SEQ ID NO 188
<211> LENGTH: 347
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2088104CT1

<400> SEQUENCE: 188
cagaagagaa aaagtcaaa tcataactac atactaatga gttaattaaa ataaaaaaat 60
tacaaaaacac attaagggta gcaataacat atatatatcc agtttgcttc aatatcaact 120
agtttttagac ataactacta aaagactaac actaaagaat aaagttttaa gtgttcctgg 180
aagctgagct accaaagttt tcttattcaa tacattttct tattggagga ataagtttaa 240
gcccttttag tgatgagaca gctttgttgc cactagtgtg atacaataac aaccagaacc 300
tggtgtactc taaaagtctc caaatcatc ttaaaaaaa aaaaaaa 347

<210> SEQ ID NO 189
<211> LENGTH: 483
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2091133CT1

<400> SEQUENCE: 189
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ctgttagttt cttgaggaca aggacttcat cttttcaaa cattattggt caaataaatg 120
aagaaatagg ctgcatcctt tctctttatc ctttgacctc ctctatcatc ctgctgttat 180
cttcagaag gagaagaaac agcttcacag gaaaagtaga ggagattttc ccattatggt 240
gaaagtgcga aatcagaatg tgaaatagga attctgggct ctgtaccagg catttactcc 300
tatgctgtta gctgatgtta aagagggtgg atttcttttc ccttaggtct caccctctgt 360
gccttcaggg gaagtgtgtt ggaagtttga atgtttgtt gttgtcgtca ttgttttgta 420
ttaaggaggg ctgtaatgga acgaatacaa tggttattga tggagagtaa aaaaaaaaaa 480
aaa 483

<210> SEQ ID NO 190
<211> LENGTH: 1935
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2123514CB1 Contig1

<400> SEQUENCE: 190
agcttccttg gggccggcct ttgcgtccgg cctcctgctg tccagtgtg gcttctgtgc 60
ccctcacagg tctcagccca acctctccgc cctctccatg cccaacctct ttggccagat 120
gcccatgggc acccacaga gccccctaca gccgctgggt cccccagcag ttgccccgtc 180
gaggatccga acgttgcccc tggcccgtc aagtgccagg gctgctgaga ccaagcaggg 240
gtggcccttg aggcctggag acccccgcgt totgectccc agggcccctc aaggcctgga 300
gccaacactg cagccctctg ctctcaaca ggccagagac ccctttgagg atttgttaca 360

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gaaaaccaag caagacgtga gcccgagtcc ggccctggcc cggccccag actcggtgga	420
gcagctcagg aagcagtggg agaccttcga gtgagccggg ccctgagggt ggggatgca	480
ccgagggccc aggttccgtc cactgctgcg gttccgaggc tccccgcga ctctctctct	540
gccaggttc tgctgggtgg aagggatggg acccctctct gctgcccct cctcccctcc	600
acactgccca tctctgatgt ctggccctgg ggaatggcac cagtccagc ctgggaatca	660
acccagtcc tgagtgccca tcccaccocg cggttgctc tcctcggcac cttgattgg	720
gttttgact aaagaaagag gtcagctggg ccaatgatat tgctccagac cgagtcctac	780
ccacctccc ccggaagtgt cccaaggagc tccgaaggcc tcccctccga gccagctct	840
cctgtctcct ccacagccag gccctgcacg cccacctcct cggacacagg tgacagggtt	900
accctccagt ttgagctcat ctgcacgaga cacaggtagc ttggggttga agttaggact	960
cctcctgggc tggaggatatt acctgggtgg gcacttcag actgtttcta gcaatataca	1020
cacacgttct ttctgtgtc ttcaccccaa aacttcagtt gattctgacc tgggaggatc	1080
tggggaccag ggggtcttgg gctgccttgt gatacacagc cccagccacc ctgcacgggg	1140
gctgcgagca ccagcaactt tgatttatag aaggaaaatg gaaacccca tctgagtatt	1200
ttgggaggag cccccagccc tcatccagct ctggcacgct gatacctcca ggtactcccc	1260
tcactgtcaa agctggggct cagcctcttg tcatctggag ctttgtgggc aaagctgaga	1320
agctgcaacc cagatttcaa cccaaaaagg tcaagctgaa tgcctcagac tgatgtggaa	1380
ggcagctggc cttcctgggt tggaacgagg cagtggccct gagccccttc tccaggcca	1440
ggtagaaaag acaaacttgg tctctgcctc ggggaagcag gaggagggtc agaagccagt	1500
ccctcccac ctgcccagag ctccaggcca gcacagaaat tcctgaggcc aacgtacca	1560
aagttagatt gaatgtttat tatctttctt tttccttttt acctattga tttgatgaat	1620
cttgaaatgg attcatttcc ataaaccaag ttaaagtatg gcccgaccat ttaagaaaac	1680
aaccatctga gacacgagg aaattgtgag catttcgacc cgagctctca tttcctattt	1740
gtgaagggtc agacacagtc taccagggg tgtctggggg acaaggggtt ctctggagat	1800
gtcaccagg gagcccctc tatgtctgag aggctgccac tgctgcacat gctcagttag	1860
gcttgccgc catcctggca catggctctt cctgggtcaa ccgtgacctg tctggctcag	1920
gaatgggctc tgggg	1935

<210> SEQ ID NO 191

<211> LENGTH: 2657

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2150261CB1 Contig1

<400> SEQUENCE: 191

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tacctcagtg gtgtcgggt cgccagcgtg gtggtctctt tcttctctc catgtactac	120
aacgtcatca acgctgggc cttctggtac ctcttccact ccttcagga tcccctgcc	180
tggtctgtct gccactgaa tggtaacac acgggctacg atgaggagt cgagaaggcg	240
tcctccacac agtacttctg gtacaggaaa accctcaata tctcgccgtc cctccaggag	300
aacgggggtg tgcagtggga gccggcgctg tgcctcctc tggcctgggt ggtggtgtac	360

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ctgtgcatcc	tgcttgccac	cgagtcact	ggcaaggtgg	tgtatttcac	ggcgtcactg	420
ccctattgag	tgctcatcat	ctacctcatc	aggggcctca	cgctccacgg	agccaccaat	480
ggcctcatgt	acatgtttac	tcccaagata	gagcagctgg	ccaaccccaa	ggcctggatc	540
aatgcagcca	cccagatctt	cttctcactt	ggcctgggct	tcggcagcct	gatcgccctc	600
gccagctaca	atgagccatc	caacaactgc	cagaagcacg	ccatcatcgt	gtccctcatc	660
aacagcttca	cctccatatt	tgccagcatt	gtcaccttct	ccatctatgg	cttcaaggcc	720
accttcaatt	atgaaaactg	cttgaagaag	gtgagtctgc	tgctgaccaa	cacttttgac	780
cttgaagatg	gctttttgac	agccagcaac	ctggagcagg	tgaagggtta	cctcgcatct	840
gcctacccaa	gcaaatacag	cgagatgttc	ccgcaaatca	aaaactgcag	cttggaatcg	900
gagctagaca	cggccgtcca	gggcactggc	ctggcattca	tcgtctacac	agaggccatt	960
aaaaacatgg	agggtgtcca	gctgtggtcg	gtgtcttact	tcttcatgct	gctgatgctg	1020
ggcattggga	gcatgctggg	gaacacagcg	gccatcctca	cccctctgac	agacagcaag	1080
atcatctcca	gccacctgcc	caaggaggcc	atctcaggtc	tgggtgtcct	tgtcaactgt	1140
gccattggca	tgggtgttca	gatggaggct	gggaactact	ggtttgacat	attcaacgac	1200
tacgcagcca	cactgtccct	gctgtctatc	gtgtgtgtgg	agacgattgc	cgtgtgctac	1260
gtgtacgggc	tgaggagatt	tgaagtgcac	cttaaggcca	tgaccggccg	agctgtgagc	1320
tggtagctga	aggtagatgt	ggctggcgta	agcccactgc	tgattgtcag	cctctttgtc	1380
ttctacctga	gcgactacat	cctcacgggg	accctgaagt	atcaagcctg	ggacgcctcc	1440
caggggccagc	tcgtgaccaa	agattaccgg	gcctatgcac	tggctgtcat	cgggctgctt	1500
gtggcctcct	ccaccatgtg	catccccctg	goggccctgg	ggaactttgt	tcagcgtcgc	1560
ctcaagaggg	gagacgcaga	ccccgtggcc	tgagatgtgg	gcttcccagc	cgctcacggt	1620
tttacagata	ctattttacag	gcggaaaactc	ctcggctgct	ttttcaaatg	cttaagccag	1680
gagtgtctag	cccatcaact	tcctgagtgt	ctaaagaaga	tgagggaagg	gtgcagggaag	1740
aaaactccct	tgggagaacg	cacaccctcc	cgtgggtggc	gttcctccct	gtcacctgcc	1800
tcctcatcat	ggaaggagg	gggctatgaa	agccggctctc	aaagataact	gcaccttcca	1860
ttccaggaaa	gccctagaat	tagggcacat	tgcaaaactga	aatatgacta	taattottat	1920
gggaccaaata	ttaagcaatt	tttgtttttg	gctgaagaga	caccaaataa	ttagaggaca	1980
aatattttta	gatccattta	aggagttttg	aagtgcctaa	gatgacctat	ttgtcagtgg	2040
tgcaaaatta	attctcttct	tttttgagtt	gtagtgaata	tgcaatttct	gtgttcccct	2100
tccacccttt	aatcttagg	atgacaagtt	ataaagaaag	aagatctttg	tctgggaccc	2160
ccaaagggat	cctttctcta	aggtctctga	cagtgggtcc	aggaccagac	ctctctacaa	2220
aaaattggcc	caactacagt	ttgcaacccc	aaaccacatt	agaagtctgt	gcagacatcc	2280
ctccgtggtg	tgtgtcttgg	tgcatgggaa	aaggagttag	gagccactgt	gaggtgagaa	2340
tgaaagtggg	tctcagctgg	gcacgggtggc	tcacgcctgt	aatcctagca	cottgggggt	2400
caaggtgggt	ggatcacttg	aggtcaggag	tttgaggcca	gcctggccaa	catggcgaaa	2460
ccccatttct	actaaaaata	caaaaaaatt	agctgggagt	ggtggcatag	gcctgtaatt	2520
ccagctactc	tggctgtctga	ggcacaagaa	tcattttgaac	ctaggagggtg	gcggttgctg	2580

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tgagccaaga tcatgccact ccactccagt ctgggcgaca gagcaagact ctgactcaaa 2640

aaaaaaaaaa aaaaaaa 2657

<210> SEQ ID NO 192

<211> LENGTH: 1171

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2170670CT1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 1115, 1121

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 192

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aacccaaact tcaccaacga accctgaaca aatgtaaaat accacaaaga aatactgtcc 120

gaatcaacct tgaccatttt caccagaata agacagcaaa aatgctctgt tgtgcatacg 180

agtacaacat gtatggtaat aaatcaccag tggatcattc cgggctggta cgagccttct 240

tggtggaagt aggtgcacac ggaagcaaac tcattcccgt gcttccggaa gaactctgctt 300

gctgccatgg agggctaaat tgccgtggat ttcgagcccc tgagctccaa gcagatcaag 360

accatctcag gaaagactcc acagcagtat gagagagagt acaacaacaa gcggtcagac 420

gtggggccca gcaagtccca cgggtacgcc tacgatggca tctgggtcat cgccaagaca 480

ctgcagaggg ccatggagac actgcatgcc agcagccggc accagcggat ccaggacttc 540

aactacacgg accacacgct gggcaggatc atcctcaatg ccatgaacga gaccaacttc 600

ttcggggcca cgggtcaagt tgtattccgg aatggggaga gaatggggac cattaatttt 660

actcaatttc aagacagcag ggaggtgaag gtgggagagt acaacgctgt ggccgacaca 720

ctggagatca tcaatgacac catcaggttc caaggatccg aaccacccaa agacaagacc 780

atcatcctgg agcagctgcg gaagatctcc ctacctctct acagcatcct ctctgccctc 840

accatcctcg ggatgatcat ggccagtgtt tttctcttct tcaacatcaa gaaccggaat 900

cagaagctca taaagatgtc gagtccatac atgaacaacc ttatcatcct tggagggatg 960

ctctcctatg cttccatatt tctctttggc cttgatggat ccttgtctct gaaaagacct 1020

ttgaaacact ttgcaccgtc aggacctggg attctcaccg tgggcttaca cggaccgctt 1080

tttgggggcc atgtttgcaa agacctggga gagtncacgg ncatctttca aaaaatgtgg 1140

aaaatggaag gaaggaagga tccatcaagg g 1171

<210> SEQ ID NO 193

<211> LENGTH: 555

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2199484CB1

<400> SEQUENCE: 193

gccacccttg caacaaatac aggcgcctgc acagcctggc ccacctgttc attaatgcac 60

tcaatttagt actgaatggt ctttctccca gccattccc agcccttcct atttcctttc 120

ctattttttt tttctcccca cactttcttg ggactccac cttggaagga ggaagggtg 180

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acctgggttc tcttcagccc ccaggtgcgc cgggtcaccc gtgccccttc attatggacc	240
tgggcccctac tggaaccctt gcccagttta ccacaactca ggccggcttg cccggggccac	300
gggctgcgca aatcaccagc ccccaaccca gggaggaact gggccctcct agggagcctc	360
ttcgactttt ttagaaaaat gatctccatt tctttccagc catgatgttt agtaaatatt	420
tttagtacgc cacttagcag acagctttcc aagtgtgctt tcttgccaca aaagtgtcct	480
ggcaagagcc ccttattttt taagacatca ggaaagcaga ccgctttgag ttggggagat	540
tttgagctc aacaa	555

<210> SEQ ID NO 194
<211> LENGTH: 100
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2204242H1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 49-50
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 194

gtcttgctag tctgaattca tgtcttgacc cagtcataata ctacttttnn actaatgagt	60
tccgaagacg gctttcaaga ccagattttg caatgacagc	100

<210> SEQ ID NO 195
<211> LENGTH: 510
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2236316CT1

<400> SEQUENCE: 195

agactcccat tcttaacttg gcatttttgt agcttacagg aaccagcttg gtgtaccttc	60
tcttatgaga tgcagctgga aagccattta tgcaagaggt ggtttcactt ttgtcgctcc	120
tccattcatt gacccttcag cctttaaaaa attagaatgt gaaaattagt agcaagagat	180
gcagagatat tagcttaagg gataaataaa tgaaagtagc aagtagctca ttatttatga	240
agagtaataa ttaataactca ttatttcacg aagtatcacc gtgcctggcc agcaattaga	300
attttaacac tggcagttat gaataatatg aaggagaggt agatttctga gtgattcttg	360
tttaaccagc tgggtggatg gtggttcacg gtattcaggt ggcaaacagg aaaaacatgt	420
gttcgaagaa gaatggaggt aggtggtctc ttaagaatgg ttaagaggct tgggagtcag	480
actgcttggg gttgcatccc agctttgacg	510

<210> SEQ ID NO 196
<211> LENGTH: 512
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2237722CT1

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<400> SEQUENCE: 196

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gaaccctccg gcctagaagt tcagatgtct tgccaatata tctgtgcttc acaacttgcc      60
tactctctct gaccctaacc attttcacat acttttccaa ttctgcctgt cataaatttg      120
ctgcttcccc ctaagtagaa tgttgattcc tgtcaaacac acagcctagc cctgattcct      180
cctcttctct caagcagtga tattgtcaac aatgataaac aactactatg tactgagtgt      240
ttttttatgt gctgctcaca ctttatacac atgtatagat tcattcttca tcatagattt      300
ttcagctagc tggcatttat tagccccact ttgcatatgt aggaacacag gctcaaggaa      360
agaaagcaac ttcccacaat ttcccaggct agtaaaagtc agagatggaa ttcaagccca      420
gatcattcca agtttgtgct cttcctgtga cacgacactg cctcagtcga ggcacagag      480
aggaagttag aaagcagatg gtgagaggga gt                                  512
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<210> SEQ ID NO 197

<211> LENGTH: 534

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2238625CT1

<400> SEQUENCE: 197

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gccttcagca ctttagtagt ggatgtcagc ggtaaatctc tcgaatacac tctgaaaaga      60
gaaatcagcc ctggcaagat caacagcgta aagcagaatg acatgctagg gaaggtaaca      120
ttcgacctat aggtattttt caacattctt ctgcctccag ttattttcca tgctggatac      180
agcttaaaga gacacttttt tagaaatctg gggtcactcc ttcttgggga ctgctgtttc      240
gtgcttcctg attggaaatc tcagggtatg tatgggtgaag ctcatgaaga ttatgagaca      300
gctctcagat aaattttact acacacattg tctctttttt agagcaatca tctctgccac      360
tgacctcagtg actgtgctg cgtatatttat gaattgcatg caagacgtgg atctttatgt      420
actctctgtt gggagagcga tcctaaatgc ccgtggtaat gttggacctt ccttcaccaa      480
ttgctcgggt atcaggcagc cgggcctgaa cttcaactca cgccttttct ggtg          534
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<210> SEQ ID NO 198

<211> LENGTH: 454

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2242277CT1

<400> SEQUENCE: 198

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gtccttttct taaaagatac atcccgcgcc aaatctccgg gggcattata tatttatata      60
ttcctaccgc agagaatata tataggaggg gtatatatat gatgtgttat atatatatat      120
atttgtgtgt gtatatatat atatatatat acatttcttt gtctatttat agaacaggtt      180
aagtgacttg tccaaagtaa cacagctaaa aagtgcagc aggggttcaa acccattctc      240
tttaactcca caaatgagta tggttctcca attcatgctt ccttcagcta acagagtgtt      300
caaaaatgca gattgtaag gccaaagtga gtggcttatg cctgtaattt cagcactttg      360
gggagccaga gtgtgaagat ggctggcctg agcccaggaa ttcaagacca gcctgggcaa      420
tatagtgaga ccttgtctca aaaaaaaaaa aaaa                                  454
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<210> SEQ ID NO 199
<211> LENGTH: 507
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2244782CT1

<400> SEQUENCE: 199

aatgagcaaa atgttgtttt ttgtattgtt aatcaaatca gaaactgggt taaaagattt	60
acaaaaattca caagggtatg aaaaacagag gttgtattta ctgattgggtc tgtttaatgg	120
aaattgtcta atggaattgt ctcatatttt caaatgggat tttgttttca tggaatttaa	180
ttagtctgat tataatttac aagttctttt aaaaagtaca ggagcagctt tttaaagttt	240
gagaaacaga aaaaagtaat tgactaaaga aatttacaac taacatgcct ggtccactat	300
tttcctcata gcagtgcctg tatcacaaagc atacttatcc accatgaatc tgtgtgtgct	360
tttgcaagtt gacattattg ctctctgagt gaagctgtag aaaccatttc tatctagcaa	420
tgccgaattc ttgatcttgg ttccttctgt ttgactctca ttagtttttag cataaacagg	480
taaatgtgct tttttacaag tatattt	507

