US 20250258170A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2025/0258170 A1

(43) Pub. Date: Aug. 14, 2025

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(54) **PROTEINS AND T-CELLS INVOLVED IN CHRONIC INFLAMMATORY DISEASES**

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(21) Appl. No.: **18/723,255**

(22) PCT Filed: **Dec. 22, 2022**

(86) PCT No.: **PCT/EP2022/087583**

§ 371 (c)(1),
(2) Date: **Jun. 21, 2024**

(30) **Foreign Application Priority Data**

Dec. 22, 2021 (EP) 21217058.3

Publication Classification

(51) **Int. Cl.**

G01N 33/569	(2006.01)
C07K 16/28	(2006.01)
G01N 33/68	(2006.01)

(52) **U.S. Cl.**

CPC ... ***G01N 33/56972*** (2013.01); ***C07K 16/2809*** (2013.01); ***G01N 33/6893*** (2013.01); *G01N 2800/065* (2013.01)

(57) **ABSTRACT**

A protein comprising an amino acid sequence according to SEQ ID NO: 1, wherein the amino acid in position 4 of SEQ ID NO: 1 is selected from the group consisting of N, S, R, T and I, preferably consisting of N, S and R and wherein the amino acid in position 5 of SEQ ID NO: 1 is selected from the group consisting of R, V, L, F, M, I, H, S, T, A, P and G, with the proviso that the amino acid sequence is not SEQ ID NO: 24.

Specification includes a Sequence Listing.

PROTEINS AND T-CELLS INVOLVED IN CHRONIC INFLAMMATORY DISEASES

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application is the U.S. National Stage of International Patent Application No. PCT/EP2022/087583, filed Dec. 22, 2022, and claims priority to European Patent Application No. 21217058.3, filed Dec. 22, 2021.

SEQUENCE LISTING

[0002] The instant application contains a Sequence Listing which has been submitted electronically in XML format and is hereby incorporated by reference in its entirety. Said XML file, created on Jan. 27, 2025, is named "117948-0112_SL.xml" and is 1,078,193 bytes in size.

FIELD

[0003] The present invention relates to proteins comprising an amino acid sequence according to a specific motif. The invention further relates to a nucleotide sequence encoding for such an amino acid sequence and a T-cell comprising the protein according to the invention. Further, the invention relates to the use of a protein according to the invention or a T-cell according to the invention or an mRNA according to the invention in the research for a medicament for treatment of a chronic inflammatory disease or in the development of an antibody directed against the protein and/or the T-cell and/or the mRNA according to the invention.

[0004] The invention further relates to an antibody directed against an epitope of the protein according to the invention.

STATE OF THE ART

[0005] Dysregulated T cell reactions against intestinal antigens are considered to be a causal or driving factor for chronic inflammatory diseases, especially inflammatory bowel diseases (IBD). For IBD and for other inflammatory and autoimmune diseases, e.g. multiple sclerosis or diabetes, the excessive immune response may be directed against common, still unknown, disease-driving antigens. In genetically predisposed hosts, antigens derived from a dysbiotic microbiome may come into contact with T cells through the damaged intestinal epithelial barrier, which may lead to an uncontrolled and dysregulated immune response. As such, it may be possible to identify specific disease-associated T cells within the peripheral blood and/or at the intestinal inflammation site of IBD patients.

[0006] Although the two main forms of IBD, namely Crohn's disease (CD) and ulcerative colitis (UC) are often referred to as generally "IBD", they are two independent diseases with different disease progression and characteristics. CD may develop in any part of the gastrointestinal tract, mostly in the small intestine, while UC develops in the colon only. Both diseases are T-cell mediated, different T cell subsets may but do not have to play a role in disease pathogenesis and progression. Markers distinguishing the two diseases exist but are limited, sometimes resulting in incorrect diagnosis. Further insights differentiating the two forms would help in better understanding, diagnosis and treatment of the diseases.

[0007] Most alpha/beta T cells are characterized by a unique T-cell receptor (TCR), formed by an alpha and beta chain. T cells recognize antigenic peptides presented by the major histocompatibility complex (MHC). Upon recognition of an antigen via the TCR, T cells may expand clonally, resulting in a population of cells with identical TCRs ("clonotypes"). The TCR repertoire, defined as the collection of unique TCRs, is extremely variable, with up to 10^{16} unique clonotypes present in a single individual. Therefore, the composition of the TCR repertoire, i.e. the diversity of different TCRs or the expansion of individual clonotypes, can provide important insights into disease-associated alterations of the T cell reaction.

[0008] In general, there is a need for the identification of disease-associated T-cell clonotypes in chronic inflammatory disease patients, especially in IBD patients, which could be an important step towards (i) understanding the contribution of TCR repertoire changes to diseases' pathophysiology; (ii) the identification of pathogenic T cells of interest; (iii) the identification of pathogenic T cells' cognate antigens and (iv) the development of new diagnostic and therapeutic strategies. Previous studies identified expanded clonotypes in IBD intestinal samples compared to blood samples and correlated certain TCRs with disease recurrence after surgery.

[0009] In view of the state of the art, it was an object of the present invention to provide means for research and development of diagnostic and therapeutic strategies for chronic inflammatory diseases, especially for IBD.

DESCRIPTION

[0010] In a first inspect of the invention this object is solved by a protein comprising an amino acid sequence according to SEQ ID and NO: 1, wherein the amino acid in position 4 of SEQ ID NO: 1 is selected from the group consisting of N, S, R, T and I, preferably consisting of N, S and R and wherein the amino acid in position 5 of SEQ ID NO: 1 is selected from the group consisting of R, V, L, F, M, I, H, S, T, A, P and G, with the proviso that the amino acid sequence is not SEQ ID NO: 24.

[0011] Surprisingly, as result of the inventors' research there is an amino acid sequence motif according to SEQ ID NO: 1 that is associated with the occurrence of inflammatory diseases, especially involved in the occurrence of IBD and more prevalently involved in Crohn's disease (CD).

[0012] As used herein a "protein" refers to a polypeptide with at least 60, preferably at least 80 and more preferably at least 100 amino acids.

[0013] Preferred is a protein according to the invention, wherein the amino acid in position 7 of SEQ ID NO: 1 is A or S, wherein A is preferred.

[0014] Preferably the protein according to the invention is a protein, wherein the amino acid sequence according to SEQ ID NO: 1 is selected from the group consisting of amino acid sequences SEQ ID NO: 2 to 295.

[0015] More preferably the protein according to the invention is a TCR.

[0016] As used herein, a "T-cell receptor", or "TCR", is a molecule found on the surface of T-cells, or T-lymphocytes, that is responsible for recognizing antigenic molecules, more preferably peptides or/and lipids, bound to mayor histocompatibility complex (MHC) or MHC-like molecules. The TCR is a heterodimer. There are two types of TCRs: αβTCR consisting of an alpha (α) chain and a beta (β) chain

(~95% of TCRs in humans) and γδTCR consisting of a gamma and delta chain (~5% of TCRs in humans). When the TCR engages with the antigen and MHC complex, the T-lymphocyte is activated through signal transduction, mediated by associated enzymes, co-receptors, specialized adaptor molecules, and activated or inactivated or re-leased transcription factors.

[0017] The TCRα and β chains are both composed of a variable part and a constant part. The diversity of the TCR is based mainly on genetic recombination of the DNA encoded segments, originating from the VDJ genes, in individual T cells. The process of recombination ultimately results in novel TCR amino acids sequences that allow for the recognition of antigens.

[0018] As used herein the "T-cell receptor", and "TCR" relates both to naturally occurring T-cell receptors and recombinantly expressed T-cell receptors.

[0019] As used herein a T-cell, or a lymphocyte, is a type of lymphocytes (a subtype of white blood cells) that plays a central role in cell mediated immunity. T-cells can be distinguished from other lymphocytes, such as B-cells and natural killer cells, by the presence of a T-cell receptor on the cell surface. They are called T-cells because they mature in the thymus from thymocytes.

[0020] A protein of the invention is preferred wherein the amino acid sequence according to SEQ ID NO: 1 is comprised in the alpha chain of the TCR, more preferably in the CDR3 region.

[0021] As used herein the CDR3 region is the most variable region of a TCR. The CDR3 region of the TCR alpha chain is positioned at the junction between the V and the J TCR genes and is the result of the VDJ recombination process during T cell maturation in the thymus. The CDR3 region is the most studied region of the TCR, because has the highest contacts with the antigen.

[0022] According to the invention it is preferred that the amino acid sequence according to SEQ ID NO: 1 (or preferred sequence according to the invention) is encoded by the genes TRAV12-1 and/or TRAJ6.

[0023] Surprisingly the inventors could show that proteins according to the invention, especially the preferred proteins according to the invention were found in (human) patients affected by an inflammatory disease, especially an inflammatory bowel disease (IBD) and more especially Crohn's disease in a significant higher number as compared to healthy control or non-inflammatory disease control individuals. In addition, the cumulative abundance of the proteins according to the invention was also significantly higher in CD patients' blood.

[0024] Further, the presence and abundance of proteins according to the invention did not seem to correlate with any specific MHC-allele. Nor was found a correlation between the abundance of those proteins and other clinical parameters such as age, gender, disease severity or medication history.

[0025] In a second aspect of the invention the above object is solved by a T cell, comprising the protein of the invention. Preferably such a T cell is a human T cell.

[0026] More preferably the T cell according to the invention is a $CD4^+$ cell and/or a $CD8^+$ cell and/or a CD161+ cell, preferably a $CD8^+$ cell.

[0027] CD4, CD8 and CD161 are proteins expressed on the surface of T lymphocytes or/and other immune cells. These proteins work as co-stimulatory molecules in different cellular signals, including but not limited to the TCR response.

[0028] A "$CD4^+$ cell", as used herein, is a cell that expresses the CD4 protein on its surface or expresses the mRNA encoding for the CD4 protein.

[0029] A "$CD8^+$ cell", as used herein, a cell that expresses the CD8 protein on its surface or expresses the mRNA encoding for the CD8 protein.

[0030] A "$CD161^+$ cell", as used herein, is a cell that expresses the CD161 protein on its surface or expresses the mRNA encoding for the CD161 protein.

[0031] The T cells according to the invention are a good basis for further research for medicaments and antibodies to be used in the treatment inflammatory diseases especially in the treatment of IBD and more especially in the treatment of CD.

[0032] In a third aspect of the invention the above object is solved by a nucleotide encoding for an amino acid sequence according to sequence ID NO: 1, preferably according to any of amino acid sequences SEQ ID NO: 2 to 295, wherein the nucleotide sequence more preferably is selected from the DNA sequences SEQ ID NO: 296 to 1205, with the proviso that DNA sequences SEQ ID NO: 638, 647, 655, 662, 721, 1020, 1098, 1130, 1137, 1147 and 1150 are excluded or an mRNA sequence encoded by a DNA sequence according to any of DNA sequence SEQ ID NO: 296 to 1205 with the proviso that DNA sequences SEQ ID NO: 364, 568, 580, 637, 638, 647, 655, 662, 721, 1020, 1098, 1130, 1137, 1147 and 1150 are excluded.

[0033] Preferably, a nucleotide sequence according to the invention is an mRNA sequence.

[0034] On basis of the information comprised in the other specification the persons skilled in the art easily recognises that the proteins according to the invention, that the T cells according to the invention and that the nucleotide sequences according to the invention can be used as markers for inflammatory bowel disease (IBD) and more especially for Crohn's disease. This includes also a protein comprising an amino acid sequence according to SEQ ID NO: 24 and a T cell comprising such an amino acid as well as a DNA or mRNA according to the invention and preferably also a DNA comprising the DNA sequences SEQ ID NO: 364, 568, 580, 637, 638, 647, 655, 662, 721, 1020, 1098, 1130, 1137, 1147 and 1150 or a mRNA comprising a sequences encoded by any of those DNA sequences.

[0035] It has further noted that those markers could be used the identification of inflammatory bowel disease in the patient and preferably for discrimination Crohn's disease in a patient from IBD other than Crohn's disease.

[0036] A fourth aspect of the present invention is a use of a protein according to the invention, or of a T cell according to the invention or of an mRNA according to the invention

in the research for a medicament for treatment of a chronic inflammatory disease preferably inflammatory bowel disease (IBD), with the proviso that amino acid sequence SEQ ID NO: 24 is not excluded, and DNA sequences SEQ ID NO: 364, 568, 580, 637, 638, 647, 655, 662, 721, 1020, 1098, 1130, 1137, 1147 and 1150 are not excluded.

[0037] More preferred is a use according to the invention, wherein the chronic inflammatory disease is IBD, preferably Crohn's disease (CD) or ulcerative colitis (UC), preferably CD, more preferably ileal CD and/or ileocolonic CD.

[0038] A fifth aspect according to the invention is a use of a protein according to the invention or a use of a T cell according to the invention or a use of an mRNA according to the invention in the development of an antibody directed against the protein and/or the T cell or the mRNA.

[0039] A preferred use according to the invention is a use wherein the antibody is directed against an epitope, comprising at least a part of the amino acid sequence according to SEQ ID NO: 1, wherein preferably the amino acid sequence according to SEQ ID NO: 1 is further defined as described above.

[0040] A sixth aspect of the invention is an antibody directed against an epitope, comprising at least a part of the amino acid sequence according to SEQ ID NO: 1, wherein preferably the amino acid sequence according to SEQ ID NO: 1 is further defined as above described and/or wherein the antibody is a monoclonal antibody.

[0041] A "monoclonal antibody" as used herein comprises antibodies with the same monovalent affinity, thus binding to the same epitope.

[0042] Certainly, in the sense of the present invention the antibodies according to the invention are preferably specific antibodies wherein "specific" means the antibody is able to bind the target epitope according to the invention and/or the antibody can discriminate between that epitope and another similar or dissimilar epitope.

[0043] A further aspect of the invention is the method of discriminating blood samples of IBD patients from blood samples of individuals without IBD, preferably a method of discriminating blood samples of Crohn's disease patients from blood samples of individuals without IBD and individuals with IBD other than Crohn's disease comprising the step of quantitatively assessing the abundance of proteins according to the invention and/or the abundance of T-cells according to the invention.

[0044] As shown in the examples, it is possible to identify IBD patients form blood samples and even preferably to discriminate Crohn's disease from other IBD diseases.

[0045] In view of the above, the person's skilled in the art also understands that the proteins according to the invention, the T cells according to the invention and the nucleotide sequence according to the invention could be helpful in prognosis and/or diagnosis of IBD and preferably of Crohn's disease.

EXAMPLES

Material and Methods

Example 1

Whole Blood Sample Collection

[0046] Phenotypic details for this collection are described in Table 1.

[0047] CD patient collection: BioCrohn is a non-interventional prospective registry of Crohn's disease patients undergoing biologics treatment which was established by the German "Competence Network IBD", Kiel, Germany in 2008. Samples included in this study were collected prior to the start of anti-TNF therapy (Infliximab).

[0048] To evaluate disease activity, the Harvey-Bradshaw Index (HBI) was used. This measure was employed to distinguish between inactive ($0 \leq HBI \leq 4$: remission) and active state of the disease ($5 \leq HBI \leq 7$: mild activity, $8 \leq HBI \leq 16$: moderate activity, $17 \leq HBI \leq \infty$: severe activity) (42), as described from the Canadian society of intestinal research. In total, whole blood samples of 109 CD patients were available for analysis. All patients had active disease at sampling time. Response to anti-TNF therapy was defined as a steroid-independent change from active disease (HBI>4 at baseline) to an inactive state of the disease (HBI<4 at 6 months after start of therapy). Accordingly, non-response to anti-TNF therapy was defined as the disease being consistently active at both time points under investigation (HBI>4 at baseline and 6 months).

[0049] UC patient collection: blood samples from UC patients of the "whole blood collection" were recruited as part of a larger panel of patients with IBD, recruited in the Comprehensive Centre for Inflammation Medicine (CCIM), at the University Hospital Schleswig-Holstein, Campus Kiel (Germany). Samples for the present study were randomly selected among the available samples stored in the PopGen biobank. In total, whole blood samples of 36 UC patients were available.

[0050] Healthy control collection: blood samples were obtained from the PopGen control sample, consisting of a community-based sample from the Kiel area (Northern Germany) and of blood donors from the University Hospital Schleswig-Holstein, Campus Kiel(43). In total, 1316 individuals were recruited at baseline (between 2005 and 2007) and were re-examined at the second examination cycle; between 2010 and 2012; n=952)(44, 45). Participants filled-in questionnaires on health and nutrition, received a basic clinical examination and provided blood samples for research. For the present analyses, individuals with major diseases such as cancer, neurological and inflammatory diseases were excluded. In total, 99 whole blood samples were available. These samples were matched to the CD patients in regard to age and sex.

[0051] The study was approved by the local ethics committees (Ethics votes: A156/03 v. 29.7.2010, A156/03-3/15 v. 21.1.16, A156/03-2/13, A161/08). All study participants gave their written informed consent.