<210> SEQ ID NO 200
<211> LENGTH: 807
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2272244CT1

<400> SEQUENCE: 200

gagcagcaaa ttccggcacga ggaatcgctt gaacccggga gcagagggtta cagtgaacca	60
agatcgcgcc atcgactcc agcctgggca acaagagcaa aactccatct caaaaaaaaa	120
aaagaatatg tgcagctctg gctattcttt aatcatgtct ttctgaaatg tgtatttgag	180
attagaaatt gaggttgaga ggaactcagg agattttttt tttaaatacat atgacagtat	240
aagccatcag tactaaatgg acagctccca gtatactgtg gactgtgata aactgaatgt	300
atgtttttta atggtttatt gctgcagggt ttttgtgtat ttgattttta gtttttaact	360
tattttttcaa taggtaataa ttgcacatgg ttcaaagcta aaaggatatga agtattatgt	420
agggatacgt ccctcccatc ctgtcccaca gccaccacct ctctcctcag ccagcaatga	480
catcagcgtc gacttgcctt tcccgggggt gtgcagagtt agatatgcac atacatgtgg	540
tataagcaca tgtacagagg agtacacata gcatataaac atgtctgtag cacatatata	600
ttctttcccc tcttttaaaa caaatggtag caaaccaacc acacactgtt ctgtatcttg	660
ctctgtttgc ttgatacatc ttgtaagtgg ctccctaatta ctatgtaaag attgacctta	720
tttaaatttt tttatgttga aatcatcaat attcccatca ttatgggtgtg ttctttgatt	780
gacaaatcag ctctcaataa accactt	807

<210> SEQ ID NO 201
<211> LENGTH: 1137
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

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<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2284108CT1

<400> SEQUENCE: 201

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gacaatctct gattgtgaag ccctcttttt ctctccttct atttctctct agagcactca      60
agacttcact gacgaaaact caggaaatcc tctatcacia agaggtttg caactaaact      120
aagacattaa aagaaaaata ccagatgcca ctctgcaggc tgcaataact actacttact      180
ggatacattc aaaccttcca gaatcaacag ttatcaggta accaacaaga aatgcaagcc      240
gtcgacaatc tcacctctgc gcctgggaac accagtctgt gcaccagaga ctacaaaatc      300
acctcaggtc tcttcccact gctctacact gtcctgtttt ttgttggaact tatcacaat      360
ggcctggcga tgaggatttt ctttcaaacc cggagtaaact caaactttat ttttttctt      420
aagaacacag tcattttctga tcttctcatg attctgactt ttccattcaa aattcttagt      480
gatgccaaac tgggaacagg accactgaga acttttgtgt gtcaagttac ctccgtcata      540
ttttatttca caatgtatat cagtatttca ttcttgggac tgataactat cgatcgctac      600
cagaagacca ccaggccatt taaaacatcc aaccccaaaa atctcttggg ggctaagatt      660
ctctctgttg tcatctgggc attcatgttc ttactctctt tgcctaacat gattctgacc      720
aacaggcagc cgagagacaa gaatgtgaag aaatgctctt tccttaaatc agagttcggt      780
ctagtctggc atgaaatagt aaattacatc tgtcaagtca ttttctggat taatttctta      840
attgttattg tatgtttatac actcattaca aaagaactgt accggtcata cgtaagaacg      900
aggggtgtag gtaaagtccc caggaaaaag gtgaacgtca aagttttcat tatcattgct      960
gtattcttta tttgttttgt tcctttccat tttgccgaa ttctttacac cctgagccaa     1020
acctgggatg tctttgactg cactgctgaa aatactctgt tctatgtgaa agagagcact     1080
ctgtgggttaa cttccttaaa tgcatgcctg gatccgttca tctatttttt cctttgc      1137
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<210> SEQ ID NO 202

<211> LENGTH: 609

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2287109CT1

<400> SEQUENCE: 202

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cggtccagta tgtctattgt tttggtctaa ctttagctta gttagaaaga ggtaaaaaaa      60
aacttgaccc cttttctatt cctctggggc tcagtcaaga atttttagaa cagctttgaa      120
atttctgagt tctgagaata ttttctcctt tcagtctcct tcaaatggca aaagatgaaa      180
agagaaaatt attccaaaat gtcccaagat aatgtttgct gaagaagaaa aaacctgtcc      240
tgatatgcca aattctgctc ctggggggtt ccaaattgac tgcttcaaga ctttcacctt      300
accttttgat ctaaaaagtc accttcaaat ctcaagtttt caatgacttt tgaagggtgtg      360
actgcaatta tgttgacgct atggttgcta aaggggttaa tttttttttt agtctctaaa      420
caggatagta gaatattaaa tgtacatcag ctgtgaagca catgatcggt gatagattgc      480
aactaagcca tataggaagt cttctctttg atttcaaatt attttattgt aatatattaa      540
attcgatact taatagaaag atttttagtg tccgcagtgg ccaaatactc tttcaaaaaa      600
aaaaaaaaa                                     609
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<210> SEQ ID NO 203
<211> LENGTH: 514
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2289873CT1

<400> SEQUENCE: 203

ggaaattact ttgttacaat gtttgatgat tattctgcta cactgcctct gctaattgta	60
gtcatttttg agaattatgc tgtatgcttt gtttatggca tagataagtt tatggaagac	120
ctaaaagata tgctgggcct tgctcccagc agatattact actatatgtg gaaatatatt	180
tctcctctaa tgctattatc attgctaata gctagtgttg tgaatatggg attaagtcct	240
cctggctata acgcatggat tgaagataag gcactctgaag aatttctgag ctatccaaca	300
tggggactgg ttgatttgtt ctctctgggt gtctttgcaa tactcccagt cctgtagtt	360
ttcattgttc gtgccttcaa ccttatagat gatagttctg gtaatttagc atctgtgacc	420
tataagagag gaagggtcct gaaagagcct gtgaacttag agggcgatga tacaagcctc	480
attcacggaa aaataccgag cgagatgcc a tctc	514

<210> SEQ ID NO 204
<211> LENGTH: 478
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2375491CT1

<400> SEQUENCE: 204

tcctgatatt taaaataata agaattgatgt atatttctta acatgatgat ttcagtccta	60
acatcagcat agctaacacg tcttgcatat ggggaaacac tagaggatt ctcacttagg	120
tcaggaaacca agacaaggat acccactatc tgcattaact gttggatata ctaccagca	180
cagtcaaata agaaaaaac aactatccag tgtgatggct ctgatttaaa aaaaaaaaca	240
gagaaaaaaa tagctagagc ctaaaaattt tattttactt ttttgagtat aaatttaagg	300
ggaacaagtg cagttttgtt acatggatat attgcctagt ggtgaagcct gggcctttaa	360
tgggaccatc gcccgatag tgtgcattgt accccatatg aaattactca acccttactc	420
accctaccacc cttctattat tttggagaca gtctcaacta tattgccc aa actggggt	478

<210> SEQ ID NO 205
<211> LENGTH: 502
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2376547CT1

<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 407
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 205

aacttgtaac tttctagttt ttactccat ttacaattat ctgtgctttt gaggttggtt	60
acatcttgta aataaaactgc tcatttcttc ccatctctgg gctccatc aaacattgga	120

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agcttgaaat cagcttccaa acgtgcaaact acttttggtt gtatttacc cagggaaatc	180
agcaaacact acaaatcagt gcttgattga ttattttatt agctgtcaag acttcagaaa	240
gtgatggaga aaatgttaac attgcaaata taaacttaaa agtgcattaa tgcctttcac	300
tattacatat tactttacat aatagtaaac acatatatta ttctgtatct gaaaactatt	360
aaatgatctg attcagcaac aaaaaagtg ctcacatcat tgataanaca atggaatttt	420
gacattcatc ttctgaaaaa ttgaacgaaa ggggacactt ctaaactcag tttatgaggc	480
cagcattaac cgattacaaa ga	502

<210> SEQ ID NO 206
<211> LENGTH: 562
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2377774CT1

<400> SEQUENCE: 206

gatcttctgg ctttattcat atcacaacaa aaaattctga aagacagcct gtttattgtc	60
atagaaatgg atataacctc acaaggagtg ttattaaagt tacttttgta agtgttttaa	120
aaacatgggc atgcagtttg tattaatagt gatactcctc tactgagtta ctgctaattt	180
gccattttcg cagtaatttc agaaaataag aaatcggtta cattattgta ttatttaaat	240
actccccatg atttctatta aggatgaata goatcattac agtatttggt agaaagtcac	300
atacatcacg atgcctgtaa tcccagcact ttgggaggcc gaggcgggtg gatcacgagg	360
tcaggagttt gagaccagcc tggccagcac agtgaaacct cgtccctact aaaaatacaa	420
aaaatcaacc ggccatgggt gcacacaact gtaatcccag ctactcagga ggctgaggca	480
ggagaaatgc ttgaacccag gaggcggaag ttgcagtga cagagatcgc gccactgcac	540
tccagcctgg caacagacaa gt	562

<210> SEQ ID NO 207
<211> LENGTH: 719
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2378093CB1

<400> SEQUENCE: 207

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gtgcgacagg aagcaaacact ggttgagat cggaccaccg gacttggtgg agcgcaaggg	120
ctccctgacc ctccgctccc atcacaagaa atactcgaag ccggtgttg tgtattcctg	180
atttgacat cagaacaca tgaaaagttg tcacaaatgt gtttaaacac agaattgggtt	240
gaaatgaaga gcaaggcttt attgaatgag gaaacagtga gctccgggat tatcgaaagg	300
gtcaccggat tgcctgccac aggttttgga gctgtcttcc ctacacatcc accggattgg	360
agcaaaatgt gtgcattgac aacgtactca gaagattatg ttccaccata tgattatcag	420
ccacatgctt atccctgtca agatgattat tccatagtcc acagaaaatg ccgttctcag	480
ttcaccgata taaatgggtc taaaagattt ggcatcaaca cttggcatga tgagagtggg	540
atttatgcta attcagatgt aaaacagaaa ctctatccct tgactagtgg gcctattgtg	600

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ccaattttaa aataatgtat agaatcagca tctctgacta atgaaaaatg gatgtagcag	660
ttgatgattt tctatcttaa taaatgcaat ggaagtgtta ctataaaaa aaaaaaaaa	719

<210> SEQ ID NO 208
<211> LENGTH: 892
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2378367CT1

<400> SEQUENCE: 208

actcttttgg cctgagacag aaaaacctaa aataaccctc aagaatgcca tgaaaaatgga	60
aagtggaagc tgcaacacag ggagcatcct cctccatctc cctgggtggcc aacatcgctg	120
tgaatctgat tgccttcctg gccctgctgt cttttatgaa ttcagccctg tcttggtttg	180
gaaacatggt tgactaccca cagctgagtt ttgagctaata ctgctcctac atcttcatgc	240
ccttttcctt catgatggga gtggaatggc aggacagctt tatggttgcc agactcatag	300
gttataagac cttcttcaat gaatttgttg cttatgagca cctctcaaaa tggatccact	360
tgaggaaaga aggtggacc aaatttgtaa acggtgtgca gcaatatata tcaattcgtt	420
ctgagataat cgccacttac gctctctgtg gttttgcaa tatcggttcc ctagggaatcg	480
tgatcggcgg actcacatcc atggctcctt ccagaaagcg tgatatcgcc tcgggggcag	540
tgagagctct gattgcgggg accgtggcct gottcatgac agcctgcac gcaggoatac	600
tctccagcac tctgtggac atcaactgcc atcacgtttt agagaatgcc ttcaactcca	660
ctttccctgg aaacacaacc aaggtgatag cttgttgcca aagtctgttg agcagcactg	720
ttgccaaggg tcttggtgaa gtcacccag gaggaacca cagtctgtat tctttgaagg	780
gctgctgac attgttgaat ccatcgacct ttaactgcaa tgggatctct aatacatatt	840
gaggtcagcc acttctccag tggaactctg aagtacagat gctgagattt tt	892

<210> SEQ ID NO 209
<211> LENGTH: 350
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2378405CT1

<400> SEQUENCE: 209

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agatcgtgcc actgcacgat ctctctctct ctatatgtat atgtatacta aaggtcacca	120
ataattttctt agtaaatata atgacatttt cttcaggact ttttatcctt cagaatcacg	180
ttaccttttt cttccttcaa tttctatgta tggttcaatt ctcagcattt actattttga	240
gaaagtagac ttactcactc tctttcctgt ttattcaaac aactcccaga tctgtgtctt	300
tattcctgac ctcttttcct catcaccagt attagagcac cgctgccca	350

<210> SEQ ID NO 210
<211> LENGTH: 563
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2378406CT1

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<400> SEQUENCE: 210

ctctgaatta agaggggttt taatgggtgaa ggtaatttcc tgttttctct gactcaagta	60
gaggaagcaa catcaagtgc agaattagtc cttgaagttg acaacatttt agtaaggaat	120
ggttaatggt attgagaaat ttaagtccta ggaaaaacca tccagaaata cttctgtgtt	180
agacatcatg tatgtgaaac atcatcttta tttcaacaa aactagtagg gtaaatgtgc	240
taaaagtatc aaacactgaa ttgaaaaaat gtgtattatt acctgataaa acctgtagtg	300
gctaaaatct ctaaaagtaa cattagtctt ctagttaatg actaatgcta aagcagaaga	360
aagtttttaa gattcataaa atttaaatta ttccttaggt tgttgattct ttctatgttt	420
tactaaaatg gactggaaaa cattttgtgt gaaaggctag aaagtagaca ttttaggttt	480
gtagattctc tgtcaaatct actccattat gctattgtag cacaaaacca accatataca	540
acacataaac aaataaatag ata	563

<210> SEQ ID NO 211

<211> LENGTH: 371

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2381364CT1

<400> SEQUENCE: 211

caggccatt gttgtaggtg aggtgggttc tttgtttga tatataacgt tttgctgact	60
ttcgacttgg gaattgcaa ggcttaccga aaacctgaa ggaaaagcta agaattcata	120
cttattaagc acttgtaggt gtctgacac tgtagtagat atatgcgaga gcccagaaca	180
agctgatgtc catgtacata tctttaaaaa atataatgat ctagtcttat ctgtggaaac	240
tgcttcagat actgatctta ctctttcctg ttacatcaga aattctggaa ggtaatatcc	300
tgaaagattt atcctcaaga ataacaatac attaaaatct tctgctttga aaatgcaaaa	360
aaaaaaaaa a	371

<210> SEQ ID NO 212

<211> LENGTH: 591

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2381732CT1

<400> SEQUENCE: 212

gaaggacttt tactccaggg ctgttgggag ggaggccgga ccatttggca gtttgggctg	60
cagagattgg aaggccttct atgctgctgg cttgcgggga agctgttga tctgtaggtt	120
gagctattcc tcttgacctg gagttcctaa acagagggat attctttttc tgtttcctta	180
gaaatcaaag gaaaaaagc ttacaggctt ttaacttgct agttttatta ttatacttaa	240
gttctagggt acatgtgcag aacatgcagt tttgttactt aggtatacat ttgccatggt	300
ggtttgctgc acccatcaac ccgtcatcta cattaggtat ttctcctaac ttgctagttt	360
taaccttacc tgctagcctt ttcaaacac ttccttcttc ctcccaccaa gagctaaaaa	420
tagaagtcag tactctttgt ttataatgac gtagagggtg catctgttct tttgggctgt	480

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gcgtcctcct aacgcatgag tcctcaaaact ttgggtgggg caattaacg tccccttggg 540
taagcaagtt taaaatggcg gaactcctaa ggcccccttc cccaagaatt t 591

<210> SEQ ID NO 213
<211> LENGTH: 405
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2383045CT1

<400> SEQUENCE: 213

aggttctggt taaacactgt aatgttgcca aatttttgag gatataattaa aatttgaagg 60
aatcttgatt tctaaagcta atacatTTTT tatattggct tgggaagaga cctaagggtca 120
taagtattat gagaacatat ttagcttgaa taagtacta tatgattttt atcaaaggaa 180
tgacatgaga cagatatgat gtagaactct gttatgaatc aaagtccact taaggaataa 240
aaaattacca ttacttattt aaggttcttc ttggccataa tttagaggat gaaaaaaaaag 300
tggtgcttgat actttcaaaa taacagggca gctgttgctg tctaatttgt tgaccaaatg 360
gagatttctg ccttcttggg atttccatgg aaaaaaaaaa aaaaa 405

<210> SEQ ID NO 214
<211> LENGTH: 2612
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2470285CT1

<400> SEQUENCE: 214

cccagacaag gcctttgggt ggggtgaaag aactcaaagt cctaacgctc cagaataatc 60
agttgaaaa agtaccaggt gaagccattc gagggctgag tgctttgagg acagttttga 120
aggacttggt cagttacggc atctgtggct ggatgacaac agcttgacgg aggtgcctgt 180
gcacccccctc agcaatctgc ccaccctaca ggcgctgacc ctggctctca acaagatctc 240
aagcatccct gactttgcat ttaccaacct ttcaagcctg gtagttctgc atcttcataa 300
caataaaaatt agaagcctga gtcaacactg ttttgggtga ctagataacc tggagacctt 360
agacttgaat tataataaact tgggggaatt tcctcaggct attaaagccc ttcctagcct 420
taaagagcta ggatttcata gtaattctat ttctgttata cctgatggag catttgatgg 480
taatccactc ttaagaacta tacatttgta tgataatcct ctgtcttttg tggggaactc 540
agcatttcac aatttatctg atcttcattc cctagtcatt cgtggtgcaa gcatggtgca 600
gcagttcccc aatcttacag gaactgtcca cctggaaagt ctgactttga caggtacaaa 660
gataagcagc atacctaata atttggtcca agaacaaaag atgcttagga ctttggactt 720
gtcttacaat aatataagag accttccaag ttttaatggt tgccatgctc tggaagaaat 780
ttctttacag cgtaaatcaa tctacaaaat aaaggaaggc acctttcaag gcctgatata 840
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cacacttggg ccaataacta acctagatgt aagtttcaat gaattaactt cctttcctac 960
ggaaggcctg aatgggctaa atcaactgaa acttggtggc aacttcaagc tgaaagaagc 1020
cttagcagca aaagactttg ttaacctcag gtctttatca gtaccatatg cttatcagtg 1080