[0052] 2.5 ml of blood were drawn and stored in PAXgene tubes (Qiagen), following the manufacturer's instructions. Samples were stored at −80° C. Total RNA was isolated using the PAXgene blood miRNA kit (Qiagen) with automatic isolation using the Qiacube machine. 1,200 ng of total RNA were used for

TABLE 1

Whole blood collection phenotype information. Information about disease phenotype was provided via the Montreal classification. Information on the disease activity was available through the Harvey-Bradshaw index (HBI) for CD patients and though the colitis activity index (CAI) and partial Mayo score for UC patients. Information about steroid therapy at sampling time was also provided. "NA" corresponds to "information not available".

	Sample group		
	CD	UC	Healthy
Basic phenotype			
Samples	109	36	99
Gender, Male/Female (%)	43/65 (40/60%)	21/15 (58/42%)	41/58 (41/59%)
Age, mean ± std	40 ± 12	37 ± 13	48 ± 13
Montreal classification			
Age at diagnosis in years			
A1, <16) (%)	7 (6%)	—	—
A2, 17-40 (%)	74 (70%)	—	—
A3, >40 (%)	25 (24%)	—	—
Behaviour			
B1, inflammatory (%)	51 (47%)	—	—
B2, stricturing (%)	21 (19%)	—	—
B3, penetrating (%)	36 (34%)	—	—
Location			
L1, ileal (%)	29 (27%)	—	—
L2, colonic (%)	23 (21%)	—	—
L3, ileocolonic (%)	56 (52%)	—	—
Disease extent			
E1, proctitis (%)	—	3 (3%)	—
E2, left-sided UC (%)	—	16 (47%)	—
E3, extensive UC (%)	—	15 (44%)	—
Info not available (NA)	1	2	—
Disease activity			
HBI, mean ± std	11 ± 5	—	—
Mild activity, 5 ≤ HBI ≤ 7 (%)	37 (34%)	—	—
Moderate activity, 8 ≤ HBI ≤ 16 (%)	57 (53%)	—	—
Severe activity, 17 ≤ HBI ≤ ∞ (%)	14 (13%)	—	—
Partial Mayo score, mean ± std	—	3.3 ± 2	—
CAI, mean ± std	—	6.7 ± 4.3	—
Info not available (NA)	1	0	—
Medications			
Steroids, yes/no (%)	7/102 (6/94%)	14/22 (39/61%)	—
Treatment naïve yes/no/NA (%)	77/14/18 (70/13/17%)	0/0/36 (0/0/100%)	—
Responders to anti-TNF yes/no/NA (%)	46/60/3 (42/55/3%)	—	—

Example 2

Surgery Sample Collection

[0053] Samples were collected in collaboration with the Clinic for General and Thoracic Surgery of the University Hospital Schleswig-Holstein, Kiel, Germany. It is important to notice that for CRC tissue samples, macroscopically normal, non-tumour tissue was utilized. Sample details are provided in Table 2.

[0054] Sample collection included (1) one 9 ml whole blood EDTA tube from which PBMCs were isolated by density gradient centrifugation (Ficoll, GE Healthcare) and (2) resected intestinal mucosa. Tissues were cut into pieces of approximately 30-50 mg, snap-frozen and stored at −80° C. Details on the number of collected samples and intestinal resection location for each patient are available in Table 2, together with patients' basic phenotypic information.

[0055] Total RNA was isolated using the RNeasy mini kit from Qiagen following the manufacturer's instructions. Up to 3,200 ng of total RNA were used for TCR library preparation. Details on the sorted T cell populations from additional surgery samples are described in the supplementary materials and methods as well as supplementary table 1.

TABLE 2

Surgery collection phenotype information. Information about the numbers of collected samples for each tissue is provided together with information about intestinal location of the sample and about therapy with steroids or immunosuppressants at time of surgery.

	CD	UC	CRC
Basic phenotype			
Samples	11	13	13
Gender, Male/Female (%)	4/7 (36/64%)	7/6 (54/46%)	8/5 (62/38%)
Age, mean ± std	40 ± 15	52 ± 16	69 ± 12

TABLE 2-continued

Surgery collection phenotype information. Information about the numbers of collected samples for each tissue is provided together with information about intestinal location of the sample and about therapy with steroids or immunosuppressants at time of surgery.

	CD	UC	CRC
Sample types			
Intestinal samples	11	13	9
Mesenteric lymph nodes	4	5	0
PBMCs	11	12	12
Intestine + PBMCs datasets	11	12	8
Resected tissue location			
Large intestine	4	13	13
Small intestine	7	0	0
Medications			
Steroids, yes/no/NA	4/5/2	7/6/0	0/0/13
Immunosuppressants, yes/no/NA	5/5/1	2/10/1	0/0/13

Example 3

TCR Library Preparation and Sequencing

[0056] Starting from total RNA, molecular-barcoded TCR cDNA libraries were prepared as previously described in M. V. Pogorelyy et al., *Persisting fetal clonotypes influence the structure and overlap of adult human T cell receptor repertoires. PLOS Computational Biology* 13, e1005572-e1005572 (2017), with minor modifications for both TCRα and TCRβ chains. Briefly, cDNA synthesis was performed using SMARTScribe reverse transcriptase (Clontech, Takara) using primers for the TCRα and TCRβ constant region. A unique molecular identifier (UMI), and a sample barcode of 6 nucleotides, were introduced via template-switching. cDNA synthesis was carried out for 60 minutes at 42° C. cDNA was then treated with Uracil DNA-Glycosylase (UDG, from New England Biolabs) and incubated for 30 min at 37° C. Samples were subsequently purified with the QIAquick PCR purification kit (Qiagen) and eluted in 50 or 100 μl deionized water. Purified cDNA was then amplified with 2 consecutive PCRs, respectively 18 and 12 cycles, with purification after each PCR using MagSi-NGSprep Plus (MagnaMedics). Illumina compatible adapters and sample-specific barcodes were added during the second PCR. Quality and concentration of the libraries were measured with TapeStation D1000 (Agilent) and Qubit (Thermofisher). Libraries were pooled using 5 ng per library and sequenced on Illumina HiSeq2500 with a single-index Rapid Run of 2×100 bp (whole blood) or on Illumina NovaSeq 6000 SP 2×150 bp flow cell (surgery). Custom sequencing primers were added to the Illumina primers.

[0057] For the sorted surgery collection samples, libraries were prepared using human TCR profiling kit (MiLaboratory), according to the manufacturers' protocol. Libraries were sequenced on Illumina MiSeq 2×150 bp or NovaSeq 6000 SP 2×150 bp.

Example 4

TCR Data Pre-Processing

[0058] PCR and sequencing error correction were performed through identification and selection of unique molecular identifiers using the software MiGEC, version 1.2.6. Filtered sequences were aligned on a TCR gene reference, clonotypes were identified, grouped and CDR3 sequence was identified using the software MiXCR, version 2.1.1 (first sample collection: blood collection) or version 3.0.14 (second collection: surgery collection). Clonotype tables containing clonotype counts, frequencies, CDR3 nucleotide and amino acid sequences and V(D)J genes were obtained and used for further analysis.

[0059] A total of 444 samples were analysed for bulk TCR repertoire.

Example 5

TCR Data Analysis

[0060] For statistical analysis, the Wilcoxon-Mann-Whitney U test was used unless otherwise indicated. Samples with less than 200 identified unique clonotypes were excluded from the analysis. TCRs found at a count inferior to 2 (singletons) or encoding for out of frame sequences or TCRs containing stop codons, were also excluded from further analyses.

[0061] Proportion analysis of TCR groups (CDR3length_Vgene_Jgene): For each disease group (CD, UC, healthy), the total number of TCR sequences being part of each TCR group (CDR3length_Vgene_Jgene) was calculated and divided by the number of total TCR sequences present in each disease group in order to normalize for differences in TCR number among disease groups. The proportion of TCRs of each TCR group was then compared between disease groups, either CD against UC, or against healthy controls, for both TCR alpha and TCR beta.

[0062] Fisher test on identified TCR groups of interest: using specific CDR3 and VJ gene combinations identified through the analysis of repertoire proportions (12aa_TRAV1-2_TRAJ33, 15aa_TRAV12-1_TRAJ6), we performed one-sided Fisher's exact test on the single TCRs of these groups to identify TCR alpha clonotypes respectively decreased (12aa_TRAV1-2_TRAJ33) or increased (15aa_TRAV12-1_TRAJ6) in CD patients versus healthy individuals, from the whole blood and surgery collections. We applied multiple testing correction through the Benjamini-Hochberg (BH) method(49), in order to control expected proportion of false discoveries amongst the rejected hypotheses (false discovery rate, FDR).

[0063] Analysis on specific sequences: TCR sequences from the identified group of CDR3length=15 amino acids, V gene=TRAV12-1 and J gene=TRAJ6 that were found to be more abundant in CD patients as compared to controls in the whole blood sample collection were used for the logo plot which defined the specific clonotype motif CVV**A*GGSYIPTF (SEQ ID NO: 1). All sequences of the selected TCR group, carrying the motif were selected for further analysis. For each sample, the number of sequences according to the invention present in the sample as well as the sum of relative abundances (cumulative abundance) of CAIT sequences according to the invention were calculated.

[0064] The results can be found in the table 3 (amino acid sequences) and in the sequence protocol (SEQ ID NO: 2-295 (amino acid sequences) and SEQ ID NO: 296-1205 (DNA sequences)).

[0065] As can be seen from table 3 there are polypeptide sequences with higher occurrences. It has to been noted that

according to the invention a polypeptide sequence is the more preferred the higher the occurrence is according to table 3.

TABLE 3

TCR sequences		
SEQ ID NO	Occurrencies	Sequence
2	144	CVVNLASGGSYIPTF
3	93	CVVNGASGGSYIPTF
4	88	CVVNSASGGSYIPTF
5	77	CVVNIASGGSYIPTF
6	77	CVVNPASGGSYIPTF
7	75	CVVNRASGGSYIPTF
8	72	CVVSLASGGSYIPTF
9	62	CVVNMASGGSYIPTF
10	55	CVVTLASGGSYIPTF
11	49	CVVNTASGGSYIPTF
12	43	CVVRLASGGSYIPTF
13	42	CVVRHASGGSYIPTF
14	38	CVVNVASGGSYIPTF
15	37	CVVSHASGGSYIPTF
16	36	CVVRVASGGSYIPTF
17	34	CVVRSASGGSYIPTF
18	33	CVVIPASGGSYIPTF
19	31	CVVNKASGGSYIPTF
20	30	CVVRGASGGSYIPTF
21	30	CVVTPASGGSYIPTF
22	29	CVVNAASGGSYIPTF
23	29	CVVNFASGGSYIPTF
24	24	CVVSSASGGSYIPTF
25	23	CVVNQASGGSYIPTF
26	21	CVVRTASGGSYIPTF
27	19	CVVIHASGGSYIPTF
28	19	CVVNEASGGSYIPTF
29	19	CVVNHASGGSYIPTF
30	19	CVVRRASGGSYIPTF
31	18	CVVILASGGSYIPTF
32	18	CVVRIASGGSYIPTF
33	16	CVVRAASGGSYIPTF
34	16	CVVSPASGGSYIPTF
35	16	CVVSTASGGSYIPTF

TABLE 3-continued

TCR sequences		
SEQ ID NO	Occurrencies	Sequence
36	16	CVVTHASGGSYIPTF
37	16	CVVTSASGGSYIPTF
38	16	CVVTVASGGSYIPTF
39	15	CVVNMAAGGSYIPTF
40	15	CVVSVASGGSYIPTF
41	15	CVVTAASGGSYIPTF
42	14	CVVKGASGGSYIPTF
43	12	CVVNGAPGGSYIPTF
44	12	CVVNIAAGGSYIPTF
45	12	CVVNMATGGSYIPTF
46	12	CVVPHASGGSYIPTF
47	12	CVVSAASGGSYIPTF
48	12	CVVTFASGGSYIPTF
49	11	CVVREASGGSYIPTF
50	11	CVVSFASGGSYIPTF
51	11	CVVSGASGGSYIPTF
52	11	CVVSIASGGSYIPTF
53	10	CVVIAASGGSYIPTF
54	10	CVVISASGGSYIPTF
55	10	CVVNMAGGGSYIPTF
56	9	CVVFHASGGSYIPTF
57	9	CVVRQASGGSYIPTF
58	9	CVVSRASGGSYIPTF
59	8	CVVIGASGGSYIPTF
60	8	CVVLHASGGSYIPTF
61	8	CVVNIATGGSYIPTF
62	8	CVVNYASGGSYIPTF
63	8	CVVRFASGGSYIPTF
64	8	CVVTLAGGGSYIPTF
65	7	CVVAHASGGSYIPTF
66	7	CVVIRASGGSYIPTF
67	7	CVVNGAAGGSYIPTF
68	7	CVVNIAGGGSYIPTF
69	7	CVVRMASGGSYIPTF
70	7	CVVTIASGGSYIPTF
71	6	CVVKHASGGSYIPTF
72	6	CVVKSASGGSYIPTF

TABLE 3-continued

TCR sequences		
SEQ ID NO	Occurrencies	Sequence
73	6	CVVMGASGGSYIPTF
74	6	CVVNDASGGSYIPTF
75	6	CVVNRAPGGSYIPTF
76	6	CVVTGASGGSYIPTF
77	5	CVVALASGGSYIPTF
78	5	CVVDHASGGSYIPTF
79	5	CVVIFASGGSYIPTF
80	5	CVVIIASGGSYIPTF
81	5	CVVIVASGGSYIPTF
82	5	CVVKPASGGSYIPTF
83	5	CVVKRASGGSYIPTF
84	5	CVVKTASGGSYIPTF
85	5	CVVNLAAGGSYIPTF
86	5	CVVNSAAGGSYIPTF
87	5	CVVNSAGGGSYIPTF
88	5	CVVRKASGGSYIPTF
89	5	CVVSQASGGSYIPTF
90	4	CVVFLASGGSYIPTF
91	4	CVVFSASGGSYIPTF
92	4	CVVKAASGGSYIPTF
93	4	CVVKLASGGSYIPTF
94	4	CVVMHASGGSYIPTF
95	4	CVVNLAGGGSYIPTF
96	4	CVVNMAPGGSYIPTF
97	4	CVVNRAAGGSYIPTF
98	4	CVVNRATGGSYIPTF
99	4	CVVNVAAGGSYIPTF
100	4	CVVNVATGGSYIPTF
101	4	CVVNWASGGSYIPTF
102	4	CVVSKASGGSYIPTF
103	4	CVVSQAAGGSYIPTF
104	4	CVVTDASGGSYIPTF
105	4	CVVTYASGGSYIPTF
106	3	CVVGLASGGSYIPTF
107	3	CVVGTASGGSYIPTF
108	3	CVVIDASGGSYIPTF

TABLE 3-continued

TCR sequences		
SEQ ID NO	Occurrencies	Sequence
109	3	CVVITASGGSYIPTF
110	3	CVVKVASGGSYIPTF
111	3	CVVLLASGGSYIPTF
112	3	CVVNGATGGSYIPTF
113	3	CVVNIAPGGSYIPTF
114	3	CVVNKAAGGSYIPTF
115	3	CVVNLARGGSYIPTF
116	3	CVVNSAVGGSYIPTF
117	3	CVVNTAGGGSYIPTF
118	3	CVVNVAGGGSYIPTF
119	3	CVVTQASGGSYIPTF
120	3	CVVTTASGGSYIPTF
121	3	CVVYHASGGSYIPTF
122	3	CVVYLASGGSYIPTF
123	2	CVVADASGGSYIPTF
124	2	CVVAQASGGSYIPTF
125	2	CVVASASGGSYIPTF
126	2	CVVATASGGSYIPTF
127	2	CVVFGASGGSYIPTF
128	2	CVVHHASGGSYIPTF
129	2	CVVHVASGGSYIPTF
130	2	CVVINASGGSYIPTF
131	2	CVVIQASGGSYIPTF
132	2	CVVKEASGGSYIPTF
133	2	CVVKIASGGSYIPTF
134	2	CVVKKASGGSYIPTF
135	2	CVVKMASGGSYIPTF
136	2	CVVKRAGGGSYIPTF
137	2	CVVLGASGGSYIPTF
138	2	CVVLPASGGSYIPTF
139	2	CVVLSASGGSYIPTF
140	2	CVVLTASGGSYIPTF
141	2	CVVMPASGGSYIPTF
142	2	CVVNEAAGGSYIPTF
143	2	CVVNIALGGSYIPTF
144	2	CVVNIARGGSYIPTF
145	2	CVVNMAEGGSYIPTF

TABLE 3-continued

TCR sequences		
SEQ ID NO	Occurrencies	Sequence
146	2	CVVNPATGGSYIPTF
147	2	CVVNSATGGSYIPTF
148	2	CVVPFASGGSYIPTF
149	2	CVVPPASGGSYIPTF
150	2	CVVPRASGGSYIPTF
151	2	CVVPSASGGSYIPTF
152	2	CVVPTASGGSYIPTF
153	2	CVVRLAGGGSYIPTF
154	2	CVVRPASGGSYIPTF
155	2	CVVRTARGGSYIPTF
156	2	CVVRVAAGGSYIPTF
157	2	CVVRYASGGSYIPTF
158	2	CVVSDASGGSYIPTF
159	2	CVVSGAVGGSYIPTF
160	2	CVVSLAGGGSYIPTF
161	2	CVVVHASGGSYIPTF
162	2	CVVVLASGGSYIPTF
163	1	CVVAFASGGSYIPTF
164	1	CVVAGASGGSYIPTF
165	1	CVVAPASGGSYIPTF
166	1	CVVAVASGGSYIPTF
167	1	CVVAWASGGSYIPTF
168	1	CVVDDASGGSYIPTF
169	1	CVVDQASGGSYIPTF
170	1	CVVEQASGGSYIPTF
171	1	CVVFAASGGSYIPTF
172	1	CVVFLAGGGSYIPTF
173	1	CVVFQARGGSYIPTF
174	1	CVVFQASGGSYIPTF
175	1	CVVFRASGGSYIPTF
176	1	CVVFTASGGSYIPTF
177	1	CVVFVASGGSYIPTF
178	1	CVVGDASGGSYIPTF
179	1	CVVGIASGGSYIPTF
180	1	CVVGRASGGSYIPTF
181	1	CVVGVAAGGSYIPTF