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ctgtgcattt tggggttgtg actcttatgc aaatttaaac acagaagata acagcctcca	1140
ggaccacagt gtggcacagg agaaaggtag tgctgatgca gcaaatgtca caagcactct	1200
tgaaaatgaa gaacatagtc aaataattat ccattgtaca ccttcaacag gtgcttttaa	1260
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ggttgcatata tttttcaacc tgcttgttat tttacaaca ttgcatctt gtacatcact	1380
gccttcgtcc aaattgttta taggcttgat ttctgtgtct aacttattca tgggaatcta	1440
tactggcatc ctaacttttc ttgatgctgt gtcctggggc agattcgtg aatttggcat	1500
ttggtgggaa actggcagtg gctgcaaagt agctgggttt cttgcagttt tctcctcaga	1560
aagtgccata tttttattaa tgctagcaac tgcgaaaga agcttatctg caaaagatat	1620
aatgaaaaat gggaagagca atcatctcaa acagttccgg gttgctgcc ttttggcttt	1680
cctaggtgct acagtagcag gctgttttcc ctttttccat agaggggaat attctgcac	1740
accctttgtg ttgccatttc ctacaggtga aacgccatca ttaggattca ctgtaacgtt	1800
agtgtatata aactcactag cttttttatt aatggccgtt atctacacta agctatactg	1860
caacttgtaa aaagaggacc tctcagaaaa ctcacaatct agcatgatta agcatgtcgc	1920
ttggctaata ttaccaaat gcatcttttt ctgccctgtg gcgttttttt catttgcacc	1980
attgatcact gcaatctcta tcagccccga aataatgaag tctgttactc tgatatTTTT	2040
tccattgcct gcttgctga atccagtcct gtatgttttc ttcaacccaa agtttaaaga	2100
agactggaag ttactgaagc gacgtgttac caagaaaagt ggatcagttt cagtttccat	2160
cagtagccaa ggtgggtgtc tggaacagga tttctactac gactgtggca tgtactcaca	2220
tttgtagggc aacctgactg ttgtagactg ctgcgaatcg tttcttttaa caaagccagt	2280
atcatgcaaa cacttgataa aatcacacag ctgtcctgca ttggcggttg cttcttgcca	2340
aagacctgag ggctactggt ccgactgtgg cacacagtcg gccactctg attatgcaga	2400
tgaagaagat tcctttggct cagacagttc tgaccagtg caggcctgtg gacgagcctg	2460
cctctaccag agtagaggat tccctttggt gcgctatgct tacaatctac caagagttaa	2520
agactgaact actgtgtgtg taaccgtttc ccccgtaac caaaatcagt gtttatagag	2580
tgaaccctat tctcatcttt catctgggaa gc	2612

<210> SEQ ID NO 215

<211> LENGTH: 2340

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2488060CT1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 2094

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 215

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aaagaaaagg cttggccttc aaaattatct tggatccaaa aaaggttgga ccaatggtaa	120
aaggctcaag ttgtgggcaa gacgagtttt ttgaaagtat actgggtaag gcatttacca	180
tatcctaaat ttgcactctt tggcagactt gtgcacatat attccgcttt cagaatagtt	240
ttgcaaatg tacacaaaca aacccaaaagg tggaagctct ccaataaaga aattgcattt	300

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ataaatgatac	tgtattagaa	tataataaat	ctccagttat	agtcaattac	tacccatggt	360
gtacaacaga	taccttctat	tttagttgct	aataaagggc	tcggaattcg	gctcgagcgc	420
tgctctgtga	gactggaggt	ttccccaaca	ttcaccacc	ccttggtatt	ctcccaattc	480
tgttgccttt	tgattcatac	ttcacctcaa	gaatccactt	gctaaacacc	caacaaaagg	540
ctgggaatag	agcaaggaag	gtaaaagggt	tctaggagag	ttttctggca	atgttggaag	600
ttttctgctat	attgagattt	tggttaagca	tgagaaccgc	agtacatacc	ccgtcttcat	660
ccaagcgatac	tgtagcattc	aaattagtat	caagaatgac	cttcattggtc	tgagtgtacc	720
cgccccatgga	cgcatgatgc	aaagctgtcc	agccattgtg	gtcactggta	aagagttaag	780
aaaagggtgtg	tgcatatact	taacagatga	aatgcgggat	gggatgccac	ttggcttatt	840
ctaggtataat	ctgatgacaa	caaaaagcat	tattgagatc	tggaactaa	atatttataa	900
aacattttata	ataaatgagc	taattccaag	ctcaatgatc	ttaaatgacc	tatttctaata	960
gtgattcata	cacgtttttt	acttagtggt	ttaaaatag	aaagtatata	aacacattac	1020
caaacactttt	ggggtaggag	aagtacgctt	agcatgtctg	gtgcatacct	aattttttta	1080
aagctataat	gaactgatac	acatcaattt	aaatcttggt	ttattctttc	aatgaacact	1140
gtatcaaaat	ttttttatga	agtaatgtta	gtctttgtgg	tcaatagtta	ttggtaatac	1200
tactagtaat	atggtacatg	gctataagat	gcttagctta	gtgtcagtta	ttattctaag	1260
agtttaaatc	taaaagcctt	ccctcttggt	ctctgaaaaa	tgcttactca	attgctttga	1320
aaaatgttta	tcctttttcca	cagaaattca	agatgtaaat	acaacaaagc	cttgtcatat	1380
tagctatctt	ttttcaaaat	agacagaaaa	aaattcgtga	cactatttaa	tttcagtgtc	1440
agtgagcaga	tgtttttagg	tgcaagagcc	atgttgctat	ttcagttatg	atgtaattaa	1500
gcaacaactg	tctggcctgg	gtctactctg	gtccccttg	caggtcagtt	gcttggtggt	1560
tcctttgtaaa	ccagaaaaaa	actgagcaaa	acattcattc	atgtagctgt	agcaccaatt	1620
tgctggcatc	aatattatgg	taaggaaatg	tgtttttgaa	cattagccta	ataagctctt	1680
tgctactgct	atggttaagat	atcaaatgaa	aaacctctgt	aaaacatttc	cagggttttt	1740
ctttcttatac	acaatatcat	ttaattatgc	cacatatttt	attatactta	catattttta	1800
ctttgtttct	tgtacttgag	ttcatttaag	tataataaaa	ttcagaaatt	tttaccatca	1860
aaaaaaaaaa	aaaggggggg	gggtcccgac	ctcgatttcg	aaatcatgta	aaagattttc	1920
ccggtgtaaa	attgttacc	gccccaaatt	ccacaaaact	tggggccggg	aggcttaagg	1980
tttaaacctt	gggttcctta	atgggtggcc	aacccactt	tatttggtg	gcgcaaattg	2040
ccggtttcca	agtgggaaac	cttggtgtcc	aaacggttta	atgaatcctc	aaangcccg	2100
ggaaaggggg	ttttcctttt	tggtggcttt	tccggttcct	cggccaattg	acctcgtggc	2160
cccggttttt	cggttttggt	gggaggggtt	ttaccccccc	tcccaaagg	gggggaaaag	2220
gggttttttc	ccaaggttat	ccggggggta	aaccccgcg	aaagaaacat	tgttttccca	2280
aaaagggccc	ccccaaaagg	cgccagggcc	ccttaaaaag	aggccccttt	ttttttgggt	2340

<210> SEQ ID NO 216

<211> LENGTH: 242

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

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<223> OTHER INFORMATION: Incyte ID No: 2503084H1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 229
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 216

tgtaggttta tgggtaata tgggtatgcc ctttatcaga ttgagttttg ctataactcga	60
caatttgcca gatcttccag aatgcaatta agttgttagg gtgaactcta catatctata	120
catattactt ctttatttcc ttgtcttttt aattccttagc actgatgcat ctgagattaa	180
ggaagtgttt ttcaagattg gcattttggg ccagataatt acaatttttna tttttttttt	240
aa	242

<210> SEQ ID NO 217
<211> LENGTH: 1153
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2511221CT1

<400> SEQUENCE: 217

gtgcgcgga ggagcggcgg cgtggcgcac ggcgacatgg ccgttgtctc agaggacgac	60
tttcagcaca gttcaaaactc cacctacaga accacaagca gcagtctccg agctgaccag	120
gaggcactgc ttgagaagct gctggaccgc ccgccccctg gcctgcagag gcccgaggac	180
cgcttctgtg gcacatacat catcttcttc agcctgggca ttggcagtct actgccatgg	240
aacttcttta tcaactgcca ggagtactgg atgttcaaac tccgcaactc ctccagccca	300
gccaccgggg aggaccctga gggctcagac atcctgaact actttgagag ctaccttgcc	360
gttgccctca ccgtgcctc catgctgtgc ctggtggcca acttcctgct tgtcaacagg	420
gttgacgtcc acatccgtgt cctggcctca ctgacggtca tcctggccat cttcatggtg	480
ataactgcac tgggtgaaggt ggacactttc tcctggaccc gtggcttttt tgcggtcacc	540
attgtctgca tgggtatcct cagcgggtgc tccactgtct tcagcagcag catctacggc	600
atgaccggct cctttcttat gaggaactcc caggcactga tatcaggagg agccatgggc	660
gggacgggtca gcgccgtggc ctcatgtgtg gacttggtg catccagtga tgtgaggaac	720
agcgccctgg ccttctctct gacggccacc atcttctctg tgctctgcat gggactctac	780
ctgctgtgtt ccaggctgga gtatgccagg tgtctagaag gctcccaaaa gcctattcct	840
tggaaaacag catggcacgg gaatcagaga gagaaaggaa ccagatcaga cgaggagctc	900
tctctcaaga gtctgcaga aagaacagaa cttaccccca agatgtggca acccttgag	960
ccgtgaatca gccctttgct tctctgcaga aacgcactgg ctcatgtgtg ccctgcagag	1020
gctgatgaaa cagaagcagt cagtaatcca gccggtggca gcagttcatg ctccccaccg	1080
tctcagccta gtacacattc cctctccttg gccgaagaat taaagaggac accttgaaag	1140
gtttctaggt cgt	1153

<210> SEQ ID NO 218
<211> LENGTH: 430
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

-continued

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2512109CT1

<400> SEQUENCE: 218

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tgagactcca gggagtggga agtggccacc cctgcccacaa ctgtattgct ggatagctcc      60
cattctcaaa cagtccttat ctacattgag agtgaatctg tctttttgta atgcaagcct      120
tttcatcttt gttctggtgt ctcatgtcat acggaatcta cctataactg cttttctaga      180
acatctttta agggctctgga ggtcactgtt atggcactgt ctaagctttc ttcattcccag      240
gtaaaacaac ttcaattcct tcaaccaggc ttcctaagtc caagtttcca ggccattccc      300
actctggttg tcctctacca caggtgcagg gcacaaatgg acccattcct gtctttataa      360
gaatgtccca ggacaggcgt gagccaccgc acctggccag taggagcctt ttctacgata      420
agtaagaata                                     430
```

<210> SEQ ID NO 219

<211> LENGTH: 490

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2553280CT1

<400> SEQUENCE: 219

```
gaaaaaaaaa tctgtcaagt cataaaaagg ctataggaat gatcatggtc gtgaccgctg      60
ccttttttagt cagtttcatg ccatatcata ttcaacgtac cattcacctt cattttttac      120
acaatgaaac taaacctgtg gattctgtcc ttagaatgca gaagtccgtg gtcataacct      180
tgtctctggc tgcattcaat tgttgctttg accctctcct atatttcttt tctgggggta      240
acttttagaa aagcgtgtct acatttagaa agcattcttt gtccagcgtg acttatgtac      300
ccagaaagaa ggcctctttg ccagaaaaag gagaagaaat atgtaaagta tagtttaaac      360
ccatttccag tccaaaccaa tgaaaatagt ttcccaaata agtatattgt caaatcattt      420
acaaaaaaaa taaaaatttt acttaatat ttacaaatac ttaactattt gggcctacaa      480
ctctatctta                                     490
```

<210> SEQ ID NO 220

<211> LENGTH: 723

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2603450CT1

<400> SEQUENCE: 220

```
ttggagtgtg gaccatagca gttctggcac ttacttgtaa tgctttgggtg acttcaacag      60
ttttcagatc ccctctgtac atttcccca ttaactgtt aattggggtc atcgagcag      120
tgaacatgct cacgggagtc tccagtgcg tgctggctgg tgtggatgcg ttcacttttg      180
gcagctttgc acgacatggt gcctggtggg agaatggggt tggttgccat gtcattggtt      240
ttttgtccat ttttgcttca gaatcatctg ttttctgct tactctggca gccctggagc      300
gtgggttctc tgtgaaatat tctgcaaaat ttgaaacgaa agctccattt tctagcctga      360
aagtaatcat tttgctctgt gcctgctgg ccttgacat ggccgcagtt ccctgctgg      420
```

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gtggcagcaa gtagggcgcc tcccctctct gectgccttt gccttttggg gagcccagca	480
ccatgggcta catggtcgct ctcatcttgc tcaattccct ttgcttctctc atgatgacca	540
ttgcctacac caagctctac tgcaatttgg acaagggaga cctggagaat atttgggact	600
gctctatggt aaaacacatt gccctgttgc tcttcaccaa ctgcatacta aactgccctg	660
tggctttctt gtccttctcc tctttaataa accttacatc atcagtcctg aagtaattaa	720
gtt	723

<210> SEQ ID NO 221
<211> LENGTH: 520
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2605934CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 401
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 221

cgcagaatga ccgcagtgcc cgtggcgctg tccctcaccg ctagcttcat gtcagccgtc	60
actgtcctgg gcaccccctc cgaggtctac cgttttggg ccatttttag catctttgcc	120
ttcacctact tcttttgtgt ggtcatcagc gcggaggtct tcctcccggt gttctacaaa	180
ctgggaatta ccagcaccta cgagtattta gaacttcgat ttaacaaatg tgttcgtctc	240
tgtggaacag tcctcttcat tgttcaaaca attctgtata ctggaattgt tatatatgcc	300
cctgccctgg ctttgaatca agtcacagga tttgatctgt ggggcgcggt agtggaacg	360
ggggtggtct gcacattcta ctgcacactg ggtggtctta nagccagtat ctggacagat	420
gttttcaagt tgggatcatg gtgggctgat ttgcatcggt gaatatacag gctgtggtga	480
tgcaaggatg atcagcacta tttaaatgat gctatgatgg	520

<210> SEQ ID NO 222
<211> LENGTH: 532
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2674641CT1

<400> SEQUENCE: 222

gctcatggca gctaccatg ctgtctacgg caagctgctc ctcttcgagt atcgtcaccg	60
caagatgaag ccagtgacga tggtgccagc catcagccag aactggacat tccatggtcc	120
cggggccacc ggccaggctg ctgccaactg gatcgccggc tttggccgtg ggcccatgcc	180
accaaccctg ctgggtatcc ggcagaatgg gcatgcagcc agccggcggc tactgggcat	240
ggacgaggtc aagggtgaaa agcagctggg ccgcatgttc tacgcgatca cactgtctt	300
tctgtctctc tggtcaccct acatcgtggc ctgtactagg cgagtgttg tgaaagcctg	360
tgtgtgccc caccgctacc tggccactgc tgtttggatg agcttcgcc aggtgcccgt	420
caacccaatt gtctgttcc tgcacaacaa ggacctcaag aagtgcctca ggactcatgc	480
cccctgctgg ggcacacgag gtgccggcgt ccagagaaac cctactgtgt ct	532

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<210> SEQ ID NO 223
<211> LENGTH: 1228
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2681738CT1

<400> SEQUENCE: 223

```
ccaacgtcaa tgtcttttct gagctttccg ctctcgtcg caatgaagac ttgtcctcc      60
tgctcaccta cgctctcttc ttgatggcgc tgaccttct catgtcctcc ttcaccttct      120
gtggttctct caccggctgg aagagacatg gggccacat ctacctcac atgtcctct      180
ccattgccat ctgggtggcc tggatcacc tgctcatgct tcctgacttt gaccgcagg      240
gaggatgaca ccactcctag ctccgccttg gctgccaatg gctgggtgtt cctgttggct      300
tatgttagtc ccgagttttg gctgctcaca aagcaacgaa accccatgga ttatcctgt      360
gaggatgctt tctgtaaacc tcaactcgtg aagaagagct atgggtgtga gaacagagcc      420
tactctcaag aggaatcac tcaaggtttt gaagagacag gggacacgct ctatgcccc      480
tattccacac attttcagct gcagaaccag cctcccaaaa aggaattctc catcccacgg      540
gccacgcgtt ggccgagccc ttacaagac tatgaagtaa agaaagaggg cagctaactc      600
tgtctgaag agtgggacaa atgcagccgg gcggcagatc tagcgggagc tcaaagggat      660
gtggggcga tcttgagtct tctgagaaaa ctgtacaaga cactacggga acagtttgcc      720
tccctcccag cctcaaccac aattcttcca tgctggggct gatgtgggct agtaagactc      780
cagttcttag aggcgtgtga gtattttttt ttttttttg ctcatcotta ggatacttct      840
tttaagtggg agtctcaggc aactcaagtt tagaccctta ctctttttgt ttgtttttg      900
aaacaggatc ttgctctgtc acccaggctt gagtgcagtg gtgcgatcac agcccagtg      960
agcctcgacc acctgtgctc aagcaatcct cccatctcca tctccaaaag tgctgggatg      1020
acaggcgtga cgacagctcc cagcctaggc ccttaatctt gctgttattt ccatggccta      1080
aggtctggtc actgagctca cgctgggtcaa aagtctagt tgctgtccct aactccagt      1140
ggtttgtaa cctgtgccaa acagactgca tactgacaaa atagcaacgc tcttagccca      1200
ttgctaattc actgaagcat tgttgttc                                     1228
```

<210> SEQ ID NO 224
<211> LENGTH: 441
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2723293CT1

<400> SEQUENCE: 224