TABLE 3-continued

TCR sequences		
SEQ ID NO	Occurrencies	Sequence
182	1	CVVGVASGGSYIPTF
183	1	CVVHDASGGSYIPTF
184	1	CVVHEASGGSYIPTF
185	1	CVVHLASGGSYIPTF
186	1	CVVHQASGGSYIPTF
187	1	CVHYASGGSYIPTF
188	1	CVVIPATGGSYIPTF
189	1	CVVISAPGGSYIPTF
190	1	CVVIYASGGSYIPTF
191	1	CVVKAAAGGSYIPTF
192	1	CVVKDASGGSYIPTF
193	1	CVVKFASGGSYIPTF
194	1	CVVKGAGGGSYIPTF
195	1	CVVKGAPGGSYIPTF
196	1	CVVKLAVGGSYIPTF
197	1	CVVKNASGGSYIPTF
198	1	CVVKSAGGGSYIPTF
199	1	CVVKTAAGGSYIPTF
200	1	CVVKTAGGGSYIPTF
201	1	CVVKVAGGGSYIPTF
202	1	CVVKYASGGSYIPTF
203	1	CVVLGAAGGSYIPTF
204	1	CVVLVASGGSYIPTF
205	1	CVVMAASGGSYIPTF
206	1	CVVMKAEGGSYIPTF
207	1	CVVMLASGGSYIPTF
208	1	CVVMRASGGSYIPTF
209	1	CVVMTASGGSYIPTF
210	1	CVVNAAAGGSYIPTF
211	1	CVVNAAPGGSYIPTF
212	1	CVVNAARGGSYIPTF
213	1	CVVNAATGGSYIPTF
214	1	CVVNEAGGGSYIPTF
215	1	CVVNEATGGSYIPTF
216	1	CVVNGAGGGSYIPTF
217	1	CVVNGAQGGSYIPTF
218	1	CVVNGARGGSYIPTF

TABLE 3-continued

TCR sequences		
SEQ ID NO	Occurrencies	Sequence
219	1	CVVNGAVGGSYIPTF
220	1	CVVNIAEGGSYIPTF
221	1	CVVNIAIGGSYIPTF
222	1	CVVNKAKGGSYIPTF
223	1	CVVNKAPGGSYIPTF
224	1	CVVNKATGGSYIPTF
225	1	CVVNLAVGGSYIPTF
226	1	CVVNMALGGSYIPTF
227	1	CVVNMAQGGSYIPTF
228	1	CVVNMARGGSYIPTF
229	1	CVVNNAPGGSYIPTF
230	1	CVVNNARGGSYIPTF
231	1	CVVNNASGGSYIPTF
232	1	CVVNPALGGSYIPTF
233	1	CVVNPAPGGSYIPTF
234	1	CVVNQAAGGSYIPTF
235	1	CVVNQATGGSYIPTF
236	1	CVVNRAGGGSYIPTF
237	1	CVVNSAEGGSYIPTF
238	1	CVVNSAKGGSYIPTF
239	1	CVVNTAAGGSYIPTF
240	1	CVVNTAKGGSYIPTF
241	1	CVVNTAPGGSYIPTF
242	1	CVVNTARGGSYIPTF
243	1	CVVNVAPGGSYIPTF
244	1	CVVNWAAGGSYIPTF
245	1	CVVNWAGGGSYIPTF
246	1	CVVPEASGGSYIPTF
247	1	CVVPGASGGSYIPTF
248	1	CVVPLASGGSYIPTF
249	1	CVVPLATGGSYIPTF
250	1	CVVPPAPGGSYIPTF
251	1	CVVPVASGGSYIPTF
252	1	CVVQGASGGSYIPTF
253	1	CVVQHASGGSYIPTF
254	1	CVVQLASGGSYIPTF

TABLE 3-continued

TCR sequences		
SEQ ID NO	Occurrencies	Sequence
255	1	CVVQSASGGSYIPTF
256	1	CVVRDASGGSYIPTF
257	1	CVVREAWGGSYIPTF
258	1	CVVRFARGGSYIPTF
259	1	CVVRGAEGGSYIPTF
260	1	CVVRHATGGSYIPTF
261	1	CVVRQAGGGSYIPTF
262	1	CVVRRAAGGSYIPTF
263	1	CVVRSATGGSYIPTF
264	1	CVVRTAQGGSYIPTF
265	1	CWVRVAGGGSYIPTF
266	1	CVVSEASGGSYIPTF
267	1	CVVSGAQGGSYIPTF
268	1	CVVSLAAGGSYIPTF
269	1	CVVSLAKGGSYIPTF
270	1	CVVSMASGGSYIPTF
271	1	CVVSPAPGGSYIPTF
272	1	CVVSQAGGGSYIPTF
273	1	CVVSRAMGGSYIPTF
274	1	CVVSSAVGGSYIPTF
275	1	CVVSTATGGSYIPTF
276	1	CVVTEASGGSYIPTF
277	1	CVVTGAAGGSYIPTF
278	1	CVVTIAEGGSYIPTF
279	1	CVVTNAPGGSYIPTF
280	1	CVVTPAPGGSYIPTF
281	1	CVVTRASGGSYIPTF
282	1	CVVTSARGGSYIPTF
283	1	CVVTSATGGSYIPTF
284	1	CVVTTAGGGSYIPTF
285	1	CVVVFASGGSYIPTF
286	1	CVVVGASGGSYIPTF
287	1	CVVVMASGGSYIPTF
288	1	CVVVRASGGSYIPTF
289	1	CVVWGASGGSYIPTF
290	1	CVVWPASGGSYIPTF
291	1	CVVWTASGGSYIPTF

TABLE 3-continued

TCR sequences		
SEQ ID NO	Occurrencies	Sequence
292	1	CVVYFASGGSYIPTF
293	1	CVVYGASGGSYIPTF
294	1	CVVYMAPGGSYIPTF
295	1	CVVYPASGGSYIPTF

Example 6

Single-Cell Analysis

[0066] Blood was drawn from three CD patients, 2 females and 1 male of age 29, 49 and 36 year old respectively, who were shown to have high abundance of TCRs according to the invention during bulk TCR analysis, as well as from three age and sex matched healthy controls. PBMCs were isolated by gradient centrifugation from EDTA blood tubes. CD3+ cells were enriched by MACS (Miltenyi Biotec).

[0067] For single-cell analysis, CD3+ (VioBle) CD45RO+ (PeVio770) memory T cells were sorted in CD8+ (VioGreen) and CD4+ (APCVio770) subpopulations. Cells were removed from the sorting chamber into pre-coated low-bind collection tubes and centrifuged for 5 min at 400×g, 4° C. Cells were re-suspended in PBS plus 0.04% BSA to a concentration of 1000 cells/ul.

[0068] Single-cell suspensions were loaded on a Chromium Chip G (10× Genomics) according to manufacturer's instructions for processing with the Chromium Next GEM Single Cell 5' Library and Gel Bead Kit v1.1. Depending on the number of cells available for each patient, a maximum of 20,000 cells were loaded for each reaction. TCR single-cell libraries were subsequently prepared from the same cells with the Chromium Single Cell V(D)J Enrichment Kit, Human T Cell. Libraries were sequenced on the Illumina NovaSeq 6000 machine with 2×100 bp for gene expression, aiming for 50,000 reads per cell and 2×150 bp and 5000 reads per cell for TCR libraries.

[0069] Single-cell T cell receptor repertoire clonotype tables were generated using the VDJ command of the Cellranger software, version 3.1.0 from 10×Genomics and using the VDJ reference version 2.0.0. Clonotype tables were filtered in order to include only cells which passed quality filtering in the gene expression analysis. In addition, clonotypes were stringently filtered for possible doublets by removing clonotypes (i) found in 1 cell only and containing more than 1 TCR alpha and 1 TCR beta (ii) containing more than 1 TCR alpha and no TCR beta sequence (iii) containing more than 1 TCR beta and no TCR alpha sequence (iv) containing more than 2 TCR alpha or more than 2 TCR beta sequences.

[0070] Gene expression matrices were generated through the COUNT command of Cellranger v3.1.0. from 10×Genomics and using the reference GRCh38 version 3.0. Data were analyzed using the Seurat v3.2.3 R package (24). Cells with more than 400 but less than 3500 detected RNA features per cell and less than 8% mitochondrial RNA were retained for further analysis. Only genes present in at least 1% of the cells were considered. Also, only cells with a detected TCR were used. TCR VDJ genes were removed from gene expression counts to allow for an unbiased analysis. Data from multiple individuals were merged and batch effect correction by experimental day and sequencing run was performed using the Harmony package. 20 dimensions were used for performing principal component analysis (PCA) and uniform manifold approximation and projection (UMAP) in 3 dimensions. Clusters were identified using 0.4 resolution. Positive and negative marker genes were identified using Seurat FindMarkers function and the MAST method, considering only genes found in at least 25% of cells of each cluster.

[0071] Cells according to the invention were defined from TCR alpha of 15aa, TRAV12-1 and TRAJ6. Proportion of CAIT cells carrying certain TRBV genes was calculated on the number of unique CAIT clonotypes identified, independently from the number of cells carrying each clonotypes and originated by the same original clonotype by clonal expansion.

Example 7

Sample Collection and Cell Staining for Flow Cytometry Immunophenotyping

[0072] Whole blood samples were collected in 9 ml EDTA tubes.

[0073] Crohn's disease patients: samples were collected in collaboration with the Comprehensive Center for Inflammation Medicine (CCIM) of the University Hospital Schleswig-Holstein, Kiel, Germany. A total of 20 CD patients were recruited. Sample details are provided in Supplementary Table 5.

[0074] Healthy human blood: 16 samples were collected from volunteer workers at the University Hospital Schleswig-Holstein, Kiel, Germany.

[0075] Peripheral blood mononuclear cells (PBMCs) were isolated by standard density gradient (Biocoll, Biochrom, Berlin Germany) and freshly used for staining. PBMCs were washed with PBS+2 mM EDTA+0.5% BSA (PEB buffer) and then stained with a cell surface antibody cocktail for CD3 (OKT3, Biolegend), CD4 (M-T466, Miltenyi Biotec), CD8 (REA734, Miltenyi Biotec), CD14 (TÜK4, Miltenyi Biotec), CD20 (LT20, Miltenyi Biotec), CD161 (DX12, BD Biosciences), IL-18Rα/CD218a (REA1095, Miltenyi Biotec), TRAV1-2 (F1, Invitrogen), TRAV12-1 (REA179, Miltenyi Biotec), at room temperature for 30 min in the dark. Cells were washed again and resuspended in 300 uL of PEB buffer. Propidium Iodide (Miltenyi Biotec) was used to exclude dead cells. Data were acquired on a LSR Fortessa (BD Bioscience, San Jose, CA, USA). Flow cytometry data were analyzed using FlowJo (Treestar, Ashland, OR, USA) software.

TABLE 5

Immunophenotyping blood sample collection phenotype information. Information about disease phenotype was provided via de Montreal classification. Disease score was available through the Harvey-Bradshaw index (HBI) for CD patients. NA corresponds to "information not available".

	Sample group	
	CD	Healthy
Basic phenotype		
Samples	20	16
Gender, M/F (%)	11/9 (55/45%)	7/9 (43/57%)
Age, mean ± std	44 ± 18	31 ± 8
Montreal classification		
Age at diagnosis in years		
A1, <16) (%)	3 (15%)	—
A2, 17-40 (%)	11 (55%)	—
A3, >40 (%)	4 (20%)	—
Info not available (NA)	2	
Behaviour		
B1, inflammatory (%)	9 (45%)	—
B2, stricturing (%)	5 (25%)	—
B3, penetrating (%)	4 (20%)	—
Info not available (NA)	2	—
Location		
L1, ileal (%)	8 (40%)	—
L2, colonic (%)	1 (12%)	—
L3, ileocolonic (%)	8 (23%)	—
Info not available (NA)	3	—
Disease activity		
HBI, mean ± std	3 ± 3	—
Remission, HBI ≤ 4	7 (35%)	
Mild activity, 5 ≤ HBI ≤ 7 (%)	1 (5%)	—
Moderate activity, 8 ≤ HBI ≤ 15 (%)	1 (5%)	—
Severe activity, 16 ≤ HBI ≤ ∞ (%)	—	—
Info not available (NA)	11	—
CRP	6.9 ± 14	—

Results

Identification of TCRs Enriched in CD Patients' Blood

[0076] In CD patients, a group of TCR alpha chains defined by a 15 amino acids CDR3 region and with the gene combination TRAV12-1_TRAJ6 were enriched as compared to healthy controls. The Fisher's exact test confirmed that several clonotypes of the TRAV12-1_TRAJ6 group were present in more CD patients than controls. In detail, 10 clonotypes were significantly enriched after multiple comparison correction and further 3 were nominally significantly enriched. Clonotypes of this TCR group, identified as significantly enriched in CD, share the semi-invariant CDR3 motif CVV**A*GGSYIPTF (SEQ ID NO: 1).

[0077] While positions 4 and 5 of the identified motif are the most variable, positions 6 and 7 are more conserved and occupied by A and S amino acids respectively. Moreover, the predicted 3D structure of the TCR alpha CDR3 loop showed that positions 4 and 5 are mostly buried inside the TCR protein structure and may indirectly influence the loop conformation. Positions 6 and 7 are exposed and, together with positions 8 and 11, are predicted to be the most involved into epitope interaction. However, CDR3 loops are very flexible and may adapt to different conformations when interacting with different epitopes, thus, in principle, all CDR3 amino acid positions, excluding the terminal 3-4 residues, may contact the antigen and influence binding affinity.

[0078] A higher number of different clonotypes comprising the motif according to the invention (different CDR3 regions) were found in CD patients as compared to healthy controls. In addition, they were more expanded in CD patients' blood and their cumulative abundance (the sum of their relative abundance in each sample) was accordingly significantly higher in CD patients (P-value=0.008).

[0079] The inventors also investigated whether the TCRs according to the invention were associated with phenotypic or clinical traits. No significant association was detected between the cumulative abundance or the number of TCRs according to the invention, and clinical parameters such as sex, age, smoking behaviour, disease location, disease severity or previous treatment for CD. Samples from CD patients were collected prior to start of treatment with anti-TNF biologics. A trend was observed, showing increased numbers of clonotypes comprising the motif according to the invention in patients non-responding to anti-TNF therapy (P-value=0.089). In patients affected by ileal or ileocolonic CD, TCRs according to the invention were more abundant as compared to colonic CD (P-value=0.07).

Clonotypes Comprising the Motif According to the Invention are Present in Both Blood and Intestinal Tissue of CD Patients

[0080] To verify the presence and abundance of TCRs according to the invention in CD, an independent sample collection including matched blood and intestinal tissue of 37 individuals undergoing bowel resection surgery (11 CD, 13 UC and 13 colon cancer (CRC) patients as disease controls was analysed; see Example 2). As in the first collection (Example 1), TCRs according to the invention were confirmed to be increased in number and more abundant in CD patients' blood (P-value=0.002). Clonotypes comprising the motif according to the invention were observed in 9/11 (82%) CD, 4/13 (31%) UC and 3/13 (23%) CRC patients' blood. In 8/11 (73%) CD patients, the abundance of TCRs according to the invention was higher than in any other analysed blood sample of the surgery collection. The same trend was observed in intestinal tissue. Clonotypes comprising the motif according to the invention were observed in higher numbers in the blood as compared to the gut. For a subset of patients (4 CD and 5 UC), intestinal mesenteric lymph nodes resected together with the inflamed intestinal tissue were also analysed. While most TCRs according to the invention were observed in the blood, few clonotypes comprising the motif according to the invention were also observed to be present in multiple analysed tissues of the same individual at the same time.

[0081] To answer the question whether T-cells comprising the motif according to the invention occur within a particular T cell compartment, blood and intestinal T cells were sorted in CD4+ naïve, CD4+ conventional memory, CD4+ regulatory and CD8+ T cells for 7 CD, 5 UC and 9 CRC additional patients. TCRs according to the invention were found in all analysed fractions, but at different frequencies. Cells according to the invention were most abundant in the CD8+ fraction, particularly in CD patients, with up to 22 TCRs

according to the invention detected per individual and higher cumulative abundance as compared to the other cell compartments.

[0082] For the three CD patients (Example 7) with a high proportion of cells according to the invention, the CD4+ and CD8+ memory fractions were FACS-purified and single-cell RNA gene expression and TCR sequencing using 10×Genomics' Chromium technology was made. The same analysis was performed for three sex- and age-matched healthy controls.