```
caacggatgt gtgtgtttgt atgtttgtta acagttacat atgtttgtat gagtgtatat      60
atatatctgt gtgtgtgtat ctctaacgct agtgataag taagttgggt ttatggtggt      120
ctttgactat gtcattagggt ggtacaaaa cccaactgat gtggagaaaa attgatgttt      180
gatgttgata gatatgctta tacctaattt ttagttttta aactatttta aaatatacta      240
tgattttata tgtatatttc ctatagactc tttaagatgt atttataatg tttctaatat      300
gaaatcacta aactctagta cattatagca ggtgctttgt aatctggaat ggagaagagg      360
```

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taggggcatt tggggattcc tgtttacttg ctgctgccac accttttccg actgatctgt 420
cctggtaggt gtttattagc a 441

<210> SEQ ID NO 225
<211> LENGTH: 648
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2762348CB1

<400> SEQUENCE: 225

cttctttccc ttgtaaaagt aactgaagct taaagggtgaa aatgacttaa ataatagaaa 60
ccatgttagc cttactcccc ttcccgatta gccacaaatt ggtggcgatc accattttgt 120
gcaccgagcc tgggtctcac gcttgcaagt ccttgggctc atctggagtc agcttcatca 180
gtttgtccac acagagcagg atgaggggtga ggaaccagag gctccagcca acagctgccg 240
cgatccagcc gtactcgtcc actcctgtgc ggcagcaccg ggctgcttgt gggcagaagt 300
ccacgttgag gcactgtccc aggggtccag ggtctgggtg gtgagcggtc aaggttgagc 360
tgttgctgct gcttgctgcc gagcaagccg agtggaggga ggcaaaggcc aggctgagga 420
tcaggggtggc ccgggtggca gcggggaggc gctgcatgct ggaggctgtg ctgagtcccc 480
ggtgcagggtg agccgggtcct gcggagtgtt gccgagtgcc tgctgcagac cgaggctggg 540
ccaagatggc gtctgtgttt cgaagcgagg agatgtgttt gtcacaactg tttctccagg 600
tggaagctgc atattgctgt gtggctgagc tcggagactc ggattgggt 648

<210> SEQ ID NO 226
<211> LENGTH: 611
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2773609CT1

<400> SEQUENCE: 226

gggagggtgga ggttgacgtg agccaagagc acgccactgt actccagcct gggcgacaca 60
gcgagactcc atgtcaaaaa aacaaaaaca aaaaccactt ctctccagt gccctcaat 120
tagacaatag gcctgattta ttctcactt acttattcat gcagtgcccc tgagaggagc 180
attactgaat caaaatggaa ttaactcaac aaatgtttat tgaacaccta ctataacca 240
ggccctgttt catgtacttg ggatatagcc atgaatgaaa taagcaaaga tcagggaact 300
ttctagccag ggagaccaac aatgaacata aataagtaaa tgatacagta tgtgagggtga 360
cgaatgctgg ggaggaaaac taaaactaga ccagggtgagg tgaatcggga acaactggggg 420
tggagggtggg gcagggtgggt tgaagggtgg gcctcattga cagagtgaca tttgggcaac 480
tattgaagga agtgggtgga ggagggtggc gccaggaggc tatccagcta ggaagagcct 540
tccaggcaga agaacattct agagcaaggc tctacagtgt ggtctggccg gggatgttgc 600
ttgcacaaca a 611

<210> SEQ ID NO 227
<211> LENGTH: 611
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

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<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2776266CT1

<400> SEQUENCE: 227

```
gggaggtgga ggttgcagtg agccaagagc acgccactgt actccagcct gggcgacaca    60
gcgagactcc atgtcaaaaa aacaaaaaca aaaaccactt ctccctccagt gccctcaat    120
tagacaatag gcctgattta ttccctcactt acttattcat gcagtgcccc tgagaggagc    180
attactgaat caaaatggaa ttaactcaac aaatgtttat tgaacaccta ctatacacca    240
ggccctgttt catgtacttg ggatatagcc atgaatgaaa taagcaaaga tcaggggaact    300
ttctagccag ggagaccaac aatgaacata aataagtaaa tgatacagta tgtgagggtga    360
cgaatgtctg ggaggaanaa taaaactaga ccagggtgagg tgaatcgga acactggggg    420
tggaggtggg gcaggtgggt tgaaggtggg gcctcattga cagagtgaca tttgggcaac    480
tattgaagga agtgggtgga ggaggtggca gccaggaggc tatccagcta ggaagagcct    540
tccaggcaga agaacattct agagcaaggc tctacagtgt ggtctggccg gggatgttgc    600
ttgcacaaca a                                     611
```

<210> SEQ ID NO 228

<211> LENGTH: 681

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2777115CB1

<400> SEQUENCE: 228

```
ccttacacat acaggaagac aagacctgag tgggtgtgtc ttgggtgtccg tcgtgtatgc    60
tcctccctgt cttcatttct tctcactctg tctctaaacc tctctctctc tccttgaccc    120
atcagtactt agtctacaga cctatgtgag tgtccctatc cttctgtcct tttctctctt    180
cagctctccc tgcctctcac acacaatttt acatgccccg aggagccaag tttgggacat    240
ttacctcca ggcatctgtg tccccctctg aagagaaaac acacagcttc acacatccag    300
gcataggggg caagctcttg gggcatcagg accctggagc accaggtcct tcctggaata    360
ttagatccac ctggagcacc ggggtctctc aagtctcacc tggggaattc ggtcccacct    420
ggggcaccag tccccaccta gagcactgtg tcctgcccta gagcacaag acctgctcct    480
cccagactc tctctgactg cagccaggca tagtaccctt gcctgtgttt gctccctggg    540
ccacagattt ggtggctggg caggtgcctg gacagtgatg aggtcttgcc gccttaactg    600
tccccccag tcacttctcc cacaggccca gcaggacgca gtccctgagga tcagggattc    660
tacagctgca ttaaaatcaa c                                     681
```

<210> SEQ ID NO 229

<211> LENGTH: 1776

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2812882CT1

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<400> SEQUENCE: 229

```
ggaaaggagt ccagggggcc actcagatgg cgccagtcct cggagccctg tgcccaccac      60
acttctctggc ctccgccacg ccccttgga aggccctcga gggccccccg acagcccaga      120
tggtctctccc ctactcctg tgcttccca gatgccttg cttgtggcca gccagagcc      180
gcctcagagc tcacctacac ctgctttccc cctggctgcc tcctatgaca ccaatggcct      240
tagccagccc ccacttcctg agaaacgcca cctgcccggg ccggggcaac agccaggacc      300
ctggggccca gagcaggcat catcgccagc cagaggcatc agtcaccatg tcaccttcgc      360
acctctgctc tcagataatg tcccccaaac ccagagcct cctacacaag agagccaaag      420
caatgtcaag tttgtccagg atacatccaa gttctgttac aagccacacc tgtcccgta      480
ccaagccatt gccctgctga aggacaagga ccctggggcc ttcctgatca gggacagtca      540
ttcattccaa ggagcttatg ggctggccct caaggtggcc acaccgccac ccagtgccca      600
gccctgaaa ggggaccccg tggaacagct ggtccgcat ttcctcatcg agactgggcc      660
caaaggggtg aagatcaagg gctgcccag tgagccctac tttggcagcc tgtccgcctt      720
ggtctcccag cactccatct ccccatctc cctgccctgc tgctcgcca ttcacagaa      780
agatcctctg gaagagacc cagaggctcc agtgcccacc aacatgagca cagcggcaga      840
cctcctgcgt cagggtgctg cctgcagcgt gctctacttg acctcagtgg agacagagtc      900
actgacgggc cccaagctg tggccgggc cagctctgca gctctgagct gtagccccg      960
cccgcacca gctgttgctc acttcaaggt gtcagcccag ggcattacac tgacggacaa     1020
ccaaaggaag ctctctttc gccgcatta tcagtgaa agcatcacct tctccagcac     1080
tgacctcaa gaccggagat ggaccaaccc agacgggacc acctccaaga tctttggttt     1140
cgtggccaag aagccgggaa gccctggga gaatgtgtgt cacctctttg cagagcttga     1200
cccagatcag cctgctggcg ccattgtcac cttcatcacc aaagtcttac tgggccagag     1260
aaaatgaagg aaggcccaa gctcagagcc cacatcaaca ctgccccct cccagcacc     1320
cacagccctc acatcccctg gcctggacc aggagaccca ggagaaagca ccctccctta     1380
ggaatgagga gtgggcatca ggcctgggac actgctctcc tccccgccc ccagcctgct     1440
aagttaagtg gacaggccca caagatgacc ttgcatgtga gcagatggca gagatgggtg     1500
tgtgaggggt gaggaggcat cagcagttga gcccgaagg agatcaggca gcccacctg     1560
caggagaacg tcagccctcc aggggatcag cccctgccag ttcacccag ctgcaggtgc     1620
cagcacggca gggatgggag aggggtggg agcgagtcac tgcctcctct gagcagagat     1680
tcagagtagg atcacatgaa taggggaaaa aagagagtct atttttgtct aataataaag     1740
aatttctata aacttttagc gaaaaaaaa aaaaaa                                1776
```

<210> SEQ ID NO 230

<211> LENGTH: 624

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2821121CT1

-continued

<400> SEQUENCE: 230

ttggactgtg gaccgctttc ctgtgtattg tccttgtggc aactgatgcc agttcccttg	60
tctgtctacat taccgctttc actgaagaag catttgcttc cctaatttgc attattttca	120
tctatgaagc aatagaaaaa ctgattcacc tggcagagac ctaccccatc cacatgcaca	180
gccagctgga ccaccttagc ctctattact gcagggtgtac tctgccagag aatccaaaca	240
atcacacctt ccagtactgg aaggaccaca acatcgtgac agcagaagtc cactgggcta	300
acctgactgt cagtgaatgc caggagatgc atggagagtt catgggatct gcgtgcggcc	360
atcatggacc ctacactcct gatgtcctct tttggtcttg tattctcttt ttcaccacct	420
tcactctctc aagcacctta aagacgttta agacgagccg ttatttccca accagaatgg	480
agtcttgctc tgtcgcttgg ctggagtgcg gtggtgtgat cttggctcac tgcaacctcc	540
gcctcctccc gactagctgg gactacagcg acgcaccacc acagccagct aatttttgta	600
tttttagtag agacgggggt tccc	624

<210> SEQ ID NO 231

<211> LENGTH: 769

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2848989CT1

<400> SEQUENCE: 231

cggtctgagg ctgccccagc cgtgggctgg caggggccac gtggtgtaca acggctccct	60
gttctataac aagtaccaga gcaacgtggt ggtcaaatac cacttccgct cgcgctctgt	120
gtggtgtcag aggagcctcc cgggcgccgg ttacaacaac acctcccct actcctgggg	180
cggcttctcc gacatggact tcatggtgga cgagagcggg ctctgggctg tgtacaccac	240
caaccagaac gcgggaaca tcgtggtcag ccgcttgga cgcacaccc tcgaggtcac	300
gcggtcctgg gacaccggt accccaagcg cagcgtggc gaggccttca tgatctgcgg	360
tgtgtctctc gtgaccaact cccacctggc tggggccaag gtctacttcg cctattttac	420
caacacgtcc agttacgagt acacggacgt gcccttccac aaccagtatt cccacatctc	480
gatgctggat tacaaccccc gggagcgcgc cctctatacc tggaacaacg gccaccaggt	540
gctctacaat gtcacctgt ttcacgtcat cagcacctct ggggaccct gagccaatgc	600
tgtggctcgg gctgctgcct ggggggcctc cgggggctgg gggccctttt cattctgcct	660
gtgtccctca agggatgatc ctctgtctct gtcacgccct ttctcccgc ctttttctg	720
ggcttttggt ctctgcctat gtatttctgt ctattttttc aatttcccc	769

<210> SEQ ID NO 232

<211> LENGTH: 51

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2854471H1

-continued

<400> SEQUENCE: 232

gtcagagaat gtttttttac atgaatgaac agattaaaaa tggaataata t 51

<210> SEQ ID NO 233

<211> LENGTH: 528

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2854670CT1

<400> SEQUENCE: 233

aaaggtggca ctctcagccc tccctggagt ccacgccggc aggtgaagga tcagagcccc 60

atgccccatc cttggggcca ggggctggga ccaggtcac caggagcctc cagttgaagt 120

ggggagggtga ctgggggtgt gcagtagtga gccatcccct cacacactgc cagccttgcc 180

cactgtgtcc tccctggccg ccgggagctg tgtccgcctc ctgcctggct gcctgtgctc 240

ggcccccca caagcccaa acagccctag ggtactcagt gttttcagag ccgcctagat 300

gcagggctgt ttgtgttttg gttttaaat tttttaatta atttattttt tatagagacc 360

aggtctcacc atgttgccca ggctggtttc aaacccctgg gtcacaaatga cctgcccgcc 420

gcagcctccc caaagtgtgt gggattataa gttttgagcc ccccgcatgc cactggttt 480

taaattttta aaacgaaaa caatatttta taattcctcc gggctttt 528

<210> SEQ ID NO 234

<211> LENGTH: 770

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2855520CT1

<400> SEQUENCE: 234

gcgtcgcgct caccctgcgc gtgccccgcg ggcgcctggg cgtcttctctg gactacgagg 60

ccggagagct gtctcttctc aacgtgtccg acggctccca catcttcacc ttccacgaca 120

ccttctcggg cgcgctctgt gcgtacttca ggcccagggc ccacgacggc ggcgaacatc 180

cggatccccct gaccatctgc ccgctgccgg ttagagggac gcgcgtcccc gaagagaacg 240

acagtacac ctggctacag ccctatgagc ccgcggatcc cgccctggac tgggtgtgag 300

gcgcctctgt ggccgcggga ctggccccgg gggggccccc tggatcccag gccagcgctt 360

tgctctcctg ctccgtctga agggagcagg tgcaccagcc aaaatgtcag cgagggggac 420

aaagagaggg acctttgcct acgtagatgt gtatgtgtag tgcgattttc ttcaaggaaa 480

ggagacaagt ccaaagctcg tttgtggatt gtgggactga gcaaaggagt acaaatatat 540

ccacgtcgct cagagctggg gtgctcacgg tgggtgtgtg gaaagaagcc agcatggaag 600

aaagaaggga gaaaactttg gtgactgcct tagagggatc agttaatttg tatagtttta 660

tattttttgt atatgtttgc tagctctaaa aaggtcgaga tgcaataaca cttcgtaagc 720

aacgagttca cctaagtaag gctcagatcc tagttttaaa aaccatttcc 770

<210> SEQ ID NO 235

<211> LENGTH: 260

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

-continued

<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2855815CT1

<400> SEQUENCE: 235

catcagtgtg tgcatgctgt tgtgtgtgtg cgtgtcttta ttagtaacat ggatccagcc	60
tctactccag aagagtgtgt gcgtgtgtgt gtgtgtgtgt gtgtgtgtgt ctttattagt	120
aacatggatc cagcctctac tccaggtacc tgtatcaata gaattgcatt gtccttttta	180
gagtcccctc ctgaagaatt ttgcatctt gccttatttt cttactaaag gagttgtgtg	240
cagacgccct ctttcttttc	260

<210> SEQ ID NO 236
<211> LENGTH: 599
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2857653CT1

<400> SEQUENCE: 236

tgcaagtgcg caagatcgag ccattccact ccagcctgtg caaaagagcg agattccatc	60
tcaaaaaaaaa aaaaaaaaaa aagagagaga gagagaaagt ctataagcaa gaggcacatc	120
acaatcctgt gtaacctaat catggaagg atattccatc acctagtca tattctgttt	180
gttagaagaa agtcactggg ccattcccaca ctcaaggga ggtaattgca cacgtatgag	240
aatgccggga ggcagtatca atggggccac cttagagtct gcctgccaca gcctccagca	300
ctccagtgtc accaatttct ggcaacctct tatcaatgac aagttcactc aaccttcag	360
tacctcact gatgagtaat aaaaaattg atcgagacca tggtgaaact ccgtctctac	420
taaaaaataca aaaaattagc tgggtgtggt ggcgggcacc tgtagtcca gctactcagg	480
aggctgaggc aggagactgg cgtgaacctg ggaggcggag cttgcagtta gccgagatca	540
caccactgca ctccagcctg ggcaacacag tgagactctg tctcaaaaa aaaaaaaaa	599

<210> SEQ ID NO 237
<211> LENGTH: 313
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2866122H1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 10, 42, 49-50, 219, 246
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 237

tggcacgcan ggtagctgca cctgtcgctg gctgcctgca cnaaccagnn ccacattgtc	60
aactacctga cggagaacct ccacaagaag gcggacatgc ggcgccagga ctgcgaggc	120
aacacagtgc tgcatgcgct ggtggccatt gctgacaaca cccgtgagaa caccaagttt	180
gttaccaaga tgtacgacct gctgtgctgc aagtgtgcnc gcctcttccc cgacagcaac	240
ctggangccg tgctcaacaa cgacggcctc tcgcccctca tgatggctgc caagacgggc	300
aagattggga acc	313

-continued

<210> SEQ ID NO 238
<211> LENGTH: 547
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2925464CT1

<400> SEQUENCE: 238

```
tgatcttggc tcacagggga cgatgtcaag ctcttcctgg ctccctctca gccttggtgc      60
tgtaactgct gctcagtgcca ccattgagga acaggccaag acatttttgg acaagtttaa      120
ccacgaagcc gaagacctgt tctatcaaag ttcacttgct tcttggaatt ataacaccaa      180
tattactgaa gagaatgtcc aaaacatgaa taatgctggg gacaaatggt ctgccttttt      240
aaaggaacag tccacacttg cccaaatgta tccactacaa gaaattcaga atctcacagt      300
caagcttcag ctgcaggctc ttcagcaaaa tgggtcttca gtgctctcag aagacaagag      360
caaacggttg aacacaattc taaatacaat gagcaccatc tacagtactg gaaaagtttg      420
taaccagatg aatccacaag aatgcttatt acttgaacca ggtttgaatg aaataatggc      480
aaacagttta gactacaatg agaggctgga agggaatttg atttcataaa atcgggggggt      540
acgagct                                           547
```

<210> SEQ ID NO 239
<211> LENGTH: 537
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2954714CT1

<400> SEQUENCE: 239

```
atgttctttt tgttgtctac cgtaatagtc acaaaaatct atctagtata gtttgattgt      60
ccccctccc cagccattct gagtgttaatt tgaatatcac ctaggggaca ccttggttta      120
gagagcacag tcttaaccat tgatctcttt ttcctcacat aattgacatt ggttttataa      180
agaagaaaa atacaatgag tacatttata tctctgttta acataatttg catttatata      240
ttaaaaaaa ttttgaaagt agatttcaaa atatccaggt acaaaatagt gcctttatag      300
tttaagcaaa ttattatgct gtatagtaat gatacatcta gtatacttct ctgattaatt      360
tccaagttta gtatcttgac atttgttcaa tgtcagactt ttaatttaaa acctggacat      420
agacatttaa agatagctaa tgcattgagg gcttaaaacc cagatgacag gttgatgggt      480
gcagcaaaacc accgtggcac atgtatacct atgtaacaaa cctgcatggt ctccaca       537
```

<210> SEQ ID NO 240
<211> LENGTH: 289
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 2986560CT1

<400> SEQUENCE: 240