[0083] Cells according to the invention were identified at high abundance (22 to 238 cells per patient) in the three CD patients through their TCRs, while they were rare in healthy controls (0 to 2 CAIT cells per healthy individual). Analysis of TCR alpha/beta pairs showed diverse TCR beta chains associated with the semi-invariant alpha sequences according to the invention. Analysis of the TCR comprising the motif according to the invention alpha/beta chain pairing in clonotypes comprising the motif according to the invention, showed a preferential pairing (38-55% of clonotypes) with beta chains carrying the TRBV7-9 gene in all 3 patients. None of the identified paired TCR beta chains were found in any other individual of the previously analysed bulk TCR datasets (244 whole blood and 58 surgery samples). Thus, these TCR beta sequences seem to be private to single individuals or very rare in the examined population.

Immunophenotyping of CAIT Cells in CD Patients and Controls

[0084] To confirm frequency and phenotype of cells according to the invention identified by TCR and RNA sequencing, we set up an antibody panel for flow cytometry including the antibodies for the TCR V segments TRAV1-2 and TRAV12-1, defining MAIT and CAIT cells respectively, and known unconventional T cell markers such as CD161 (KLRB1) and IL18R. By analysing peripheral blood samples of 20 randomly recruited CD patients and 16 healthy controls, we confirmed that decreased in the blood of CD patients. Cells according to the invention (CD3+ TRAV12-1+CD161+IL18R+), were enriched

[0085] The frequency difference between patients and controls was observed to be more pronounced in the CD8+ compartment. The same trend for cells according to the invention was observed in the CD4−CD8− and in the CD4+CD8+ fractions.

[0086] Using a single-cell transcriptomics approach (see manuscript), it could be showed that the identified T cells seem to have an unconventional innate-like phenotype.

[0087] Unconventional T cells are cells not binding the classic MHC alleles but rather MHC-like molecules as MR1 and CD1d. These molecules are less variable among people as compared to classic MHC alleles. Therefore, T cells reactive to MHC-like molecules are also more common among individuals. Therefore, the analysis of these cells and possible drug-discovery research also has higher applicability at population level as compared to a conventional T cell which may be rather private of single individuals.

[0088] We also performed a flow cytometry analysis of the T cells. A flow cytometry analysis looks at the protein markers expressed on the surface of the cells and helps to identify the cell phenotype and function. It was found that the cell population including the clonotypes is increased in both CD and UC patients as compared to healthy controls. In the analysis, the cell population was defined to be CD161+TRAV12-1+, where TRAV12-1 is the part of the TCR protein encoded by the TRAV12-1 variable gene.

[0089] Because of its shared presence among individuals, these latest results indicate that this population including but not limited to the T cell clonotypes we identified and described in the invention, plays a role in other diseases rather than CD, including UC but potentially also other chronic inflammatory conditions.

SEQUENCE LISTING

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Sequence total quantity: 1205
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FEATURE                 Location/Qualifiers
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                        note = misc_feature - Xaa can be any naturally occurring
                         amino acid
VARIANT                 7
                        note = misc_feature - Xaa can be any naturally occurring
                         amino acid
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 1
CVVXXAXGGS YIPTF                                                  15

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source                  1..15
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SEQUENCE: 2
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FEATURE                 Location/Qualifiers
source                  1..15
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SEQUENCE: 3
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CVVNGASGGS YIPTF                                                    15

SEQ ID NO: 4            moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 4
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SEQ ID NO: 5            moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
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                        organism = Homo sapiens
SEQUENCE: 5
CVVNIASGGS YIPTF                                                    15

SEQ ID NO: 6            moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 6
CVVNPASGGS YIPTF                                                    15

SEQ ID NO: 7            moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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                        organism = Homo sapiens
SEQUENCE: 7
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SEQ ID NO: 8            moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 8
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SEQ ID NO: 9            moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 9
CVVNMASGGS YIPTF                                                    15

SEQ ID NO: 10           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 10
CVVTLASGGS YIPTF                                                    15

SEQ ID NO: 11           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 11
CVVNTASGGS YIPTF                                                    15

SEQ ID NO: 12           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 12
CVVRLASGGS YIPTF                                                    15

SEQ ID NO: 13           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 13
CVVRHASGGS YIPTF                                                15

SEQ ID NO: 14           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 14
CVVNVASGGS YIPTF                                                15

SEQ ID NO: 15           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 15
CVVSHASGGS YIPTF                                                15

SEQ ID NO: 16           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 16
CVVRVASGGS YIPTF                                                15

SEQ ID NO: 17           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 17
CVVRSASGGS YIPTF                                                15

SEQ ID NO: 18           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 18
CVVIPASGGS YIPTF                                                15

SEQ ID NO: 19           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 19
CVVNKASGGS YIPTF                                                15

SEQ ID NO: 20           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 20
CVVRGASGGS YIPTF                                                15

SEQ ID NO: 21           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 21
CVVTPASGGS YIPTF                                                15

SEQ ID NO: 22           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 22
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CVVNAASGGS YIPTF                                                    15

SEQ ID NO: 23           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 23
CVVNFASGGS YIPTF                                                    15

SEQ ID NO: 24           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 24
CVVSSASGGS YIPTF                                                    15

SEQ ID NO: 25           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 25
CVVNQASGGS YIPTF                                                    15

SEQ ID NO: 26           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 26
CVVRTASGGS YIPTF                                                    15

SEQ ID NO: 27           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 27
CVVIHASGGS YIPTF                                                    15

SEQ ID NO: 28           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 28
CVVNEASGGS YIPTF                                                    15

SEQ ID NO: 29           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 29
CVVNHASGGS YIPTF                                                    15

SEQ ID NO: 30           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 30
CVVRRASGGS YIPTF                                                    15

SEQ ID NO: 31           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 31
CVVILASGGS YIPTF                                                    15

SEQ ID NO: 32           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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-continued

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source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 32
CVVRIASGGS YIPTF                                                15

SEQ ID NO: 33           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 33
CVVRAASGGS YIPTF                                                15

SEQ ID NO: 34           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 34
CVVSPASGGS YIPTF                                                15

SEQ ID NO: 35           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 35
CVVSTASGGS YIPTF                                                15

SEQ ID NO: 36           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 36
CVVTHASGGS YIPTF                                                15

SEQ ID NO: 37           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 37
CVVTSASGGS YIPTF                                                15

SEQ ID NO: 38           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 38
CVVTVASGGS YIPTF                                                15

SEQ ID NO: 39           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 39
CVVNMAAGGS YIPTF                                                15

SEQ ID NO: 40           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 40
CVVSVASGGS YIPTF                                                15

SEQ ID NO: 41           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 41
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CVVTAASGGS YIPTF                                                    15

SEQ ID NO: 42           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 42
CVVKGASGGS YIPTF                                                    15

SEQ ID NO: 43           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 43
CVVNGAPGGS YIPTF                                                    15

SEQ ID NO: 44           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 44
CVVNIAAGGS YIPTF                                                    15

SEQ ID NO: 45           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 45
CVVNMATGGS YIPTF                                                    15

SEQ ID NO: 46           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 46
CVVPHASGGS YIPTF                                                    15

SEQ ID NO: 47           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 47
CVVSAASGGS YIPTF                                                    15

SEQ ID NO: 48           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 48
CVVTFASGGS YIPTF                                                    15

SEQ ID NO: 49           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 49
CVVREASGGS YIPTF                                                    15

SEQ ID NO: 50           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 50
CVVSFASGGS YIPTF                                                    15

SEQ ID NO: 51           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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-continued

```
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 51
CVVSGASGGS YIPTF                                                15

SEQ ID NO: 52           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 52
CVVSIASGGS YIPTF                                                15

SEQ ID NO: 53           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 53
CVVIAASGGS YIPTF                                                15

SEQ ID NO: 54           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 54
CVVISASGGS YIPTF                                                15

SEQ ID NO: 55           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 55
CVVNMAGGGS YIPTF                                                15

SEQ ID NO: 56           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 56
CVVFHASGGS YIPTF                                                15

SEQ ID NO: 57           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 57
CVVRQASGGS YIPTF                                                15

SEQ ID NO: 58           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 58
CVVSRASGGS YIPTF                                                15

SEQ ID NO: 59           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 59
CVVIGASGGS YIPTF                                                15

SEQ ID NO: 60           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 60
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```
CVVLHASGGS YIPTF                                                    15

SEQ ID NO: 61          moltype = AA  length = 15
FEATURE                Location/Qualifiers
source                 1..15
                       mol_type = protein
                       organism = Homo sapiens
SEQUENCE: 61
CVVNIATGGS YIPTF                                                    15

SEQ ID NO: 62          moltype = AA  length = 15
FEATURE                Location/Qualifiers
source                 1..15
                       mol_type = protein
                       organism = Homo sapiens
SEQUENCE: 62
CVVNYASGGS YIPTF                                                    15

SEQ ID NO: 63          moltype = AA  length = 15
FEATURE                Location/Qualifiers
source                 1..15
                       mol_type = protein
                       organism = Homo sapiens
SEQUENCE: 63
CVVRFASGGS YIPTF                                                    15

SEQ ID NO: 64          moltype = AA  length = 15
FEATURE                Location/Qualifiers
source                 1..15
                       mol_type = protein
                       organism = Homo sapiens
SEQUENCE: 64
CVVTLAGGGS YIPTF                                                    15

SEQ ID NO: 65          moltype = AA  length = 15
FEATURE                Location/Qualifiers
source                 1..15
                       mol_type = protein
                       organism = Homo sapiens
SEQUENCE: 65
CVVAHASGGS YIPTF                                                    15

SEQ ID NO: 66          moltype = AA  length = 15
FEATURE                Location/Qualifiers
source                 1..15
                       mol_type = protein
                       organism = Homo sapiens
SEQUENCE: 66
CVVIRASGGS YIPTF                                                    15

SEQ ID NO: 67          moltype = AA  length = 15
FEATURE                Location/Qualifiers
source                 1..15
                       mol_type = protein
                       organism = Homo sapiens
SEQUENCE: 67
CVVNGAAGGS YIPTF                                                    15

SEQ ID NO: 68          moltype = AA  length = 15
FEATURE                Location/Qualifiers
source                 1..15
                       mol_type = protein
                       organism = Homo sapiens
SEQUENCE: 68
CVVNIAGGGS YIPTF                                                    15

SEQ ID NO: 69          moltype = AA  length = 15
FEATURE                Location/Qualifiers
source                 1..15
                       mol_type = protein
                       organism = Homo sapiens
SEQUENCE: 69
CVVRMASGGS YIPTF                                                    15

SEQ ID NO: 70          moltype = AA  length = 15
FEATURE                Location/Qualifiers
```

-continued

```
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 70
CVVTIASGGS YIPTF                                                15

SEQ ID NO: 71           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 71
CVVKHASGGS YIPTF                                                15

SEQ ID NO: 72           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 72
CVVKSASGGS YIPTF                                                15

SEQ ID NO: 73           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 73
CVVMGASGGS YIPTF                                                15

SEQ ID NO: 74           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 74
CVVNDASGGS YIPTF                                                15

SEQ ID NO: 75           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 75
CVVNRAPGGS YIPTF                                                15

SEQ ID NO: 76           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 76
CVVTGASGGS YIPTF                                                15

SEQ ID NO: 77           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 77
CVVALASGGS YIPTF                                                15

SEQ ID NO: 78           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 78
CVVDHASGGS YIPTF                                                15

SEQ ID NO: 79           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 79
```

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```
CVVIFASGGS YIPTF                                                    15

SEQ ID NO: 80           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 80
CVVIIASGGS YIPTF                                                    15

SEQ ID NO: 81           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 81
CVVIVASGGS YIPTF                                                    15

SEQ ID NO: 82           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 82
CVVKPASGGS YIPTF                                                    15

SEQ ID NO: 83           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 83
CVVKRASGGS YIPTF                                                    15

SEQ ID NO: 84           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 84
CVVKTASGGS YIPTF                                                    15

SEQ ID NO: 85           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 85
CVVNLAAGGS YIPTF                                                    15

SEQ ID NO: 86           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 86
CVVNSAAGGS YIPTF                                                    15

SEQ ID NO: 87           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 87
CVVNSAGGGS YIPTF                                                    15

SEQ ID NO: 88           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 88
CVVRKASGGS YIPTF                                                    15

SEQ ID NO: 89           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
```

-continued

```
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 89
CVVSQASGGS YIPTF                                                15

SEQ ID NO: 90           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 90
CVVFLASGGS YIPTF                                                15

SEQ ID NO: 91           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 91
CVVFSASGGS YIPTF                                                15

SEQ ID NO: 92           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 92
CVVKAASGGS YIPTF                                                15

SEQ ID NO: 93           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 93
CVVKLASGGS YIPTF                                                15

SEQ ID NO: 94           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 94
CVVMHASGGS YIPTF                                                15

SEQ ID NO: 95           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 95
CVVNLAGGGS YIPTF                                                15

SEQ ID NO: 96           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 96
CVVNMAPGGS YIPTF                                                15

SEQ ID NO: 97           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 97
CVVNRAAGGS YIPTF                                                15

SEQ ID NO: 98           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 98
```

-continued

```
CVVNRATGGS YIPTF                                                    15

SEQ ID NO: 99           moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 99
CVVNVAAGGS YIPTF                                                    15

SEQ ID NO: 100          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 100
CVVNVATGGS YIPTF                                                    15

SEQ ID NO: 101          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 101
CVVNWASGGS YIPTF                                                    15

SEQ ID NO: 102          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 102
CVVSKASGGS YIPTF                                                    15

SEQ ID NO: 103          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 103
CVVSQAAGGS YIPTF                                                    15

SEQ ID NO: 104          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 104
CVVTDASGGS YIPTF                                                    15

SEQ ID NO: 105          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 105
CVVTYASGGS YIPTF                                                    15

SEQ ID NO: 106          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 106
CVVGLASGGS YIPTF                                                    15

SEQ ID NO: 107          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 107
CVVGTASGGS YIPTF                                                    15

SEQ ID NO: 108          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
```

-continued

```
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 108
CVVIDASGGS YIPTF                                                15

SEQ ID NO: 109          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 109
CVVITASGGS YIPTF                                                15

SEQ ID NO: 110          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 110
CVVKVASGGS YIPTF                                                15

SEQ ID NO: 111          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 111
CVVLLASGGS YIPTF                                                15

SEQ ID NO: 112          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 112
CVVNGATGGS YIPTF                                                15

SEQ ID NO: 113          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 113
CVVNIAPGGS YIPTF                                                15

SEQ ID NO: 114          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 114
CVVNKAAGGS YIPTF                                                15

SEQ ID NO: 115          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 115
CVVNLARGGS YIPTF                                                15

SEQ ID NO: 116          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 116
CVVNSAVGGS YIPTF                                                15

SEQ ID NO: 117          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 117
```

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```
CVVNTAGGGS YIPTF                                                    15

SEQ ID NO: 118          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 118
CVVNVAGGGS YIPTF                                                    15

SEQ ID NO: 119          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 119
CVVTQASGGS YIPTF                                                    15

SEQ ID NO: 120          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 120
CVVTTASGGS YIPTF                                                    15

SEQ ID NO: 121          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 121
CVVYHASGGS YIPTF                                                    15

SEQ ID NO: 122          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 122
CVVYLASGGS YIPTF                                                    15

SEQ ID NO: 123          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 123
CVVADASGGS YIPTF                                                    15

SEQ ID NO: 124          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 124
CVVAQASGGS YIPTF                                                    15

SEQ ID NO: 125          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 125
CVVASASGGS YIPTF                                                    15

SEQ ID NO: 126          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 126
CVVATASGGS YIPTF                                                    15

SEQ ID NO: 127          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
```