```
gtgcaggagg tgtatagttt ttccagaaaa tgctaaaatt caaaaattat caccattcac      60
caatttgctt ttttaatagta ggtgtgcttg caccaaaata ctcaatgcat cttagcatgc      120
```

-continued

agatagacca aagcactggc acaccctcct gccagaacac gtactccacg ggttctggta	180
ggagaagtaa gagaaccttg aggcgtggcg tctcttactt cctctgccaa ttgacaaacc	240
tgctgagggc ctgacttgcc aagagcacct ggaatatgag aaatgtgag	289

<210> SEQ ID NO 241
<211> LENGTH: 787
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 3068234CB1

<400> SEQUENCE: 241

agagggactg cattctaata cggagctccg aggatgttca cttcttctcc acaatgaatg	60
agtgtcacta tgacaagcac atggactttt tttataatag gagcaacact gatactgtcg	120
atgactggag aggaacaaaag cttgtgattg ttttgtgtgt tgggacgttt ttctgcctgt	180
ttatTTTTTT ttctaattct ctggctcatc cggcagtgat caaaaacaga aaatttcatt	240
tccccttcta ctacctgttg gctaatttag ctgctgccga tttcttcgct ggaattgcct	300
atgtattcct gatgtttaac acaggcccag tttcaaaaac ttgactgtc aaccgtgggt	360
ttctccgtca ggggcctctg gacagtagct tgactgcttc cctcaccaac ttgctggtta	420
tcgccgtgga gaggcacatg tcaatcatga ggatgcgggt ccatagcaac ctgacaaaaa	480
agagggtagc actgctcatt ttgcttgtct gggccatcgc catTTTTatg ggggcggtcc	540
ccacactggg ctggaattgc ctctgcaaca tctctgcctg ctcttcctcg gccccattt	600
acagcaggag ttacctgttt ttctggacag tgtccaacct catggccttc ctcatcatgg	660
tttggtgta cctgcggatc tacgtgtacg tcaagaggaa aaccaacgtc ttgtctccgc	720
atacaagtgg gtccatcagc cgccggaaga cacccatgaa gctaataaag acggtgatga	780
ctgtctt	787

<210> SEQ ID NO 242
<211> LENGTH: 283
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 3077943CT1

<400> SEQUENCE: 242

ctctgtccca cctggctcat cagggagggt cagaaggctg aagagagcaa agtccctgag	60
gactcactgg aggaatgtgc catcatttgt tcaaatagcc acggcccttg tgactccaac	120
cagcctcaca agaacatcaa aatcacattt gaggaagaca aagtcaactc atctctggtt	180
gtagacagag aatcctctca tgatgaatgt caggatgctc taaacattct cccaggtagc	240
ctctattttc cttgtgtctc atacctctgt ctaggctatg gaa	283

<210> SEQ ID NO 243
<211> LENGTH: 203
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 3144006CT1

-continued

<400> SEQUENCE: 243

```
ccccgccaag gcccgtagca gaggttagac ttgtttctta tatgtgatgc cattccagca      60
ctggactcca tctcaaaaaa aaaaaaaga ttcacttatt tgaataagat acctcttata      120
tttggtgtcg gtaactatct gtaaatagct ttcaaaataa ttgaactttt tttttaatat      180
tccctaataa ggagttcatg gtc                                              203
```

<210> SEQ ID NO 244

<211> LENGTH: 202

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3226980H1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 44

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 244

```
ctttgaccac gccctctttg gggagggtgc ctgccgcctc tacntgtttc tgagcgtgtg      60
ctttgtcagc ctggccatcc tctcgggtgc agccatcaat gtggagcgcct actattacgt      120
agtcaccccc atgcgctacg aggtgcgcat gacgctgggg ctggtggcct ctgtgctggt      180
gggtgtgtgg gtgaaggcct tg                                              202
```

<210> SEQ ID NO 245

<211> LENGTH: 721

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3290614CT1

<400> SEQUENCE: 245

```
gcaagtgacc cagggagaca aacacttggc gatacttggg gctgagtgtg agcaagactc      60
cctaacctgt gtctggacaa gtctgatgtc ctgtgtggcc caagaagaac tgaccccgty      120
tctggagctc ccaccgttat tgcacccctg ctgtggctca cctgctgctg tctccaggag      180
cccctgagaa gatttgccct ctctcccctg ctaagctcca ggtcctgaga ttgaattagg      240
ggctggagct cactgcactc cagcagtcac gggacccagg atagggccag cgggtgaggt      300
accccaggta ccagacaagg aaaccaaagc cacaatgggc acagaaaaca cacctggagg      360
caaagccagc ccagaccctc aggacgtgcg gccaaagtgt ttccataaca tcaagctgtt      420
cgttctgtgc cacagcctgc tgcagctggc gcagctcatg atctccggct acctaaagag      480
ctccatctcc acagtggaga agcgcttcgg cctctccagc cagacgtcgg ggctgctggc      540
ctccttcaac gagtggggga acacagcctt gattgtgttt gtgagctatt ttggcagccg      600
gggtgcaccga ccccgaatga ttggctatgg ggctggagct cactgcactc cagcagtcac      660
gggacccagg atagggccag cgggtgaggt accccaggta ccagacaagg aaacaaaggc      720
t                                                                    721
```

<210> SEQ ID NO 246

<211> LENGTH: 496

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

-continued

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3291235CT1

<400> SEQUENCE: 246

```
gcctggcagt gcagtgggct ggctgggtatg tgggggcctc tccctgctgg ccaatgcctg      60
gggcacccctc agcgttggcg ccaagcagaa gaagtggaag cccttggagt tcttctgtgt      120
tacgctcgcg gccacccaca tgctaaatgt ggccgtgccc atcgccacct actccgtggt      180
gcagctgcgg cggcagcgcc ccgacttcga gtggaatgag ggtctctgca aggtcttcgt      240
gtccaccttc tacacctca ccctggccac ctgtttctct gtcacctccc tctcctacca      300
ccgcatgttg atggtctgct ggctgtcaa ctaccggctg agcaatgcca agaagcaggc      360
ggtgcacaca gtcatgggta tctggatggt gtccttcac ctgtcggccc tgcctgccgt      420
tggctggcac gacaccagcg agcgcttcta caccatggc tgcgcttca tcgtggctga      480
gatcggcctg ggcttt                                     496
```

<210> SEQ ID NO 247

<211> LENGTH: 282

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3324775H1

<400> SEQUENCE: 247

```
ggctgccag acgggcaaga ttgggatctt tcagcacatc atccggcggg aggtgacgga      60
tgaggacaca cggcacctgt ccgcgaagt caaggactgg gcctatgggc cagtgtattc      120
ctcgctttat gacctctcct ccctggacac gtgtgggaa gaggcctccg tgctggagat      180
cctggtgtac aacagcaaga ttgagaaccg ccacgagatg ctggctgtgg agcccatcaa      240
tgaactgctg cgggacaagt ggcgcaattc ggggccgtct cc                                     282
```

<210> SEQ ID NO 248

<211> LENGTH: 287

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3333159H1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 32

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 248

```
gctgatcttt tcgttgagtg tagctgcttg gntcctactc tgtaacttct ccaactactcc      60
acagggtgcc acgagtcatt gacttgccag gtttttgat atatcatctc agttctaataa      120
agtgtttcta tggcatgtct tgcttgcatc agtgtggatc gttatcttgc aataaccaag      180
cctcttttct acaatcaact ggtcaccctc gtcgcttgag aattgcatat ttgatctgg      240
atctactcct gcctaatttt ctgcctcctt ttttggcggg ggaacc                                     287
```

<210> SEQ ID NO 249

<211> LENGTH: 1491

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

-continued

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3393404CT1

<400> SEQUENCE: 249

```
cagcagagtc acagaggaga tggccaactg ccaaatagcc atcttgtacc agagattcca      60
gagagtggtc tttggaattt cccaactcct ttgcttcagt gccctgatct ctgaactaac      120
aaaccagaaa gaagtggcag catggactta tcattacagc acaaaagcat actcatggaa      180
tatttcccggt aaatactgcc agaatcgcta cacagactta gtggccatcc agaataaaaa      240
tgaaattgat tacctcaata aggtcctacc ctactacagc tcctactact ggattgggat      300
ccgaagaac aataagacat ggacatgggt gggaaccaa aaggctctca ccaacgaggc      360
tgagaaactg gctgataatg aacctaacaa caaaggaac aacgaggact gcgtggagat      420
atacatcaag agtccgtcag cccctggcaa gtggaatgat gagcactgct tgaagaaaa      480
gcacgcattg tgttacacag cctcctgcc ggacatgtcc tgcagcaaac aaggagagtg      540
cctcgagacc atcgggaaact acacctgctc ctgttacctt ggattctatg gcccagaatg      600
tgaatactgt agatagtgtg gagaacttga gctccctcaa cacgtgctca tgaactgcag      660
ccacctctgt ggaaacttct cttttaactc gcagtgcagc ttccactgca ctgacgggta      720
ccaagtaaat gggcccagca agctggaatg cttggcttct ggaatctgga caaataagcc      780
tccacagtgt ttagctgccc agtgcccacc cctgaagatt cctgaacgag gaaacatgac      840
ctgccttcat tctgcaaaag cattccagca tcagtctagc tgcagcttca gttgtgaaga      900
gggatttgca ttagttggac cggaagtggg gcaatgcaca gcctcggggg tatggacagc      960
cccagcccca gtgtgtaaa gctgtgcagt tcagcacctg gaagccccc gtgaaggaa      1020
catggactgt gttcatccgc tcaactgctt tgccatggc tccagctgta aatttgagtg      1080
ccagcccggc tacagagtga ggggcttgga catgctccgc tgcattgact ctggacactg      1140
gtctgcaccc ttgccaacct gtgaggctat ttcgtgtgag ccgctggaga gtccgtgcc      1200
cggaagcatg gattgctctc catccttgag agcgtttcag tatgacacca actgtagctt      1260
ccgctgtgct gaaggtttca tgctgagagg agccgatata gttcggtgtg ataacttggg      1320
acagtggaca gcaccagccc cagtctgtca agctttgcag tgccaggatc tcccagttcc      1380
aaatgaggcc cgggtgaaact gctcccacc cttcggtgcc tttaggtacc agtcagtctg      1440
cagcttcacc tgcaatgaag gcttgctcct ggtgggagta agtgtgctac a              1491
```

<210> SEQ ID NO 250

<211> LENGTH: 224

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3429408H1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 103, 164, 166, 182, 207, 212

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 250

```
gccgaacctg tggccgcttg gtggagccag gaggggccc gggaggctgg gggctggacc      60
tcggaggggt gccagctccg ctccagccag cccaatgtca gncocctgca ctgccagcac      120
```

-continued

ttgggcaatg tggccgtgct catggagctg agcgcccttc ccangnaggt ggggggcgcc 180

gnnggcagggc tgcaccccggt ggtatanccc tncacggcct tgct 224

<210> SEQ ID NO 251

<211> LENGTH: 499

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3447545CB1 Contig1

<400> SEQUENCE: 251

ccatccgagg ccagagccca ggtagcagcc acagctctga cctattgtct gtctgtctgt 60

ctgtcttctc tgcagttctg aaagcccat ggcccagca ggcctctgag cccaccatg 120

ggcagcttgt actcggagta cctgaacccc aacaaggctc aggaacacta taattatacc 180

aaggagacgc tggaaacgca ggagacgacc tcccgccagg tggcctcggc cttcatcgtc 240

atcctctgtt gcgcatttgt ggtggaaaac cttctggtgc tcattgcggg gcccgaaac 300

agcaagttcc actcggcaat gtacctgttt ctgggcaacc tggccgctc cgatctactg 360

gcaggcgtag ccttcgtagc caataccttg ctctctggct ctgtcacgct gaggctgacg 420

cctgtgcagt ggtttgcccg ggacggtctg ccttcacac gctctcggcc tctgtcttca 480

gcctcctggc catcgccat 499

<210> SEQ ID NO 252

<211> LENGTH: 548

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3486012CT1

<400> SEQUENCE: 252

tgттаатааg ccaatagcga tgaactgctc caacctctgg ggaaacttca gttatggatc 60

aatctgctct ttccattgtc tagagggcc gttacttaat ggctctgcac aaacagcatg 120

ccaagagaaat ggccactggt cacctaccgt gccaacctgc caagcaggac cattgactat 180

ccaggaagcc ctgacttact ttggtggagc ggtggcttct acgataggtc tgataatggg 240

tgggacgctc ctggctttgc taagaaagcg tttcagacaa aaagatgatg ggaaatgccc 300

cttgaatcct cacagccacc taggaacata tggagttttt aaaaacgctg catttgacct 360

gagtccttaa gagacctgtc cttttcctgg tctcctcatt cagcctccat atgatcctgt 420

tgtgaacatc aagtttcctg ctacactgga cttaactata atgcatttgc tgcaggtttc 480

cataacaccc atgaatcaaa gacatggaat taccttagat tagctctgga ccagcctgtt 540

ggacccgc 548

<210> SEQ ID NO 253

<211> LENGTH: 560

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3513925CT1

-continued

<400> SEQUENCE: 253

ggagaaagga atacaggagt gatggaggag gaaaggaggg acaggggaagg agagaaggaa	60
ggaagcagga tgaagagacg gaacgagata ggtaggtgta tggatgggag ggagggaaaa	120
acgaacaata aatagataga ctctagatct cctaaaggcc catatctaag caatTTTTgt	180
gtccccagga ggcagatttg ataaagaaat ctgtctacta gattccattg gcatctTTta	240
aatgattata atcatagatg actTTTTtag tgcttgcaact ttgtcaagca ctatgctaaa	300
acttctgcat acatTTTTta atgtaagtct cagaacaacc ctgtaagtag attatTTTgc	360
ctactccact gtgaggttca gagaagtcct tgcccacagg gccacacaca attagaaaaat	420
atcagagcca ggggtgtgcc cagccgagag gtggctccag tgcccctgct cttgcctgca	480
tttgaactg cctgtgaata gttggcattt tccgagtgt tactttgtgc ccatgtgttg	540
cagacacatc tcattttcat	560

<210> SEQ ID NO 254

<211> LENGTH: 712

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3542591CT1

<400> SEQUENCE: 254

gcttcctaga aggtaatgta cgaactcgtc tccaaaggat acttaggttg caccagtgt	60
tttgtaaaac aggagcaaat ttggaccttg cggggccaaa gtacgaattc tttttcaaat	120
cttaatatca agtcctgaaa tgaaattatc tctgttctgt ttctTTTTac cttttctgt	180
gtgggtgaac tgaccaactt ttaagtctag ttccctgttg gacagacttt tctcaactca	240
ttacctatcc ccctaccgtc catatgggcc tccaggctct ctcacggact cctaactgcc	300
tccttttaaa atgtaataat agtaagtaag aaattaaatt ttttctaaat tccctccac	360
tacggggccc ccttacaccg aaactcccc caatggccta gaaataaatt aggggtccgg	420
tggggccacg cgtggggaga acccttctcc ttaaaaagcc tccaaggct ttttcgcgg	480
gaaaaggctt tccccggga aaatggggg agaaaaattt tcccacagc ggttccccag	540
attaggagaa ttttccccac ggattaatct caccacatat tgccccctgt tgggggaaaa	600
gagtcctctt aagttaaatt tttccccca aaaaaatatt tttgggaaga ggctcttaaa	660
aaaatggctc cgggtggaga catcttttgt ccccaaatat ttgtgggccg cg	712

<210> SEQ ID NO 255

<211> LENGTH: 1126

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3556218CT1

<400> SEQUENCE: 255

actggtctat agctggcttt cattccattg agcaataagg aatTTTTcaa aactactatg	60
cacccaatgg agtatgcttc cctcttcatt cagaagatac agaaagtatt ggagcccaga	120
tttattcagt ggcaattttt ctgtgtatta atttggccgc atttatcatc acagTTTTtt	180
cctatggaag catgttttat agtgttcato aaagtccat aacagcaact gaaatacgg	240

-continued

atcaagttaa aaaagagatg atccttgcca aacgtttttt ctttatagta tttactgatg	300
cattatgctg gataccatt tttgtagtga aatttctttc actgcttcag gtagaaatac	360
caggtacat aacctcttgg gtagtgattt ttattctgcc cattaacagt gctttgaacc	420
caattctcta tactctgacc acaagacat ttaaagaaat gattcatcgg ttttggtata	480
actacagaca aagaaaatct atggacagca aaggtcagaa aacatatgct ccatcattca	540
tctgggtgga aatgtggcca ctgcaggaga tgccacctga gttaatgaag ccggaccttt	600
tcacataccc ctgtgaaatg tctactgattt ctcaatcaac gagactcaat tcctattcat	660
gactgactct gaaattcatt tcttcgcaga gaatactgtg ggggtgcttc atgagggatt	720
tactggtatg aaatgaatac cacaaaatta atttataata atagctaaga taaatatttt	780
acaaggacat gagaaaaat aaaaatgact aatgctctta caaagggaag taattatatac	840
aataatgtat atatattagt agacattttg cataagaaat taagagaaat ctacttcagt	900
aacattcatt cttttttcta acatgcattt attgagtacc cactactatg tgcatagcat	960
tgcaatatag tcctggaagt agacagtgcga gaacctttca atctgtagat ggtgtttaat	1020
gacaaaagac tatacaaagt ccatctgcag ttcctagttt aaagtagagc tttacctgtc	1080
atgtgcatca gcaagaatca tagcgatttt aaatagaggt gtggac	1126

<210> SEQ ID NO 256
<211> LENGTH: 456
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 3665056CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 450
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 256

gaatttaatc ttaggaaga cagatcacat actatatagc aactagttag gtgttttaga	60
gaaataattc tttcttcttt tatagaattg gaatgttatg tgctgtgcaa ttatgcatac	120
tagatttatg gcaagaacaa aagaagaaag aatttaattc ttaggaagac agatcacata	180
ctatatagca actagttagg tgtttttagg aaataattac acatctattt ttgaaatgat	240
caggaattaa agaactctga tatgtatata ttaatgtatt tttctattag gataatagag	300
aatttttaac aacaacaaaa aaaaaacaga caaaagcctg ggtgctcaca cctgtaatcc	360
cagcactttg ggagatggag gcaggaggat catctgaggt caggagttca agaccagcct	420
gggcaatatg gtgaacccca ttatggttgn attcgt	456

<210> SEQ ID NO 257
<211> LENGTH: 202
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4043152H1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 9, 56
<223> OTHER INFORMATION: a, t, c, g, or other

-continued

<400> SEQUENCE: 257

```
gggaaagana gggagttcct aacctctagg ggaaccccca ttaaatatta caaggnaacc      60
atggagttat tgcacacagt aaaaaacca aggaggtggc agtcttatac agatgaagcc      120
atcaaaaagg gaaggagagg ggagaacggc agcataagca gctggcagaa gcagcagaaa      180
ggaaatagag aaagagacag aa                                              202
```

<210> SEQ ID NO 258

<211> LENGTH: 65

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4080842H1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 2, 5, 23

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 258

```
anganttact ttaggtaaga ggnaaccagg agtgcacaga ttgaaaaata gcagcaatag      60
ctatc                                              65
```

<210> SEQ ID NO 259

<211> LENGTH: 562

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4081268CT1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 540

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 259

```
ttgaacacaa agcacacagc ccattgccca gcacatagta agaattcaac aaatttagtt      60
ttgtttttta tctatttttt tgcacctcat aaatttttcc tgttttgaag aacaaaatac      120
taaagtggag cctatctgag gcacatcttc ataagtgtct ccaaccagcc tttattcatt      180
ggcattaaga tattgaacat gcagacttta ggaggcttaa ttttttctgc tctggcctgc      240
aggttggagg tttcactaca ttttaataaa aacccttgca aagcaactta cagatctaaa      300
taaaaacaat gttttgctta tttagctggg ttcatagttg tgccttttaa aagaatgtta      360
gtcccatgta ctttgcaagg gttttcctgc ccatttagaa tggtggaac aagtgacca      420
gctggcggag gccccagggt taccatctat aggccccagc atgggtacgg ggagaccttg      480
ctgggggtgtt gggggaagaa gggagagcca ttttccaca ggtagcctga acaccctgn      540
aacacagggg ctttcttggg gg                                              562
```

<210> SEQ ID NO 260

<211> LENGTH: 234

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4082591CT1

-continued

<400> SEQUENCE: 260

ggaatccata actgacctaa gcaatgtgag aaaacatgaa aatgaaactc taggtcagtc	60
tctttttcaa atatgaataa aggaatcctc catgagaaat taacaataag acttagtaat	120
gcatttaaaa aatagtactt cctgaccaag tagggtttat ctcaatattg aaaggtagt	180
ttacttttag aatttatcag taaatgtgtc atattggcat attaaaaaag aaaa	234

<210> SEQ ID NO 261

<211> LENGTH: 541

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4084463CB1

<400> SEQUENCE: 261

gccagttaact gaaagcagat ataacgcgga tccgtgtaaag agtgcttttag atgctaacat	60
tgaagatgca caaccatgag gatgtaggag actggatccc tgaatcactg cttggatgat	120
agcagcaagc ttctttggcg ttaaacaact tagatattct gataaagcat ctactgttgc	180
cttaattaag gagagatgga taatatcttc ttggatgaaa gtgatatagg tgaggatgaa	240
gagaagtggc cagattctac atacaattat cagagaaaca ggaattcctg agaatatgga	300
tatgatgaga agaaaggaag tcttgccatg ttgtccagat tgggtccaaa ttcctgggct	360
caagcgatca gccacctcgg cctcccaaaag tattgggatt acaggcatga gccactgcc	420
gcagccaggt ttttgtgact caggggaagg atgatgtcaa gctgtgtgca agccaattgc	480
atggaaagag aagaattaac gtgttctccc ttcaaatga tggattccat ggctccacat	540
t	541

<210> SEQ ID NO 262

<211> LENGTH: 708

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4085069CT1

<400> SEQUENCE: 262

caggaagacc tccaggagta aaagttaagg cttcaaaagc atggcaaaga tgtagatttg	60
gagaaattcc atccatgtgc atttggttaag caccttgggc tggtgggtaa attcttaaaa	120
tttaaaatat agcacttctc cctggagcag tagttctcaa agtggtcctt ggaccaacag	180
caggtaagtt ccctgggaac ttatcaaaaa tgcaaggtct caagccctac cccagaccc	240
tctgaatcag aaactctgag ggtggagcca ggaagctgtg tttgaacaag ccctccaaa	300
gacactgatg catgctgaag ttagctgctg ctttagagaa actgttaatg agtttgggga	360
aataagagat acatacatga aatggctgga ggagactcaa gcattatgca tgacatttag	420
tgaacgtaaa agacggagtc tagacaactt tatttccata atattaacaa aggacaatcc	480
tctcttaaaa ttcttgggtg cagatgaatt tctaaattca gattttgttt ttcaatttag	540
aaaggtaaaa tgtgcatgta ccatatatta cataatacct ttggtaaggt ctggggtgac	600
actctaatat actaattttc tgcaagggaa atcatgaatg acataagtgt atgcttggat	660
tatctactgc aatgtaataa atgttcacaa aataaaaaaa aaaaaaaa	708

-continued

<210> SEQ ID NO 263
<211> LENGTH: 255
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4129226CT1

<400> SEQUENCE: 263

aaaagtcagc ataaaatatg atccaactaa aagggattaa tttttggcat ttttgtatat	60
ttatgcatta ggtgatggga cttttaagg tttgaattta ttaggacacg aactaaaaat	120
aaaagtgcac taggggacag ttgatttcaa tctaagaaaa gttaacactt gggaattaca	180
agaagtaaaa caagtgaac taaatcattt attagtgtt ttttgaaagc agttttatgt	240
ataaataaca aatgt	255

<210> SEQ ID NO 264
<211> LENGTH: 223
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4129407CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 71, 86
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 264

gattttgaaa gaatccttga ggcaatgaag cagagtgtg aaatgaaaa cattttcac	60
tctttgcagc nactaccttt catagnctga cttcttaag tgagacttat atttagtaat	120
tctgttcat aacctcattt attctcatc actgcaaatt cacatctatt gccatcactc	180
cactgaaact agttttccat gccaaaagct gtcctctcc caa	223

<210> SEQ ID NO 265
<211> LENGTH: 332
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4130289CT1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 19, 217
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 265

caggaataaa aagttaganc tcacccacc atctgcggtg agaaaaccag aggtacttt	60
tcaattgcc a tcgagccagc agtggggaag tgctgctttg ttcagaatga gcttggccag	120
aatggccaga gcttcatctt tgactacagc atcatcaatt aagaagcaat tcacaatata	180
tgacagaaa cttggtagaa aaagctaaag ttaaganaaa aaaaatcaca cttattaaca	240
gataataaa agagaagatg ctaacattca aaactagacc aaaaacaaag gatcaagaat	300
cacatggctt agacctctac ataggaacat gg	332

<210> SEQ ID NO 266
<211> LENGTH: 649
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:

-continued

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4130748CT1

<400> SEQUENCE: 266

```
cgggggggctt ccccgcgcg agccgaccct tcgccccatt gggacccatc ccaatcatcc    60
gaaggccacg gccttaataa gcccctgtgt aaaccccggt tcgaatcgat gccaacccgt    120
gtgcctggtc caagtttctt ggtggttgac ctgggcgaat aaaaataaga catgttctgc    180
agagttctcc ttttaaattc ctgtgtaat attccgtttg ttttgctcct ttgcaattaa    240
ctacaaactt ctaagtccca gaaaagattt caagtattta tagagtgagc aacgatcatt    300
ttcctagtca aatagtatgg caaaaatcac tgttttaaaa agttgtggca ttaaaactata    360
aatcctccct cccctcgctt cccaccccca attatgaaag aaaagcatat gacaatgcct    420
actgggctca gcttttgggc taattgagtc tgactgagcc ttcttagcag gttcctgtct    480
tttgaaacct caaatcccaa aaagctgtct aataatttta cttttttagg gactaagacc    540
aggtattttc agcagaggtt ctacttttct tgtaattgag gcgcaactat aatgttccag    600
aacacaatct taaatctgaa agtgagagga agaaaaaaaa aaaaaaggg                649
```

<210> SEQ ID NO 267

<211> LENGTH: 786

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4131249CB1

<400> SEQUENCE: 267

```
tttgaaatag gcatgaaaaa ttgaaatgat tatgttgctg atttcttttg ataataaaat    60
ggtaatttgt aaaaactatc ctacaactac cctttaggat aaaaatttat gtaaaaacat    120
tacagtttag agacaggtaa tctagaataa actcaataaa atatttcttc ctttgttata    180
aaacaaagta aaagacaaaa atattcaata cagagaacat attcagttga ttttgtttac    240
atgctgttat tgctcgcgag gtattttctt tggagggata agaaaaaatt tggggggggg    300
gaaaaaaaa acccccggtt gggaaaacta aagggggggg gggtaatttt tgttgtagag    360
gaagcacgag gctttccttt ttactcctcc agcttgagat agtggtgtgt ttttctgtgt    420
gtgtcttctc gtgtgctgat cggtccaacg tgtgaagggt ggtcgacgtc agcgcggtgc    480
ttaccggtgg tactcgcgct cgtagcgacg ttcgcacgcg gtgttggtct cgggtggactt    540
gccgcgacgc tcctcgcccc actccttcac tgggagtttg cgctatttca acacgtatct    600
cacgctctcg tgttgagtga gttgtgcgtc tcaactgtac gcgttggtgat gtagttgaac    660
ggagcggaac gttgcgcggc ttcacgcgcg gtagtgtgtg ttcggctcaa gacctgccgc    720
agtgcggttc gtctctgggc tcttgttcgt ggtgagctgc gctgcgacgt agctactctc    780
ctcttg                                           786
```

<210> SEQ ID NO 268

<211> LENGTH: 59

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4132125H2

-continued

<400> SEQUENCE: 268

aaaaggagga gggaagagct ctgcgcgctc ccgccctcag cgccgcgagg ccggcggat 59

<210> SEQ ID NO 269

<211> LENGTH: 237

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4132371CT1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 205

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 269

acttggtcca tgttgacaga aaattgcaaa gttgaaagtc agaatatcag acacaagtaa 60

tagtattcat cttaaagggg gaacatacct cgttttagagt ggactacact cccagtagtt 120

aggagacaac agagtaatga tgagattgca tgcggctctgg gcttaagtct tggcctgcac 180

acttggaac aaagtgactc ttganccagt tacataacct ttgatatgt ccatttc 237

<210> SEQ ID NO 270

<211> LENGTH: 209

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4132403CT1

<400> SEQUENCE: 270

taacttctta ttttccatgt tatttattca tttttaaaca agcattcatt gagtacctac 60

tatgccacag ctctatactt ggtagaaact gaggctgcc aatgttaaa tctgtttccc 120

tgctcttaga acttaggaaa caatggagaa acagtcatgt tcaagagata gagtgaaatg 180

caaggtgata ggtgcctaata agagatgga 209

<210> SEQ ID NO 271

<211> LENGTH: 320

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4132547CT1

<400> SEQUENCE: 271

tgatggtaag ttgtttcagg cataaaattt gaaataaatt atgaggctcc atgatatgct 60

atattggttt taccttcaga agaatattha gtttactca ggtttttcaa agctacgctg 120

tccccaaaa aacgaaacaa aacaaaaaaa caaccttttt aagagttgat ggctactcat 180

ttgatctgcc tcctctgctg aatcaattag gaattttttt ttttttgcc tgcaataaac 240

agaaaaactga ttaccggtgt aggagataaa gtgattacaa atagggattt ttcctccac 300

acacactaca atatttctgg 320

<210> SEQ ID NO 272

<211> LENGTH: 723

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4133631CT1

-continued

<400> SEQUENCE: 272

```
ctcaggggtc ccaccgagtc tgccttctga agacagctga tactgtgata ttgaacaagt      60
tgtacccccc agctaattga gatgtgctga gtttttcccc tgcttgagtt gctttcattt      120
aaatttcccc aaccaccagc ctgctgcccc agggaaaagc cactcagctt caccactctg      180
gcctgcttgg actttcttcc ttggattttc ctaggctgcc ttagccacac tggaattttg      240
tagcaactaa gagctgtagt ttttcaccca ccatgggtttt gttaaatgtg gttttaagggt      300
aatgtggctt aatattttcca tatcaaaaaa tttaaatcca ctctctttta aaaatctagg      360
tcctaactcc taaatctggg tctagatgcc ataaaagaac aaaacaatga tggtttctct      420
ctcggggact atatgggcag cctgtggggg agagagagaa gctgtctgtt gccctaagac      480
ccaatttagc ccgcgagatg ttcccatggg agaatgccca ggaatacatc tccttttaag      540
ccgggaaggg caattttgaa aacccaattt gtgaggaaac cctgaactta aatcctggca      600
aaatctcttt ttccgaaaaa ggcagtttgc tccactccaa attggacacc ctgaagcagc      660
ttgagtcgca gggaaagtac aactttccgg acagggttct ctaatacccg aggaatcttc      720
gtt                                     723
```

<210> SEQ ID NO 273

<211> LENGTH: 742

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4166159CT1

<400> SEQUENCE: 273

```
aagtccactg ctctcctcaa gaatttgagt ataatgcaag attataacta aagataaacg      60
taaaaaatcag agggaagaaa tattgtgatt agaaggcaga cagttgcagg gccatgcaca      120
caccatgca catcactcat cacagctgta ccatgtccct gcctaatagc aagagtagca      180
agccacaatt ctgcttcagc gcaggcttag gtgaacaggg ctttaggcac aaaacatctg      240
ctgcaggaat tgtctccaac ttatactct catttaaaag aaaaaattt taaatgacaa      300
actcagaatt catttaataa actagtcatt tattcaccat tatgctcttt aagtgaactc      360
ttggcctgat aaaattctcc taccaggctt gctcagtaca tggcttatca atcatcgaaa      420
atttcatggc caagcctggt ggctcatgcc tgtaatccca gctctttggg aggccgaggc      480
aggagatgca ctatggtcag gagtttgaga ccagcctggc caacatgggt aaacctcttc      540
cctactaaaa atacaaaaat ttggctggat gtggtggcac acgcctgtag tcccagctcc      600
tcgggaggct gaggcattgag aatccatttg aaccagagag gcagaggttg cagtgaacca      660
agatcatgcc actgcactcc agcaatgggt gacagagcaa gaccctgtct ccggaaaata      720
attggaaggc ggggatgggg ag                                     742
```

<210> SEQ ID NO 274

<211> LENGTH: 493

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4167883CT1

-continued

<400> SEQUENCE: 274

```
tcatgggaga aagggaagaa tatggctttg gccccagaaa ggctcagatt cccccaggcc      60
atcccccatc ctgaggacaa ggttttgggc ccttttctgt ttgcaggcag gaggctagag      120
agcgctccag gccaggagcc caggaaaggc tctcccttcc cctccctcct cccccccac      180
cctgccttcc ccagggtggg gaagcttcat ctctaccaat tccatcagcc ctaaaatact      240
cttctccatc ccaaggccag tataagtgca gcctttgtgt cacagccacg tgtccctatg      300
gccctgggct ccaatgggca tgatgccaga cccacagagt ggaacctggg tgggtccatg      360
ggttccatgc aggtctcgtt gagcaccttg cagcctaaat atttagccta caatttgcat      420
ccaagtctcc tccttaccta atgcttccto ttcctgagcc cacaggggca ggatatagag      480
cagtcccacc ccc                                     493
```

<210> SEQ ID NO 275

<211> LENGTH: 281

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4220523CT1

<400> SEQUENCE: 275

```
tttgtggaat atgactggag catgaaggtc atttctagcc gtaacagcag ggcaagactg      60
gaaatcatgg tgtggtggaa agagaagcgg cctcatagga gcaatcaagg tcatgaccca      120
gcaactatgt gcttactagt tgtgaggctt ggggcaaatc acctcattcc tggggacctt      180
caattcttct ctagcaaatg ggaatttgga ttataaaaac gtagccagac caggcgacgg      240
ggctcacacc tgtaatccca gcactttggg aagccaagcg g                                     281
```

<210> SEQ ID NO 276

<211> LENGTH: 522

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4220713CT1

<400> SEQUENCE: 276

```
tactttttaca tttaattaat cttctaaaga ttaatttaga agagatagat ataaaatgcc      60
agattttttc tggggaaaag ctacaaaatg tatttttggt attccagata ttctacacca      120
aaaagtgtat taatttcaga aaaatataga tggcctatth tgtacgtttg aaatgaatcc      180
ctttttcgtt tattattcaa aatacttcat tttaaaaagg ataccttttag gccagggtgtg      240
gtggcttact cctgtaatcc catcactttg ggaggcctag gtgggaggga ctgcttgagg      300
ccaggagtgc aagaccatct tgggcaacat cgagagatga gaccctgtct ctacaaaaaa      360
aaatttaaaa attagctggt ggtagtggca tgagcctaga gtcccagccc ttcaggagac      420
tgaagtggga ggatcacttg ggccaagag ttctaggggt acagtgaggc atgattgcgg      480
ccaccgcact gcagcctggg caacagagtg agacacccat cc                                     522
```

<210> SEQ ID NO 277

<211> LENGTH: 240

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

-continued

<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4220819CT1

<400> SEQUENCE: 277

```
ttctctgtac tataatagat gatataatcc tttgaagggtg gtataatcct ctgtcacact      60
gctgattgat agagactatt tcaagtcaaa atcctacaaa ttcttggtctg ggtgtggtgg      120
cttacacctg taatcccaac actttgggaa gttgaggcag gaggattgtt tgaggccagg      180
agtttgagac cagcctaggg aacatagcaa gaccccatct ctaccaaaaa aaaaaaaaaa      240
```

<210> SEQ ID NO 278
<211> LENGTH: 479
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4220939CT1

<400> SEQUENCE: 278

```
tgcccaaaaa cattagactt taattccctc acacattcag gtctagaaag gctgaatatg      60
taccaaatgt tatacaactt gctagattta taaagggtaca aattgcaaaa tttaaaacaa      120
tacataatag taacaaaaac aagatataat aatggactct tctttcttgg aacttacaga      180
tagatattaa acatgaatag taatacacac atacattcca ctgtaggtag ttatgaagta      240
aaacaaaaaa gtttcagtgg gagaaaacaa gtcagggtga ctttatgttg tgtggtcaag      300
ccagaatata cggaaatcag aaagttagtc tgagtctgta gacaagggaag ggagagtgga      360
agatgatttc gagggcatgg gaaaaattgg ggaaattcct gaggtgggaa agagttgaca      420
ctcttaaaat aactgaacac cagatgtggg tgggacatga cacggaaagc aggtggtgg      479
```

<210> SEQ ID NO 279
<211> LENGTH: 500
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4221286CB1

<400> SEQUENCE: 279