-continued

```
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 127
CVVFGASGGS YIPTF                                                15

SEQ ID NO: 128          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 128
CVVHHASGGS YIPTF                                                15

SEQ ID NO: 129          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 129
CVVHVASGGS YIPTF                                                15

SEQ ID NO: 130          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 130
CVVINASGGS YIPTF                                                15

SEQ ID NO: 131          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 131
CVVIQASGGS YIPTF                                                15

SEQ ID NO: 132          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 132
CVVKEASGGS YIPTF                                                15

SEQ ID NO: 133          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 133
CVVKIASGGS YIPTF                                                15

SEQ ID NO: 134          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 134
CVVKKASGGS YIPTF                                                15

SEQ ID NO: 135          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 135
CVVKMASGGS YIPTF                                                15

SEQ ID NO: 136          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 136
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CVVKRAGGGS YIPTF                                                    15

SEQ ID NO: 137          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 137
CVVLGASGGS YIPTF                                                    15

SEQ ID NO: 138          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 138
CVVLPASGGS YIPTF                                                    15

SEQ ID NO: 139          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 139
CVVLSASGGS YIPTF                                                    15

SEQ ID NO: 140          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 140
CVVLTASGGS YIPTF                                                    15

SEQ ID NO: 141          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 141
CVVMPASGGS YIPTF                                                    15

SEQ ID NO: 142          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 142
CVVNEAAGGS YIPTF                                                    15

SEQ ID NO: 143          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 143
CVVNIALGGS YIPTF                                                    15

SEQ ID NO: 144          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 144
CVVNIARGGS YIPTF                                                    15

SEQ ID NO: 145          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 145
CVVNMAEGGS YIPTF                                                    15

SEQ ID NO: 146          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 146
CVVNPATGGS YIPTF                                                15

SEQ ID NO: 147          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 147
CVVNSATGGS YIPTF                                                15

SEQ ID NO: 148          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 148
CVVPFASGGS YIPTF                                                15

SEQ ID NO: 149          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 149
CVVPPASGGS YIPTF                                                15

SEQ ID NO: 150          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 150
CVVPRASGGS YIPTF                                                15

SEQ ID NO: 151          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 151
CVVPSASGGS YIPTF                                                15

SEQ ID NO: 152          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 152
CVVPTASGGS YIPTF                                                15

SEQ ID NO: 153          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 153
CVVRLAGGGS YIPTF                                                15

SEQ ID NO: 154          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 154
CVVRPASGGS YIPTF                                                15

SEQ ID NO: 155          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 155
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CVVRTARGGS YIPTF                                                    15

SEQ ID NO: 156          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 156
CVVRVAAGGS YIPTF                                                    15

SEQ ID NO: 157          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 157
CVVRYASGGS YIPTF                                                    15

SEQ ID NO: 158          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 158
CVVSDASGGS YIPTF                                                    15

SEQ ID NO: 159          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 159
CVVSGAVGGS YIPTF                                                    15

SEQ ID NO: 160          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 160
CVVSLAGGGS YIPTF                                                    15

SEQ ID NO: 161          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 161
CVVVHASGGS YIPTF                                                    15

SEQ ID NO: 162          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 162
CVVVLASGGS YIPTF                                                    15

SEQ ID NO: 163          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 163
CVVAFASGGS YIPTF                                                    15

SEQ ID NO: 164          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 164
CVVAGASGGS YIPTF                                                    15

SEQ ID NO: 165          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 165
CVVAPASGGS YIPTF                                                15

SEQ ID NO: 166          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 166
CVVAVASGGS YIPTF                                                15

SEQ ID NO: 167          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 167
CVVAWASGGS YIPTF                                                15

SEQ ID NO: 168          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 168
CVVDDASGGS YIPTF                                                15

SEQ ID NO: 169          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 169
CVVDQASGGS YIPTF                                                15

SEQ ID NO: 170          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 170
CVVEQASGGS YIPTF                                                15

SEQ ID NO: 171          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 171
CVVFAASGGS YIPTF                                                15

SEQ ID NO: 172          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 172
CVVFLAGGGS YIPTF                                                15

SEQ ID NO: 173          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 173
CVVFQARGGS YIPTF                                                15

SEQ ID NO: 174          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 174
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CVVFQASGGS YIPTF                                                    15

SEQ ID NO: 175          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 175
CVVFRASGGS YIPTF                                                    15

SEQ ID NO: 176          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 176
CVVFTASGGS YIPTF                                                    15

SEQ ID NO: 177          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 177
CVVFVASGGS YIPTF                                                    15

SEQ ID NO: 178          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 178
CVVGDASGGS YIPTF                                                    15

SEQ ID NO: 179          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 179
CVVGIASGGS YIPTF                                                    15

SEQ ID NO: 180          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 180
CVVGRASGGS YIPTF                                                    15

SEQ ID NO: 181          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 181
CVVGVAAGGS YIPTF                                                    15

SEQ ID NO: 182          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 182
CVVGVASGGS YIPTF                                                    15

SEQ ID NO: 183          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 183
CVVHDASGGS YIPTF                                                    15

SEQ ID NO: 184          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 184
CVVHEASGGS YIPTF                                                15

SEQ ID NO: 185          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 185
CVVHLASGGS YIPTF                                                15

SEQ ID NO: 186          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 186
CVVHQASGGS YIPTF                                                15

SEQ ID NO: 187          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 187
CVVHYASGGS YIPTF                                                15

SEQ ID NO: 188          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 188
CVVIPATGGS YIPTF                                                15

SEQ ID NO: 189          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 189
CVVISAPGGS YIPTF                                                15

SEQ ID NO: 190          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 190
CVVIYASGGS YIPTF                                                15

SEQ ID NO: 191          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 191
CVVKAAAGGS YIPTF                                                15

SEQ ID NO: 192          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 192
CVVKDASGGS YIPTF                                                15

SEQ ID NO: 193          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 193
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CVVKFASGGS YIPTF                                                    15

SEQ ID NO: 194          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 194
CVVKGAGGGS YIPTF                                                    15

SEQ ID NO: 195          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 195
CVVKGAPGGS YIPTF                                                    15

SEQ ID NO: 196          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 196
CVVKLAVGGS YIPTF                                                    15

SEQ ID NO: 197          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 197
CVVKNASGGS YIPTF                                                    15

SEQ ID NO: 198          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 198
CVVKSAGGGS YIPTF                                                    15

SEQ ID NO: 199          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 199
CVVKTAAGGS YIPTF                                                    15

SEQ ID NO: 200          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 200
CVVKTAGGGS YIPTF                                                    15

SEQ ID NO: 201          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 201
CVVKVAGGGS YIPTF                                                    15

SEQ ID NO: 202          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 202
CVVKYASGGS YIPTF                                                    15

SEQ ID NO: 203          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 203
CVVLGAAGGS YIPTF                                                15

SEQ ID NO: 204          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 204
CVVLVASGGS YIPTF                                                15

SEQ ID NO: 205          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 205
CVVMAASGGS YIPTF                                                15

SEQ ID NO: 206          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 206
CVVMKAEGGS YIPTF                                                15

SEQ ID NO: 207          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 207
CVVMLASGGS YIPTF                                                15

SEQ ID NO: 208          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 208
CVVMRASGGS YIPTF                                                15

SEQ ID NO: 209          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 209
CVVMTASGGS YIPTF                                                15

SEQ ID NO: 210          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 210
CVVNAAAGGS YIPTF                                                15

SEQ ID NO: 211          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 211
CVVNAAPGGS YIPTF                                                15

SEQ ID NO: 212          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 212
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CVVNAARGGS YIPTF                                                    15

SEQ ID NO: 213          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 213
CVVNAATGGS YIPTF                                                    15

SEQ ID NO: 214          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 214
CVVNEAGGGS YIPTF                                                    15

SEQ ID NO: 215          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 215
CVVNEATGGS YIPTF                                                    15

SEQ ID NO: 216          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 216
CVVNGAGGGS YIPTF                                                    15

SEQ ID NO: 217          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 217
CVVNGAQGGS YIPTF                                                    15

SEQ ID NO: 218          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 218
CVVNGARGGS YIPTF                                                    15

SEQ ID NO: 219          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 219
CVVNGAVGGS YIPTF                                                    15

SEQ ID NO: 220          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 220
CVVNIAEGGS YIPTF                                                    15

SEQ ID NO: 221          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 221
CVVNIAIGGS YIPTF                                                    15

SEQ ID NO: 222          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 222
CVVNKAKGGS YIPTF                                                15

SEQ ID NO: 223          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 223
CVVNKAPGGS YIPTF                                                15

SEQ ID NO: 224          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 224
CVVNKATGGS YIPTF                                                15

SEQ ID NO: 225          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 225
CVVNLAVGGS YIPTF                                                15

SEQ ID NO: 226          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 226
CVVNMALGGS YIPTF                                                15

SEQ ID NO: 227          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 227
CVVNMAQGGS YIPTF                                                15

SEQ ID NO: 228          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 228
CVVNMARGGS YIPTF                                                15

SEQ ID NO: 229          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 229
CVVNNAPGGS YIPTF                                                15

SEQ ID NO: 230          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 230
CVVNNARGGS YIPTF                                                15

SEQ ID NO: 231          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 231
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CVVNNASGGS YIPTF                                                15

SEQ ID NO: 232          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 232
CVVNPALGGS YIPTF                                                15

SEQ ID NO: 233          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 233
CVVNPAPGGS YIPTF                                                15

SEQ ID NO: 234          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 234
CVVNQAAGGS YIPTF                                                15

SEQ ID NO: 235          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 235
CVVNQATGGS YIPTF                                                15

SEQ ID NO: 236          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 236
CVVNRAGGGS YIPTF                                                15

SEQ ID NO: 237          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 237
CVVNSAEGGS YIPTF                                                15

SEQ ID NO: 238          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 238
CVVNSAKGGS YIPTF                                                15

SEQ ID NO: 239          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 239
CVVNTAAGGS YIPTF                                                15

SEQ ID NO: 240          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 240
CVVNTAKGGS YIPTF                                                15

SEQ ID NO: 241          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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-continued

```
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 241
CVVNTAPGGS YIPTF                                                15

SEQ ID NO: 242          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 242
CVVNTARGGS YIPTF                                                15

SEQ ID NO: 243          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 243
CVVNVAPGGS YIPTF                                                15

SEQ ID NO: 244          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 244
CVVNWAAGGS YIPTF                                                15

SEQ ID NO: 245          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 245
CVVNWAGGGS YIPTF                                                15

SEQ ID NO: 246          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 246
CVVPEASGGS YIPTF                                                15

SEQ ID NO: 247          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 247
CVVPGASGGS YIPTF                                                15

SEQ ID NO: 248          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 248
CVVPLASGGS YIPTF                                                15

SEQ ID NO: 249          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 249
CVVPLATGGS YIPTF                                                15

SEQ ID NO: 250          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 250
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CVVPPAPGGS YIPTF                                                    15

SEQ ID NO: 251          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 251
CVVPVASGGS YIPTF                                                    15

SEQ ID NO: 252          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 252
CVVQGASGGS YIPTF                                                    15

SEQ ID NO: 253          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 253
CVVQHASGGS YIPTF                                                    15

SEQ ID NO: 254          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 254
CVVQLASGGS YIPTF                                                    15

SEQ ID NO: 255          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 255
CVVQSASGGS YIPTF                                                    15

SEQ ID NO: 256          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 256
CVVRDASGGS YIPTF                                                    15

SEQ ID NO: 257          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 257
CVVREAWGGS YIPTF                                                    15

SEQ ID NO: 258          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 258
CVVRFARGGS YIPTF                                                    15

SEQ ID NO: 259          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 259
CVVRGAEGGS YIPTF                                                    15

SEQ ID NO: 260          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 260
CVVRHATGGS YIPTF                                                15

SEQ ID NO: 261          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 261
CVVRQAGGGS YIPTF                                                15

SEQ ID NO: 262          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 262
CVVRRAAGGS YIPTF                                                15

SEQ ID NO: 263          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 263
CVVRSATGGS YIPTF                                                15

SEQ ID NO: 264          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 264
CVVRTAQGGS YIPTF                                                15

SEQ ID NO: 265          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 265
CVVRVAGGGS YIPTF                                                15

SEQ ID NO: 266          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 266
CVVSEASGGS YIPTF                                                15

SEQ ID NO: 267          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 267
CVVSGAQGGS YIPTF                                                15

SEQ ID NO: 268          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 268
CVVSLAAGGS YIPTF                                                15

SEQ ID NO: 269          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 269
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CVVSLAKGGS YIPTF                                                15

SEQ ID NO: 270          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 270
CVVSMASGGS YIPTF                                                15

SEQ ID NO: 271          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 271
CVVSPAPGGS YIPTF                                                15

SEQ ID NO: 272          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 272
CVVSQAGGGS YIPTF                                                15

SEQ ID NO: 273          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 273
CVVSRAMGGS YIPTF                                                15

SEQ ID NO: 274          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 274
CVVSSAVGGS YIPTF                                                15

SEQ ID NO: 275          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 275
CVVSTATGGS YIPTF                                                15

SEQ ID NO: 276          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 276
CVVTEASGGS YIPTF                                                15

SEQ ID NO: 277          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 277
CVVTGAAGGS YIPTF                                                15

SEQ ID NO: 278          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 278
CVVTIAEGGS YIPTF                                                15

SEQ ID NO: 279          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
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source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 279
CVVTNAPGGS YIPTF                                                15

SEQ ID NO: 280          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 280
CVVTPAPGGS YIPTF                                                15

SEQ ID NO: 281          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 281
CVVTRASGGS YIPTF                                                15

SEQ ID NO: 282          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 282
CVVTSARGGS YIPTF                                                15

SEQ ID NO: 283          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 283
CVVTSATGGS YIPTF                                                15

SEQ ID NO: 284          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 284
CVVTTAGGGS YIPTF                                                15

SEQ ID NO: 285          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 285
CVVVFASGGS YIPTF                                                15

SEQ ID NO: 286          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 286
CVVVGASGGS YIPTF                                                15

SEQ ID NO: 287          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 287
CVVVMASGGS YIPTF                                                15

SEQ ID NO: 288          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 288
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CVVVRASGGS YIPTF                                                    15

SEQ ID NO: 289          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 289
CVVWGASGGS YIPTF                                                    15

SEQ ID NO: 290          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 290
CVVWPASGGS YIPTF                                                    15

SEQ ID NO: 291          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 291
CVVWTASGGS YIPTF                                                    15

SEQ ID NO: 292          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 292
CVVYFASGGS YIPTF                                                    15

SEQ ID NO: 293          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 293
CVVYGASGGS YIPTF                                                    15

SEQ ID NO: 294          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 294
CVVYMAPGGS YIPTF                                                    15

SEQ ID NO: 295          moltype = AA  length = 15
FEATURE                 Location/Qualifiers
source                  1..15
                        mol_type = protein
                        organism = Homo sapiens
SEQUENCE: 295
CVVYPASGGS YIPTF                                                    15

SEQ ID NO: 296          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 296
tgtgtggtga acattgcatc aggaggaagc tacataccta cattt                   45

SEQ ID NO: 297          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 297
tgtgtggtga acttggcatc aggaggaagc tacataccta cattt                   45

SEQ ID NO: 298          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 298
tgtgtggtga acaaggcggc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 299          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 299
tgtgtggtcc gaattgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 300          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 300
tgtgtggtga ttcatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 301          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 301
tgtgtggtga ggggagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 302          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 302
tgtgtggtga gaaaggcgtc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 303          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 303
tgtgtggtga acttcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 304          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 304
tgtgtggtga accttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 305          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 305
tgtgtggtga acctcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 306          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 306
tgtgtggtga acacggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 307          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 307
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tgtgtggtga acagagcccc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 308          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 308
tgtgtggtga gggtggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 309          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 309
tgtgtggtcc gtttcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 310          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 310
tgtgtggtga ccgtagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 311          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 311
tgtgtggtga acgccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 312          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 312
tgtgtggtga acatcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 313          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 313
tgtgtggtga acggcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 314          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 314
tgtgtggtga gccttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 315          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 315
tgtgtggttc gttttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 316          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 316
tgtgtggtga ggtttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 317          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 317
tgtgtggtgc gttcggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 318          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 318
tgtgtggtga gcttagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 319          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 319
tgtgtggtta aacttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 320          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 320
tgtgtggtga actttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 321          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 321
tgtgtggtga ggctcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 322          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 322
tgtgtggtga gggtcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 323          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 323
tgtgtggtga ggcatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 324          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 324
tgtgtggtga ggaccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 325          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 325
tgtgtggtga gagccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 326          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 326
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tgtgtggtga acaccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 327          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 327
tgtgtggtcc gacgggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 328          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 328
tgtgtggtga ctttagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 329          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 329
tgtgtggtga cgttcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 330          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 330
tgtgtggtga gcgtggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 331          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 331
tgtgtggtga ggggggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 332          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 332
tgtgtggtga ggacggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 333          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 333
tgtgtggtga actctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 334          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 334
tgtgtggtga actcggctgg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 335          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 335
tgtgtggtga accttgcctc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 336          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 336
tgtgtggtga acatggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 337          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 337
tgtgtggtga acagggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 338          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 338
tgtgtggtga acacagcggc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 339          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 339
tgtgtggtga atcttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 340          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 340
tgtgtggtga ccgtcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 341          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 341
tgtgtggtga ggagcgccac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 342          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 342
tgtgtggtga acgtagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 343          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 343
tgtgtggtga acatagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 344          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 344
tgtgtggtcc gccaggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 345          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 345
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tgtgtggtga cctttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 346          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 346
tgtgtggtga gcctggcaaa gggaggaagc tacataccta cattt                 45

SEQ ID NO: 347          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 347
tgtgtggtga gcaccgcttc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 348          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 348
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SEQ ID NO: 349          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 349
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FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 350
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SEQ ID NO: 351          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 351
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SEQ ID NO: 352          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 352
tgtgtggtga accgggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 353          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 353
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SEQ ID NO: 354          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 354
tgtgtggtga ccctggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 355          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 355
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SEQ ID NO: 356          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 356
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SEQ ID NO: 357          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 357
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SEQ ID NO: 358          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 358
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SEQ ID NO: 359          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 359
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FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 360
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SEQ ID NO: 361          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 361
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SEQ ID NO: 362          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 362
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SEQ ID NO: 363          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 363
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SEQ ID NO: 364          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        organism = Homo sapiens
SEQUENCE: 364
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SEQ ID NO: 365         moltype = DNA  length = 45
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                       organism = Homo sapiens
SEQUENCE: 365
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SEQ ID NO: 366         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 366
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SEQ ID NO: 367         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 367
tgtgtggtga cggtcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 368         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 368
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SEQ ID NO: 369         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 369
tgtgtggtga ggctagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 370         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 370
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SEQ ID NO: 371         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
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                       organism = Homo sapiens
SEQUENCE: 371
tgtgtggtgt ccgaggcctc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 372         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 372
tgtgtggtgt cgatcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 373         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 373
tgtgtggtga ctctcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 374         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 374
tgtgtggtga cccttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 375          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 375
tgtgtggtga ccctggcggg gggaggaagc tacataccta cattt                  45