```
ttgtgcttcc agtcagtaag caagagctac tacaggaatc actttctttt cctttctaag      60
agtatccaac ccacattcat tgtccgttgt ctgaaaaaca gttgtttcat atattctatt      120
cagttttcta atctttcaca gcaggacaat aaattcaggt tatcttaact cctttgtggc      180
cagaaacaag accagttatc agatttttaa ttttgatttt tatcttttac tttaacctct      240
tgaaagtagt agtggtaaaa atcacacatt tttattgggt actttttctg aatacctttg      300
tttatgtagt cttagtgttc tttgttagtc tttgtctttt ttactgaaat ataacaaaaa      360
gtagaggaga ctgattacct agtagagctt tacaggaagt catttggtaa ttgtagaaag      420
atacaggtta ttatagccag ctggcgaga gcattttcct ccaagtatga accttttaat      480
ttccgattag aataccacct                                     500
```

<210> SEQ ID NO 280
<211> LENGTH: 478
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

-continued

<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4221314CT1

<400> SEQUENCE: 280

tttaaaagct aataaaataa attgaatata acaaacatit attcaataaa ggtcataaat	60
gcttttagtcg taatttccca aagcaggaat caacccgata tctatcaata ggaaatgga	120
taaacaagtt gtaaaggata caatcctaata actactcagc aatacacagc tactgacaca	180
caccacctga gtgaatccta taaatgtatt gagttagaca gctggaaata aaataaacta	240
tttcatatga tttcaggcat agtgaaccaa tggttaaaaa aaaaatggaa tagagatggc	300
ccccgagtgga ggaaaaagtt gcctggaaaa taacctgagg aaattttctg gggataatgg	360
gaaacttctg ttcttaaagg atgaagttca tatgaatgta tttatctgtc aaaactgtac	420
agctaagatt tgagctttca tgggatgtac atcagaccac accaaaaaaa aaaaaaaa	478

<210> SEQ ID NO 281
<211> LENGTH: 322
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4222520CT1

<400> SEQUENCE: 281

tgaaaacgga ctaatacagt aataaaagaa tatgcacaat attatttaga ttttgctaaa	60
cttttaggta tttgaggacc ttaatatatt atataataa ataatatata ttcatttaaa	120
aaatgacctt tgggtgcaat taacaaatag tcattgaagt cacttgggca ataaggacaa	180
gcttaatatc atttagactt tgctaaaact ttgagtatct gttgataact ttaagaattc	240
ataaaaagta ttatctcttg gttacaattg agaagtgctt agaattgaag gcagaaaacc	300
attttaaaaa aaaaaaaaaa gg	322

<210> SEQ ID NO 282
<211> LENGTH: 417
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4223468CT1

<400> SEQUENCE: 282

gcttttaaaag atgcctcttt cagtccttgc taggtaaggg aattagaacc attagaattg	60
ctttacaaaa attgaggaaa agattatttg tttagctatt tgtttttagt aaattgcatc	120
ctttgcatta agataaaagca gttggccggg cgcggtggct cagcctgta atcccagcac	180
tttggggaggc cgaggcaggc ggatctcgag gtcaggagat cgagaccatc ctggctaaca	240
cggtgaaacc ccgtctctac tgaaaataca aaaaattagc cgggcgtggg ggcgggcacc	300
tgtaatccca gctacttggg aggctgaggc aggagaatgg cgtgaacccg ggaggcggag	360
cttgcatgta gcagagatcg cgccactgca ctccagactg ggcgaaagag cggccag	417

<210> SEQ ID NO 283
<211> LENGTH: 615
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

-continued

<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4223734CT1

<400> SEQUENCE: 283

ggctcttatac tgtcttgtgt ctgttctgaa cccactctgg tgtggcagtg tctcagtccc	60
aatctgtgtg atacgtagga cggcacacag cctctcggca agcaggctca ttctctgcacg	120
aagcttgcaa ggcagctctc tctaactggc aaagaccttt cttggtcacg gttttcctcc	180
ttgcaatctg gcctcacttt agggagatat tctcatcagg gaggtgaga ccaactccct	240
ctcctggggg tggcgctctc ctgacaccag ctgtggtgtg cagatgtgca gtaaagtgcg	300
catcgttatc acttcaaaga taatttcatt cctggaagac tggaaatcct taccctgggt	360
tttgccaaac acttacatta gagttgctca gtcagttgca gctttaaac atggcgcccc	420
ctgcccacc agccagctga taatttatga gaaacagggtg tacaaagaat gagtacattg	480
ggctgcggac ccagatcaaa cttcagaaaa tgcagattac caagggtaa tcatttttga	540
gcaatcttat ttccactgag actgcatctg cacagcaaag caagccactg aggcacaaaag	600
aaaaaaaaa aaaaa	615

<210> SEQ ID NO 284
<211> LENGTH: 195
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4224867CT1

<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 176, 191
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 284

gctcgagtag aaaatgaaag ttttctagtc tgagacaaaa tgtagaaat gacagcaaaa	60
tatggcaggg ttttactctt ttgtaggaag ctacataaat tacctcagtc cagacagcac	120
tctaccacat agaagttata gtcgacattt ggggtggtaa gtatttgtca ttgatnaaca	180
cacacacaca nccgg	195

<210> SEQ ID NO 285
<211> LENGTH: 487
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4256014CB1 Contig3

<400> SEQUENCE: 285

cacaaagaag aactgggtac ccaccagcaa gcatgcagtt actgtgtctt atttctatga	60
cagcacaaga aatgtgtata ggataatcag tttagatggc tcaaaggcaa taataaatag	120
taccatcacc ccaaacatga catttactaa aacatctcag aagtttgcc agtgggctga	180
tagccgggca aacaccgttt atggattggg attctcctct gagcatcatc tttcgaaatt	240
tgacagaaaag tttcaggaat ttaaagaagc tgctcgacta gcaaaggaaa aatcacaga	300
gaagatggaa cttaccagta caccttcaca ggaatccgca ggcggggatc ttcagtctcc	360
tttaacacgg gaaagtatca acgggacaga tgatgaaaga acacctgatg tgacacagaa	420

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ctcagagcca agggctgaac caactcagaa tgcattgccca ttttcacata gggaacaacc 480
tatcttc 487

<210> SEQ ID NO 286
<211> LENGTH: 262
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4352201CT1

<400> SEQUENCE: 286

cagttttcat tgttttcagt aagctgacct ccaaaggcat agatgtgagc tttcttttga 60
aaggaaatga agtattcacc gttaaggata aggatgtttg taatgtgaca gtgttaatgc 120
tagctaaatg agaaagccat tatgaatact tagactgttg ctacctggga gcattattta 180
ttgacctgtg ccttcgtcag agcttcagat gtgaggggaa tgatgctaata gaatcatgt 240
acagatgttt gtcattaaaa ag 262

<210> SEQ ID NO 287
<211> LENGTH: 535
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4355247CT1

<400> SEQUENCE: 287

cccttatcca tgaggccttc tcaggctaac atttaaaatg gttaactccc agcccaccat 60
ccctgccagc ccagccccc atgccttgct ttcctttttc cctgtggggc ttctcccat 120
atgacctgtt ataatttact tgtttacagt aagtgaagct cagcaagggc agagagtttc 180
attcgttttg ctcttgctg gatctgcaat gccagcatc agaagtgct caaatattgt 240
ataaatcaat aaatgaacaa actagtgaat gatgttggg agccaccaac agaccagagg 300
ttctccctt gccctccctt gaagtcatga gcatttcctc tccgttgctc ctttactcac 360
agcctctttc ccacctggta gctaggttaag cagatggaga gtggcatgac tggcaaatcc 420
agcctgctct ggggttgagt cattcaaac ccgttttagca gttgggtccc cagctggctg 480
tgacacatcc tggagcagat ttcacaccac tccctgctct tctgcacccc aaatc 535

<210> SEQ ID NO 288
<211> LENGTH: 834
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4608111CT1

<400> SEQUENCE: 288

gaattcggca cgagcggcac gagtgtagat gtggaagaac aggccacttc aagagaggat 60
gtcctgaact aagaaaggag aaagaagccc ttccacccat aactttcgag gaagaatagg 120
ggggtcaggg gctctgtctc ttgagtccca ccaggagccc ttgataaatt tggaggtggg 180
acctaaacat gagcttatca cttttttagt cgattcagag gctgctcgct cctctgtttg 240
tttccccccg tctaattgtt tctcctcctc agaggaaact ttattctccg gggtaaaagg 300
ggaaggagag gggagaacag cagcataagt ggctggcaga ggcagggaaa gaccagcaga 360

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gaggagagag acagaggagg gaaagagaga gagaggaaaa agagagagag agaggaaaaa	420
cagagagagg aagagacaaa gagggagtta cagagagaga gagagagaga gatagaagta	480
gtaaagagca aacaatgtac catattcctt taaagccctc ggtaaattta aaacctttaa	540
tttgaaattg aaggtcttct ctgtgacact ctaacactcc aataccacct tgtctgtagt	600
gtaaccaggg cattgccga aagctctgag gcccatgaca acccggtgcc ttcctatcaa	660
aaattcttaa ccagttacc catgggtggc ccaagtgaat tcaatctgta gggggcaact	720
ggtttgggta gccgaaagat agtttgaaaa ataacttttt aggagaaacc ttcattggtg	780
agcacacctt cgccagtttc cgaacttagc cctcaggggg aaaaaaaaaa aaaa	834

<210> SEQ ID NO 289

<211> LENGTH: 2100

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc feature

<223> OTHER INFORMATION: Incyte ID No: 319589CB1

<400> SEQUENCE: 289

gcgggtttga ctatgcgtcc ttcacgctc agggcgactc caaacggctc cagctctaac	60
cggtctcctt ctaaacttct tcagcctgga cccatgcacc ggcactgctg gcgttccag	120
cacacggtat actccattgt ttcctgacaa tcagttgat tcggccaggc tggttgctca	180
gctgtttcac aaacatacag ggctcatgac tcaggactgc tcttcagcct gagacgagct	240
ggtcacctga aggagatggc ggttctctgt caatcattgg cccatagcct caccattctc	300
caagaaccct gatcagagcc tcctcctcca ggaagtcttt cctaactgtg ccagcctcca	360
cctttcctct ggcatattgga tttctgatga ttaggatgcc tctgccacag cagattcatg	420
cttgtgacct ggaatgtcta ctggaagggt ctgcggtgtg ggagaagcag agtcaacctc	480
gctttcctgc taccgctgcc tgtgagctga aggggctgaa ccatacactc ctttttctac	540
aaccagcttg cattttttct gccacaatg agcggggaat caatgaattt cagcgatgtt	600
ttcgactcca gtgaagatta ttttgtgtca gtcaatactt catattactc agttgattct	660
gagatgttac tgtctcctt gcaggaggtc aggcagtctt ccaggctatt tgtaccgatt	720
gcctactcct tgatctgtgt ctttggcctc ctggggaata ttctggtggt gatcaccttt	780
gctttttata agaaggccag gtctatgaca gacgtctatc tcttgaacat ggccattgcg	840
gacatcctct ttgttcttac tctccattc tgggcagtga gtcatgccac tggtgctg	900
gttttcagca atgccacgtg caagttgcta aaaggcatct atgccatcaa ctttaactgc	960
gggatgctgc tcctgacttg cattagcatg gaccggtaca tcgccattgt acaggcgact	1020
aagtcattcc ggctccgac cagaacacta ccgcgcagca aaatcatctg ccttgttgtg	1080
tgggggctgt cagtcacat ctccagctca acttttgtct tcaacaaaa atacaacacc	1140
caaggcagcg atgtctgtga acccaagtac cagactgtct cggagcccat cagtggaag	1200
ctgctgatgt tggggcttga gctactcttt ggtttcttta tccctttgat gttcatgata	1260
ttttgttaca cgttcattgt caaaaccttg gtgcaagctc agaattctaa aaggcacaaa	1320
gccatccgtg taatcatagc tgtgtgctt gtgtttcttg cttgtcagat tcctcataac	1380
atggtcctgc ttgtgacggc tgcaaatgtg ggtaaatga accgatcctg ccagagcgaa	1440

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aagctaattg gctatacgaa aactgtcaca gaagtcctgg ctttcctgca ctgctgcctg	1500
aaccctgtgc tctacgcttt tattgggcag aagttcagaa actactttct gaagatcttg	1560
aaggacctgt ggtgtgtgag aaggaagtac aagtcctcag gcttctcctg tgccgggagg	1620
tactcagaaa acattttctcg gcagaccagt gagaccgcag ataacgacaa tgcgtcgtcc	1680
ttcactatgt gatagaaagc tgagtctccc taaggcatgt gtgaaacata ctcatagatg	1740
ttatgcaaaa aaaagtctat ggccaggat gcatggaaaa tgtgggaatt aagcaaatc	1800
aagcaagcct ctctcctgcg ggacttaacg tgctcatggg ctgtgtgatc tcttcaggg	1860
gggggtgtct ctgataggta gcattttcca gcactttgca aggaatgttt tgtagctcta	1920
gggtatatat ccgcctggca tttcacaaaa cagccttttg gaaatgctga attaaagtga	1980
attgttgaca aatgtaaaca ttttcagaaa tattcatgaa gcggtcacag atcacagtgt	2040
cttttggtta cagcacaaaa tgatggcagt ggtttgaaaa actaaaacaa aaaaaaaaaa	2100

<210> SEQ ID NO 290
<211> LENGTH: 315
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 884692CB1

<400> SEQUENCE: 290	
acacatctca ttttcatctt cacaaccagg taggtattat ttagttattg tagaaaggca	60
aagtcattgg ccccaaatta tatagctaaa agaaagtctc tacttgatga gattcaaacc	120
cagatttggt tggcatgaca gtgataatth tctagattga gataaccaca gcatcggaat	180
tagggccata gcgtgaacca gttctggaca cagttcttgg tccagagctg cccattgtaa	240
gagcagctca gatgcaatca gggattttaa tttggatgta gtaagagaca tcatcgatag	300
atcttgctcg gggag	315

<210> SEQ ID NO 291
<211> LENGTH: 2799
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1262948CB1

<400> SEQUENCE: 291	
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ggtggcctct gaaaacgcca gcacatccc aggctgtggg ctggacctcc tccctcagta	180
ctgtgccctg tgcgacctgg acgcatctg gggcattgtg gtggaggcgg tggccggggc	240
gggcgcctct atcacactgc tcctgatgct catcctcctg gtgcggctgc ccttcatcaa	300
ggagaaggag aagaagagcc ctgtgggcct ccactttctg ttctctcttg ggaccctggg	360
cctcttttggg ctgacgtttt ccttcatcat ccaggaggac gagaccatct gctctgtccg	420
ccgcttcctc tggggcgctc tctttgcgct ctgcttctcc tgcctgctga gccaggcatg	480
gcgcgtgcgg aggtctgtgc ggcattggac gggccccgcg ggctggcagc tgggtggcct	540
ggcgctgtgc ctgatgctgg tgcaagtcat catcgctgtg gagtggcttg tgctcacctg	600

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gctgcgtagac acaaggccag cctgcgcccta cgagcccatg gactttgtga tggccctcat	660
ctacgacatg gtactgcttg tggtcaccct ggggctggcc ctcttcactc tgtgcggcaa	720
gttcaagagg tggaagctga acggggccctt cctcctcatc acagccttcc tctctgtgct	780
catctgggtg gcttgatga ccatgtacct cttcggaat gtcaagctgc agcaggggga	840
tgcctggaac gacccacct tggccatcac gctggcgcc agcggctggg tcttcgtcat	900
cttcacgccc atccctgaga tccactgcac cttctgcca gccctgcagg agaacacgcc	960
caactacttc gacacgtgc agccaggat gcgggagacg gccttcgagg aggacgtgca	1020
gctgccgagg gcctatatgg agaacaaggc cttctccatg gatgaacaca atgcagctct	1080
cgaacagca ggatttccca acggcagctt gggaaaaaga ccagtgga gcttggggaa	1140
aagaccagc gctccgttta gaagcaact gtatcagcca actgagatgg ccgtcgtgct	1200
caacggtggg accatcccaa ctgctccgc aagtcacaca ggaagacacc tttggtgaaa	1260
gactttaagt tccagagaat cagaatttct cttaccgatt tgcctcctg gctgtgtctt	1320
tcttgaggga gaaatcgga acagttgcg aaccaggccg cctcacagcc aggaaatttg	1380
gaaatcctag ccaaggggat ttcgtgtaaa tgtgaacact gacgaactga aaagctaaca	1440
ccgactgccc gccctcccc tgccacacac acagacacgt aataccagac caacctcaat	1500
ccccgcaaac taaagcaag ctaattgcaa atagtattag gctcactgga aaatgtggct	1560
gggaagactg tttcatcctc tgggggtaga acagaaccaa attcacagct ggtgggccag	1620
actggtgttg gttggaggtg ggggttccc actcttatca cctctccca gcaagtgtg	1680
gacccaggt agcctcttg agatgacct tgcgttgagg acaaatggg actttgccac	1740
cggcttgct ggtggttgc acatttcagg ggggtcagga gagttaagga ggtgtgggt	1800
gggattccaa ggtgaggccc aactgaatcg tgggtgagc tttatagcca gtagaggagg	1860
agggacctg gcatgtgcca aagaagagg cctctgggtg atgaagtac catcacattt	1920
ggaaagtgat caacctagt tcttctatg gggctctgc tctagtgtct atggtgagaa	1980
cacaggcccc gcccttccc ttgtagagcc atagaaatat tctggcttg ggcagcagtc	2040
ccttctccc ttgatcatct cgcctgttc ctacacttac ggggtgtatct ccaaatctc	2100
tcccaatttt attcccttat tcatttcaag agctccaatg gggctccag ctgaaagccc	2160
ctccgggagg caggttgaa ggcaggcacc acggcaggtt tcccgcatg atgtcaccta	2220
gcagggttc aggggttccc actaggatgc agagatgacc tctcgtgcc tcacaagcag	2280
tgacacctcg ggtcctttcc gttgctatg tgaaaattcc tggatggaat ggatcacatg	2340
agggtttctt gttgctttg gaggtgtgg gggatatttt gtttggttt tctgcagggt	2400
tccatgaaaa cagccctttt ccaagcccat tgtttctgtc atggtttcca tctgtcctga	2460
gcaagtcat cctttgttat ttagcatttc gaacatctcg gccattcaaa gccccatgt	2520
tctctgcact gtttgccag cataacctct agcatcgatt caaagcagag ttttaacctg	2580
acggcatgga atgtataaat gaggtgggt ccttctgcag atactctaact cactacattg	2640
ctttttctat aaaactaccc ataagccttt aacctttaa gaaaaatgaa aaaggttagt	2700
gtttgggggc cgggggagga ctgaccgctt cataagccag tacgtctgag ctgagtatgt	2760
ttcaataaac cttttgatat ttaaaaaaa aaaaaaagg	2799

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<210> SEQ ID NO 292
<211> LENGTH: 2385
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1876370CB1

<400> SEQUENCE: 292

caaggctttc tgttgacatt cagtgcagtc tacctgcagc acagcacact ccctttgggc	60
aaggacctga gacccttggtg ctaagtcaag aggctcaatg ggctgcagaa gaactagaga	120
aggaccaagc aaagccatga tatttccatg gaaatgtcag agcaccaga gggacttatg	180
gaacatcttc aagtgtgtgg ggtggacaat gctctgttgt gatttcctgg cacatcatgg	240
aaccgactgc tggacttacc attattctga aaaacccatg aactggcaaa gggctagaag	300
attctgccga gacaattaca cagatttagt tgccatacaa aacaaggcgg aaattgagta	360
tctggagaag actctgcctt tcagtcgttc ttactactgg ataggaatcc ggaagatagg	420
aggaatatgg acgtgggtgg gaaccaacaa atctcttact gaagaagcag agaactgggg	480
agatggtgag cccaacaaca agaagaacaa ggaggactgc ttggagatct atatcaagag	540
aaacaaagat gcaggcaaat ggaacgatga cggctgccac aaactaaagg cagccctctg	600
ttacacagct tcttgccagc cctggtcatg cagtggccat ggagaatgtg tagaaatcat	660
caataattac acctgcaact gtgatgtggg gtactatggg cccagtgtc agtttgtgat	720
tcagtgtgag cctttggagg ccccagagct gggtagcatg gactgtactc accctttggg	780
aaacttcagc ttcagctcac agtgtgcctt cagctgctct gaaggaacaa acttaactgg	840
gattgaagaa accacctgtg gaccatttgg aaactggtca tctccagaac caacctgtca	900
agtgattcag tgtgagcctc tatcagcacc agatttgggg atcatgaact gtagcoatcc	960
cctggccagc ttcagcttta cctctgcatg taccttcacg tgctcagaag gaactgagtt	1020
aattgggaag aagaaaacca tttgtgaatc atctggaatc tggtaaatc ctagtccaat	1080
atgtcaaaaa ttggacaaaa gtttctcaat gattaaggag ggtgattata acccctctct	1140