SEQ ID NO: 376          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 376
tgtgtggtga cgctagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 377          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
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SEQUENCE: 377
tgtgtggtga gcccagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 378          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 378
tgtgtggtga ggttagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 379          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 379
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SEQ ID NO: 380          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
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SEQUENCE: 380
tgtgtggtga gggttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 381          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
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SEQUENCE: 381
tgtgtggtga ggatcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 382          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 382
tgtgtggtga gacatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 383          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 383
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SEQ ID NO: 384          moltype = DNA  length = 45
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source                  1..45
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SEQUENCE: 384
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SEQ ID NO: 385          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 385
tgtgtggtga acgttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 386          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 386
tgtgtggtga aaacggcggg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 387          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 387
tgtgtggtgt accatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 388          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 388
tgtgtggtga acggagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 389          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 389
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SEQ ID NO: 390          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 390
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SEQ ID NO: 391          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 391
tgtgtggtga acatagcagg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 392          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 392
tgtgtggtga accatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 393          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 393
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SEQ ID NO: 394          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 394
tgtgtggtga atctagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 395          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 395
tgtgtggtca aaagcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 396          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 396
tgtgtggtga acggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 397          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 397
tgtgtggtgt cgttcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 398          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 398
tgtgtggtga actccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 399          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 399
tgtgtggtta ggcatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 400          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 400
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SEQ ID NO: 401          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 401
tgtgtggtga ccctcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 402          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 402
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SEQ ID NO: 403          moltype = DNA  length = 45
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 403
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SEQ ID NO: 404          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 404
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SEQ ID NO: 405          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 405
tgtgtggtga accaggcggc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 406          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 406
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SEQ ID NO: 407          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 407
tgtgtggtga acatagcaac aggaggaagc tacataccta cattt                 45

SEQ ID NO: 408          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 408
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SEQ ID NO: 409          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 409
tgtgtggtga gcctagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 410          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 410
tgtgtggtga gagcggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 411          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 411
tgtgtggtga acctagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 412          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 412
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SEQ ID NO: 413          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 413
tgtgtggtga gcctcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 414          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 414
tgtgtggtga atacggccgg gggaggaagc tacataccta cattt                  45

SEQ ID NO: 415          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 415
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SEQ ID NO: 416          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 416
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SEQ ID NO: 417          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 417
tgtgtggtgt cccatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 418          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 418
tgtgtggtgc tatccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 419          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 419
tgtgtggtga ccctagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 420          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 420
tgtgtggtga gtcttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 421          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 421
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SEQ ID NO: 422          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 422
tgtgtggtga gtggggccgt gggaggaagc tacataccta cattt                 45

SEQ ID NO: 423          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 423
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SEQ ID NO: 424          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 424
tgtgtggtga attcagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 425          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 425
tgtgtggtga acatcgccgg gggaggaagc tacataccta cattt                 45

SEQ ID NO: 426          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 426
tgtgtggtga acatggcttc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 427          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 427
tgtgtggtga acatggcagc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 428          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 428
tgtgtggtga cctctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 429          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 429
tgtgtggtga acttagccag aggaggaagc tacataccta cattt                 45

SEQ ID NO: 430          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 430
tgtgtggtga accccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 431          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 431
tgtgtggtga acattgcctc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 432          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 432
tgtgtggtga actcagcttc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 433          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 433
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SEQ ID NO: 434          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 434
tgtgtggtga acgaggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 435          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 435
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SEQ ID NO: 436          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 436
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SEQ ID NO: 437          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 437
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SEQ ID NO: 438          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 438
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SEQ ID NO: 439          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 439
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SEQ ID NO: 440          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 440
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SEQ ID NO: 441          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 441
tgtgtggtga tcgatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 442          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 442
tgtgtggtga acccagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 443          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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SEQUENCE: 443
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SEQ ID NO: 444          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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SEQUENCE: 444
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SEQUENCE: 445
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SEQUENCE: 446
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SEQ ID NO: 447          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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SEQUENCE: 447
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SEQ ID NO: 448          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 448
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SEQ ID NO: 449          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 449
tgtgtggtgt ccccggcccc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 450          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 450
tgtgtggtga acgacgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 451          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        organism = Homo sapiens
SEQUENCE: 451
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SEQ ID NO: 452          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 452
tgtgtggtga acactgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 453          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 453
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SEQ ID NO: 454          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 454
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SEQ ID NO: 455          moltype = DNA  length = 45
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SEQUENCE: 455
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SEQ ID NO: 456          moltype = DNA  length = 45
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source                  1..45
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SEQUENCE: 456
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SEQ ID NO: 457          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 457
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SEQ ID NO: 458          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 458
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SEQ ID NO: 459          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 459
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SEQ ID NO: 460          moltype = DNA  length = 45
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                        organism = Homo sapiens
SEQUENCE: 460
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SEQ ID NO: 461          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 461
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SEQ ID NO: 462          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 462
tgtgtggtga tccctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 463          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 463
tgtgtggttg tgatggcctc cggaggaagc tacataccta cattt                 45

SEQ ID NO: 464          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 464
tgtgtggtga acgctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 465          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 465
tgtgtggtga accctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 466          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 466
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SEQ ID NO: 467          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 467
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SEQ ID NO: 468          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 468
tgtgtggtga acatcgcgct aggaggaagc tacataccta cattt                 45

SEQ ID NO: 469          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
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SEQUENCE: 469
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SEQ ID NO: 470          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 470
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SEQ ID NO: 471          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 471
tgtgtggtga acctggctgg gggaggaagc tacataccta cattt                  45

SEQ ID NO: 472          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
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SEQUENCE: 472
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SEQ ID NO: 473          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 473
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SEQ ID NO: 474          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 474
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SEQ ID NO: 475          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 475
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SEQ ID NO: 476          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 476
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SEQ ID NO: 477          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 477
tgtgtggttc gtcttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 478          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 478
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SEQ ID NO: 479          moltype = DNA  length = 45
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source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 479
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SEQ ID NO: 480          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
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SEQUENCE: 480
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SEQ ID NO: 481          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 481
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SEQ ID NO: 482          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
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SEQUENCE: 482
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SEQ ID NO: 483          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 483
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SEQ ID NO: 484          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 484
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SEQ ID NO: 485          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 485
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SEQ ID NO: 486          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 486
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SEQ ID NO: 487          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 487
tgtgtggtga acccggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 488          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 488
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SEQ ID NO: 489          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 489
tgtgtggtga gcgccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 490          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 490
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SEQ ID NO: 491          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 491
tgtgtggtgg gggtcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 492          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 492
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SEQ ID NO: 493          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 493
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SEQ ID NO: 494          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 494
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SEQ ID NO: 495          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 495
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SEQ ID NO: 496          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 496
tgtgtggtga ggattgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 497          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 497
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SEQ ID NO: 498          moltype = DNA  length = 45
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                        organism = Homo sapiens
SEQUENCE: 498
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SEQ ID NO: 499          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 499
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SEQ ID NO: 500          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 500
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SEQ ID NO: 501          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 501
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SEQ ID NO: 502          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 502
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SEQ ID NO: 503          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 503
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SEQ ID NO: 504          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 504
tgtgtggtga ccattgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 505          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 505
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SEQ ID NO: 506          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 506
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SEQ ID NO: 507          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 507
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SEQ ID NO: 508          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 508
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SEQ ID NO: 509          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 509
tgtgtggtgt tccgagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 510          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 510
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SEQ ID NO: 511          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 511
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SEQ ID NO: 512          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 512
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SEQ ID NO: 513          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 513
tgtgtggtct ctatagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 514          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 514
tgtgtggtgt tccatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 515          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 515
tgtgtggtga agagggctgg aggaggaagc tacataccta cattt                  45

SEQ ID NO: 516          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 516
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SEQ ID NO: 517          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 517
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SEQ ID NO: 518          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 518
tgtgtggtga tccccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 519          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 519
tgtgtggtga actcagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 520          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 520
tgtgtggtga actacgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 521          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 521
tgtgtggtga acggggcgac aggaggaagc tacataccta cattt                 45

SEQ ID NO: 522          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 522
tgtgtggtga acaaggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 523          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 523
tgtgtggtga agcatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 524          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 524
tgtgtggtga aacccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 525          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 525
tgtgtggtga tttccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 526          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 526
tgtgtggtga tccgtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 527          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 527
tgtgtggtga ccgctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 528          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 528
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SEQ ID NO: 529          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 529
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SEQ ID NO: 530          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 530
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SEQ ID NO: 531          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 531
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SEQ ID NO: 532          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 532
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SEQ ID NO: 533          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 533
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SEQ ID NO: 534          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 534
tgtgtggtcc gccccgcgtc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 535          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 535
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SEQ ID NO: 537          moltype = DNA  length = 45
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SEQUENCE: 538
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SEQ ID NO: 543          moltype = DNA  length = 45
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SEQ ID NO: 544          moltype = DNA  length = 45
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                        organism = Homo sapiens
SEQUENCE: 544
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SEQ ID NO: 545          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
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SEQUENCE: 545
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SEQ ID NO: 546          moltype = DNA  length = 45
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SEQUENCE: 546
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SEQ ID NO: 547          moltype = DNA  length = 45
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SEQUENCE: 547
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FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 548
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SEQUENCE: 549
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SEQUENCE: 550
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SEQUENCE: 551
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SEQUENCE: 552
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SEQ ID NO: 553          moltype = DNA  length = 45
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                        organism = Homo sapiens
SEQUENCE: 553
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SEQ ID NO: 554          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        organism = Homo sapiens
SEQUENCE: 554
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                       organism = Homo sapiens
SEQUENCE: 555
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SEQ ID NO: 556         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
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                       organism = Homo sapiens
SEQUENCE: 556
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SEQ ID NO: 557         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 557
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SEQ ID NO: 558         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 558
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SEQ ID NO: 559         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
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                       organism = Homo sapiens
SEQUENCE: 559
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SEQ ID NO: 560         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 560
tgtgtggtct ttgctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 561         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 561
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SEQ ID NO: 562         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
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                       organism = Homo sapiens
SEQUENCE: 562
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SEQ ID NO: 563         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 563
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SEQ ID NO: 564         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
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SEQ ID NO: 565          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        organism = Homo sapiens
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SEQ ID NO: 566          moltype = DNA  length = 45
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                        organism = Homo sapiens
SEQUENCE: 566
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SEQ ID NO: 567          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
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SEQUENCE: 567
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SEQ ID NO: 568          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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SEQUENCE: 568
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SEQ ID NO: 569          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
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SEQ ID NO: 570          moltype = DNA  length = 45
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source                  1..45
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SEQUENCE: 570
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SEQ ID NO: 572          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 572
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SEQ ID NO: 573          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 573
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SEQ ID NO: 574          moltype = DNA  length = 45
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source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 574
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SEQ ID NO: 575          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 575
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SEQ ID NO: 576          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 576
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SEQUENCE: 578
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SEQ ID NO: 579          moltype = DNA  length = 45
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SEQ ID NO: 582          moltype = DNA  length = 45
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SEQ ID NO: 583          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        organism = Homo sapiens
SEQUENCE: 583
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SEQ ID NO: 584          moltype = DNA  length = 45
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 584
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SEQ ID NO: 585          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 585
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SEQ ID NO: 586          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 586
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SEQ ID NO: 587          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 587
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SEQ ID NO: 588          moltype = DNA  length = 45
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                        organism = Homo sapiens
SEQUENCE: 588
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SEQ ID NO: 589          moltype = DNA  length = 45
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SEQUENCE: 589
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FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 590
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SEQ ID NO: 591          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 591
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SEQ ID NO: 592          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 592
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SEQ ID NO: 593          moltype = DNA  length = 45
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                        organism = Homo sapiens
SEQUENCE: 593
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SEQUENCE: 594
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                        organism = Homo sapiens
SEQUENCE: 595
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SEQ ID NO: 596          moltype = DNA  length = 45
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 596
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SEQ ID NO: 597          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        organism = Homo sapiens
SEQUENCE: 597
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SEQ ID NO: 598          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 598
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SEQ ID NO: 599          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 599
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SEQ ID NO: 600          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 600
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SEQ ID NO: 601          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 601
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SEQ ID NO: 602          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        organism = Homo sapiens
SEQUENCE: 602
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SEQ ID NO: 603          moltype = DNA  length = 45
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                        organism = Homo sapiens
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SEQ ID NO: 604          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        organism = Homo sapiens
SEQUENCE: 604
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SEQ ID NO: 605          moltype = DNA  length = 45
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source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 605
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SEQ ID NO: 606          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 606
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source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 607
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SEQ ID NO: 608          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
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                        organism = Homo sapiens
SEQUENCE: 608
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SEQ ID NO: 609          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 609
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SEQ ID NO: 610          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 610
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SEQ ID NO: 611          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 611
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SEQ ID NO: 612          moltype = DNA  length = 45
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                        organism = Homo sapiens
SEQUENCE: 612
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SEQ ID NO: 613          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 613
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SEQ ID NO: 614          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 614
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SEQ ID NO: 615          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 615
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SEQ ID NO: 616          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 616
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SEQ ID NO: 617          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 617
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SEQ ID NO: 618          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 618
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SEQ ID NO: 619          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 619
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SEQ ID NO: 620          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 620
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SEQ ID NO: 621          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        organism = Homo sapiens
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SEQ ID NO: 622          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        organism = Homo sapiens
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SEQ ID NO: 623          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 623
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SEQ ID NO: 624          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 624
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SEQ ID NO: 625          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 625
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SEQ ID NO: 626          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 626
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SEQ ID NO: 627          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 627
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SEQ ID NO: 628          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 628
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SEQ ID NO: 629          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 629
tgtgtggtga gtggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 630          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 630
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tgtgtggtga ccttcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 631          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 631
tgtgtggtga gggtcgcttc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 632          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 632
tgtgtggtgc gaacggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 633          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 633
tgtgtggtga agcgggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 634          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 634
tgtgtggtct tccatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 635          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 635
tgtgtggtga aggtcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 636          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 636
tgtgtggtgg ggttggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 637          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 637
tgtgtggtgt cctcggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 638          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 638
tgtgtggtga gctctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 639          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 639
tgtgtggtga ggtttgctcg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 640          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 640
tgtgtggtga gaacggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 641          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 641
tgtgtggtga attccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 642          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 642
tgtgtggtga atcaagcttc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 643          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 643
tgtgtggtga agatcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 644          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 644
tgtgtggtcc tacatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 645          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 645
tgtgtggtga gttccgcggt aggaggaagc tacataccta cattt                  45

SEQ ID NO: 646          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 646
tgtgtggtga agttcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 647          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 647
tgtgtggtga gtagcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 648          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 648
tgtgtggtga agccggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 649          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 649
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tgtgtggtcc gccgcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 650          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 650
tgtgtggtct ctcttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 651          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 651
tgtgtggtga gtatagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 652          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 652
tgtgtggtga atagcgcggg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 653          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 653
tgtgtggtga acgtggcagg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 654          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 654
tgtgtggtgt ctttggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 655          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 655
tgtgtggtgt cttctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 656          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 656
tgtgtggtga gcactgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 657          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 657
tgtgtggtgt ggggggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 658          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 658
tgtgtggtga ccacagccgg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 659          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 659
tgtgtggtga acctcgcggc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 660          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 660
tgtgtggtcc gactcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 661          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 661
tgtgtggtgt ccggcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 662          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 662
tgtgtggtga gttccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 663          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 663
tgtgtggtga accttgcggc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 664          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 664
tgtgtggtgc gtctagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 665          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 665
tgtgtggtga tccatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 666          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 666
tgtgtggtcc atcttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 667          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 667
tgtgtggtga ctccggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 668          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 668
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tgtgtggtgt tttcggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 669          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 669
tgtgtggtga acgtagcagg gggaggaagc tacataccta cattt                 45

SEQ ID NO: 670          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 670
tgtgtggtga ctttggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 671          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 671
tgtgtggtga tccttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 672          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 672
tgtgtggtga tccccgcgac aggaggaagc tacataccta cattt                 45

SEQ ID NO: 673          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 673
tgtgtggtga ccgttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 674          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 674
tgtgtggtga acatggctgg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 675          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 675
tgtgtggtga agacagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 676          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 676
tgtgtggtac acgaggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 677          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 677
tgtgtggtcc ctcatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 678          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 678
tgtgtggtga tcattgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 679          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 679
tgtgtggttt ggccggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 680          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 680
tgtgtggtga gtcctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 681          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 681
tgtgtggtga accctgcttc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 682          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 682
tgtgtggtga acggggcttc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 683          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 683
tgtgtggtga tcggtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 684          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 684
tgtgtggtga gccccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 685          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 685
tgtgtggtga acgcagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 686          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 686
tgtgtggtgg ccttcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 687          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 687
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tgtgtggtga acaccgcggg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 688          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 688
tgtgtggtcc ggatagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 689          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 689
tgtgtggtga tggccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 690          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 690
tgtgtggtga acaaggccgc gggaggaagc tacataccta cattt                 45

SEQ ID NO: 691          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 691
tgtgtggtga cccatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 692          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 692
tgtgtggtga ccttagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 693          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 693
tgtgtggtga acgtggcggc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 694          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 694
tgtgtggtga ggttcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 695          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 695
tgtgtggtgt cctttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 696          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 696
tgtgtggtga ggtatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 697          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 697
tgtgtggtga ggcatgcaac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 698          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 698
tgtgtggtga gggtagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 699          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 699
tgtgtggtga actcggcagc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 700          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 700
tgtgtggtga acgtagcagc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 701          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 701
tgtgtggtga acatggccac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 702          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 702
tgtgtggtac gtcgggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 703          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 703
tgtgtggtcg ctacggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 704          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 704
tgtgtggttt cccatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 705          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 705
tgtgtggtga acggtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 706          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 706
```

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```
tgtgtggtgc ggaccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 707          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 707
tgtgtggtgt caaaagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 708          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 708
tgtgtggtgg ccttagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 709          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 709
tgtgtggtga acatcgccgc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 710          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 710
tgtgtggttc gggaggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 711          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 711
tgtgtggttg ctcatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 712          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 712
tgtgtggtga aagtagctgg tggaggaagc tacataccta cattt                 45

SEQ ID NO: 713          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 713
tgtgtggtgc gtactgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 714          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 714
tgtgtggtga acctcgcggg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 715          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 715
tgtgtggtga acatagcggg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 716          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 716
tgtgtggtga gtctggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 717          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 717
tgtgtggtga gagcagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 718          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 718
tgtgtggtga acaaagcccc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 719          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 719
tgtgtggtcc ctttcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 720          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 720
tgtgtggtgt ccctcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 721          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 721
tgtgtggtgt cgtctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 722          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 722
tgtgtggtgc cggtagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 723          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 723
tgtgtggtgc gacgcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 724          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 724
tgtgtggtga gtcaggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 725          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 725
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tgtgtggtga gggtcgccgg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 726          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 726
tgtgtggtga gggcagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 727          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 727
tgtgtggtga ggactgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 728          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 728
tgtgtggtga gaaccgccca aggaggaagc tacataccta cattt                 45

SEQ ID NO: 729          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 729
tgtgtggtga atattgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 730          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 730
tgtgtggtga acacggcggg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 731          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 731
tgtgtggtgg cctccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 732          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 732
tgtgtggtga ggtcggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 733          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 733
tgtgtggtga ggcgcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 734          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 734
tgtgtggtcc gacaggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 735          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 735
tgtgtggtgg gcctcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 736          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 736
tgtgtggtga ccagcgctac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 737          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 737
tgtgtggtgt tcctcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 738          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 738
tgtgtggtga gtggagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 739          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 739
tgtgtggtga gggtcgcagc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 740          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 740
tgtgtggtga cctcagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 741          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 741
tgtgtggtga acctggcggc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 742          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 742
tgtgtggtga acgtggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 743          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 743
tgtgtggtga agacggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 744          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 744
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tgtgtggtgt ccttcgcctc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 745          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 745
tgtgtggtga gcggtgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 746          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 746
tgtgtggtgc gcctagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 747          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 747
tgtgtggtga gtctagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 748          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 748
tgtgtggtga acggggcccc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 749          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 749
tgtgtggtga acggggccca aggaggaagc tacataccta cattt                 45

SEQ ID NO: 750          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 750
tgtgtggtga aaatggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 751          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 751
tgtgtggtga accccgcgtc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 752          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 752
tgtgtggtgc gccttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 753          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 753
tgtgtggtac gccatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 754          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 754
tgtgtggtgt tcctagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 755          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 755
tgtgtggtga acctcgcccg aggaggaagc tacataccta cattt                  45

SEQ ID NO: 756          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 756
tgtgtggtcg ctcccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 757          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 757
tgtgtggtgc ttggggccgc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 758          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 758
tgtgtggtgc tcggcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 759          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 759
tgtgtggtga tgggtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 760          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 760
tgtgtggtga gattagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 761          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 761
tgtgtggttc cccatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 762          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 762
tgtgtggtga ccgatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 763          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 763
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tgtgtggtga ccgacgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 764          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 764
tgtgtggtga acaaggcgac aggaggaagc tacataccta cattt                 45

SEQ ID NO: 765          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 765
tgtgtggtga atcgggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 766          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 766
tgtgtggtga agggggcctc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 767          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 767
tgtgtggtgg taggggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 768          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 768
tgtgtggtgg atcatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 769          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 769
tgtgtggtgt tagttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 770          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 770
tgtgtggtga cccaagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 771          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 771
tgtgtggtga ggatagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 772          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 772
tgtgtggtga ctgccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 773          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 773
tgtgtggtgt cccccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 774          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 774
tgtgtggtga ttcctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 775          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 775
tgtgtggtga aggcagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 776          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 776
tgtgtggtga ggcgggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 777          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 777
tgtgtggtga gcctggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 778          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 778
tgtgtggtga atttggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 779          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 779
tgtgtggtga acagagcacc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 780          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 780
tgtgtggtga ttccggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 781          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 781
tgtgtggtga ttaccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 782          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 782
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tgtgtggtga ttctagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 783          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 783
tgtgtggtga tctctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 784          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 784
tgtgtggtga atcctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 785          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 785
tgtgtggtga acttggcttc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 786          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 786
tgtgtggtga acatcgctgc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 787          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 787
tgtgtggtga acccagcctc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 788          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 788
tgtgtggtga accacgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 789          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 789
tgtgtggtcc tgcatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 790          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 790
tgtgtggtga ttctcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 791          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 791
tgtgtggtga ttggggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 792          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 792
tgtgtggtga acggggcgcg aggaggaagc tacataccta cattt                  45

SEQ ID NO: 793          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 793
tgtgtggtga taggtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 794          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 794
tgtgtggtga ccggcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 795          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 795
tgtgtggtga accgggcggc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 796          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 796
tgtgtggtgc gtctcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 797          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 797
tgtgtggtgg ccgatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 798          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 798
tgtgtggtga ctcatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 799          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 799
tgtgtggtga acatcgcacc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 800          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 800
tgtgtggtga ggagcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 801          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 801
```

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tgtgtggtga tcgctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 802          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 802
tgtgtggtga acagcgcggc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 803          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 803
tgtgtggtgc cgcatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 804          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 804
tgtgtggtga acccggctcc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 805          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 805
tgtgtggtga gaggtgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 806          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 806
tgtgtggtga aggctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 807          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 807
tgtgtggtga tcctcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 808          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 808
tgtgtggtga acggggcggg gggaggaagc tacataccta cattt                 45

SEQ ID NO: 809          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 809
tgtgtggtga acaaggcgaa aggaggaagc tacataccta cattt                 45

SEQ ID NO: 810          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 810
tgtgtggtga aactggccgt cggaggaagc tacataccta cattt                 45

SEQ ID NO: 811          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 811
tgtgtggtga aaggcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 812          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 812
tgtgtggtga agagggcggg gggaggaagc tacataccta cattt                  45

SEQ ID NO: 813          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 813
tgtgtggtga acgctgccag gggaggaagc tacataccta cattt                  45

SEQ ID NO: 814          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 814
tgtgtggttc attatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 815          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 815
tgtgtggtgg ctcatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 816          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 816
tgtgtggtcc agagtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 817          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 817
tgtgtggtgt tccttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 818          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 818
tgtgtggtgt ccttggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 819          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 819
tgtgtggtgg tccgagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 820          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 820
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tgtgtggtga ttgtagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 821          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 821
tgtgtggtga actctgcgtc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 822          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 822
tgtgtggtga acggggcagc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 823          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 823
tgtgtggtgg ggaccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 824          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 824
tgtgtggtga acggagcccc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 825          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 825
tgtgtggtga ttatcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 826          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 826
tgtgtggtgt ctcgggccat gggaggaagc tacataccta cattt                 45

SEQ ID NO: 827          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 827
tgtgtggtga agaacgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 828          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 828
tgtgtggtgc ttcatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 829          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 829
tgtgtggtga ccgccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 830          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 830
tgtgtggtga aacatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 831          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 831
tgtgtggttt cccttgcagc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 832          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 832
tgtgtggtga tgaccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 833          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 833
tgtgtggtga cgcatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 834          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 834
tgtgtggtga gctttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 835          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 835
tgtgtggtga aaagggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 836          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 836
tgtgtggtga aacgggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 837          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 837
tgtgtggtga ccggtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 838          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 838
tgtgtggtga aaggagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 839          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 839
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tgtgtggtga tgctggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 840         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 840
tgtgtggtga acgaggcaac aggaggaagc tacataccta cattt                 45

SEQ ID NO: 841         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 841
tgtgtggtgt cccgcgcctc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 842         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 842
tgtgtggtga cgctggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 843         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 843
tgtgtggtga acatggcccc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 844         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 844
tgtgtggtgt tacccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 845         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 845
tgtgtggtga ataccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 846         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 846
tgtgtggtga actatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 847         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 847
tgtgtggttc cctttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 848         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 848
tgtgtggttt tcggtgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 849         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
```

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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 849
tgtgtggtga gacaggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 850          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 850
tgtgtggttc agggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 851          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 851
tgtgtggtga ggcctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 852          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 852
tgtgtggtga atggggcctc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 853          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 853
tgtgtggtga actccgcctc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 854          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 854
tgtgtggtcc gaatggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 855          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 855
tgtgtggtga ggtctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 856          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 856
tgtgtggtga gggcggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 857          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 857
tgtgtggtga acatggcccc cggaggaagc tacataccta cattt                  45

SEQ ID NO: 858          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 858
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tgtgtggtga tctcggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 859          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 859
tgtgtggtga ttgttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 860          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 860
tgtgtggtga cgtccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 861          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 861
tgtgtggtga actgggcggg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 862          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 862
tgtgtggtga cctccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 863          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 863
tgtgtggtta catatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 864          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 864
tgtgtggtct acggagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 865          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 865
tgtgtggtga ccttggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 866          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 866
tgtgtggtga gtcccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 867          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 867
tgtgtggtcg gcgatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 868          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 868
tgtgtggtga acacagctcg aggaggaagc tacataccta cattt                  45

SEQ ID NO: 869          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 869
tgtgtggtct acttggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 870          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 870
tgtgtggtgg ttcatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 871          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 871
tgtgtggtga gtacagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 872          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 872
tgtgtggtga accaggccac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 873          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 873
tgtgtggtga tcaccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 874          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 874
tgtgtggtga acagagcgtc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 875          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 875
tgtgtggtgc gtcaagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 876          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 876
tgtgtggtgc gcggagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 877          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 877
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```
tgtgtggtgg cctgggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 878          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 878
tgtgtggtga ggggtgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 879          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 879
tgtgtggtga acggggcacc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 880          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 880
tgtgtggtga atttagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 881          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 881
tgtgtggtgt ggaccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 882          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 882
tgtgtggtgc tacatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 883          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 883
tgtgtggtga gactcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 884          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 884
tgtgtggtga ttgctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 885          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 885
tgtgtggtga tctacgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 886          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 886
tgtgtggtga ctatcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 887          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
```

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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 887
tgtgtggttc ctcccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 888          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 888
tgtgtggtta gactcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 889          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 889
tgtgtggtgg accatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 890          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 890
tgtgtggtga ttcacgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 891          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 891
tgtgtggtgg acgacgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 892          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 892
tgtgtggtga agggggcccc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 893          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 893
tgtgtggtct accccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 894          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 894
tgtgtggtgc cgccagctcc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 895          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 895
tgtgtggtgt cccaggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 896          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 896
```

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```
tgtgtggtga ttttcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 897         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 897
tgtgtggtga tcctggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 898         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 898
tgtgtggtga tcccggcgtc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 899         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 899
tgtgtggtga ctcccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 900         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 900
tgtgtggtga accgggcccc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 901         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 901
tgtgtggtga actcggccga agggggaagc tacataccta cattt                 45

SEQ ID NO: 902         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 902
tgtgtggtcc tccatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 903         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 903
tgtgtggtgt taggggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 904         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 904
tgtgtggtgt actttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 905         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 905
tgtgtggtga acgaggcgtc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 906         moltype = DNA  length = 45
FEATURE                Location/Qualifiers
```

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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 906
tgtgtggtga acaacgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 907          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 907
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SEQ ID NO: 908          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 908
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SEQ ID NO: 909          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 909
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SEQ ID NO: 910          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 910
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SEQ ID NO: 911          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 911
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SEQ ID NO: 912          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 912
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SEQ ID NO: 913          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 913
tgtgtggtga gcgcagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 914          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 914
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SEQ ID NO: 915          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 915
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SEQ ID NO: 916          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 916
tgtgtggtgc gaatggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 917          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 917
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SEQ ID NO: 918          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 918
tgtgtggtta tcccggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 919          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 919
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SEQ ID NO: 920          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 920
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SEQ ID NO: 921          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 921
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SEQ ID NO: 922          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 922
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SEQ ID NO: 923          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 923
tgtgtggtga acggggcctc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 924          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 924
tgtgtggtga aggaggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 925          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 925
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SEQ ID NO: 926          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 926
tgtgtggtga acagcgcggg aggaggaagc tacataccta cattt                  45

SEQ ID NO: 927          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 927
tgtgtggtga tccgagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 928          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 928
tgtgtggtga ccgaggcgtc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 929          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 929
tgtgtggtga aatctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 930          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 930
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SEQ ID NO: 931          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 931
tgtgtggtga gcagggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 932          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 932
tgtgtggtga accccgcctc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 933          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 933
tgtgtggtga acagtgcgtc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 934          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 934
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tgtgtggtga aggcggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 935          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 935
tgtgtggtgc ccaccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 936          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 936
tgtgtggtcc gcgaggcttc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 937          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 937
tgtgtggtgg cccatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 938          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 938
tgtgtggtga ttggagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 939          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 939
tgtgtggtga ccggggcggc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 940          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 940
tgtgtggtga gcgatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 941          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 941
tgtgtggtga cgttggcggg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 942          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 942
tgtgtggtga acatggcgga aggaggaagc tacataccta cattt                 45

SEQ ID NO: 943          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 943
tgtgtggtga gtttagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 944          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 944
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SEQ ID NO: 945          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 945
tgtgtggtgt ctaaagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 946          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 946
tgtgtggtga gtgtcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 947          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 947
tgtgtggtcc cctccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 948          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 948
tgtgtggtcc agctcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 949          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 949
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SEQ ID NO: 950          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 950
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SEQ ID NO: 951          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 951
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SEQ ID NO: 952          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 952
tgtgtggtga actcagccgc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 953          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 953
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tgtgtggtga acatcgcagc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 954          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 954
tgtgtggtgc ggaccgcttc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 955          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 955
tgtgtggtgc gacgagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 956          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 956
tgtgtggtga gcatcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 957          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 957
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SEQ ID NO: 958          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 958
tgtgtggtgt ccctagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 959          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 959
tgtgtggtgc acgtcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 960          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 960
tgtgtggtga tcgtcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 961          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 961
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SEQ ID NO: 962          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 962
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SEQ ID NO: 963          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 963
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SEQ ID NO: 964          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 964
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SEQ ID NO: 965          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 965
tgtgtggtga acgtcgcaac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 966          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 966
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SEQ ID NO: 967          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 967
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SEQ ID NO: 968          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 968
tgtgtggtgt ttaccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 969          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 969
tgtgtggtga gaagtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 970          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 970
tgtgtggtgt ccggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 971          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 971
tgtgtggtga acgtcgcgac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 972          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 972
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SEQ ID NO: 973          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 973
tgtgtggtgt ttgtggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 974          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 974
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SEQ ID NO: 975          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 975
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SEQ ID NO: 976          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 976
tgtgtggtga atgtcgcagg gggaggaagc tacataccta cattt                 45

SEQ ID NO: 977          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 977
tgtgtggtga acatagccgg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 978          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 978
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SEQ ID NO: 979          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 979
tgtgtggtga tcctagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 980          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 980
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SEQ ID NO: 981          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 981
tgtgtggtga ataaagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 982          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 982
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SEQ ID NO: 983          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 983
tgtgtggtcg cccatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 984          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 984
tgtgtggtca ggtctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 985          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 985
tgtgtggtgc cgaccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 986          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 986
tgtgtggtgc gtagtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 987          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 987
tgtgtggtga tcctagcttc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 988          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 988
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SEQ ID NO: 989          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 989
tgtgtggttg cccatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 990          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 990
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SEQ ID NO: 991          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 991
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tgtgtggtga cctccgcccg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 992          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 992
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SEQ ID NO: 993          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 993
tgtgtggtga acatcgcccc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 994          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 994
tgtgtggtga acagggccgg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 995          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 995
tgtgtggtga acaaggcctc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 996          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 996
tgtgtggttt ttcatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 997          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 997
tgtgtggtga taagggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 998          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 998
tgtgtggtga cccgtgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 999          moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 999
tgtgtggtga acaacgcaag aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1000         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1000
tgtgtggttt cccgagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1001         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1001
tgtgtggtga ccgcggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1002         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1002
tgtgtggtga acattgcggc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1003         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1003
tgtgtggtcc cccatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1004         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1004
tgtgtggtga acctcgcctc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1005         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1005
tgtgtggtgc ggggagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1006         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1006
tgtgtggtgc cacatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1007         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1007
tgtgtggtgc cctctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1008         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1008
tgtgtggtct ccgttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1009         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1009
tgtgtggtga gtggggcgca gggaggaagc tacataccta cattt                  45