cattccagtg gcagtcattg ttactgcatt ctctgggttg gcatttatca tttggctggc	1200
aaggagatta aaaaaaggca aggaatccaa gagaagtatg aatgacccat attaaatcgc	1260
ccttggtgaa agaaaattct tggaaatacta aaaatcatga gatcctttaa atccttccat	1320
gaaacgtttt gtgtggtggc acctcctacg tcaaacatga agtgtgtttc cttcagtgca	1380
tctgggaaga tttctacctg accaacagtt ccttcagctt ccatttcgcc cctcatttat	1440
ccctcaaccc ccagcccaca ggtgtttata cagctcagct ttttgtcttt tctgaggaga	1500
aacaaataag accataaagg gaaaggattc atgtggaata taaagatggc tgactttgct	1560
ctttcttgac tcttgttttc agtttcaatt cagtgtgtga cttgatgaca gacacttcta	1620
aatgaagtgc aaatttgata catatgtgaa tatggactca gttttcttgc agatcaaatt	1680
tcacgtcgtc ttctgtatac tgtggaggta cactottata gaaagttcaa aaagtctacg	1740
ctctcctttc tttctaactc cagtgaagta atggggtcct gctcaagttg aaagagtcct	1800
atttgcactg tagcctcgcc gtctgtgaat tggaccatcc tatttaactg gcttcagcct	1860
ccccaccttc ttcagccacc tctctttttc agttggctga cttccacacc tagcatctca	1920

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tgagtgccaa gcaaaaggag agaagagaga aatagcctgc gctgtttttt agtttggggg	1980
ttttgctgtt tccttttatg agaccattc ctatttctta tagtcaatgt ttcttttatc	2040
acgatattat tagtaagaaa acatcactga aatgctagct gcaagtgaca tctctttgat	2100
gtcatatgga agagttaaaa caggtggaga aattccttga ttcacaatga aatgctctcc	2160
tttcccctgc cccagaaact ttatccact tacctagatt ctacatattc tttaaatttc	2220
atctcaggcc tccctcaacc ccaccattc tttataact agtcctttac taatccaacc	2280
catgatgagc tcctcttctt ggcttcttac tgaaagggtta cctgttaaca tgcaattttg	2340
catttgaata aagcctgctt tttaagtgtt aaaaaaaaa aaaaa	2385

<210> SEQ ID NO 293

<211> LENGTH: 1526

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 2088868CB1

<400> SEQUENCE: 293

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ctggtgtctg ccaggaaccc acgtggctca cagatgtccc agctgccatg gaattcattg	180
ctgccactga ggtggctgtc ataggcttct tccaggattt agaaatacca gcagtgccca	240
tactccatag catgggtgcaa aaattcccag gcgtgtcatt tgggatcagc actgattctg	300
aggttctgac aactacaac atcactggga acaccatctg cctctttcgc ctggtagaca	360
atgaacaact gaatttagag gacgaagaca ttgaaagcat tgatgccacc aaattgagcc	420
gtttcattga gatcaacagc ctccacatgg tgacagagta caaccctgtg actgtgattg	480
ggttattcaa cagcgttaatt cagattcatc tcctctgat aatgaacaag gcctcccag	540
agtatgaaga gaacatgcac agataccaga aggcagccaa gctcttcag gggaagattc	600
tcctttattct ggtggacagt ggtatgaaag aaaatgggaa ggtgatatca tttttcaaac	660
taaaggagtc tcaactgcc gctttggcaa tttaccagac tctagatgac gagtgggata	720
cactgcccac agcagaagtt tccgtagagc atgtgcaaaa cttttgtgat ggattcctaa	780
gtggaanaat gttgaaagaa aatcgtgaat cagaaggaaa gactccaaag gtggaactct	840
gacttctctt tggaactaca tatggccaag tatctacttt atgcaaagta aaaaggcaca	900
actcaaactc cagagacact aaacaacagg atcactaggc ctgccaacca cacacacacg	960
cacgtgcaca cagcagcga cgcgtgcaca cacacacgcg cacacacaca cacacacaca	1020
cagagcttca tttcctgtct taaaatctcg ttttctcttc ttcttctttt taaatttcat	1080
atcctcactc cctatccaat ttctctctta tcgtgcattc atactctgta agcccatctg	1140
taacacacct agatcaaggc tttaagagac tcactgtgat gcctctatga aagagaggca	1200
ttcctagaga aagattgttc caatttgtca tttaatatca agtttgtata ctgcacatga	1260
cttacacaca acatagtctc tgctctttta aggttaccta aggggtgaaa ctctaccttc	1320
tttcataagc acatgtccgt ctctgactca ggatcaaaaa ccaaaggatg gttttaaaca	1380
cctttgtgaa attgtctttt tgccagaagt taaaggctgt ctccaagtcc ctgaactcag	1440

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cagaaataga ccatgtgaaa actccatgct tggtttagcat ctccaactcc ctatgtaaat 1500

caacaacctg cataataaat aacaga 1526

<210> SEQ ID NO 294

<211> LENGTH: 2154

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3550808CB1

<400> SEQUENCE: 294

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gctgcagggg atttggggga tgtgggacct ccaattccca gccccggctt cagctctttc 120

ccaggtgttg actccagctc cagcttcagc tccagctcca ggtcgggctc cagctccagc 180

cgcagcttag gcagcggagg ttctgtgtcc cagttgtttt ccaatttcac cggctccgtg 240

gatgaccgtg ggacctgcca gtgctctgtt tccctgccag acaccacctt tcccgtaggac 300

agagtggaa cgttgaatt cacagctcat gttctttctc agaagtttga gaaagaactt 360

tctaaagtga gggaatatgt ccaattaatt agtgtgtatg aaaagaaact gttaaaccta 420

actgtccgaa ttgacatcat ggagaaggat accatttctt aactgaact ggacttcgag 480

ctgatcaagg tagaagtga ggagatggaa aaactggta tacagctgaa ggagagtttt 540

ggtggaagct cagaaattgt tgaccagctg gaggtggaga taagaaatat gactctcttg 600

gtagagaagc ttgagacact agacaaaaa aatgtccttg ccattcgcg agaaatcgtg 660

gctctgaaga ccaagctgaa agagtgtgag gcctctaaag atcaaaacac cctgtctgtc 720

caccctctc ccaactccag gagctgtggt catgggtggt tggatgaacat cagcaaaccg 780

tctgtgtgtc agctcaactg gagaggggtt tottatctat atggtgcttg gggtagggat 840

tactctcccc agcatccaaa caaaggactg tattgggtgg cgccattgaa tacagatggg 900

agactgttgg agtattatag actgtacaac aactggatg atttgctatt gtatataaat 960

gctcgagagt tgcggatcac ctatggccaa ggtagtggtg cagcagttta caacaacaac 1020

atgtacgtca acatgtacaa caccgggaat attgccagag ttaacctgac caccaacacg 1080

attgctgtga ctcaaaactc ccctaagtct gcctataata accgcttttc atatgctaata 1140

gttgcttggc aagatatatga ctttgcgttg gatgagaatg gattgtgggt tatttattca 1200

actgaagcca gcactggtaa catggtgatt agtaaaactca atgacaccac acttcaggtg 1260

ctaaacactt ggtataccaa gcagtataaa ccatctgctt ctaacgcctt catggtatgt 1320

ggggttctgt atgccacccg tactatgaac accagaacag aagagatttt ttactattat 1380

gacacaaaca cagggaaga gggcaaaacta gacattgtaa tgcataagat gcaggaaaaa 1440

gtgcagagca ttaactataa cccttttgac cagaaacttt atgtctataa cgatgggttac 1500

cttctgaatt atgatctttc tgtcttcgac aagccccagt aagctgttta ggagttaggg 1560

tgaaagagaa aatgtttgtt gaaaaaatag tcttctccac ttacttagat atctgcaggg 1620

gtgtctaaaa gtgtgttcat tttgcagcaa tgtttagggt catagtctta ccacactaga 1680

gatctaggac atttgtcttg atttggtgag ttctcttggg aatcatctgc ctcttcaggc 1740

gcattttgca ataaagtctg tctaggggtg gattgtcaga ggtctagggg cactgtgggc 1800

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ctagtgaagc ctactgtgag gaggccttcac tagaagcctt aaattaggaa ttaaggaact	1860
taaaactcag tatggcgtct agggattcct tgtacaggaa atattgccca atgactagtc	1920
cccatccatg tagcaccact aattcttcca tgcctggaag aaacctgggg acttagttag	1980
gtagattaat atctggagct cctcgaggga ccaaactctcc aacttttttt tcccctcact	2040
agcacctgga atgatgcttt gtatgtggca gataagtaa tttggcatgc ttatatattc	2100
tacatcctga aagtggcctg gttttatgga gaagaggcct ctttatgcag tcaa	2154

<210> SEQ ID NO 295
<211> LENGTH: 496
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1328883CT1

<400> SEQUENCE: 295

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tcatTTTTTTT aaaatagtaa tctttgttat aatggagttc catgcacttg aaagtcagat	120
ttgtgatttt cacaattttc acaaacttca ctacaatgtg aagtttggac ttctaaacaa	180
atctctactc cccctcctgg gggttctaca ggaacaagat aatcaaccag tctttgcctc	240
agagtttggt cttaccagga agtaaaggga gtggggagga ttgtatatgt gagccaccct	300
gccagcaag accctatttt taagtggttt agattagcag atattcttta agtaagcatc	360
tttaatcctt catgggcact tgaaaaaga ataaccatca ttttgatga agtgagtatt	420
acagcctggg caacagagtg agactcagaa aaaaaaattg gaagaggtaa tttgtaggag	480
taaaaaaaaa aatagg	496

<210> SEQ ID NO 296
<211> LENGTH: 251
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 3458089H1

<400> SEQUENCE: 296

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gatcaccgcc tggtagatcg ggttcctggg gctcatcttc gcctccttcc tggctctacct	120
ggctgagaag gacgccaaact ccgacttctc ctcctacgcc gactcgctct ggtgggggac	180
gattacattg acaaccatcg gctatggtga caagacaccg cacacatggg ctgggcaggt	240
cctggctgct g	251

<210> SEQ ID NO 297
<211> LENGTH: 250
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1329138CT1

<400> SEQUENCE: 297

gttggtgtgtt tggtcacagt gccaatTTAA actgggttga tctgtcttac atggctgtta	60
tggcactgaa ggatatgaag catttgaaat gctgacattt tggaatattc atttaaaaaat	120

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aggctggggc cggacatggc tcacacttgt aatcccagcg cgttgggagg ctgaggcggg 180
tggtatcacct gaggtcagga gtttgagacc aacctggcca acatgacgag accccgtctc 240
tatgaaaata 250

<210> SEQ ID NO 298
<211> LENGTH: 557
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1514470CT1

<400> SEQUENCE: 298

gcagggggcca gtccctccac cctcaactca gcctccatct ggcagggcaa tggccccttc 60
cctcagattg cctgtcccct cgtggtgcct tctccttcac caggcaacct ataattcttg 120
tggaaggagg ggacggcggtg tccccgggcc ctctgatggt tcccttacct ttagggtgga 180
ccaaattgtg ggtcgggggc ccggggacag gaaggcccgg gagaaggcg acaaggggcc 240
ctccgacgag gaggtggtgg atgaaatcag catgatggga cgcgtggtca aggtggagaa 300
gcaggtgcag tccatcgagc acaagctgga cctgctgttg ggcttctatt cgcgctgcct 360
gcgctctggc acctcggcc gcctggggcg cgtgcaagtg ccgctgttcg accccgacat 420
cacctccgac taccacagct ctgtggacca cgaggacatc tccgtctctg cacagacgct 480
cagcatctcc cgctcggtca gcacaacatg gactgagggc ttctcagagg caggcagcaa 540
cggcagctcg cggctgg 557

<210> SEQ ID NO 299
<211> LENGTH: 197
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1513293H1
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 122, 126
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 299

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cctcagattg cctgtcccct cgtggtgcct tctccttcac caggcaacct ataattcttg 120
tngaanggag ggacggcggtg tccccgggcc ctctgatggt tcccttacct ttagggtgga 180
ccaaattgtg ggtcggg 197

<210> SEQ ID NO 300
<211> LENGTH: 441
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 1514470F6
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 4, 23, 31, 33, 122, 411, 429, 438
<223> OTHER INFORMATION: a, t, c, g, or other

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<400> SEQUENCE: 300

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gcangggcca gtccctccac ccncaactca ncntccatct ggcagggcaa tggcccttc      60
cctcagattg cctgtcccct cgtggtgcct tctccttcat caggcaacct ataattcttg      120
tngaaggagg ggacggcggtg tccccgggcc ctctgatggt tcccttacct ttagggtgga      180
ccaaattgtg ggtcgggggc ccggggacag gaaggcccg gagaaaggcg acaaggggcc      240
ctccgacgcg gaggtggtgg atgaaatcag catgatggga cgcgtggtca aggtggagaa      300
gcaggtgcag tccatcgagc acaagctgga cctgctgttg ggcttctatt cgcgttctct      360
gcgctctggc acctcggcc gctggggcgc cgtgcaagt cgtgttcga ncccgacatc      420
accttcgant aaccacantc c                                          441
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<210> SEQ ID NO 301

<211> LENGTH: 203

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 1514470H1

<220> FEATURE:

<221> NAME/KEY: unsure

<222> LOCATION: 122

<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 301

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cctcagattg cctgtcccct cgtggtgcct tctccttcat caggcaacct ataattcttg      120
tngaaggagg ggacggcggtg tccccgggcc ctctgatggt tcccttacct ttagggtgga      180
ccaaattgtg ggtcgggggc ccg                                          203
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<210> SEQ ID NO 302

<211> LENGTH: 281

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 3372628H1

<400> SEQUENCE: 302

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gcgctgcctg cgctctggca cctcggccag cctgggcgcc gtgcaagtgc cgctgttcga      120
ccccgacatc acctccgact accacagccc tgtggaccac gaggacatct ccgtctccgc      180
acagacgctc agcatctccc gctcggtcag caccaacatg gactgaggga cttctcagag      240
gcagggcagc acacggccag ccccgcgcc tggcgctccg a                                          281
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<210> SEQ ID NO 303

<211> LENGTH: 582

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<220> FEATURE:

<221> NAME/KEY: misc_feature

<223> OTHER INFORMATION: Incyte ID No: 4970006CT1

<400> SEQUENCE: 303

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accacagacg atctcagtat gctcggtcgg gtggtcaagg ttgaaaaaca ggtacagtcc      120
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-continued

atagaatcca agctggactg cctactagac atctatcaac aggtccttcg gaaaggctct	180
gcctcagccc tcgctttggc ttcattccag atcccacctt ttgaatgtga acagacatct	240
gactatcaaa gccctgtgga tagcaaagat ctttcggggt ccgcacaaaa cagtggctgc	300
ttatccagat caactagtgc caacatctcg agaggcctgc agttcattct gacgccaaat	360
gagttcagtg ccagacttt ctacgcgctt agccctacta tgcacagtca agcaacacag	420
gtgccaatta gtcaaagcga tggctcagca gtggcagcca ccaacaccat tgcaaaccaa	480
ataaatacgg caccaaagcc agcagcccaa caactttaca gatcttctct ctccagctct	540
tgaggagcta gaatacaggg agatgccaca tgccagttaa tt	582

<210> SEQ ID NO 304
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<223> OTHER INFORMATION: Incyte ID No: 4970006H1
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accacagacg atctcagtat gctcggctcg gtggtinnagg ttgaaaaaca ggtacagtcc	120
atagaatcca agctggactg cctactagac atctatcaac aggtccttcg gaaaggctct	180
gcctcagccc tcgctttggc ttcattccag atcccacctt ttgaatgtga acagacatct	240
gactatcaaa gccctgtgga tagcaaagat ctttcggggt ccgc	284

<210> SEQ ID NO 305
<211> LENGTH: 575
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<220> FEATURE:
<221> NAME/KEY: misc_feature
<223> OTHER INFORMATION: Incyte ID No: 4970006F6
<220> FEATURE:
<221> NAME/KEY: unsure
<222> LOCATION: 486, 510, 552, 573
<223> OTHER INFORMATION: a, t, c, g, or other

<400> SEQUENCE: 305

ggaaaagggc aaatcacatc agataagaag agccgagaga aaataacagc agaacatgag	60
accacagacg atctcagtat gctcggctcg gtggtcaagg ttgaaaaaca ggtacagtcc	120
atagaatcca agctggactg cctactagac atctatcaac aggtccttcg gaaaggctct	180
gcctcagccc tcgctttggc ttcattccag atcccacctt ttgaatgtga acagacatct	240
gactatcaaa gccctgtgga tagcaaagat ctttcggggt ccgcacaaaa cagtggctgc	300
ttatccagat caactagtgc caacatctcg agaggcctgc agttcatctg acgccaaatg	360
agttcagtg ccagactttc tacggcttag cctactatgc acagtcaagc aacacaggtg	420
ccaatagtca aagcgatggc tcagcagtgg cagccaccaa caccattgca accaaattaa	480

-continued

tacggnaccc aagccagcag gccccacaan ttacagtctc ctctcagctc ttgaggggta 540
ggaattacag gnagatgccc catggcccgt tantt 575

What is claimed is:

1. A composition comprising a plurality of polynucleotide sequences comprising at least a fragment of a sequence selected from the group consisting of SEQ ID NOs:1-305.

2. The composition of claim 1, wherein each of said polynucleotide sequences comprises at least a fragment of a sequence encoding a membrane-associated protein.

3. The composition of claim 1, wherein each of said polynucleotide sequences comprises at least a fragment of a sequence encoding a receptor.

4. The composition of claim 1, wherein each of said polynucleotide sequences comprises at least a fragment of a sequence encoding an ion channel.

5. The composition of claim 1, wherein each of said polynucleotide sequences comprises at least a fragment of a sequence selected from SEQ ID NOs:1-288.

6. The composition of claim 1, wherein said polynucleotide sequences comprise at least a fragment of a sequence selected from SEQ ID NOs:289-294.

7. The composition of claim 1, wherein said polynucleotide sequences comprise at least a fragment of a sequence selected from SEQ ID NOs:295-305.

8. The composition of claim 7, wherein the fragment is selected from the group consisting of:

(a) SEQ ID NOs:295-297; or

(b) SEQ ID NOs:298-305;

9. The composition of claim 1, wherein the polynucleotide sequence is a probe.

10. The composition of claim 9, wherein the polynucleotide sequence is immobilized on a substrate.

11. The composition of claim 1, wherein the polynucleotide sequence is an array element.

* * * * *