SEQ ID NO: 1010         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1010
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tgtgtggttc gatccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1011        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1011
tgtgtggtga gaaaagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1012        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1012
tgtgtggtga acatcgcaga aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1013        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1013
tgtgtggtga gggctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1014        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1014
tgtgtggtga atatcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1015        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1015
tgtgtggtga agaccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1016        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1016
tgtgtggtga atagtgccgt aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1017        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1017
tgtgtggtga ggagggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1018        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1018
tgtgtggtga acatggccgg tggaggaagc tacataccta cattt                 45

SEQ ID NO: 1019        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1019
tgtgtggtgg gcacggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1020        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
```

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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1020
tgtgtggtga gcagtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1021         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1021
tgtgtggtga acatggcgag gggaggaagc tacataccta cattt                  45

SEQ ID NO: 1022         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1022
tgtgtggtga aggttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1023         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1023
tgtgtggtaa aacatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1024         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1024
tgtgtggtca gagcggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1025         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1025
tgtgtggtga acatggcagc cggaggaagc tacataccta cattt                  45

SEQ ID NO: 1026         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1026
tgtgtggtga gatccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1027         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1027
tgtgtggtga acatagcact cggaggaagc tacataccta cattt                  45

SEQ ID NO: 1028         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1028
tgtgtggtgt cccaggcggg gggaggaagc tacataccta cattt                  45

SEQ ID NO: 1029         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1029
```

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tgtgtggtga ccttggcggg gggaggaagc tacataccta cattt                 45

SEQ ID NO: 1030        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1030
tgtgtggtga gagtcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1031        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1031
tgtgtggtgt ctactgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1032        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1032
tgtgtggtgc gtttggccgg ggggggaagc tacataccta cattt                 45

SEQ ID NO: 1033        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1033
tgtgtggtgc ggactgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1034        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1034
tgtgtggtga acgtcgcggc cggaggaagc tacataccta cattt                 45

SEQ ID NO: 1035        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1035
tgtgtggtgg ccgacgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1036        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1036
tgtgtggtga acagggcgcc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1037        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1037
tgtgtggtga ctctggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1038        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1038
tgtgtggtgg ttctcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1039        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
```

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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1039
tgtgtggtga gggggcgga gggaggaagc tacataccta cattt                  45

SEQ ID NO: 1040         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1040
tgtgtggtga acggggctac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1041         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1041
tgtgtggtgt ctgtagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1042         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1042
tgtgtggtga ctccagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1043         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1043
tgtgtggtga tgggcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1044         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1044
tgtgtggtga tccgcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1045         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1045
tgtgtggtga gtgatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1046         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1046
tgtgtggtcc agcatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1047         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1047
tgtgtggtga agagggcctc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1048         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1048
```

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```
tgtgtggtcc tcctcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1049        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1049
tgtgtggtga tgggggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1050        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1050
tgtgtggtga agagtgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1051        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1051
tgtgtggtgg accaagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1052        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1052
tgtgtggtga actgggctgc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1053        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1053
tgtgtggtga aagatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1054        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1054
tgtgtggtgt cccaagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1055        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1055
tgtgtggtga acctcgcagc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1056        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1056
tgtgtggtca cgggggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1057        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1057
tgtgtggtga acgtcgcacc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1058        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1058
tgtgtggtga ttgcagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1059         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1059
tgtgtggtga tacatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1060         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1060
tgtgtggtga atccagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1061         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1061
tgtgtggtga agcccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1062         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1062
tgtgtggtga agggggcagg aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1063         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1063
tgtgtggtgc cgggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1064         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1064
tgtgtggttt tcggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1065         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1065
tgtgtggtgt cccatgcctc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1066         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1066
tgtgtggtgg ccgtagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1067         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1067
```

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```
tgtgtggtga cccttgcagg gggaggaagc tacataccta cattt                 45

SEQ ID NO: 1068        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1068
tgtgtggtga caaacgcacc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1069        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1069
tgtgtggtga acttggccgt gggaggaagc tacataccta cattt                 45

SEQ ID NO: 1070        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1070
tgtgtggtga acgctgcagc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1071        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1071
tgtgtggtga acacagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1072        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1072
tgtgtggtga atcccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1073        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1073
tgtgtggtcc tccctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1074        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1074
tgtgtggtga gggacgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1075        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1075
tgtgtggtga cggctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1076        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1076
tgtgtggtcc acgatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1077        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
```

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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1077
tgtgtggtga tcgttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1078         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1078
tgtgtggtga accttgccgc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1079         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1079
tgtgtggtga acgaagcttc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1080         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1080
tgtgtggtga ttttagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1081         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1081
tgtgtggtga ctgtcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1082         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1082
tgtgtggtga acatcgcccg cggaggaagc tacataccta cattt                  45

SEQ ID NO: 1083         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1083
tgtgtggtga acatagcccc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1084         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1084
tgtgtggtga acattgcagc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1085         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1085
tgtgtggtga acccggcaac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1086         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1086
```

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```
tgtgtggtga acaaggcagc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1087        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1087
tgtgtggtga aacctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1088        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1088
tgtgtggttg gggtggcggc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1089        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1089
tgtgtggtct atctagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1090        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1090
tgtgtggtgt ctcatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1091        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1091
tgtgtggtgg cacatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1092        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1092
tgtgtggttc ttcatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1093        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1093
tgtgtggtga ccggagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1094        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1094
tgtgtggtga atgatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1095        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1095
tgtgtggtga actccgccac aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1096        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
```

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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1096
tgtgtggtga agcttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1097         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1097
tgtgtggtga tcatagcctc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1098         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1098
tgtgtggtgt cctccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1099         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1099
tgtgtggtga tttcagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1100         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1100
tgtgtggtga gcgctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1101         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1101
tgtgtggtga agggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1102         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1102
tgtgtggtga accgtgcccc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1103         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1103
tgtgtggtga agtacgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1104         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1104
tgtgtggtgg tacatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1105         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1105
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tgtgtggtca acggggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1106        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1106
tgtgtggtga cacaggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1107        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1107
tgtgtggtgc ccctggcgac aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1108        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1108
tgtgtggtga ttcttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1109        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1109
tgtgtggtga acgaggcggg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1110        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1110
tgtgtggtga ttcccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1111        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1111
tgtgtggtga ttgcggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1112        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1112
tgtgtggtgc gggttgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1113        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1113
tgtgtggtga acagggcccc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1114        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1114
tgtgtggtgg agcaagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1115        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
```

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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1115
tgtgtggtcc gggcggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1116         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1116
tgtgtggtct acatggcccc gggaggaagc tacataccta cattt                  45

SEQ ID NO: 1117         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1117
tgtgtggtcc gcatagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1118         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1118
tgtgtggtga tcttcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1119         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1119
tgtgtggtgt cccgtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1120         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1120
tgtgtggtgc gtggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1121         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1121
tgtgtggtga ctgttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1122         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1122
tgtgtggtgt ccgttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1123         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1123
tgtgtggtga acatcgcagg aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1124         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1124
```

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tgtgtggtcc ggggggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1125        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1125
tgtgtggtat ttcatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1126        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1126
tgtgtggtga gccctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1127        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1127
tgtgtggtgt ccaccgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1128        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1128
tgtgtggtga acttggcgtc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1129        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1129
tgtgtggtga ggagagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1130        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1130
tgtgtggtga gttcagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1131        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1131
tgtgtggttc gcctcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1132        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1132
tgtgtggtga acagggcggc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1133        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1133
tgtgtggtga cgcctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1134        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1134
tgtgtggtga accgggccac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1135         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1135
tgtgtggtct ccctagcggg aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1136         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1136
tgtgtggtga gccctgcttc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1137         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1137
tgtgtggtgt ctagtgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1138         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1138
tgtgtggtgg cccttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1139         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1139
tgtgtggtga tgcatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1140         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1140
tgtgtggtga accaggcctc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1141         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1141
tgtgtggtta tgaaggcgga aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1142         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1142
tgtgtggtga accccgcttc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1143         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1143
```

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```
tgtgtggtga acggagcagt aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1144        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1144
tgtgtggtcc gttctgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1145        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1145
tgtgtggtga ttaatgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1146        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1146
tgtgtggtga ccagtgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1147        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1147
tgtgtggtga gctcggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1148        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1148
tgtgtggttc ccccggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1149        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1149
tgtgtggtcc gtagggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1150        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1150
tgtgtggtgt cctcagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1151        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1151
tgtgtggtga gagtagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1152        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1152
tgtgtggtgg cccaggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1153        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
```

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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1153
tgtgtggtgt ctctagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1154         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1154
tgtgtggtga actctgcgac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1155         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1155
tgtgtggtga gtgtggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1156         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1156
tgtgtggtga acatcgccgg aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1157         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1157
tgtgtggtga acctcgcagg gggaggaagc tacataccta cattt                  45

SEQ ID NO: 1158         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1158
tgtgtggtga gcggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1159         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1159
tgtgtggtga gaggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1160         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1160
tgtgtggtgt tccaggcctc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1161         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1161
tgtgtggtga ctgctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1162         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1162
```

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```
tgtgtggtga gagaagcctg gggaggaagc tacataccta cattt                 45

SEQ ID NO: 1163        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1163
tgtgtggtga actccgcggg aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1164        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1164
tgtgtggtgg tcctcgcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1165        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1165
tgtgtggtga atctggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1166        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1166
tgtgtggtgc gtttagcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1167        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1167
tgtgtggtga acgtcgcggc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1168        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1168
tgtgtggtga attcggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1169        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1169
tgtgtggtga acgaagcctc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1170        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1170
tgtgtggtga ggaaggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1171        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1171
tgtgtggtga ccccggcatc aggaggaagc tacataccta cattt                 45

SEQ ID NO: 1172        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
```

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```
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1172
tgtgtggtga aagcggcagc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1173         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1173
tgtgtggtga acgatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1174         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1174
tgtgtggtga accccgccct gggaggaagc tacataccta cattt                  45

SEQ ID NO: 1175         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1175
tgtgtggtga agctcgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1176         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1176
tgtgtggtga gacgggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1177         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1177
tgtgtggtga acgaagcgtc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1178         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1178
tgtgtggtgg ccggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1179         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1179
tgtgtggtga gcggagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1180         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1180
tgtgtggtga acgcggcccc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1181         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1181
```

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```
tgtgtggtgc gggccgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1182        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1182
tgtgtggtga acaccgcgtc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1183        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1183
tgtgtggtga ggcgagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1184        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1184
tgtgtggtct ccggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1185        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1185
tgtgtggtga agactgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1186        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1186
tgtgtggtga ccggggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1187        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1187
tgtgtggtga acccggcgtc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1188        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1188
tgtgtggtga acaatgcacc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1189        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1189
tgtgtggtga ctcctgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1190        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1190
tgtgtggtga atggggccgc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1191        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
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source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1191
tgtgtggtga atcaggcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1192         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1192
tgtgtggtga gttttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1193         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1193
tgtgtggtga accccgcgac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1194         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1194
tgtgtggtcc gcgaagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1195         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1195
tgtgtggtga tctttgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1196         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1196
tgtgtggtga cacacgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1197         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1197
tgtgtggtca ctcatgcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1198         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1198
tgtgtggtga aggtagcatc aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1199         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1199
tgtgtggtga acatcgcaac aggaggaagc tacataccta cattt                  45

SEQ ID NO: 1200         moltype = DNA  length = 45
FEATURE                 Location/Qualifiers
source                  1..45
                        mol_type = genomic DNA
                        organism = Homo sapiens
SEQUENCE: 1200
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tgtgtggtgt tccaggcgag gggaggaagc tacataccta cattt                45

SEQ ID NO: 1201        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1201
tgtgtggtga atggagcatc aggaggaagc tacataccta cattt                45

SEQ ID NO: 1202        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1202
tgtgtggtcc cccttgcatc aggaggaagc tacataccta cattt                45

SEQ ID NO: 1203        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1203
tgtgtggtga gtatggcatc aggaggaagc tacataccta cattt                45

SEQ ID NO: 1204        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1204
tgtgtggtga aaggtgcatc aggaggaagc tacataccta cattt                45

SEQ ID NO: 1205        moltype = DNA  length = 45
FEATURE                Location/Qualifiers
source                 1..45
                       mol_type = genomic DNA
                       organism = Homo sapiens
SEQUENCE: 1205
tgtgtggtga tcagtgcccc aggaggaagc tacataccta cattt                45
```

1. A protein comprising an amino acid sequence according to SEQ ID NO: 1, wherein the amino acid in position 4 of SEQ ID NO: 1 is selected from the group consisting of N, S, R, T and I, and wherein the amino acid in position 5 of SEQ ID NO: 1 is selected from the group consisting of R, V, L, F, M, I, H, S, T, A, P and G, with the proviso that the amino acid sequence is not SEQ ID NO: 24.

2. The protein of claim **1**, wherein the amino acid in position 7 of SEQ ID NO: 1 is A or S.

3. The protein of claim **1**, wherein the amino acid sequence according to SEQ ID NO: 1 is selected from the amino acid sequences of any one of SEQ ID NO: 2 to 23 and SEQ ID NO: 25 to 295.

4. The protein of claim **1**, wherein the protein is a T-cell receptor (TCR).

5. The protein of claim **4**, wherein the amino acid sequence according to SEQ ID NO: 1 is comprised in the alpha chain of the TCR.

6. The protein of claim **5**, wherein the amino acid sequence according to SEQ ID NO: 1 is comprised in CDR3 region.

7. A T-cell, comprising the protein of claim **1**.

8. The T-cell of claim **7**, wherein the T-cell is a human T-cell.

9. The T-cell of claim **7**, wherein the T-cell is one or more selected from a CD4+ cell, a CD8+ cell, and and/or a CD161+ cell.

10. A nucleotide sequence encoding an amino acid sequence according to SEQ ID NO: 1, with the proviso that the amino acid sequence is not SEQ ID NO: 24.

11. (canceled)

12. (canceled)

13. A method of obtaining an antibody, comprising raising an antibody against the protein according to claim **1**, wherein the antibody is directed against an epitope comprising at least a part of the amino acid sequence according to SEQ ID NO: 1 wherein the amino acid in position 4 of SEQ ID NO: 1 is selected from the group consisting of N, S, R, T and I, and wherein the amino acid in position 5 of SEQ ID NO: 1 is selected from the group consisting of R, V, L, F, M, I, H, S, T, A, P and G.

14. An antibody directed against an epitope comprising at least a part of the amino acid sequence according to SEQ ID NO: 1 wherein the amino acid in position 4 of SEQ ID NO: 1 is selected from the group consisting of N, S, R, T and I, and wherein the amino acid in position 5 of SEQ ID NO: 1 is selected from the group consisting of R, V, L, F, M, I, H, S, T, A, P and G.

15. A method of discriminating blood samples of IBD patients from blood samples of individuals without IBD,

comprising quantitatively assessing abundance in the samples of proteins according to claim **1**.

16. The method of claim **15**, wherein the method discriminates blood samples of Crohn's disease patients from blood samples of individuals without IBD and individuals with IBD other than Crohn's disease.

17. A method of obtaining an antibody, comprising raising an antibody against the T-cell according to claim **7**, wherein the antibody is directed against an epitope comprising at least a part of the amino acid sequence according to SEQ ID NO: 1 wherein the amino acid in position 4 of SEQ ID NO: 1 is selected from the group consisting of N, S, R, T and I, and wherein the amino acid in position 5 of SEQ ID NO: 1 is selected from the group consisting of R, V, L, F, M, I, H, S, T, A, P and G.

18. A method of obtaining an antibody, comprising raising an antibody against a protein expressed by a nucleotide sequence according to claim **10**, wherein the nucleotide sequence is an mRNA sequence, wherein the antibody is directed against an epitope comprising at least a part of the amino acid sequence according to SEQ ID NO: 1 wherein the amino acid in position 4 of SEQ ID NO: 1 is selected from the group consisting of N, S, R, T and I, and wherein the amino acid in position 5 of SEQ ID NO: 1 is selected from the group consisting of R, V, L, F, M, I, H, S, T, A, P and G.

19. The nucleotide sequence of claim **10**, wherein the nucleotide sequence is selected from the DNA sequences of any one of SEQ ID NO: 296 to 1205, except SEQ ID NO: 364, 568, 580, 637, 638, 647, 655, 662, 721, 1020, 1098, 1130, 1137, 1147 and 1150.

20. The nucleotide sequence of claim **10**, wherein the nucleotide sequence is an mRNA sequence.

* * * * *